

### Type ZLND 32125 . . . 300500

#### TECHNICAL DATA

|                        |                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------|
| Flow:                  | max. 1800 m³/h                                                                                           |
| Head:                  | max. 140 m                                                                                               |
| Speed:                 | max. 3600 rpm                                                                                            |
| Material:              | cast iron (0B, 0C, 0E), spheroidal cast iron (1B) and stainless steel (4B)                               |
| Temperature:           | max. 170 °C depending on the shaft sealing and material execution. (Hot water <sup>*)</sup> up to 140°C) |
| Casing Pressure:       | material design 4B PN 16<br>0B, 0C, 0E, 1B PN 16 / 10 <sup>1)</sup> / 14 <sup>2)</sup>                   |
| Shaft sealing:         | mechanical seal or stuffing box                                                                          |
| Flange connections:    | material design 4B DIN 2501 PN 16<br>0B, 0C, 0E, 1B DIN 2501 PN 16                                       |
| Direction of rotation: | clockwise when looking at the pump from the drive end.                                                   |

#### APPLICATION

Volute casing pumps of the ZLN range (meeting DIN 24255 / EN 733 and ISO 9908) are used when clear or turbid liquids free from solid particles are to be pumped. Application areas for pumps in this range include:

- Automobile, mechanical and general engineering industries
- Food and beverage industry
- Pharmaceutical industry
- Paint industry
- Plastic and rubber industry
- Iron and non-ferrous metal industry
- Paper and pulp industry
- Textile industry
- Building and construction industry
- Heating and air conditioning
- Drainage
- Water supply
- Irrigation

A range of materials is available to meet the specific needs of customers. For applications not covered by this pump range we offer the ISOchem range.

#### DESIGN

Horizontal, single-stage volute casing pumps with connections and main dimensions to DIN 24255 / EN 733, plus 19 additional sizes. The design of the pump allows the complete drive unit to be withdrawn from the casing without disturbing the attached pipe work. If a spacer type coupling is used, it is also unnecessary to disconnect the motor.

The range covers 50 sizes with only 5 different bearing brackets.

#### CONSTRUCTION

##### Casing pressure:

|                          |                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Material 4B:             | max 16 bar from - 40 °C to +120 °C<br>max 14 bar from 120°C up to +170 °C                                                                      |
| Material 0B, 0C, 0E, 1B: | max 16/10 <sup>1)</sup> /14 <sup>2)</sup> bar from - 20 °C to +120 °C<br>max 14/9 <sup>3)</sup> /8 <sup>2)</sup> bar from 120 °C up to +170 °C |

Max. casing pressure= inlet pressure + delivery head at zero flow

**Please note:** The relevant technical regulations and safety rules must be observed.

##### Flanges location:

Axial suction flange, discharge flange radially upwards.

##### Flanges:

- Material design 4B: Complies with DIN 2543 PN 16
- Material design 0B, 0C, 0E, 1B: DIN 2533 PN 16
- Flanges drilled according to ANSI 150 can be supplied.

133.65901.57.01 E



#### Bearings:

Bearing brackets 25, 35 and 45: Two ball bearings, lifetime greased (2Z), design code B, or oil lubrication, design code C. Bearing brackets 55 and 65: One double row angular contact bearing on pump side, plus one ball bearing on drive side, grease lubricated S or oil lubricated T.

#### Shaft sealing (Stuffing box and single mechanical seal)

|           |                                                                                                              |
|-----------|--------------------------------------------------------------------------------------------------------------|
| Code 041: | Self-sealed, uncooled packing rings                                                                          |
| Code 052: | Uncooled packing rings, external sealing liquid                                                              |
| Code B27: | Unbalanced bellows mechanical seal, seal face materials WC/Carbon, elastomer EPDM                            |
| Code AF3: | Balanced mechanical seal, seal face materials SiC/Carbon, elastomer EPDM                                     |
| Code BJ3: | Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM                           |
| Code C23: | Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM                           |
| Code AFS: | Balanced mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)                                |
| Code BJS: | Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)                      |
| Code C2S: | Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)                      |
| Code AFK: | Balanced mechanical seal, seal face materials SiC/carbon, elastomer FPM (Viton) double PTFE (Teflon) wrapped |
| Code AFJ: | Balanced mechanical seal, seal face materials SiC/carbon, elastomer FPM (Viton)                              |
| Code BJJ: | Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)                    |
| Code C2J: | Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)                    |

Codes AX3, AXS, AXK: are equivalent to AF3, AFS, AFK plus quench

Codes AY3, AYS, AYK: are equivalent to AF3, AFS, AFK plus heating

Codes A93, A9S, A9K, A9J: are equivalent to AF3, AFS, AFK, AFJ plus external flushing

As an option, Code 051 (as 052, but with inlet and outlet) and other sealing execution can be supplied on request.

<sup>\*)</sup> Water quality according to VdTÜV 1466; additional requirement: O<sub>2</sub> (oxygen) < 0,02 mg/l.

<sup>1)</sup> From 200315 to 300-500

<sup>2)</sup> 150-500

<sup>4)</sup> From 80-400 to 300-500 except 150-500

**Shaft sealing (double mechanical seal):**

Code M1S: Double mechanical seal in tandem arrangement, seal face materials SiC / SiC, elastomer FPM (Viton). Type GNZ.

Code N1S: Double mechanical seal in tandem arrangement, seal face materials SiC / SiC, elastomer FPM (Viton). Type M7N.

Code NFS: Double mechanical seal in back to back arrangement, seal face materials SiC / SiC, elastomer FPM (Viton). Type M7N.

**Material design:**

| Item  | Component                      | Mat. N°                                                      | DIN denomination                     | ISO EN denomination                                | US Material                                   |                    | 0B                 | 0C                 | 0E                 | 1B          | 4B |
|-------|--------------------------------|--------------------------------------------------------------|--------------------------------------|----------------------------------------------------|-----------------------------------------------|--------------------|--------------------|--------------------|--------------------|-------------|----|
|       |                                |                                                              |                                      |                                                    | ASTM Standard                                 | AISI               |                    |                    |                    |             |    |
| 10.20 | Volute casing                  | EN-JL 1040<br>1.4408<br>EN-JL1025                            | GG-25<br>GX6CrNiMo18 10<br>GGG-40.3  | EN-GJL 250<br>GX5CrNiMo19-11-2<br>EN-GJS-400-18-LT | A 278 Cl. 30<br>A 351 CF8M<br>A 395           | 316                | x                  | x                  | x                  |             | x  |
| 16.10 | Casing cover                   | EN-JL 1040<br>1.4408<br>EN-JL1025                            | GG-25<br>GX6CrNiMo18 10<br>GGG-40.3  | EN-GJL 250<br>GX5CrNiMo19-11-2<br>EN-GJS-400-18-LT | A 278 Cl. 30<br>A 351 CF8M<br>A 395           | 316                | x                  | x                  | x                  |             | x  |
| 21.00 | Shaft                          | 1.0503<br>1.4021<br>1.4401                                   | C 45<br>X 20 Cr13<br>X5CrNiMo17 12 2 | C 45<br>X 20 Cr13<br>X5CrNiMo17 12 2               | A 576 Gr1045<br>A 276 Type 420<br>A 167 Gr316 | 1045<br>420<br>316 | x(*)<br>x<br>x(**) | x(*)<br>x<br>x(**) | x(*)<br>x<br>x(**) | x<br>x<br>x |    |
| 23.00 | Impeller                       | EN-JL 1040<br>2.1050<br>1.4408                               | GG-25<br>G-CuSn10<br>GX6CrNiMo18 10  | EN-GJL 250<br>GX5CrNiMo19-11-2                     | A 278 Cl. 30<br>B 427 C91600<br>A 351 CF8M    | 316                | x                  | x                  |                    | x           | x  |
| 33.00 | Bearing bracket                | EN-JL 1040                                                   | GG-25                                | EN-GJL 250                                         | A 278 Cl. 30                                  |                    | x                  | x                  | x                  | x           | x  |
| 52.30 | Shaft sleeve / Mechanical seal | 1.4021                                                       | X 20 Cr13                            | X 20 Cr13                                          | A 276 Type 420                                | 420                | x                  | x                  | x                  |             |    |
| 52.40 | Shaft sleeve / Stuffing box    | 1.4021<br>1.4401                                             | X 20 Cr13<br>X5CrNiMo17 12 2         | X 20 Cr13<br>X5CrNiMo17 12 2                       | A 276 Type 420<br>A 167 Gr316                 | 420<br>316         | x                  | x                  | x                  |             | x  |
| 46.10 | Shaft seal / Stuffing box      | Soft packing                                                 |                                      |                                                    |                                               |                    | x                  | x                  | x                  |             |    |
| 43.30 | Mechanical seal                | Silicon Carbide / Carbon EPDM or Viton ( See other options ) |                                      |                                                    |                                               |                    | x                  | x                  | x                  | x           | x  |
| 43.31 | Mechanical seal                | Silicon Carbide / Carbon EPDM or Viton ( See other options ) |                                      |                                                    |                                               |                    | x                  |                    | x                  |             | x  |
| 43.32 | Mechanical seal                | Silicon Carbide / Carbon EPDM or Viton ( See other options ) |                                      |                                                    |                                               |                    | x                  |                    | x                  |             | x  |

(\*) Only in bearing brackets 55 and 65.

(\*\*) For shaft sealing double mechanical seal

**Casing gasket:**

The casing is sealed by means of a confined flat gasket of EWP 210 material. Code of this design: 2

The casing is sealed by means of a confined flat gasket of PTFE. Code of this design: 4

**Motor Power:**

Using commercial electric motors, type of construction IM B3.

To determine the drive power we recommend the following safety margin:

Up to 4 kW: 25%

4 to 7,5 kW: 20%

above 7,5 kW: 15%

The following speeds must not be exceeded:

| Size                                                                                                                                               | max. speed rpm | Size                                                                                      | max. speed rpm | Size                                                                                                                                                               | max. speed rpm | Size                                                                              | max. speed rpm |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------|----------------|
| 32125 32160<br>32200 40125<br>40160 40200<br>50125 50160<br>50200 65125<br>65160 65200 <sup>1)</sup><br>80160 <sup>1)</sup> 80200<br>100160 100200 | 3600           | 32250<br>40250<br>50250<br>65250<br>80250<br>100250 <sup>2)</sup><br>125200 <sup>2)</sup> | 3000           | 40315 <sup>3)</sup> 50315 <sup>3)</sup><br>65315 80315<br>80400 100315<br>100400 125250<br>125315 125400<br>150200 150250 <sup>4)</sup><br>150315 150400<br>200250 | 1800           | 150500 200315<br>200400 200500<br>250300 250315<br>250400 250500<br>300400 300500 | 1500           |

<sup>1)</sup> In material design 4B max. speed 3000 rpm<sup>3)</sup> In material design 0E, and 4B max. speed 3000 rpm<sup>2)</sup> In material design 4B max. speed 1800 rpm<sup>4)</sup> In material design 4B max. speed 1500 rpm

The max. speeds are derived from the permissible shaft loads and the permissible peripheral speeds of the impellers

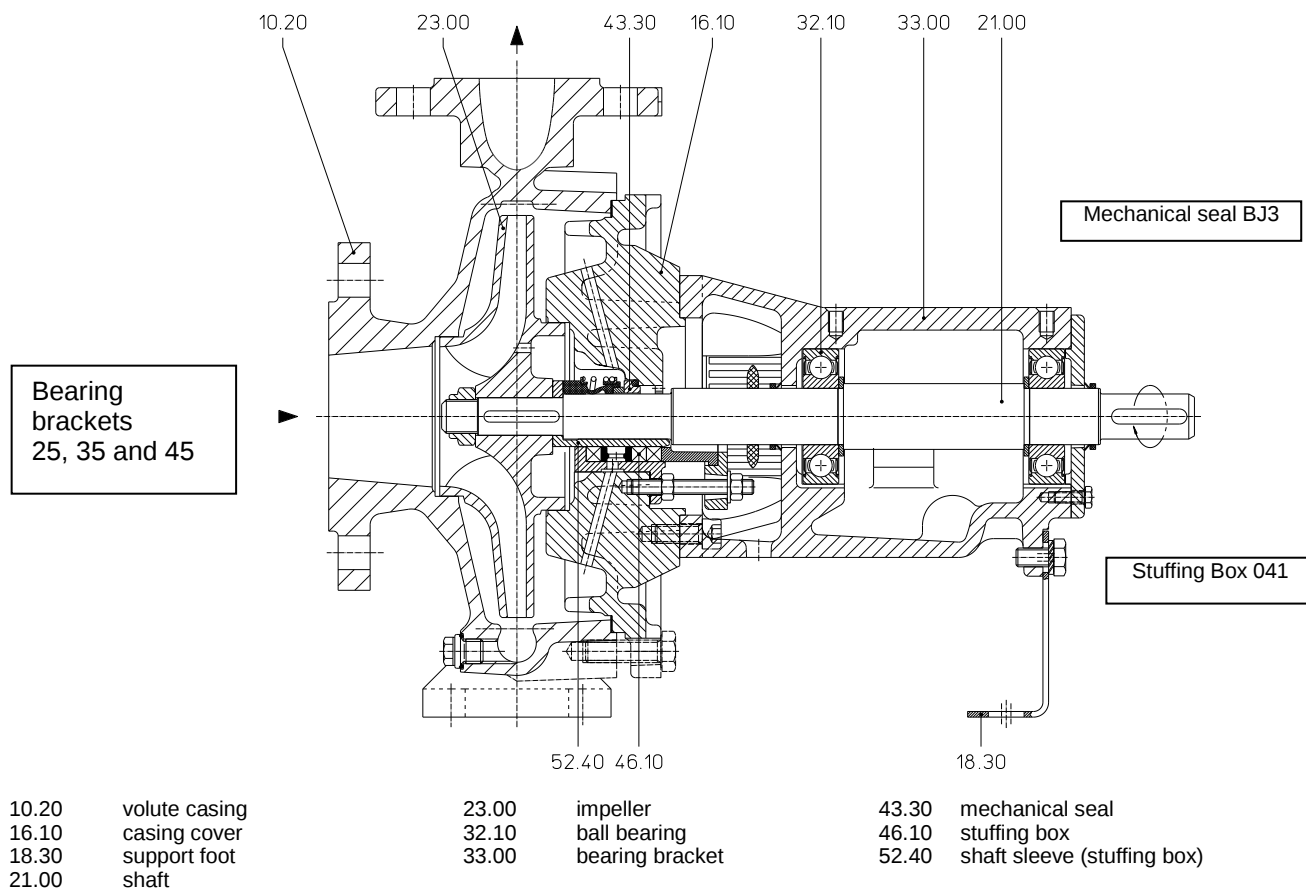
**Bearing bracket / pump size:**

|            |                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------|
| Bracket 25 | 32125 32160 32200 32250 40125 40160 40200 40250 50125 50160 50200 50250 65125 65160 65200 80160   |
| Bracket 35 | 40315 50315 65250 65315 80200 80250 80315 100160 100200 100250 100315 125200 125250 150200 150250 |
| Bracket 45 | 80400 100400 125315 125400 150315 150400 200250                                                   |
| Bracket 55 | 150500 200315 200400 200500 250300 250315                                                         |
| Bracket 65 | 250400 250500 300400 300500                                                                       |

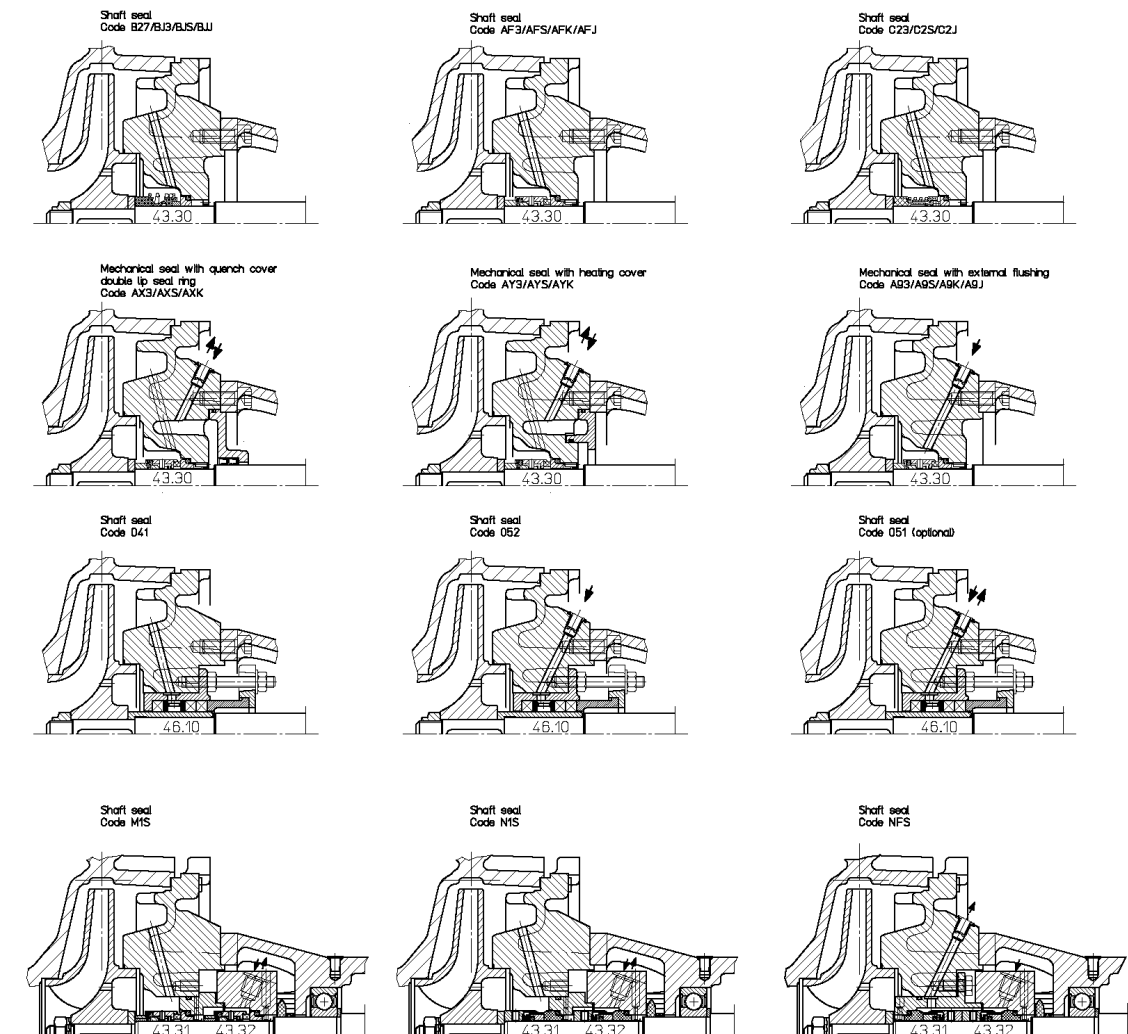
**General comments:**For horizontal volute pumps in CLOSE COUPLED construction with STANDARD motor for nominal performances and flange connections as per EN 733 refer to our series **ZLK**.For INLINE pumps with the same drive unit, consisting of bearing bracket with bearing, stub shaft and mechanical seal, casing cover, impeller and impeller nut, refer to our series **ZLI** (supplied also with magnetic drive).For equipping hot media systems a complete programme is available for a flow range between 1-1000 m<sup>3</sup>/h consisting of the range:

|            |                                                                                                  |
|------------|--------------------------------------------------------------------------------------------------|
| <b>ZTN</b> | volute pumps to EN 733 design with base plate, t <sub>max</sub> 350 °C PN 16. Heat transfer oil. |
| <b>ZTK</b> | volute pumps to EN 733 close coupled design, t <sub>max</sub> 350 °C PN 16. Heat transfer oil.   |
| <b>ZTI</b> | volute pumps to EN 733 as INLINE construction, t <sub>max</sub> 350° C PN 16. Heat transfer oil. |
| <b>ZEN</b> | volute pumps to EN 22858, t <sub>max</sub> 230 °C PN 40. Hot water design.                       |
| <b>ZDN</b> | volute pumps to EN 22858, t <sub>max</sub> 185 °C PN 25. Hot water design.                       |
| <b>ZHN</b> | volute pumps to EN 733, t <sub>max</sub> 180 °C PN 16. Hot water design.                         |
| <b>ZLI</b> | volute pumps to EN 733 as INLINE construction, t <sub>max</sub> 150 °C PN 25. Hot water design.  |

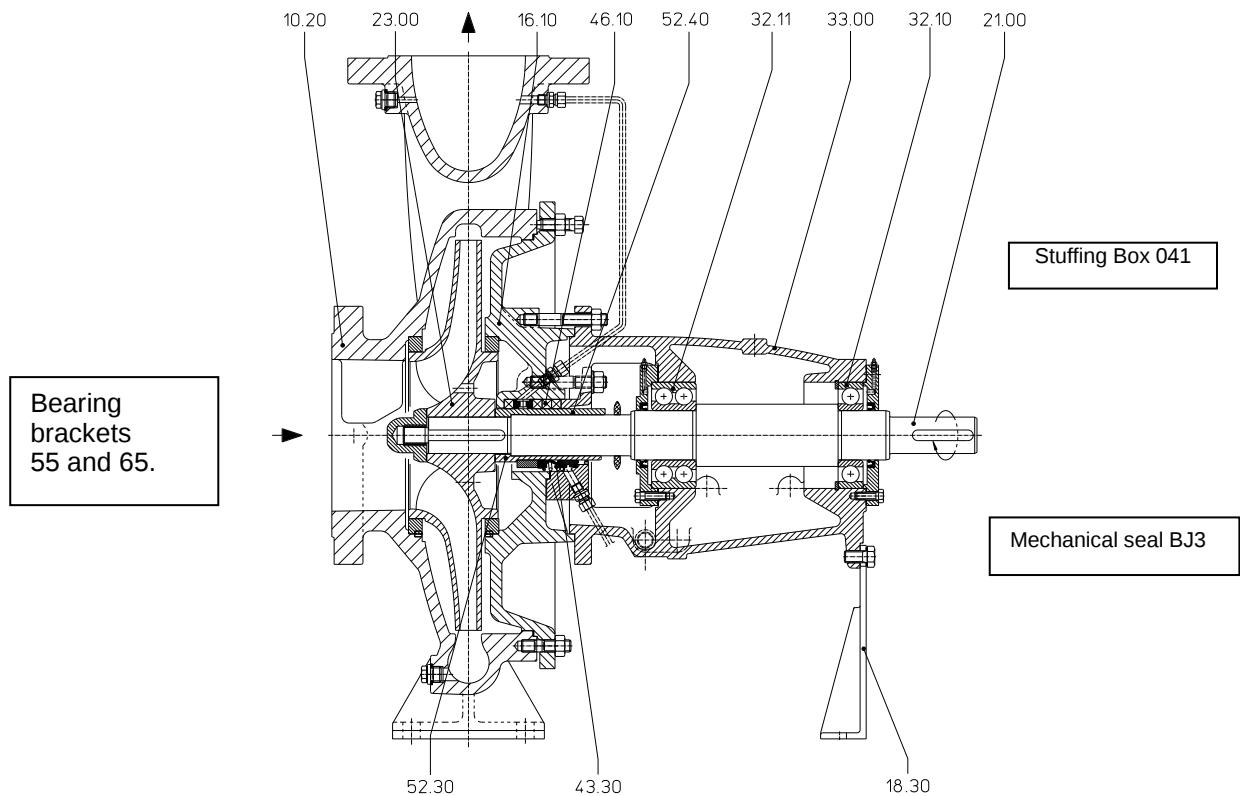
## SECTIONAL DRAWING AND NOMENCLATURE



### Shafts seals



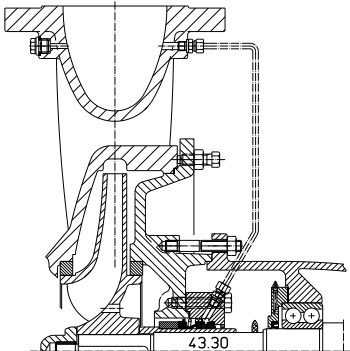
## SECTIONAL DRAWING AND NOMENCLATURE



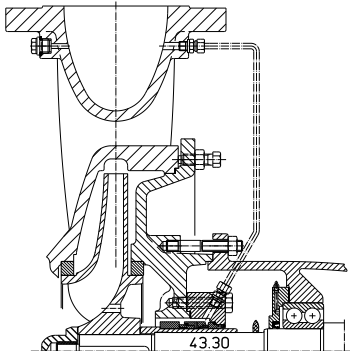
|       |               |       |                 |       |                                |
|-------|---------------|-------|-----------------|-------|--------------------------------|
| 10.20 | volute casing | 23.00 | impeller        | 43.30 | mechanical seal                |
| 16.10 | casing cover  | 32.10 | ball bearing    | 46.10 | stuffing box                   |
| 18.30 | support foot  | 32.11 | ball bearing    | 52.30 | shaft sleeve (mechanical seal) |
| 21.00 | shaft         | 33.00 | bearing bracket | 52.40 | shaft sleeve (stuffing box)    |

# Shaft seals

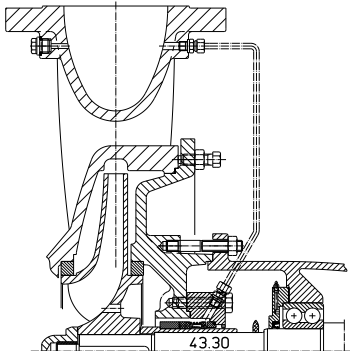
Shaft Seal  
Code BJ3/BJ5/BJJ



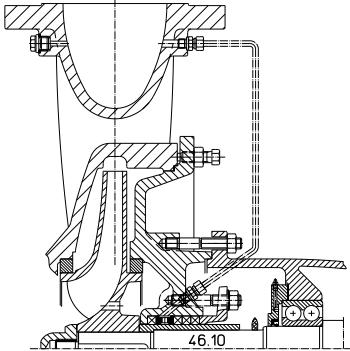
Shaft Seal  
Code AF3/AFS/AFK



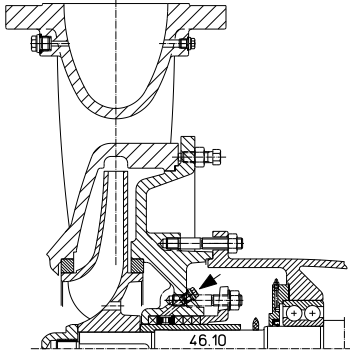
Shaft Seal  
Code C23/C25/C2J



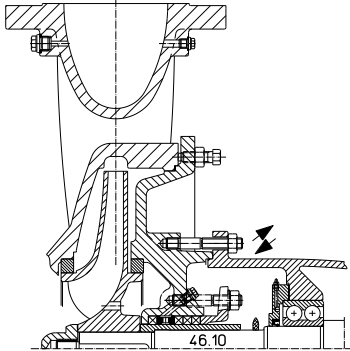
Shaft Seal  
Code 041



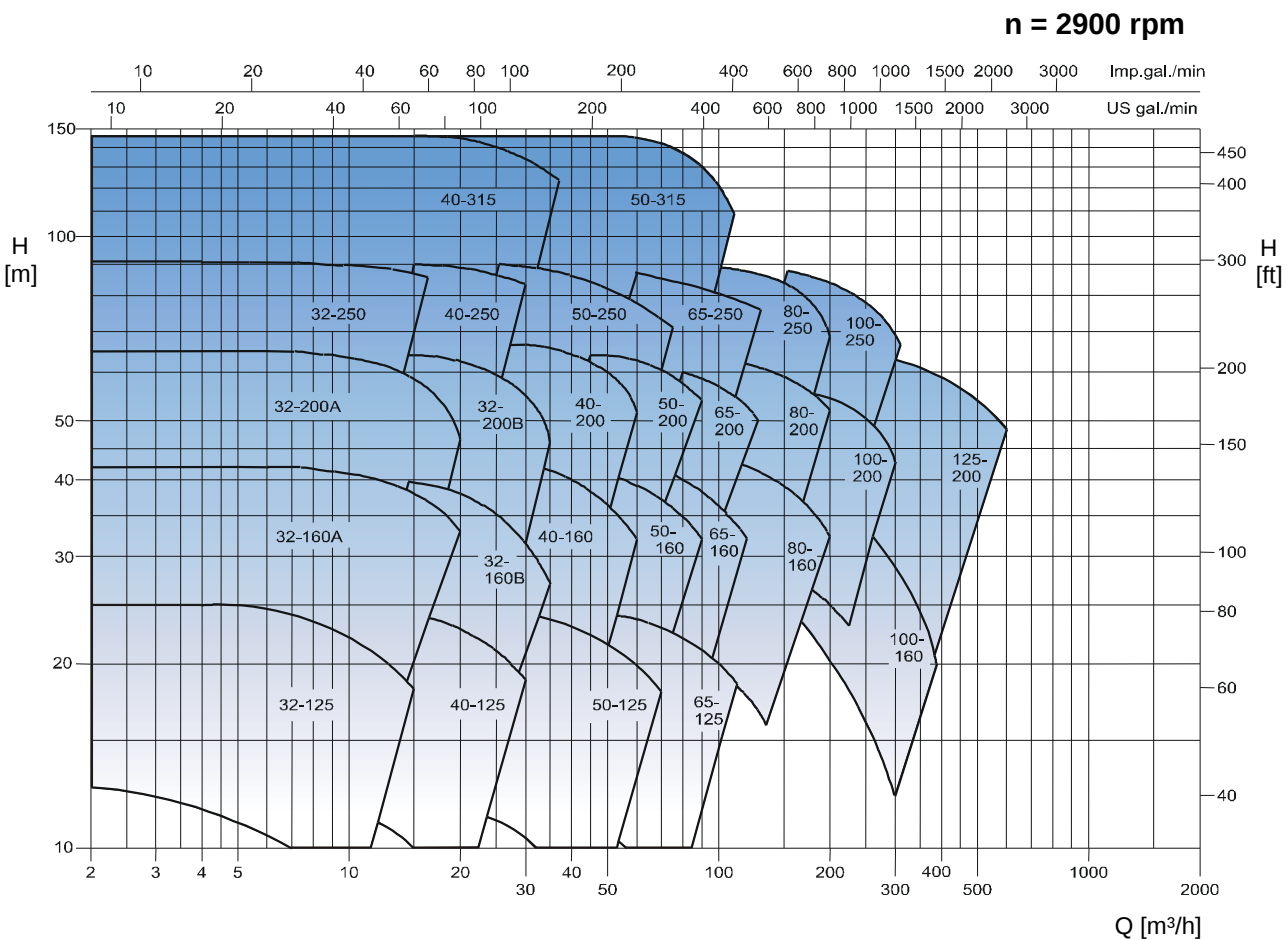
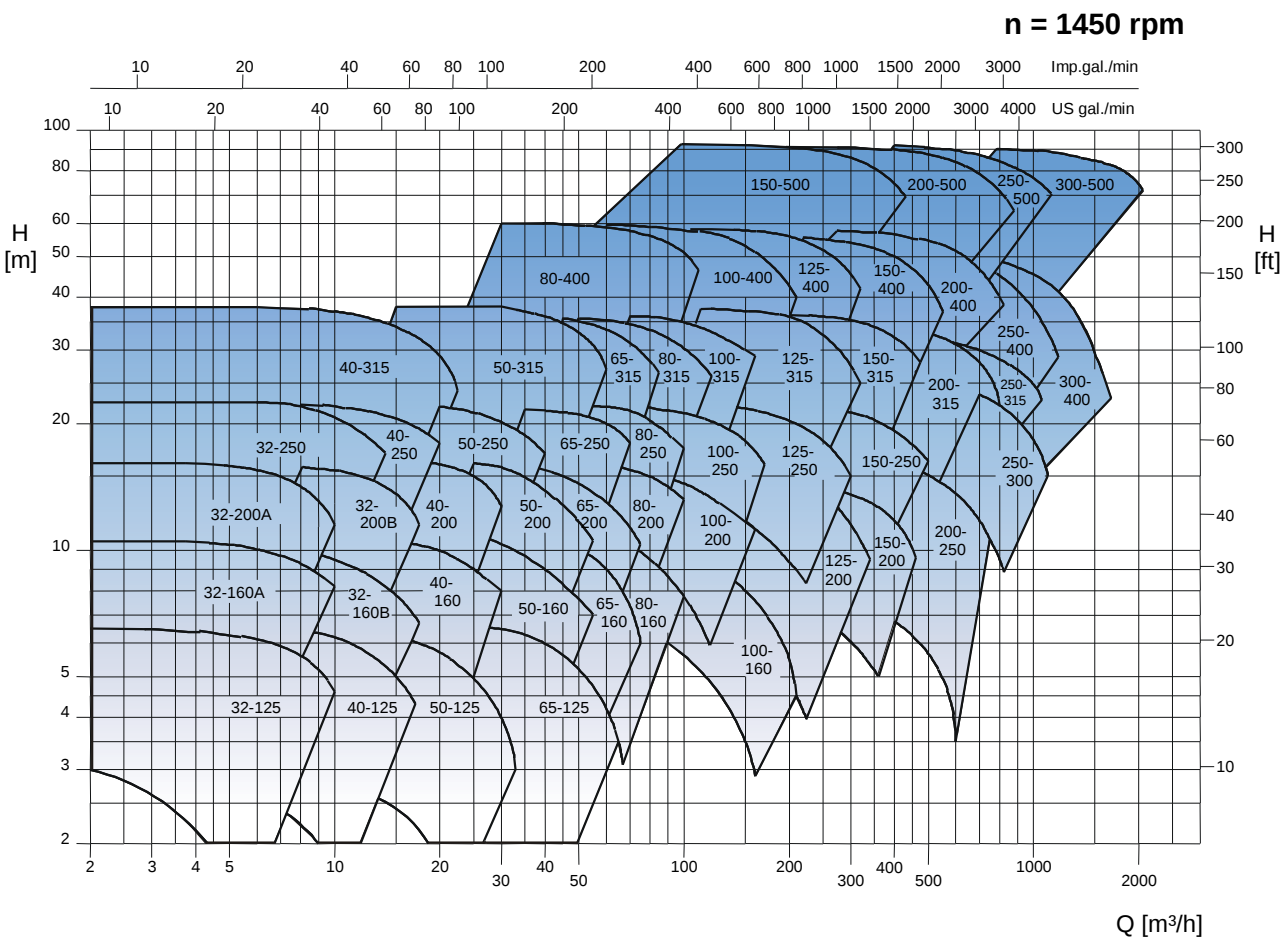
Shaft Seal  
Code 052



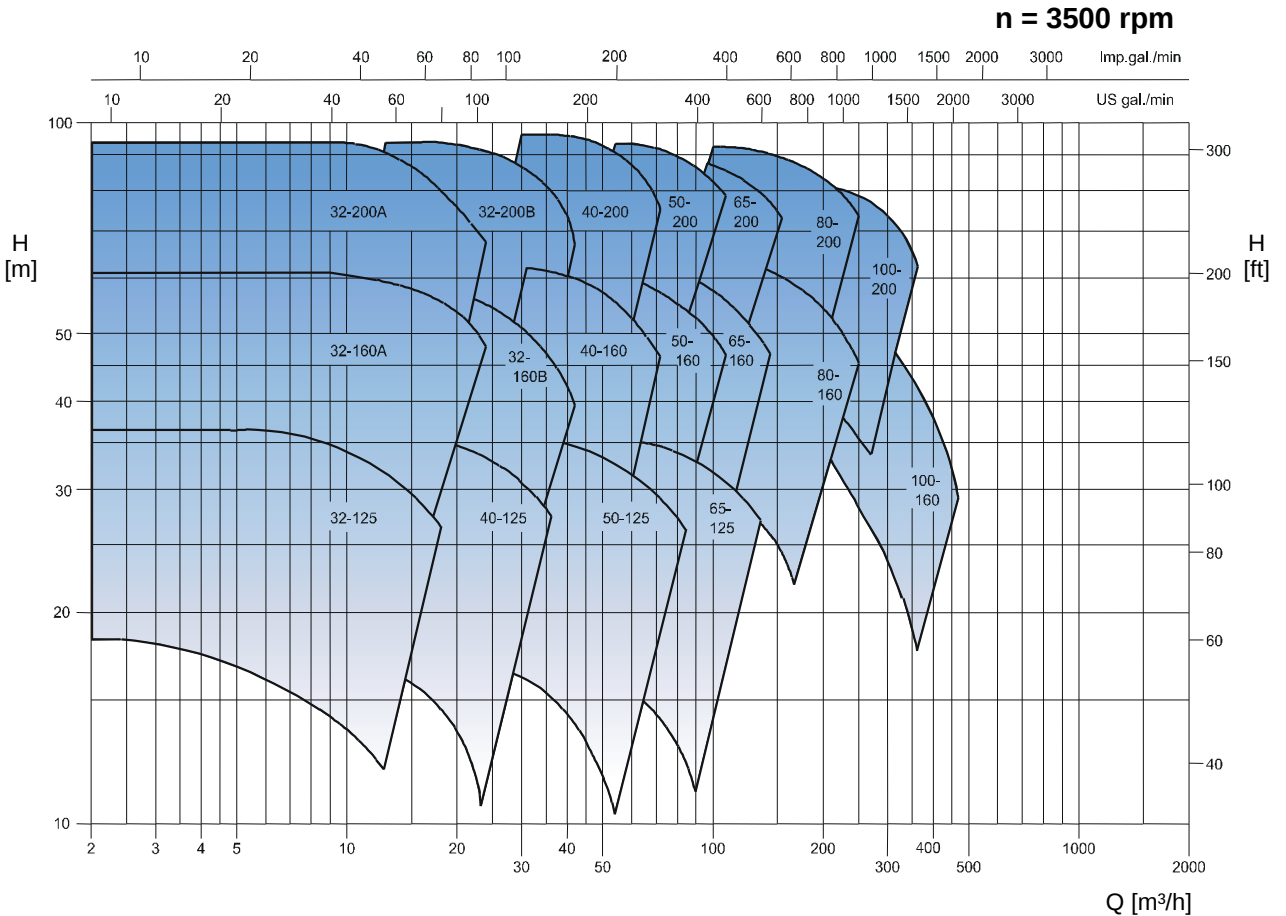
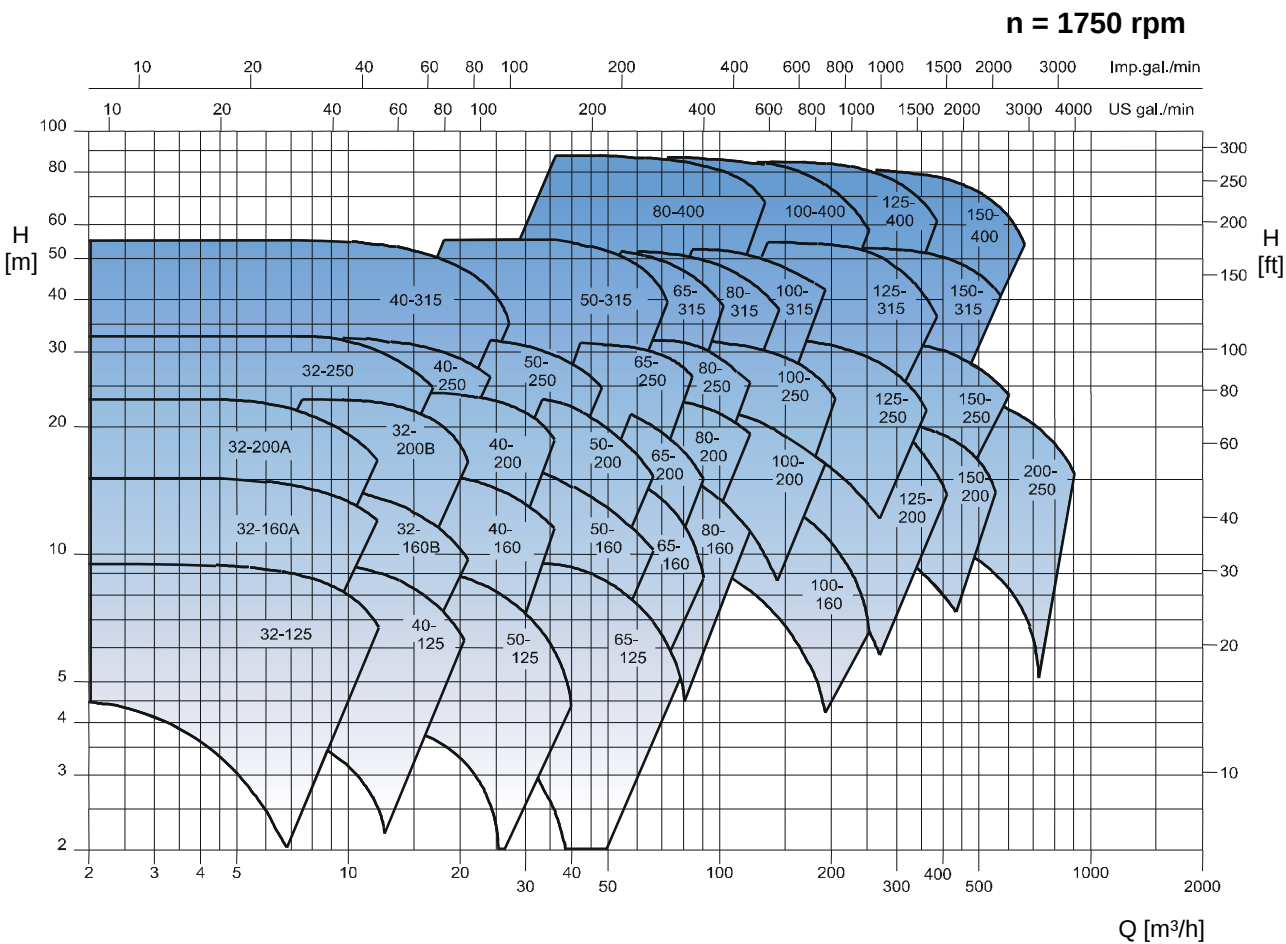
Shaft Seal  
Code 051 (optional)



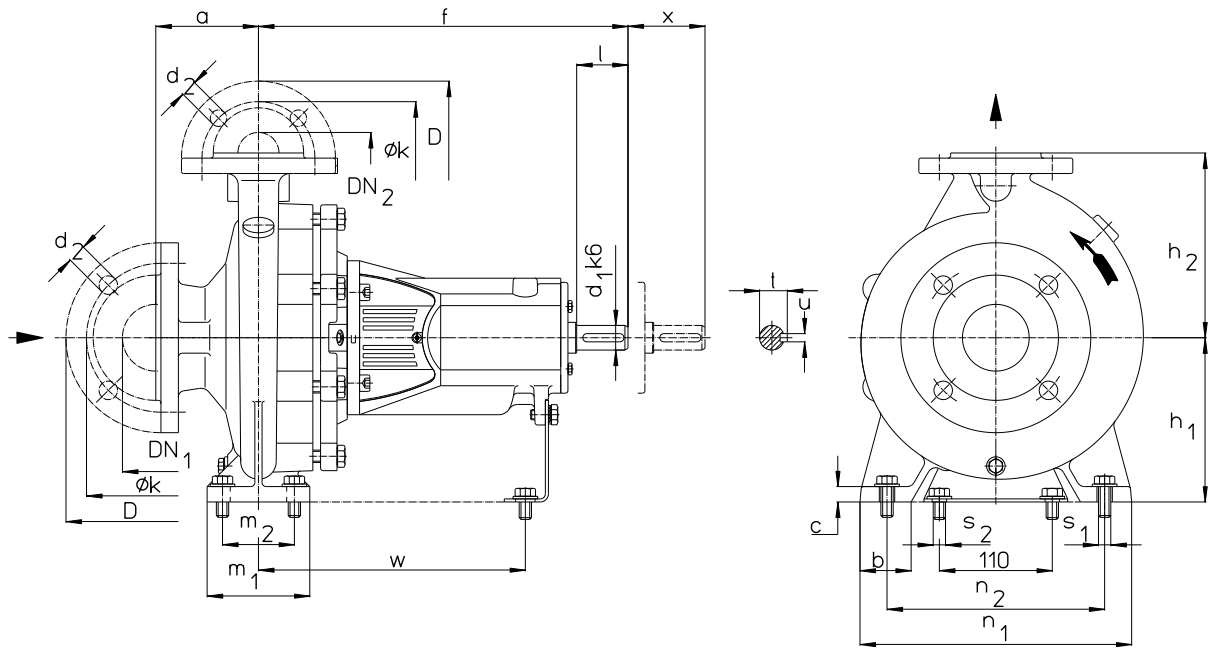
Performance Graph 50 Hz



Performance Graph 60 Hz



**Table of Dimensions**



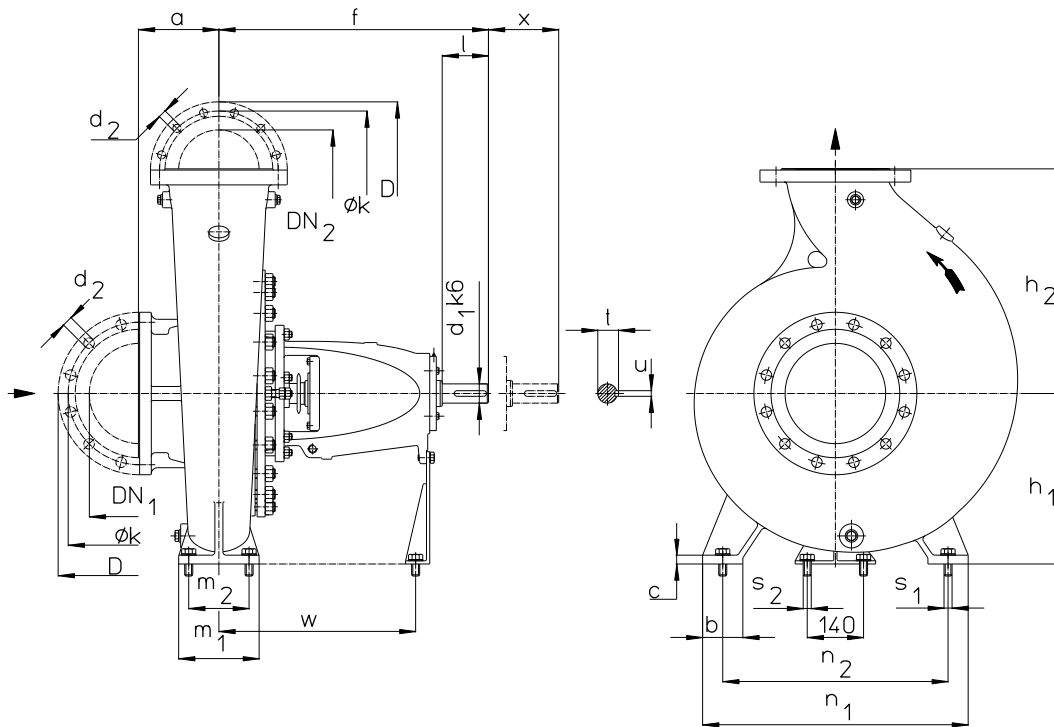
All dimensions in mm

| Size                 | BB | Pump dimensions |                 |     |     |                |                |     |    | Foot dimensions |                |                |                |     |     |     |     | Shaft end      |     |    |    |  |  |
|----------------------|----|-----------------|-----------------|-----|-----|----------------|----------------|-----|----|-----------------|----------------|----------------|----------------|-----|-----|-----|-----|----------------|-----|----|----|--|--|
|                      |    | DN <sub>2</sub> | DN <sub>1</sub> | a   | f   | h <sub>1</sub> | h <sub>2</sub> | b   | c  | m <sub>1</sub>  | m <sub>2</sub> | n <sub>1</sub> | n <sub>2</sub> | s1* | s2* | w   | x   | d <sub>1</sub> | l   | t  | u  |  |  |
| 32125                | 25 | 32              | 50              | 80  | 360 | 112            | 140            | 50  | 15 | 100             | 70             | 190            | 140            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 32160                | 25 | 32              | 50              | 80  | 360 | 132            | 160            | 50  | 15 | 100             | 70             | 240            | 190            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 32200                | 25 | 32              | 50              | 80  | 360 | 160            | 180            | 50  | 15 | 100             | 70             | 240            | 190            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 32250 <sup>1)</sup>  | 25 | 32              | 50              | 100 | 360 | 180            | 225            | 65  | 15 | 125             | 95             | 320            | 250            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 40125                | 25 | 40              | 65              | 80  | 360 | 112            | 140            | 50  | 15 | 100             | 70             | 210            | 160            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 40160                | 25 | 40              | 65              | 80  | 360 | 132            | 160            | 50  | 15 | 100             | 70             | 240            | 190            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 40200                | 25 | 40              | 65              | 100 | 360 | 160            | 180            | 50  | 15 | 100             | 70             | 265            | 212            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 40250                | 25 | 40              | 65              | 100 | 360 | 180            | 225            | 65  | 15 | 125             | 95             | 320            | 250            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 40315 <sup>1)</sup>  | 35 | 40              | 65              | 125 | 470 | 225            | 250            | 65  | 18 | 125             | 95             | 345            | 280            | M12 | M12 | 340 | 100 | 32             | 80  | 35 | 10 |  |  |
| 50125                | 25 | 50              | 65              | 100 | 360 | 132            | 160            | 50  | 15 | 100             | 70             | 240            | 190            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 50160                | 25 | 50              | 65              | 100 | 360 | 160            | 180            | 50  | 15 | 100             | 70             | 265            | 212            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 50200                | 25 | 50              | 65              | 100 | 360 | 160            | 200            | 50  | 15 | 100             | 70             | 265            | 212            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 50250                | 25 | 50              | 65              | 100 | 360 | 180            | 225            | 65  | 15 | 125             | 95             | 320            | 250            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 50315 <sup>1)</sup>  | 35 | 50              | 65              | 125 | 470 | 225            | 280            | 65  | 17 | 125             | 95             | 345            | 280            | M12 | M12 | 340 | 100 | 32             | 80  | 35 | 10 |  |  |
| 65125                | 25 | 65              | 80              | 100 | 360 | 160            | 180            | 65  | 15 | 125             | 95             | 280            | 212            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 65160                | 25 | 65              | 80              | 100 | 360 | 160            | 200            | 65  | 15 | 125             | 95             | 280            | 212            | M12 | M12 | 260 | 100 | 24             | 50  | 27 | 8  |  |  |
| 65200                | 25 | 65              | 80              | 100 | 360 | 180            | 225            | 65  | 15 | 125             | 95             | 320            | 250            | M12 | M12 | 260 | 140 | 24             | 50  | 27 | 8  |  |  |
| 65250                | 35 | 65              | 80              | 100 | 470 | 200            | 250            | 80  | 15 | 160             | 120            | 360            | 280            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 65315                | 35 | 65              | 80              | 125 | 470 | 225            | 280            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 80160                | 25 | 80              | 100             | 125 | 360 | 180            | 225            | 65  | 15 | 125             | 95             | 320            | 250            | M12 | M12 | 260 | 140 | 24             | 50  | 27 | 8  |  |  |
| 80200                | 35 | 80              | 100             | 125 | 470 | 180            | 250            | 65  | 15 | 125             | 95             | 345            | 280            | M12 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 80250                | 35 | 80              | 100             | 125 | 470 | 200            | 280            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 80315                | 35 | 80              | 100             | 125 | 470 | 250            | 315            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 80400 <sup>1)</sup>  | 45 | 80              | 125             | 125 | 530 | 280            | 355            | 80  | 18 | 160             | 120            | 435            | 355            | M16 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 100160 <sup>1)</sup> | 35 | 100             | 125             | 125 | 470 | 200            | 280            | 80  | 18 | 160             | 120            | 360            | 280            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 100200               | 35 | 100             | 125             | 125 | 470 | 200            | 280            | 80  | 18 | 160             | 120            | 360            | 280            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 100250               | 35 | 100             | 125             | 140 | 470 | 225            | 280            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 100315               | 35 | 100             | 125             | 140 | 470 | 250            | 315            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 100400               | 45 | 100             | 125             | 140 | 530 | 280            | 355            | 100 | 18 | 200             | 150            | 500            | 400            | M20 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 125200 <sup>1)</sup> | 35 | 125             | 150             | 140 | 470 | 250            | 315            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 125250               | 35 | 125             | 150             | 140 | 470 | 250            | 355            | 80  | 18 | 160             | 120            | 400            | 315            | M16 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 125315               | 45 | 125             | 150             | 140 | 530 | 280            | 355            | 100 | 18 | 200             | 150            | 500            | 400            | M20 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 125400               | 45 | 125             | 150             | 140 | 530 | 315            | 400            | 100 | 18 | 200             | 150            | 500            | 400            | M20 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 150200 <sup>1)</sup> | 35 | 150             | 200             | 160 | 470 | 280            | 400            | 100 | 20 | 200             | 150            | 550            | 450            | M20 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 150250 <sup>1)</sup> | 35 | 150             | 200             | 160 | 470 | 280            | 400            | 100 | 20 | 200             | 150            | 500            | 400            | M20 | M12 | 340 | 140 | 32             | 80  | 35 | 10 |  |  |
| 150315               | 45 | 150             | 200             | 160 | 530 | 280            | 400            | 100 | 18 | 200             | 150            | 550            | 450            | M20 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 150400               | 45 | 150             | 200             | 160 | 530 | 315            | 450            | 100 | 18 | 200             | 150            | 550            | 450            | M20 | M12 | 370 | 140 | 42             | 110 | 45 | 12 |  |  |
| 200250 <sup>1)</sup> | 45 | 200             | 200             | 160 | 590 | 280            | 400            | 100 | 22 | 200             | 150            | 500            | 400            | M20 | M12 | 430 | 180 | 42             | 110 | 45 | 12 |  |  |

<sup>1)</sup>Transnorm pump sizes, not included in DIN 24255 / EN 733. Flanges drilled according to ANSI 150 on request.

\* Slots suitable for bolts with dimensions indicated. Bolts are not included in the bare shaft pump standard scope of supply.

## Table of Dimensions



All dimensions in mm

| Size                    | BB | Pump dimensions |                 |     |     |                |                | Foot dimensions |    |     |     |     |     |     |     |     | Shaft end |                  |     |      |    |
|-------------------------|----|-----------------|-----------------|-----|-----|----------------|----------------|-----------------|----|-----|-----|-----|-----|-----|-----|-----|-----------|------------------|-----|------|----|
|                         |    | DN <sub>2</sub> | DN <sub>1</sub> | a   | f   | h <sub>1</sub> | h <sub>2</sub> | b               | c  | m1  | m2  | n1  | n2  | s1* | s2* | w   | x         | d <sub>i</sub>   | l   | t    | u  |
| 150500 <sup>1)</sup>    | 55 | 150             | 200             | 180 | 670 | 400            | 500            | 100             | 22 | 200 | 150 | 640 | 540 | M20 | M16 | 489 | 180       | 50               | 115 | 53.5 | 14 |
| 200315 <sup>1)</sup>    | 55 | 200             | 250             | 200 | 670 | 355            | 450            | 100             | 22 | 200 | 150 | 550 | 450 | M20 | M16 | 489 | 180       | 50               | 115 | 53.5 | 14 |
| 200400 <sup>1)</sup>    | 55 | 200             | 250             | 180 | 670 | 355            | 500            | 100             | 22 | 200 | 150 | 550 | 450 | M20 | M16 | 489 | 180       | 50               | 115 | 53.5 | 14 |
| 200500 <sup>1) 3)</sup> | 55 | 200             | 250             | 200 | 670 | 425            | 560            | 100             | 22 | 200 | 150 | 660 | 560 | M20 | M16 | 489 | 180       | 50               | 115 | 53.5 | 14 |
| 250300 <sup>1)</sup>    | 55 | 250             | 300             | 305 | 655 | 425            | 550            | 120             | 28 | 240 | 190 | 700 | 600 | M20 | M16 | 474 | 180       | 50               | 115 | 53.5 | 14 |
| 250315 <sup>1)</sup>    | 55 | 250             | 300             | 250 | 670 | 375            | 560            | 120             | 28 | 240 | 190 | 620 | 520 | M20 | M16 | 489 | 180       | 50               | 115 | 53.5 | 14 |
| 250400 <sup>1)</sup>    | 65 | 250             | 300             | 250 | 720 | 400            | 600            | 120             | 29 | 240 | 190 | 700 | 600 | M20 | M16 | 508 | 180       | 60 <sup>2)</sup> | 145 | 64   | 18 |
| 250500 <sup>1)</sup>    | 65 | 250             | 300             | 250 | 720 | 450            | 670            | 120             | 32 | 240 | 190 | 750 | 650 | M20 | M16 | 508 | 180       | 60 <sup>2)</sup> | 145 | 64   | 18 |
| 300400 <sup>1)</sup>    | 65 | 300             | 350             | 300 | 720 | 425            | 670            | 120             | 30 | 250 | 190 | 760 | 660 | M24 | M16 | 508 | 180       | 60 <sup>2)</sup> | 145 | 64   | 18 |
| 300500 <sup>1)</sup>    | 65 | 300             | 350             | 300 | 720 | 480            | 670            | 140             | 32 | 250 | 190 | 840 | 720 | M24 | M16 | 508 | 180       | 60 <sup>2)</sup> | 145 | 64   | 18 |

<sup>1)</sup>Transnorm pump sizes, not included in DIN 24255 / EN 733. Flanges drilled according to ANSI 150 on request.

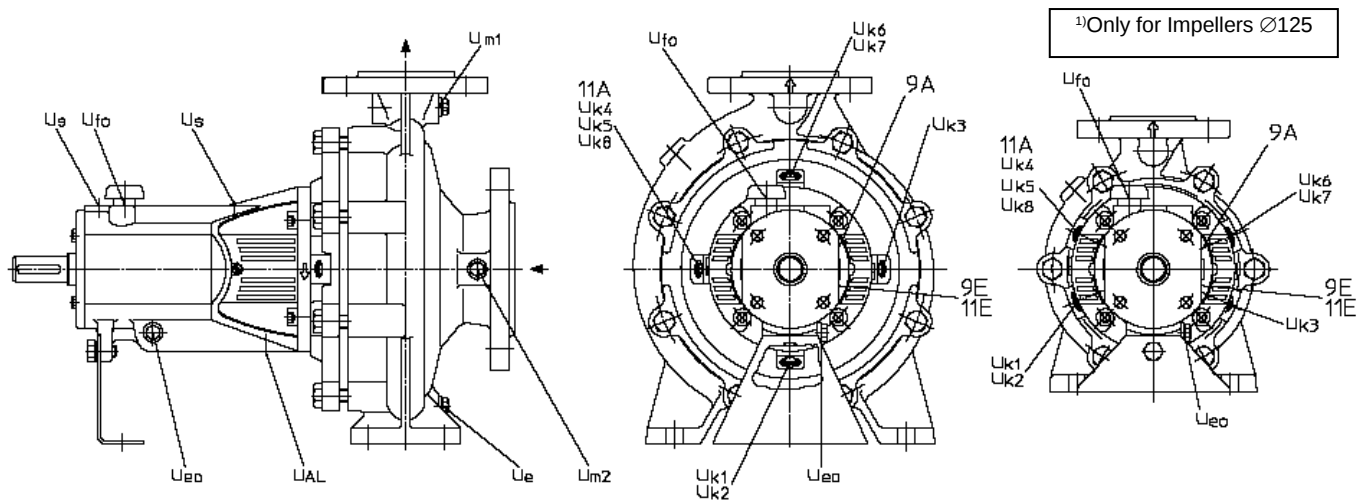
<sup>2)</sup>For these sizes the clearance corresponds to M6.

<sup>3)</sup>Discharge flange 12 x threaded drillings/M20 (only for PN 16 flanges).

\* Slots suitable for bolts with dimensions indicated. Bolts are not included in the bare shaft pump standard scope of supply.

| Flange connections to DIN 2501 PN 16 |      |      |      |      |      |      |      |      |       |       |       |       |       | DIN 2501 PN 10 |      |      |      |
|--------------------------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|----------------|------|------|------|
| DN <sub>2</sub> /DN <sub>1</sub>     | 32   | 40   | 50   | 65   | 80   | 100  | 125  | 150  | 200   | 250   | 300   | 350   | 400   | 100            | 125  | 150  | 200  |
| D                                    | 140  | 150  | 165  | 185  | 200  | 220  | 250  | 285  | 340   | 405   | 460   | 520   | 580   | 220            | 250  | 285  | 340  |
| k                                    | 100  | 110  | 125  | 145  | 160  | 180  | 210  | 240  | 295   | 355   | 410   | 470   | 525   | 180            | 210  | 240  | 295  |
| d <sub>2</sub> x number              | 18x4 | 18x4 | 18x4 | 18x4 | 18x8 | 18x8 | 18x8 | 22x8 | 22x12 | 26x12 | 26x12 | 26x16 | 30x16 | 18x8           | 18x8 | 22x8 | 22x8 |

### Connections for bearing brackets 25, 35 and 45



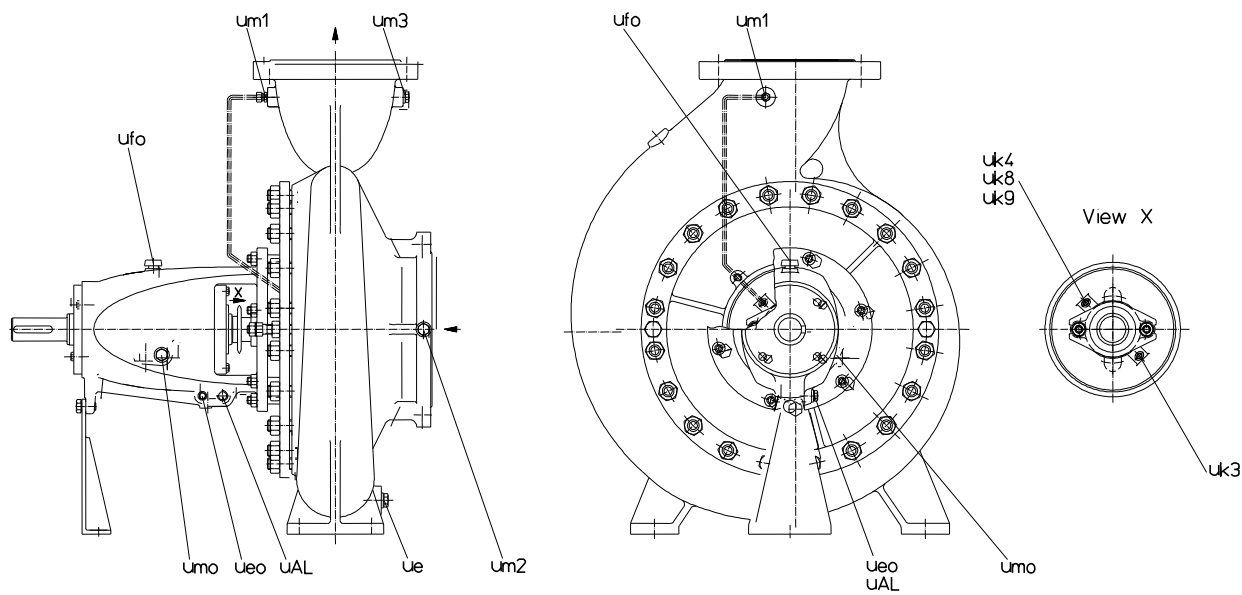
$u_{m1}$  : Pressure gauge. Only available on request  
 $u_{m2}$  : Pressure gauge. Only available on request  
 $u_e$  : Drainage  
 $u_{e0}$  : Oil drainage  
 $u_{f0}$  : Oil filling  
 $u_{AL}$  : Drainage for leakage. Threaded hole only available on request  
 $u_s$  : Sensor  
**9A** : Quench liquid outlet (tandem arrangement)  
**9E** : Quench liquid inlet (tandem arrangement)

$u_{k1}$  : Quench Inlet  
 $u_{k2}$  : Heating Inlet  
 $u_{k3}$  : 051 Inlet (Stuffing box)  
 $u_{k4}$  : 052 External sealing (Stuffing box)  
 $u_{k5}$  : External Flushing  
 $u_{k6}$  : Quench Outlet  
 $u_{k7}$  : Heating Outlet  
 $u_{k8}$  : 051 Outlet (Stuffing box)  
11A : Sealing liquid outlet (back to back arrangement)  
11E : Sealing liquid inlet (back to back arrangement)

| Size                | Um1     | Um2     | Ue      | Ueo | Ufo | UAL     | Us | Uk1 | Uk2 | Uk3 | Uk4 | Uk5 | Uk6 | Uk7   | Uk8   | 9A    | 9E | 11A | 11E |
|---------------------|---------|---------|---------|-----|-----|---------|----|-----|-----|-----|-----|-----|-----|-------|-------|-------|----|-----|-----|
| 32125 <sup>1)</sup> | G 1 / 4 | G 1 / 4 | G 1 / 4 |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 32160               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 32200               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 32250               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 40125 <sup>1)</sup> |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 40160               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 40200               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 40250               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 40315               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 50125 <sup>1)</sup> |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 50160               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 50200               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 50250               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 50315               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 65125 <sup>1)</sup> |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 65160               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 65200               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 65250               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 65315               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 80160               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 80200               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 80250               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 80315               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 80400               |         |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 100160              | G 3 / 8 | G 1 / 4 | Ø15.65  | Ø13 | M 8 | G 1 / 8 |    |     |     |     |     |     |     | G 1/4 | G 1/8 | G 1/4 |    |     |     |
| 100200              |         |         |         |     |     | G 1 / 4 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 100250              |         |         |         |     |     | G 1 / 8 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 100315              |         |         |         |     |     | G 1 / 4 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 100400              |         |         |         |     |     | G 1 / 8 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 125200              |         |         |         |     |     | G 1 / 4 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 125250              |         |         |         |     |     | G 1 / 8 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 125315              |         |         |         |     |     | G 1 / 4 |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 125400              | G 1 / 8 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 150200              | G 1 / 4 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 150250              | G 1 / 8 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 150315              | G 1 / 4 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 150400              | G 1 / 8 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |
| 200250              | G 1 / 4 |         |         |     |     |         |    |     |     |     |     |     |     |       |       |       |    |     |     |

Certain construction sizes do not correspond in all details to the drawing.

Connections for bearing brackets 55 and 65.



- um1 : Self sealing connection

um2 : Pressure/vacuum gauge. Only available on request

ue : Drainage

ueo : Oil drainage

ufo : Oil filling

uAL : Drainage for leakage
- um3 : Pressure gauge connection

uk3 : 051 Inlet (Stuffing box)

uk4 : 052 External sealing (Stuffing box)

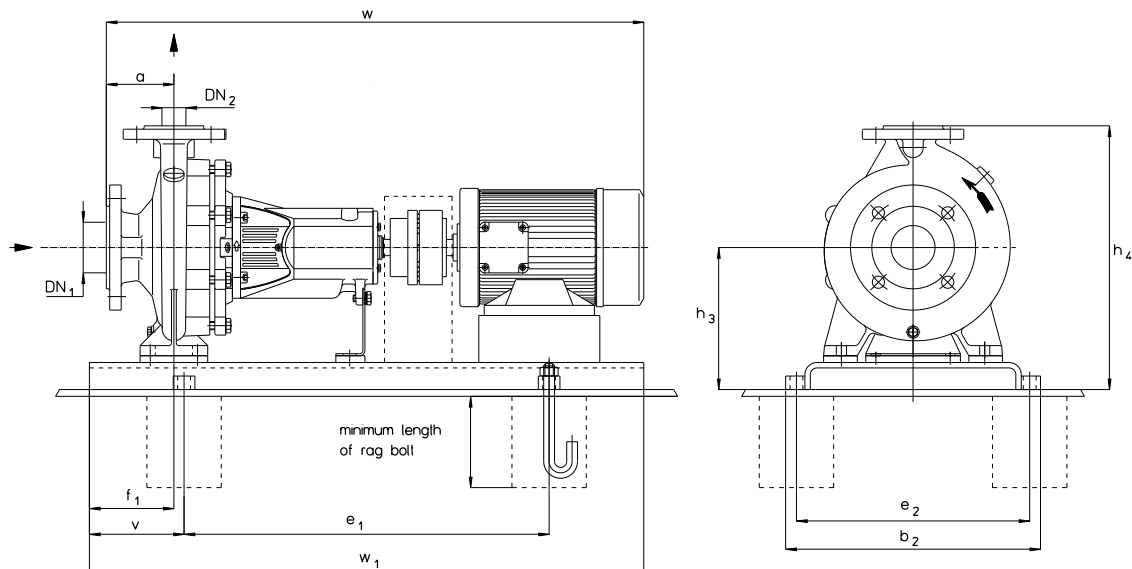
uk8 : 051 Outlet (Stuffing box)

umo : Oil level control

uk9 : 041 inlet (Stuffing box)

| Size   | U <sub>m1</sub> | U <sub>m2</sub> | U <sub>e</sub> | U <sub>eo</sub> | U <sub>fo</sub> | U <sub>AL</sub> | U <sub>m3</sub> | U <sub>k3</sub> | U <sub>k4</sub> | U <sub>k8</sub> | U <sub>mo</sub> | U <sub>k9</sub> |
|--------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 150500 | G1/4            | G1/2            | G1/2           | G1/4            | Ø20             | G1/2            | G1/2            | G1/4            | G1/4            | G1/4            | G3/4            | G1/4            |
| 200315 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 200400 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 200500 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 250300 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 250315 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 250400 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 250500 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 300400 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 300500 |                 |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |

## Foundation plan, bearing brackets 25, 35 and 45.



Dimensions in mm

Tolerances for welded parts acc. to DIN 8570 B

n = 1450 rpm

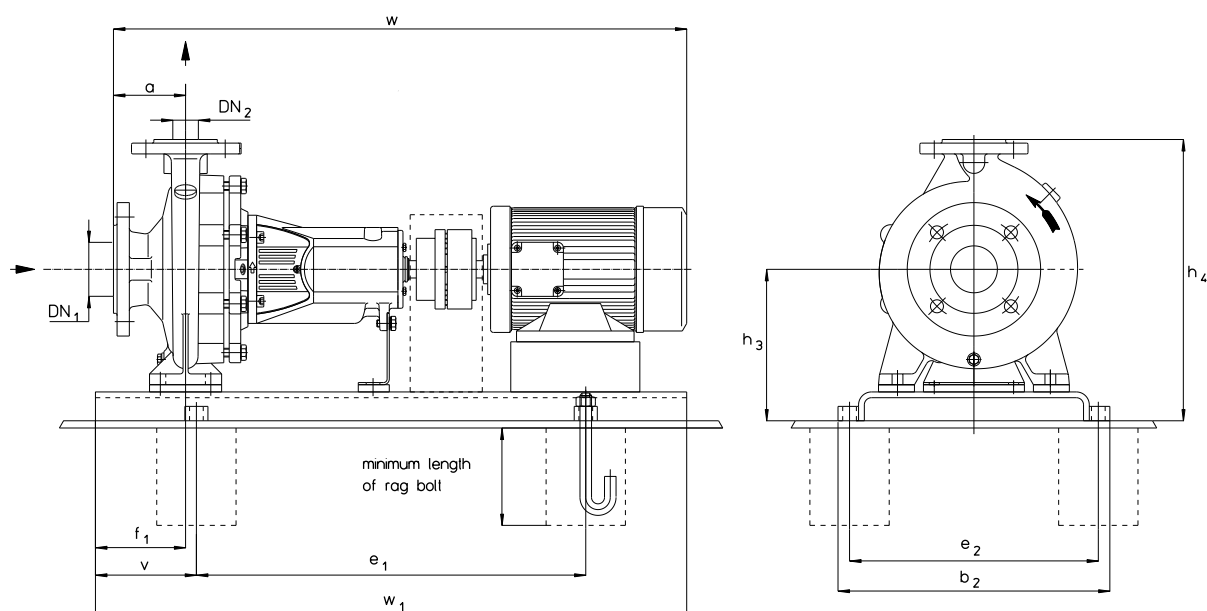
| Size   | Motor |      | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | w*  | w <sub>1</sub> | Rag bolt |     |     |     |     |
|--------|-------|------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|-----|----------------|----------|-----|-----|-----|-----|
|        | size  | kW   |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 32-125 | 71    | 0.25 | S241           | B68   | 31        | 50   | 32              | 50              | 80  | 330            | 480            | 290            | 125 | 60             | 177            | 317            | 683 | 730            | M16x200  |     |     |     |     |
| 32-160 | 71    | 0.37 | S301           |       | 33        | 65   |                 |                 |     | 390            | 480            | 350            |     |                | 225            | 405            | 197 |                |          | 357 | 683 |     |     |
|        | 80    | 0.55 |                |       |           | 717  |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 32-200 | 80    | 0.55 |                |       | 34        | 67   |                 |                 |     | 490            | 600            | 440            |     |                | 160            | 75             | 260 |                |          | 485 | 717 |     |     |
|        | 80    | 0.75 |                |       |           | 717  |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 32-250 | 90S   | 1.10 | S383           |       | 46        | 73   |                 |                 |     | 100            | 490            | 600            |     |                | 440            | 160            | 75  |                |          | 260 | 485 | 775 |     |
|        | 80    | 0.75 |                |       |           | 103  |                 |                 | 737 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 90S   | 1.10 |                |       |           | 106  |                 |                 | 795 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 90L   | 1.50 |                |       |           | 109  |                 |                 | 795 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 100L  | 2.20 |                |       |           | 119  |                 |                 | 836 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 40-125 | 71    | 0.37 | S241           | B68   | 28        | 60   | 40              | 65              | 80  | 330            | 480            | 290            | 125 | 60             | 177            | 317            | 683 | 730            | M16x200  |     |     |     |     |
| 40-160 | 80    | 0.55 | S301           |       | 30        | 62   |                 |                 |     | 390            |                | 480            |     |                | 350            | 225            | 405 |                |          | 197 | 357 | 683 |     |
|        | 71    | 0.37 |                |       |           | 64   |                 |                 |     |                |                |                |     |                |                |                |     |                |          | 717 |     |     |     |
|        | 80    | 0.55 |                |       |           | 66   |                 |                 |     |                |                |                |     |                |                |                |     |                |          | 717 |     |     |     |
|        | 80    | 0.75 |                |       |           | 69   |                 |                 |     |                |                |                |     |                |                |                |     |                |          | 775 |     |     |     |
| 40-200 | 90S   | 1.10 | S383           |       | 36        | 75   |                 |                 |     | 100            |                | 490            |     |                | 600            | 440            | 160 |                |          | 75  | 260 | 485 | 737 |
|        | 80    | 0.55 |                |       |           | 77   |                 |                 | 737 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 80    | 0.75 |                |       |           | 80   |                 |                 | 795 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 90L   | 1.50 |                |       |           | 83   |                 |                 | 795 |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 40-250 | 90S   | 1.10 | S383           |       | 46        | 106  |                 |                 | 125 | 490            | 600            | 440            | 160 | 75             | 260            | 485            | 795 |                |          |     |     |     |     |
|        | 90L   | 1.50 |                | 109   |           | 795  |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 100L  | 2.20 |                | 119   |           | 836  |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 100L  | 3.00 |                | 121   |           | 836  |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 40-315 | 100L  | 2.20 | S434           | B80   | 73        | 147  | 155             | 171             | 540 | 660            | 490            | 170            | 305 | 555            | 971            |                |     |                |          |     |     |     |     |
|        | 100L  | 3.00 |                |       |           |      |                 |                 |     |                |                |                |     |                | 150            | 971            |     |                |          |     |     |     |     |
|        | 112M  | 4.00 |                |       |           |      |                 |                 |     |                |                |                |     |                | 155            | 992            |     |                |          |     |     |     |     |
|        | 132S  | 5.50 |                |       |           |      |                 |                 |     |                |                |                |     |                | 171            | 1068           |     |                |          |     |     |     |     |
| 50-125 | 71    | 0.37 | S301           | B68   | 30        | 62   | 50              | 65              | 100 | 390            | 480            | 350            | 125 | 60             | 197            | 357            | 703 | 730            | M16x200  |     |     |     |     |
| 50-160 | 80    | 0.55 |                |       | 36        | 64   |                 |                 |     |                |                |                |     |                | 450            | 540            | 400 |                |          | 140 | 240 | 440 | 737 |
|        | 80    | 0.75 |                |       |           | 66   |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     | 737 |
|        | 80    | 0.55 |                |       |           | 75   |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     | 737 |
|        | 80    | 0.75 |                |       |           | 77   |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     | 737 |
| 50-200 | 90S   | 1.10 |                |       | S342      | B80  |                 |                 |     |                |                |                |     |                | 40             | 80             | 125 |                |          | 540 | 660 | 490 | 170 |
|        | 80    | 0.75 |                |       |           |      |                 |                 | 81  | 737            |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 90S   | 1.10 |                |       |           |      |                 |                 | 84  | 795            |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 90L   | 1.50 |                |       |           |      |                 |                 | 87  | 795            |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 50-250 | 100L  | 2.20 |                |       | S383      | B80  |                 |                 | 50  | 97             | 125            | 490            | 600 | 440            | 160            | 75             | 260 | 485            | 836      |     |     |     |     |
|        | 90L   | 1.50 | 114            | 795   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 100L  | 2.20 | 123            | 836   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
|        | 100L  | 3.00 | 125            | 836   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |                |          |     |     |     |     |
| 50-315 | 112M  | 4.00 | S434           | B95   | 88        | 131  | 125             | 540             | 660 | 490            | 170            | 75             | 305 | 585            | 857            |                |     |                |          |     |     |     |     |
|        | 112M  | 4.00 |                |       |           | 171  |                 |                 |     |                |                |                |     |                | 992            |                |     |                |          |     |     |     |     |
|        | 132S  | 5.50 |                |       |           | 186  |                 |                 |     |                |                |                |     |                | 1068           |                |     |                |          |     |     |     |     |
|        | 132M  | 7.50 |                |       |           | 198  |                 |                 |     |                |                |                |     |                | 1094           |                |     |                |          |     |     |     |     |
| 65-125 | 80    | 0.55 | S342           | B68   | 33        | 80   | 65              | 80              | 100 | 450            | 540            | 400            | 140 | 60             | 240            | 420            | 737 | 820            | M20x400  |     |     |     |     |
| 65-160 | 80    | 0.75 |                |       | 39        | 82   |                 |                 |     |                |                |                |     |                |                | 440            | 737 |                |          |     |     |     |     |
|        | 80    | 0.75 |                |       |           | 88   |                 |                 |     |                |                |                |     |                |                |                | 737 |                |          |     |     |     |     |
| 65-160 | 80    | 0.75 |                |       | B80       | 88   |                 |                 |     |                |                |                |     |                |                | 440            | 737 |                |          |     |     |     |     |
|        | 90L   | 1.50 |                |       |           | 95   |                 |                 |     |                |                |                |     |                |                |                | 795 |                |          |     |     |     |     |
|        | 100L  | 2.20 |                |       |           | 104  |                 |                 |     |                |                |                |     |                |                |                | 836 |                |          |     |     |     |     |

| Size    | Motor   |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | w*   |      | Rag bolt |         |     |     |     |     |     |     |     |      |      |      |     |      |
|---------|---------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|------|------|----------|---------|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|
|         | size    | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |      |      | size     |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 65-200  | 90S     | 1.10  | S383           | B68   | 45        | 105  | 65              | 80              | 100 | 490            | 600            | 440            | 160 | 75             | 260            | 485            | 795  | 920  | M20x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 90L     | 1.50  |                | 108   |           | 795  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 2.20  |                | 118   |           | 836  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                | 120   |           | 836  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 112M    | 4.00  |                | 125   |           | 857  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 65-250  | 100L    | 2.20  | S434           | B80   | 70        | 158  |                 |                 |     | 540            | 660            | 490            | 170 | 90             | 280            | 530            | 946  | 1000 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                |       |           | 160  |                 |                 |     |                |                |                |     |                |                |                | 946  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 112M    | 4.00  |                |       |           | 165  |                 |                 |     |                |                |                |     |                |                |                | 967  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132S    | 5.50  |                |       |           | 181  |                 |                 |     |                |                |                |     |                |                |                | 1043 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 65-315  | 132S    | 5.50  | S605           | B95   | 92        | 236  |                 | 125             |     | 730            | 740            | 670            | 190 |                | 325            | 605            | 1068 | 1120 | M24x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132M    | 7.50  |                |       |           | 247  |                 |                 |     |                |                |                |     |                |                |                | 1094 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160M    | 11.00 |                |       |           | 268  |                 |                 |     |                |                |                |     |                |                |                | 1186 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                |       |           | 288  |                 |                 |     |                |                |                |     |                |                |                | 1248 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 80-160  | 80      | 0.75  |                | B68   | 43        | 100  | 80              | 100             |     | 490            | 600            | 440            | 160 | 75             | 260            | 485            | 762  | 920  | M20x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 90S     | 1.10  |                | 103   |           | 820  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 90L     | 1.50  |                | 106   |           | 820  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 2.20  |                | 116   |           | 861  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                | 118   |           | 861  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 80-200  | 90L     | 1.50  | S383           | B80   | 60        | 125  |                 | 100             |     | 540            | 660            | 490            | 170 | 90             | 260            | 510            | 930  | 1000 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 2.20  |                |       |           | 134  |                 |                 |     |                |                |                |     |                |                |                | 971  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                |       |           | 136  |                 |                 |     |                |                |                |     |                |                |                | 971  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 112M    | 4.00  |                |       |           | 141  |                 |                 |     |                |                |                |     |                |                |                | 992  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 80-250  | 132S    | 5.50  | S434           | B95   |           | 157  |                 | 100             |     | 540            | 660            | 490            | 170 | 90             | 260            | 510            | 1068 | 1000 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  | S605           | B80   | 75        | 197  |                 |                 |     |                |                |                |     |                |                |                |      |      |          | 125     | 730 | 740 | 670 | 190 | 90  | 300 | 580 | 971  |      |      |     |      |
|         | 112M    | 4.00  |                |       |           | 202  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     | 992  |      |      |     |      |
|         | 132S    | 5.50  |                |       |           | 218  |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     | 1068 |      |      |     |      |
| 132M    | 7.50    | 230   |                |       |           | 1094 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 80-315  | 132S    | 5.50  | S605           | B95   | 95        | 239  |                 | 125             |     | 730            | 740            | 670            | 190 | 90             | 350            | 665            | 1068 | 1120 | M24x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132M    | 7.50  |                |       |           | 251  |                 |                 |     |                |                |                |     |                |                |                | 1094 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160M    | 11.00 |                |       |           | 272  |                 |                 |     |                |                |                |     |                |                |                | 1186 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                |       |           | 291  |                 |                 |     |                |                |                |     |                |                |                | 1248 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 80-400  | 160M    | 11.00 | S486           | B110  | 143       | 322  | 80              | 125             |     | 610            | 840            | 550            | 205 |                | 380            | 735            | 1247 | 1250 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                | B95   |           | 340  |                 |                 |     |                |                |                |     |                |                |                | 1247 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180M    | 18.50 |                | B110  |           | 361  |                 |                 |     |                |                |                |     |                |                |                | 1371 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180L    | 22.00 |                |       |           | 376  |                 |                 |     |                |                |                |     |                |                |                | 1371 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 200L    | 30.00 |                | B125  |           | 424  |                 |                 |     |                |                |                |     |                |                |                | 1429 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 100-160 | 100L    | 2.20  | S434           | B80   | 78        | 166  |                 | 125             |     | 540            | 660            | 490            | 170 | 90             | 280            | 560            | 971  | 1000 | M20x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                |       |           | 169  |                 |                 |     |                |                |                |     |                |                |                | 971  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 112M    | 4.00  |                |       |           | 174  |                 |                 |     |                |                |                |     |                |                |                | 992  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132S    | 5.50  |                |       |           | 190  |                 |                 |     |                |                |                |     |                |                |                | 1068 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 100-200 | 100L    | 2.20  | S605           | B95   | 70        | 158  |                 | 125             |     | 540            | 660            | 490            | 170 | 90             | 280            | 560            | 971  | 1000 | M20x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 100L    | 3.00  |                |       |           | 160  |                 |                 |     |                |                |                |     |                |                |                | 971  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 112M    | 4.00  |                |       |           | 165  |                 |                 |     |                |                |                |     |                |                |                | 992  |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132S    | 5.50  |                |       |           | 181  |                 |                 |     |                |                |                |     |                |                |                | 1068 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132M    | 7.50  |                |       |           | 193  |                 |                 |     |                |                |                |     |                |                |                | 1094 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 100-250 | 112M    | 4.00  | S605           | B80   | 85        | 213  |                 | 125             |     | 730            | 740            | 670            | 190 | 90             | 325            | 605            | 1007 | 1120 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132S    | 5.50  |                | 228   |           | 1083 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132M    | 7.50  |                | 240   |           | 1109 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160M    | 11.00 |                | 261   |           | 1201 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 100-315 | 160M    | 11.00 | S486           | B110  | 104       | 281  |                 | 140             |     | 610            | 840            | 550            | 205 | 90             | 350            | 665            | 1201 | 1250 | M24x400  |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                |       |           | 300  |                 |                 |     |                |                |                |     |                |                |                | 1263 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180M    | 18.50 |                |       |           | 320  |                 |                 |     |                |                |                |     |                |                |                | 1325 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180L    | 22.00 |                |       |           | 337  |                 |                 |     |                |                |                |     |                |                |                | 1325 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 100-400 | 160L    | 15.00 | S606           | B95   | 177       | 402  |                 | 125             |     | 730            |                | 670            | 230 | 110            | 380            | 735            | 1262 | 1400 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180M    | 18.50 |                | B110  |           | 423  |                 |                 |     |                |                |                |     |                |                |                | 1386 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180L    | 22.00 |                |       |           | 438  |                 |                 |     |                |                |                |     |                |                |                | 1386 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 200L    | 30.00 |                | B125  |           | 486  |                 |                 |     |                |                |                |     |                |                |                | 1444 |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 225S    | 37.00 |                | S607  |           | B140 |                 |                 |     |                |                |                |     |                |                |                | 548  |      |          | 1481    |     |     |     |     |     |     |     |      |      |      |     |      |
| 125-200 | 132M    | 7.50  | S605           | B95   | 100       | 256  |                 | 125             | 150 | 140            | 730            | 740            | 670 | 190            | 90             | 350            | 665  | 1481 | 1120     |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160M    | 11.00 |                |       |           | 277  |                 |                 |     |                |                |                |     |                |                |                |      | 1201 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                |       |           | 296  |                 |                 |     |                |                |                |     |                |                |                |      | 1263 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 132M    | 7.50  |                |       |           | S605 |                 |                 |     |                |                |                |     |                |                |                |      | B95  |          |         | 102 | 258 |     | 730 | 740 | 670 | 190 | 1109 | 1201 | 1250 |     |      |
| 160M    | 11.00   | 279   | 1109           |       |           |      |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 125-250 | 160L    | 15.00 | S486           | B110  | 151       | 298  |                 | 125             | 150 | 140            | 730            | 840            | 550 | 205            | 110            | 380            | 735  | 1263 | 1250     | M24x400 |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 | B95            | 375   |           | 1262 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180M    | 18.50 | B110           | 396   |           | 1386 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180L    | 22.00 |                | 411   |           | 1386 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 200L    | 30.00 | B125           | 459   |           | 1444 |                 |                 |     |                |                |                |     |                |                |                |      |      |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 125-315 | 225S    | 37.00 | S607           | B140  | 188       | 520  |                 | 125             | 150 | 140            | 730            | 940            | 670 | 230            | 110            | 415            | 815  | 1481 | 1400     |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 200L    | 30.00 | S606           | B125  |           | 498  |                 |                 |     |                |                |                |     |                |                |                |      | 1444 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 225S    | 37.00 |                | B140  |           | 559  |                 |                 |     |                |                |                |     |                |                |                |      | 1481 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 225M    | 45.00 | S607           | B160  |           | 580  |                 |                 |     |                |                |                |     |                |                |                |      | 1481 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 250M    | 55.00 |                |       |           | 793  |                 |                 |     |                |                |                |     |                |                |                |      | 1604 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 125-400 | 280S    | 75.00 | 180x73x14      | B180  |           | 1047 |                 | 125             | 150 | 160            | 730            | 1460           | 680 | 170            | 200            | 455            | 855  | 1679 | 1800     | M16x200 |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 150-200 | 132M  | 7.50           | S605  | B95       | 123  |                 |                 |     |                |                |                |     |                |                |                |      | 295  |          |         |     | 150 | 200 | 160 | 730 | 740 | 670 | 205  | 110  | 380  | 780 | 1129 |
|         |         | 160M  | 11.00          |       |           |      |                 |                 |     |                |                |                |     |                |                |                |      | 316  |          |         |     |     |     |     |     |     |     |      |      |      |     | 1221 |
|         |         | 160L  | 15.00          |       |           |      |                 |                 |     |                |                |                |     |                |                |                |      | 335  |          |         |     |     |     |     |     |     |     |      |      |      |     | 1283 |
| 150-250 | 180M    | 18.50 | S606           | B110  | 128       | 355  |                 | 125             | 150 | 160            | 730            | 840            | 670 | 205            | 110            | 380            | 780  | 1345 | 1250     | M24x400 |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 160L    | 15.00 |                |       |           | 340  |                 |                 |     |                |                |                |     |                |                |                |      | 1283 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180M    | 18.50 |                |       |           | 360  |                 |                 |     |                |                |                |     |                |                |                |      | 1345 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
|         | 180L    | 22.00 |                |       |           | 389  |                 |                 |     |                |                |                |     |                |                |                |      | 1345 |          |         |     |     |     |     |     |     |     |      |      |      |     |      |
| 150-250 | 200L    | 30.00 | S607           | B140  |           | 436  |                 | 125             | 150 | 160            | 730            | 940            |     | 230            | 110            | 380            | 780  | 1403 | 1400     |         |     |     |     |     |     |     |     |      |      |      |     |      |

| Size    | Motor   |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | w*   | w <sub>1</sub> | Rag bolt |     |     |      |      |
|---------|---------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|------|----------------|----------|-----|-----|------|------|
|         | size    | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |
| 150-315 | 180L    | 22.00 | S606           | B110  | 170       | 431  | 150             | 200             | 160 | 730            | 840            | 670            | 230 | 110            | 380            | 780            | 1406 | 1250           | M24x400  |     |     |      |      |
|         | 200L    | 30.00 |                | B125  |           | 479  |                 |                 |     |                | 1464           |                |     |                |                |                |      |                |          |     |     |      |      |
|         | 225S    | 37.00 | S607           | B140  |           | 540  |                 |                 |     |                | 940            |                |     |                |                |                | 670  |                |          | 230 | 110 | 1501 | 1400 |
|         | 225M    | 45.00 |                | 561   |           | 1501 |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |
|         | 250M    | 55.00 |                | 774   |           | 1624 |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |
| 150-400 | 225M    | 45.00 | B140           | 205   | 598       | 415  |                 |                 |     |                | 865            |                |     |                | 1501           | 1400           |      |                |          |     |     |      |      |
|         | 250M    | 55.00 | B160           |       | 811       |      |                 |                 |     |                |                |                |     |                | 1624           |                |      |                |          |     |     |      |      |
|         | 200-250 | 160L  | 15.00          |       | S607      |      | B95             | 230             | 471 | 200            |                | 200            | 160 | 730            | 940            |                | 670  | 230            | 185      | 380 | 780 | 1342 | 1400 |
| 180M    |         | 18.50 | B110           | 492   |           | 1466 |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |
| 180L    |         | 22.00 | B125           | 507   |           | 1466 |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |
| 200L    |         | 30.00 |                | 555   |           | 1524 |                 |                 |     |                |                |                |     |                |                |                |      |                |          |     |     |      |      |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimension listed are taken from the SIEMENS catalogue.

## Foundation plan, bearing brackets 25,35 and 45



Dimensions in mm

Tolerances for welded parts acc. to DIN 8570 B

n = 2900 rpm

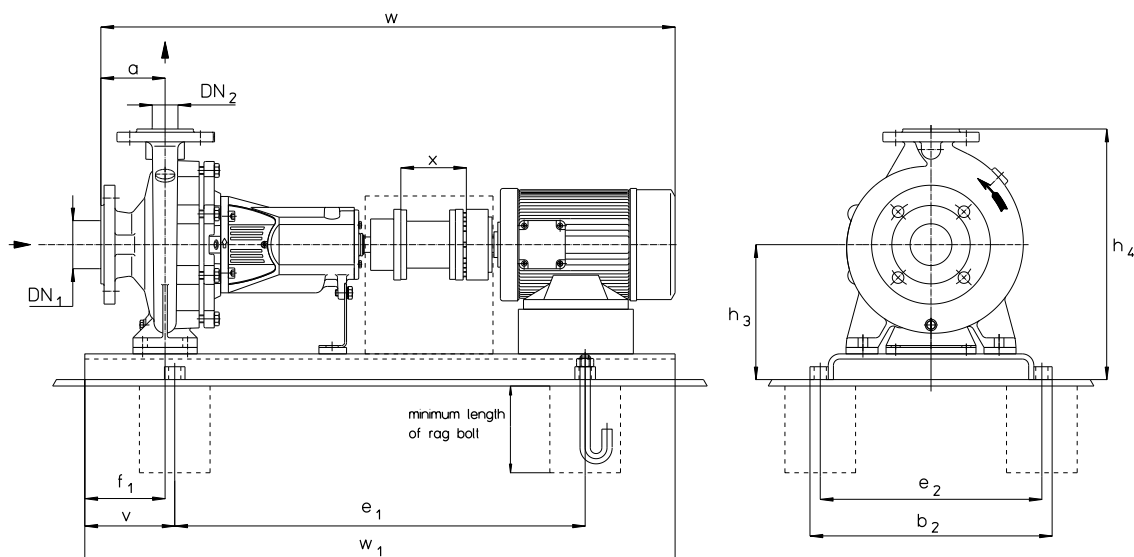
| Size   | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a    | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | w*   | w <sub>1</sub> | Rag bolt |     |         |
|--------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|------|----------------|----------------|----------------|-----|----------------|----------------|----------------|------|----------------|----------|-----|---------|
|        | size  | kW    |                |       | pump      | unit |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
| 32-125 | 71    | 0.55  | S241           | B68   | 31        | 51   | 32              | 50              | 80   | 330            | 480            | 290            | 125 | 60             | 177            | 317            | 683  | 730            | M16x200  |     |         |
|        | 80    | 0.75  |                |       |           | 52   |                 |                 |      |                |                |                |     |                |                |                | 717  |                |          |     |         |
|        | 80    | 1.10  |                |       |           | 54   |                 |                 |      |                |                |                |     |                |                |                | 717  |                |          |     |         |
|        | 90S   | 1.50  |                |       |           | 57   |                 |                 |      |                |                |                |     |                |                |                | 775  |                |          |     |         |
|        | 90L   | 2.20  |                |       |           | 74   |                 |                 |      |                |                |                |     |                |                |                | 775  |                |          |     |         |
| 32-160 | 90S   | 1.50  | S301           | B80   | 33        | 72   |                 |                 |      | 390            | 540            | 320            | 140 |                | 197            | 357            | 775  |                |          | 820 |         |
|        | 90L   | 2.20  | 80             |       |           | 775  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 100L  | 3.00  | S272           |       |           | 89   |                 |                 |      |                |                |                |     |                |                |                | 816  |                |          |     |         |
|        | 112M  | 4.00  | 96             |       |           | 837  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
| 32-200 | 90L   | 2.20  | S301           | B68   | 34        | 81   |                 |                 |      | 390            | 480            | 350            | 125 |                | 225            | 405            | 775  |                |          | 730 |         |
|        | 100L  | 3.00  | S272           | B80   |           | 90   |                 |                 |      |                |                |                |     | 816            |                |                |      |                |          |     |         |
|        | 112M  | 4.00  | S303           | 97    |           | 837  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 132S  | 5.50  |                | 128   |           | 913  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 132S  | 7.50  |                | 138   |           | 913  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
| 32-250 | 132S  | 7.50  | S383           | B95   | 46        | 151  |                 |                 |      | 100            | 490            | 660            | 490 | 170            | 75             | 260            | 485  | 933            | 1000     |     |         |
|        | 160M  | 11.00 | S434           |       |           | 171  |                 |                 | 1051 |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 160M  | 15.00 | 184            |       |           | 1051 |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
| 40-125 | 80    | 1.10  | S241           | B68   | 28        | 64   |                 |                 | 40   | 65             | 80             | 330            | 480 | 290            | 125            | 60             | 177  | 317            | 717      | 730 | M16x200 |
|        | 90S   | 1.50  |                |       |           | 67   | 775             |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 90L   | 2.20  |                |       |           | 71   | 775             |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 100L  | 3.00  |                |       |           | S272 | B80             | 80              |      |                |                |                |     |                |                |                |      |                | 816      |     |         |
| 40-160 | 90S   | 1.50  | S301           | B68   | 30        | 69   | 80              | 390             |      |                |                | 480            | 350 | 125            | 197            |                | 357  | 775            | 730      |     |         |
|        | 90L   | 2.20  | S272           | B80   |           | 77   |                 |                 |      |                |                |                |     |                |                |                |      | 775            |          |     |         |
|        | 100L  | 3.00  |                |       |           | 79   |                 |                 |      |                |                |                |     |                |                |                |      | 816            |          |     |         |
|        | 112M  | 4.00  |                |       |           | 93   |                 |                 |      |                |                |                |     |                |                |                |      | 837            |          |     |         |
|        | 132S  | 5.50  | S303           | B95   |           | 115  |                 |                 |      |                | 913            |                |     |                |                |                |      |                |          |     |         |
| 40-200 | 100L  | 3.00  | S342           | B80   | 36        | 92   | 100             | 450             |      |                | 540            | 400            | 140 | 240            | 420            | 836            | 820  |                |          |     |         |
|        | 112M  | 4.00  | S303           | B95   |           | 99   |                 |                 |      |                |                |                |     |                |                | 857            |      |                |          |     |         |
|        | 132S  | 5.50  |                |       |           | 122  |                 |                 |      |                |                |                |     |                |                | 933            |      |                |          |     |         |
|        | 132S  | 7.50  |                |       |           | 133  |                 |                 |      |                |                |                |     |                |                | 933            |      |                |          |     |         |
| 40-250 | 160M  | 11.00 | S383           | B95   | 46        | 162  |                 | 100             |      |                | 490            | 600            | 440 | 160            | 240            | 420            | 1051 | 920            |          |     |         |
|        | 132S  | 7.50  | 151            |       |           | 933  |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 160M  | 11.00 | S434           |       |           | 171  |                 |                 |      |                |                |                |     |                |                |                | 1051 |                |          |     |         |
|        | 160M  | 15.00 | 184            |       |           | 1051 |                 |                 |      |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 160L  | 18.50 |                |       |           | 224  |                 |                 |      |                |                |                |     |                |                | 1113           |      |                |          |     |         |
| 50-125 | 90S   | 1.50  | S301           | B68   | 30        | 69   | 50              | 65              |      |                | 100            | 390            | 480 | 350            | 125            | 60             | 197  | 357            | 795      | 730 | M16x200 |
|        | 90L   | 2.20  | S303           | B95   |           | 77   |                 |                 | 795  |                |                |                |     |                |                |                |      |                |          |     |         |
|        | 132S  | 5.50  |                |       |           | 116  |                 |                 | 933  |                |                |                |     |                |                |                |      |                |          |     |         |
| 50-160 | 90L   | 2.20  | S301           | B68   | 36        | 83   |                 |                 | 100  | 450            | 540            | 400            | 140 | 225            | 405            |                | 795  | 730            |          |     |         |
|        | 100L  | 3.00  | S342           | B80   |           | 92   |                 |                 |      |                |                |                |     |                |                |                | 836  |                |          |     |         |
|        | 112M  | 4.00  | S303           | B95   |           | 99   |                 |                 |      |                |                |                |     |                |                |                | 857  |                |          |     |         |
|        | 132S  | 5.50  |                |       |           | 122  |                 |                 |      |                |                |                |     |                |                |                | 933  |                |          |     |         |
|        | 132S  | 7.50  |                |       |           | 133  |                 |                 |      |                |                |                |     |                |                |                | 933  |                |          |     |         |
|        | 160M  | 11.00 | S383           |       |           | 162  |                 |                 |      |                |                |                |     |                |                |                | 1050 |                |          |     |         |
|        |       | 160M  | 11.00          |       |           |      |                 |                 |      |                |                |                |     |                |                |                |      |                |          | 162 | 1050    |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken the SIEMENS catalogue.

| Size    | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v    | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | w*   | w <sub>1</sub> | Rag bolt |         |         |         |  |      |  |  |
|---------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|------|----------------|----------------|----------------|------|----------------|----------|---------|---------|---------|--|------|--|--|
|         | size  | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  |      |  |  |
| 50-200  | 100L  | 3.00  | S342           | B80   | 40        | 96   | 50              | 65              | 100 | 450            | 540            | 400            | 140  | 60             | 240            | 440            | 836  | 820            | M20x400  |         |         |         |  |      |  |  |
|         | 112M  | 4.00  |                |       |           | 103  |                 |                 |     |                |                |                |      |                |                |                | 857  |                |          |         |         |         |  |      |  |  |
|         | 132S  | 5.50  | S303           | B95   |           | 126  |                 |                 |     | 390            | 600            | 350            | 160  |                | 225            | 425            | 933  | 920            | M16x200  |         |         |         |  |      |  |  |
|         | 132S  | 7.50  |                |       |           | 136  |                 |                 |     |                |                |                |      |                |                |                | 933  |                |          |         |         |         |  |      |  |  |
|         | 160M  | 11.00 | S383           |       |           | 167  |                 |                 |     | 490            | 600            | 440            | 160  |                | 240            | 440            | 1051 |                | M20x400  |         |         |         |  |      |  |  |
| 160M    | 15.00 |       |                | 180   |           |      |                 |                 |     |                |                |                |      | 1051           |                |                |      |                |          |         |         |         |  |      |  |  |
| 50-250  | 160M  | 15.00 | S434           | B95   | 50        | 188  |                 |                 |     |                |                |                | 540  | 660            | 490            | 170            | 75   | 260            | 485      | 1051    | 1000    | M24x400 |  |      |  |  |
|         | 160L  | 18.50 |                |       |           | 228  |                 |                 |     |                |                |                |      |                |                | 1113           |      |                |          |         |         |         |  |      |  |  |
|         | 180M  | 22.00 | S605           |       |           | B110 |                 |                 |     | 243            | 730            | 740            | 670  | 190            | 280            | 505            |      | 1175           | 1120     | M24x400 |         |         |  |      |  |  |
|         | 200L  | 30.00 |                |       |           | B125 |                 |                 |     | 303            |                |                |      |                | 300            | 525            |      | 1233           |          |         |         |         |  |      |  |  |
|         |       |       |                |       |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  |      |  |  |
| 65-125  | 100L  | 3.00  | S342           | B80   | 33        | 98   | 65              | 80              | 100 | 450            | 540            | 400            | 140  | 60             | 240            | 420            | 836  | 820            | M20x400  |         |         |         |  |      |  |  |
|         | 112M  | 4.00  |                |       |           | 104  |                 |                 |     |                |                |                |      |                |                |                |      |                |          | 857     |         |         |  |      |  |  |
|         | 132S  | 5.50  | S383           | B95   |           | 119  |                 |                 |     |                |                |                |      |                |                |                |      |                |          | 933     | 920     |         |  |      |  |  |
|         | 132S  | 7.50  |                |       |           | 130  |                 |                 |     | 490            | 600            | 440            | 160  |                |                |                | 933  |                |          |         |         |         |  |      |  |  |
|         | 132S  | 5.50  |                |       |           | 125  |                 |                 |     |                |                |                |      |                |                |                |      |                |          | 933     |         |         |  |      |  |  |
| 65-160  | 132S  | 7.50  |                |       | 39        | 136  |                 |                 |     |                |                |                |      |                |                |                | 75   | 260            | 440      | 933     |         | M20x400 |  |      |  |  |
|         | 132S  | 5.50  |                | 165   |           |      |                 |                 |     |                |                |                |      |                |                | 1051           |      |                |          |         |         |         |  |      |  |  |
|         | 160M  | 11.00 |                | 179   |           | 540  |                 |                 |     | 660            | 490            | 170            | 1051 | 1000           |                |                |      |                |          |         |         |         |  |      |  |  |
|         | 160M  | 15.00 | S434           | B95   |           | 170  |                 |                 |     |                |                |                |      | 1051           |                |                |      |                |          |         |         |         |  |      |  |  |
|         | 160L  | 18.50 |                |       |           | 183  |                 |                 |     |                |                |                |      | 1113           |                |                |      |                |          |         |         |         |  |      |  |  |
| 65-200  | 160M  | 11.00 |                |       | 45        | 222  |                 |                 |     |                |                |                |      |                |                |                | 75   | 260            | 485      | 1051    | 1000    | M24x400 |  |      |  |  |
|         | 160M  | 15.00 |                | 238   |           | 730  |                 |                 |     | 740            | 670            | 190            | 280  | 505            | 1175           | 1120           |      |                |          | M24x400 |         |         |  |      |  |  |
|         | 160L  | 18.50 | S605           | B110  |           | 298  |                 |                 |     |                |                |                |      |                | 300            | 525            |      |                |          | 1233    |         |         |  |      |  |  |
|         | 180M  | 22.00 |                | B125  |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  |      |  |  |
|         | 200L  | 30.00 |                |       |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  |      |  |  |
| 65-250  | 160L  | 18.50 | S435           | B95   | 70        | 254  | 80              | 100             | 125 | 540            |                | 490            | 200  | 90             | 280            | 530            | 1223 | 1140           | M20x400  |         |         |         |  |      |  |  |
|         | 180M  | 22.00 |                | 290   |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          | 1285    |         |         |  |      |  |  |
|         | 200L  | 30.00 | S486           | B125  |           | 397  |                 |                 |     | 610            | 840            | 550            | 205  |                |                |                | 300  | 550            | 1343     | 1250    | M24x400 |         |  |      |  |  |
|         | 200L  | 37.00 |                | 332   |           |      |                 |                 |     |                |                |                |      |                |                |                | 1343 |                |          |         |         |         |  |      |  |  |
|         | 225M  | 45.00 | S607           |       |           | 357  |                 |                 |     | 730            | 940            | 670            | 230  |                |                |                | 325  | 575            | 1373     | 1400    |         |         |  |      |  |  |
| 80-160  | 132S  | 7.50  | S383           | B95   | 43        | 148  |                 |                 |     | 80             | 100            | 125            | 490  | 600            | 440            | 160            | 75   | 260            | 485      | 958     | 920     | M20x400 |  |      |  |  |
|         | 160M  | 11.00 |                |       |           | 167  |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  | 1076 |  |  |
|         | 160M  | 15.00 | S434           |       |           | 181  |                 |                 |     |                |                |                | 540  | 660            | 490            | 170            |      |                |          | 1076    | 1000    |         |  |      |  |  |
|         | 160L  | 18.50 |                |       |           | 220  |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1138    |         |  |      |  |  |
|         | 180M  | 22.00 |                |       |           | 235  |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         |         |         |  |      |  |  |
| 80-200  | 160M  | 15.00 | S605           | B95   | 60        | 226  |                 |                 |     |                |                |                | 730  | 740            | 670            | 190            | 75   | 280            | 530      | 1186    | 1120    | M24x400 |  |      |  |  |
|         | 160L  | 18.50 |                | 244   |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1248    |         |  |      |  |  |
|         | 180M  | 22.00 |                | 259   |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1310    |         |  |      |  |  |
|         | 200L  | 30.00 |                | 314   |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1368    |         |  |      |  |  |
|         | 200L  | 37.00 |                | 338   |           |      |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1368    |         |  |      |  |  |
| 80-250  | 180M  | 22.00 | S486           | B110  | 75        | 293  | 610             | 840             | 550 |                |                |                | 205  | 90             | 300            | 580            | 1310 | 1250           | M24x400  |         |         |         |  |      |  |  |
|         | 200L  | 30.00 |                |       |           | 348  |                 |                 |     |                |                |                |      |                |                |                |      | 1368           |          |         |         |         |  |      |  |  |
|         | 200L  | 37.00 |                | B125  |           | 372  |                 |                 |     |                |                |                |      |                |                |                |      | 1368           |          |         |         |         |  |      |  |  |
|         | 225M  | 45.00 | S607           | 402   |           | 730  | 940             | 670             | 230 |                |                |                | 325  |                |                |                | 605  | 1398           |          | 1400    |         |         |  |      |  |  |
|         | 250M  | 55.00 |                | B140  |           | 651  |                 |                 |     |                |                |                |      |                |                |                |      | 350            |          | 630     | 1528    |         |  |      |  |  |
| 100-160 | 160L  | 18.50 | S435           | B95   | 78        | 263  | 100             | 125             | 140 | 540            | 740            | 490            | 200  | 90             | 280            | 580            | 1248 | 1140           | M20x400  |         |         |         |  |      |  |  |
|         | 180M  | 22.00 |                | B110  |           | 278  |                 |                 |     |                |                |                |      |                |                |                |      | 1310           |          |         |         |         |  |      |  |  |
|         | 200L  | 30.00 | S486           | B125  |           | 341  |                 |                 |     | 610            | 840            | 550            | 205  |                |                |                | 1368 | 1250           |          |         |         |         |  |      |  |  |
|         | 200L  | 37.00 |                | 365   |           |      |                 |                 |     |                |                |                |      |                |                |                | 1368 |                |          |         |         |         |  |      |  |  |
| 100-200 | 160L  | 18.50 | S435           | B95   | 70        | 254  |                 |                 |     | 540            | 740            | 490            | 200  |                | 90             | 280            | 560  | 1248           | 1140     | M20x400 |         |         |  |      |  |  |
|         | 180M  | 22.00 |                | B110  |           | 269  |                 |                 |     |                |                |                |      |                |                |                |      |                | 1310     |         |         |         |  |      |  |  |
|         | 200L  | 30.00 | S486           | B125  |           | 332  |                 |                 |     | 610            | 840            | 550            | 205  |                |                |                |      | 1368           | 1250     |         |         |         |  |      |  |  |
|         | 200L  | 37.00 |                |       |           | 357  |                 |                 |     |                |                |                |      |                |                |                |      |                | 1368     |         |         |         |  |      |  |  |
|         | 225M  | 45.00 | S607           |       |           | 397  |                 |                 |     | 730            | 940            | 670            | 230  |                |                |                |      | 1398           | 1400     |         |         |         |  |      |  |  |
| 100-250 | 200L  | 30.00 | S486           | B125  | 85        | 358  |                 |                 |     | 610            | 840            | 550            | 205  |                | 90             | 325            | 605  | 1383           | 1250     | M24x400 |         |         |  |      |  |  |
|         | 200L  | 37.00 |                |       |           |      |                 |                 |     | 382            |                |                |      |                |                |                |      |                |          |         | 1383    |         |  |      |  |  |
|         | 225M  | 45.00 | S607           |       |           | 413  |                 |                 |     | 730            | 940            | 670            | 230  |                |                |                |      |                |          |         | 1413    | 1400    |  |      |  |  |
|         | 250M  | 55.00 |                | B140  |           | 661  |                 |                 |     |                |                |                |      |                |                |                |      | 350            | 630      |         | 1543    |         |  |      |  |  |
|         | 280S  | 75.00 | S609A          | B160  |           | 827  |                 |                 |     | 744            | 1200           | 696            | 300  |                |                |                |      | 380            | 660      |         | 1643    | 1800    |  |      |  |  |
|         | 280M  | 90.00 |                |       |           | 869  |                 |                 |     |                |                |                |      |                |                |                |      |                |          |         | 1643    |         |  |      |  |  |
| 125-200 | 250M  | 55.00 | S607           | B140  | 100       | 677  | 125             | 150             | 140 | 730            | 940            | 670            | 230  | 90             | 350            | 665            | 1543 | 1400           | M24x400  |         |         |         |  |      |  |  |
|         | 280S  | 75.00 | S609A          | B160  |           | 842  |                 |                 |     | 744            | 1200           | 696            | 300  |                | 380            | 695            | 1643 | 1800           |          |         |         |         |  |      |  |  |
|         | 280M  | 90.00 |                |       |           | 884  |                 |                 |     |                |                |                |      |                |                |                | 1643 |                |          |         |         |         |  |      |  |  |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken from the SIEMENS catalogue.

# Foundation plan for units with spacer type coupling, bearing brackets 25, 35 and 45



Dimensions in mm

Tolerances for welded parts acc. to DIN 8570B

n = 1450 rpm

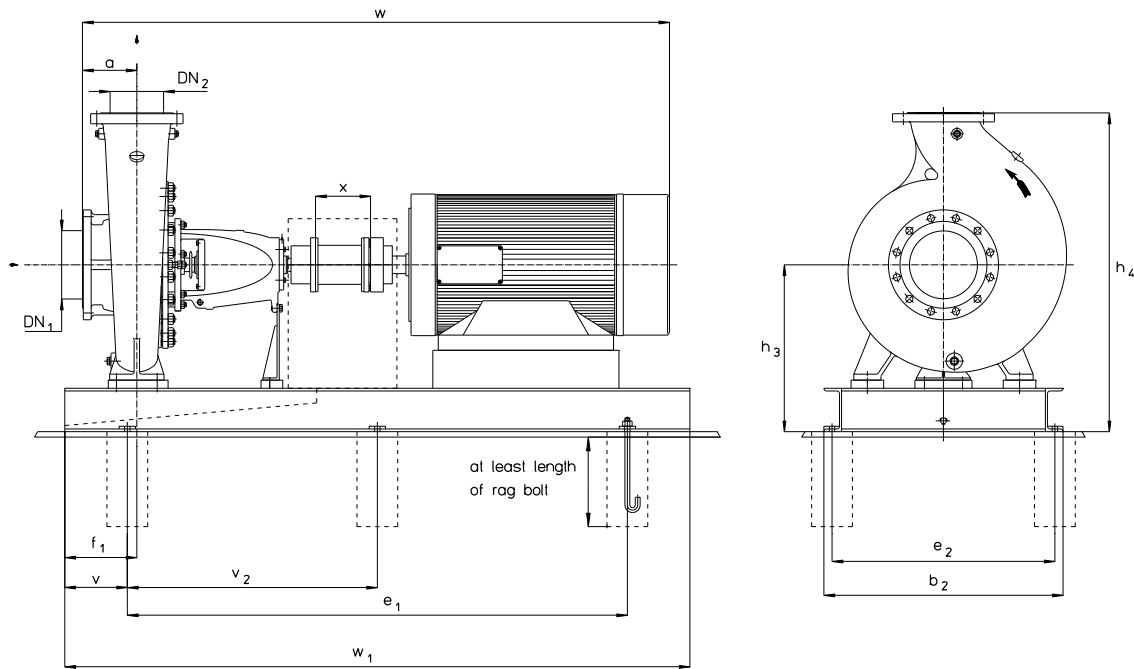
| Size   | Motor |      | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v    | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x       | w*  | w <sub>1</sub> | Rag bolt |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|-------|------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|------|----------------|----------------|----------------|---------|-----|----------------|----------|-----|-----|---------|-----|-----|---------|-----|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|        | size  | kW   |                |       | pump      | unit |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32-125 | 71    | 0.37 | S272           | H80   | 31        | 69   | 32              | 50              | 80  | 360            | 540            | 320            | 140  | 60             | 177            | 317            | 100     | 823 | 820            | M16x200  |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32-160 | 71    | 0.37 |                |       | 33        | 71   |                 |                 |     |                |                |                |      |                | 197            | 357            |         | 823 |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.55 |                |       |           | 73   |                 |                 |     |                |                |                |      |                | 225            | 405            |         | 857 |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32-200 | 80    | 0.55 |                |       | 34        | 74   |                 |                 |     |                |                |                |      |                | 210            | 390            |         | 857 |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.75 | 76             |       |           | 915  | M12x100         |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32-250 | 90S   | 1.10 | S015           |       | 46        | 79   |                 | 100             | 490 | 600            | 440            | 160            | 75   | 260            | 485            | 920            | 935     | 976 | M20x400        |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.75 |                |       |           | 105  |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 90S   | 1.10 |                |       |           | 108  |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 90L   | 1.50 |                | 112   |           |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40-125 | 71    | 0.37 | S272           | H80   | 28        | 66   | 40              | 65              | 80  | 360            | 540            | 320            | 140  | 60             | 177            | 317            | 100     | 823 | 820            | M20x200  |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.55 |                |       | 68        | 197  |                 |                 |     |                |                |                |      |                | 357            | 823            |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40-160 | 71    | 0.37 |                |       | 30        | 68   |                 |                 |     |                |                |                |      |                | 361            | 600            |         | 325 |                |          | 160 | 182 | 342     | 915 | 920 | M12x100 |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.55 |                |       |           | 70   |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         | 857 | M20x200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40-200 | 80    | 0.75 | S015           |       | 36        | 72   | 450             | 540             | 400 | 140            | 240            | 420            | 877  | 820            | M20x200        |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 80    | 0.75 |                |       |           | 75   |                 |                 |     |                |                |                |      |                |                | 877            | M16x200 |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 90S   | 1.10 |                |       |           | 85   |                 |                 |     |                |                |                |      |                |                | 390            |         | 350 | 225            | 405      | 935 | 920 | M20x400 |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 90L   | 1.50 |                |       |           | 86   |                 |                 |     |                |                |                |      |                |                | 490            | 600     | 440 | 160            | 260      | 485 |     |         | 935 |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90S    | 1.10  | 89   | 108            | 976   | M24x400   |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40-250 | 90L   | 1.50 | S383           | 46    |           | 112  | 125             | 730             | 740 | 670            | 190            | 325            | 575  | 1111           | 1120           | M24x400        |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 100L  | 2.20 |                |       | 120       |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 100L  | 3.00 |                |       | 123       |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 100L  | 2.20 |                |       | 163       |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40-315 | 100L  | 3.00 | S605           | 73    | 165       | 100  | 730             | 740             | 670 | 190            | 325            | 575            | 1111 | 1120           | M24x400        |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 112M  | 4.00 |                |       | 170       |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        | 132S  | 5.50 |                |       | 186       |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|        |       |      |                |       |           |      |                 |                 |     |                |                |                |      |                |                |                |         |     |                |          |     |     |         |     |     |         |     |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Size    | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x   | w*   | w <sub>1</sub> | Rag bolt |      |      |
|---------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|-----|------|----------------|----------|------|------|
|         | size  | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
| 65-200  | 90S   | 1.10  | S383           | H80   | 45        | 107  | 65              | 80              | 100 | 490            | 600            | 440            | 160 | 75             | 260            | 485            | 140 | 935  | 920            | M20x400  |      |      |
|         | 90L   | 1.50  |                |       |           | 111  |                 |                 |     |                |                |                |     |                |                |                |     | 935  |                |          |      |      |
|         | 100L  | 2.20  |                |       |           | 119  |                 |                 |     |                |                |                |     |                |                |                |     | 976  |                |          |      |      |
|         | 100L  | 3.00  |                |       |           | 121  |                 |                 |     |                |                |                |     |                |                |                |     | 976  |                |          |      |      |
|         | 112M  | 4.00  |                |       |           | 127  |                 |                 |     |                |                |                |     |                |                |                |     | 997  |                |          |      |      |
| 65-250  | 100L  | 2.20  | S605           | H80   | 70        | 159  | 65              | 80              | 100 | 730            | 740            | 670            | 190 | 90             | 300            | 550            | 140 | 1086 | 1120           | M24x400  |      |      |
|         | 100L  | 3.00  |                |       |           | 161  |                 |                 |     |                |                |                |     |                |                |                |     | 1086 |                |          |      |      |
|         | 112M  | 4.00  |                |       |           | 167  |                 |                 |     |                |                |                |     |                |                |                |     | 1007 |                |          |      |      |
|         | 132S  | 5.50  |                |       |           | 196  |                 |                 |     |                |                |                |     |                |                |                |     | 1183 |                |          |      |      |
| 65-315  | 132S  | 5.50  | S435           | H95   | 92        | 237  | 65              | 80              | 125 | 610            | 840            | 550            | 205 | 90             | 325            | 605            | 140 | 1208 | 1250           | M24x400  |      |      |
|         | 132M  | 7.50  |                |       |           | 249  |                 |                 |     |                |                |                |     |                |                |                |     | 1234 |                |          |      |      |
|         | 160M  | 11.00 | S486           | H95   |           | 270  |                 |                 |     |                |                |                |     |                |                |                |     | 1326 |                |          |      |      |
|         | 160L  | 15.00 |                |       |           | S607 |                 |                 |     |                |                |                |     |                |                |                |     | H110 |                |          | 290  | 1388 |
|         |       |       |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
| 80-160  | 80    | 0.75  | S383           | H80   | 43        | 102  | 80              | 100             | 125 | 490            | 600            | 440            | 160 | 75             | 260            | 485            | 140 | 902  | 920            | M20x400  |      |      |
|         | 90S   | 1.10  |                |       |           | 105  |                 |                 |     |                |                |                |     |                |                |                |     | 960  |                |          |      |      |
|         | 90L   | 1.50  |                |       |           | 108  |                 |                 |     |                |                |                |     |                |                |                |     | 960  |                |          |      |      |
|         | 100L  | 2.20  |                |       |           | 117  |                 |                 |     |                |                |                |     |                |                |                |     | 1001 |                |          |      |      |
|         | 100L  | 3.00  |                |       |           | 119  |                 |                 |     |                |                |                |     |                |                |                |     | 1001 |                |          |      |      |
| 80-200  | 90L   | 1.50  | S434           | H80   | 60        | 126  | 80              | 100             | 125 | 540            | 660            | 490            | 170 | 75             | 280            | 530            | 140 | 1070 | 1000           | M24x400  |      |      |
|         | 100L  | 2.20  | 149            |       |           | 1111 |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
|         | 100L  | 3.00  | 151            |       |           | 1132 |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
|         | 112M  | 4.00  | 156            |       |           | 1208 |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
|         | 132S  | 5.50  | 172            |       |           | 1208 |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
| 80-250  | 100L  | 3.00  | S605           | H80   | 75        | 198  | 80              | 100             | 125 | 730            | 740            | 670            | 190 | 90             | 300            | 580            | 140 | 1111 | 1250           | M24x400  |      |      |
|         | 112M  | 4.00  |                |       |           | 203  |                 |                 |     |                |                |                |     |                |                |                |     | 1132 |                |          |      |      |
|         | 132S  | 5.50  |                |       |           | 219  |                 |                 |     |                |                |                |     |                |                |                |     | 1208 |                |          |      |      |
|         | 132M  | 7.50  |                |       |           | 231  |                 |                 |     |                |                |                |     |                |                |                |     | 1234 |                |          |      |      |
|         | 132M  | 7.50  |                |       |           | 231  |                 |                 |     |                |                |                |     |                |                |                |     | 1234 |                |          |      |      |
| 80-315  | 132S  | 5.50  | S486           | H95   | 95        | 240  | 80              | 100             | 125 | 610            | 840            | 550            | 205 | 90             | 350            | 665            | 140 | 1208 | 1250           | M24x400  |      |      |
|         | 132M  | 7.50  |                |       |           | 252  |                 |                 |     |                |                |                |     |                |                |                |     | 1234 |                |          |      |      |
|         | 160M  | 11.00 |                |       |           | 273  |                 |                 |     |                |                |                |     |                |                |                |     | 1326 |                |          |      |      |
|         | 160L  | 15.00 |                |       |           | 293  |                 |                 |     |                |                |                |     |                |                |                |     | 1388 |                |          |      |      |
|         | 160M  | 11.00 |                |       |           | S486 |                 |                 |     |                |                |                |     |                |                |                |     | H95  |                |          | 324  | 1383 |
| 80-400  | 160L  | 15.00 | S607           | H95   | 143       | 381  | 80              | 125             | 140 | 730            | 940            | 670            | 230 | 90             | 380            | 735            | 140 | 1507 | 1400           | M24x400  |      |      |
|         | 180M  | 18.50 |                |       |           | 403  |                 |                 |     |                |                |                |     |                |                |                |     | 1507 |                |          |      |      |
|         | 180L  | 22.00 |                |       |           | 418  |                 |                 |     |                |                |                |     |                |                |                |     | 1507 |                |          |      |      |
|         | 200L  | 30.00 |                |       |           | 467  |                 |                 |     |                |                |                |     |                |                |                |     | 1565 |                |          |      |      |
|         | 200L  | 30.00 |                |       |           | H125 |                 |                 |     |                |                |                |     |                |                |                |     | 467  |                |          | 1565 |      |
| 100-160 | 100L  | 2.20  | S605           | H80   | 78        | 168  | 100             | 125             | 140 | 730            |                | 670            | 190 | 90             | 300            | 580            | 140 | 1111 | 1120           | M24x400  |      |      |
|         | 100L  | 3.00  |                |       |           | 170  |                 |                 |     |                |                |                |     |                |                |                |     | 1111 |                |          |      |      |
|         | 112M  | 4.00  |                |       |           | 175  |                 |                 |     |                |                |                |     |                |                |                |     | 1132 |                |          |      |      |
|         | 132S  | 5.50  |                |       |           | 204  |                 |                 |     |                |                |                |     |                |                |                |     | 1208 |                |          |      |      |
| 100-200 | 100L  | 2.20  | S605           | H80   | 70        | 159  | 100             | 125             | 140 | 540            | 740            | 670            | 190 | 90             | 280            | 560            | 140 | 1111 | 1120           | M24x400  |      |      |
|         | 100L  | 3.00  |                |       |           | 161  |                 |                 |     |                |                |                |     |                |                |                |     | 1111 |                |          |      |      |
|         | 112M  | 4.00  |                |       |           | 167  |                 |                 |     |                |                |                |     |                |                |                |     | 1132 |                |          |      |      |
|         | 132S  | 5.50  |                |       |           | 196  |                 |                 |     |                |                |                |     |                |                |                |     | 1208 |                |          |      |      |
|         | 132M  | 7.50  |                |       |           | 207  |                 |                 |     |                |                |                |     |                |                |                |     | 1234 |                |          |      |      |
| 100-250 | 112M  | 4.00  | S605           | H80   | 85        | 214  | 100             | 125             | 140 | 730            | 740            | 670            | 190 | 90             | 300            | 580            | 140 | 1234 | 1250           | M24x400  |      |      |
|         | 132S  | 5.50  |                |       |           | 230  |                 |                 |     |                |                |                |     |                |                |                |     | 1147 |                |          |      |      |
|         | 132M  | 7.50  |                |       |           | 241  |                 |                 |     |                |                |                |     |                |                |                |     | 1223 |                |          |      |      |
|         | 160M  | 11.00 |                |       |           | 262  |                 |                 |     |                |                |                |     |                |                |                |     | 1249 |                |          |      |      |
| 100-315 | 160M  | 11.00 | S486           | H95   | 104       | 282  | 100             | 125             | 140 | 610            | 840            | 550            | 205 | 90             | 325            | 605            | 140 | 1341 | 1250           | M24x400  |      |      |
|         | 160L  | 15.00 |                |       |           | 302  |                 |                 |     |                |                |                |     |                |                |                |     | 1341 |                |          |      |      |
|         | 180M  | 18.50 |                |       |           | 322  |                 |                 |     |                |                |                |     |                |                |                |     | 1403 |                |          |      |      |
|         | 180L  | 22.00 |                |       |           | 339  |                 |                 |     |                |                |                |     |                |                |                |     | 1465 |                |          |      |      |
| 100-400 | 160L  | 15.00 | S607           | H95   | 177       | 417  | 100             | 125             | 140 | 730            | 940            | 670            | 230 | 110            | 380            | 735            | 140 | 1398 | 1400           | M24x400  |      |      |
|         | 180M  | 18.50 |                |       |           | 439  |                 |                 |     |                |                |                |     |                |                |                |     | 1522 |                |          |      |      |
|         | 180L  | 22.00 |                |       |           | 454  |                 |                 |     |                |                |                |     |                |                |                |     | 1522 |                |          |      |      |
|         | 200L  | 30.00 |                |       |           | 502  |                 |                 |     |                |                |                |     |                |                |                |     | 1580 |                |          |      |      |
|         | 225S  | 37.00 |                |       |           | 553  |                 |                 |     |                |                |                |     |                |                |                |     | 1617 |                |          |      |      |
| 225M    | 45.00 | S608  | H140           | 574   | 1617      |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |      |      |
| 125-200 | 132M  | 7.50  | S486           | H95   | 100       | 257  | 125             | 150             | 140 | 610            | 840            | 550            | 205 | 90             | 350            | 665            | 140 | 1249 | 1250           | M24x400  |      |      |
|         | 160M  | 11.00 |                |       |           | 278  |                 |                 |     |                |                |                |     |                |                |                |     | 1341 |                |          |      |      |
|         | 160L  | 15.00 |                |       |           | 298  |                 |                 |     |                |                |                |     |                |                |                |     | 1403 |                |          |      |      |
| 125-250 | 132M  | 7.50  | S486           | H95   | 102       | 259  | 125             | 150             | 140 | 610            | 840            | 550            | 205 | 90             | 350            | 665            | 140 | 1249 | 1250           | M24x400  |      |      |
|         | 160M  | 11.00 |                |       |           | 280  |                 |                 |     |                |                |                |     |                |                |                |     | 1341 |                |          |      |      |
|         | 160L  | 15.00 |                |       |           | 300  |                 |                 |     |                |                |                |     |                |                |                |     | 1403 |                |          |      |      |
| 125-315 | 160L  | 15.00 | S607           | H95   | 151       | 390  | 125             | 150             | 140 | 730            | 940            | 670            | 230 | 110            | 380            | 735            | 140 | 1398 | 1400           | M24x400  |      |      |
|         | 180M  | 18.50 |                |       |           | 412  |                 |                 |     |                |                |                |     |                |                |                |     | 1522 |                |          |      |      |
|         | 180L  | 22.00 |                |       |           | 426  |                 |                 |     |                |                |                |     |                |                |                |     | 1522 |                |          |      |      |
|         | 200L  | 30.00 |                |       |           | 475  |                 |                 |     |                |                |                |     |                |                |                |     | 1580 |                |          |      |      |
|         | 225S  | 37.00 |                |       |           | 526  |                 |                 |     |                |                |                |     |                |                |                |     | 1617 |                |          |      |      |
| 125-400 | 200L  | 30.00 | S607           | H125  | 188       | 514  | 125             | 150             | 140 | 730            | 940            | 670            | 230 | 110            | 380            | 735            | 140 | 1580 | 1400           | M24x400  |      |      |
|         | 225S  | 37.00 |                |       |           | 564  |                 |                 |     |                |                |                |     |                |                |                |     | 1617 |                |          |      |      |
|         | 225M  | 45.00 |                |       |           | 585  |                 |                 |     |                |                |                |     |                |                |                |     | 1617 |                |          |      |      |
|         | 250M  | 55.00 |                |       |           | 817  |                 |                 |     |                |                |                |     |                |                |                |     | 1740 |                |          |      |      |
|         | 280S  | 75.00 |                |       |           | H160 |                 |                 |     |                |                |                |     |                |                |                |     | 1054 | 1815           |          |      |      |
| 150-200 | 132M  | 7.50  | S606           | H95   | 123       | 296  | 150             | 200             | 160 | 730            | 840            | 670            | 205 | 110            | 380            | 780            | 140 | 1269 | 1250           | M24x400  |      |      |
|         | 160M  | 11.00 |                |       |           | 329  |                 |                 |     |                |                |                |     |                |                |                |     | 1361 |                |          |      |      |
|         | 160L  | 15.00 |                |       |           | 348  |                 |                 |     |                |                |                |     |                |                |                |     | 1423 |                |          |      |      |
|         | 180M  | 18.50 |                |       |           | 368  |                 |                 |     |                |                |                |     |                |                |                |     | 1485 |                |          |      |      |

| Size    | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x    | w*   | w <sub>1</sub> | Rag bolt |      |
|---------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|------|------|----------------|----------|------|
|         | size  | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |      |      |                |          |      |
| 150-250 | 160L  | 15.00 | S607           | H110  | 128       | 150  | 200             | 160             | 730 | 940            | 670            | 230            | 110 | 380            | 780            | 140            | 1423 | 1400 | M24x400        |          |      |
|         | 180M  | 18.50 |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                | 374  |      |                | 1485     |      |
|         | 180L  | 22.00 |                | H125  |           |      |                 |                 |     |                |                |                |     |                |                |                | 391  |      |                | 1485     |      |
|         | 200L  | 30.00 |                | H140  |           |      |                 |                 |     |                |                |                |     |                |                |                | 454  |      |                | 1543     |      |
| 150-315 | 180L  | 22.00 | S608           | H110  | 170       |      |                 |                 |     | 446            | 1060           | 670            | 270 | 110            | 380            |                | 780  | 140  |                | 1542     | 1600 |
|         | 200L  | 30.00 |                | H125  |           |      |                 |                 |     | 495            |                |                |     |                |                |                |      |      |                | 1600     |      |
|         | 225S  | 37.00 |                | H140  |           |      |                 |                 |     | 546            |                |                |     |                |                |                |      |      |                | 1637     |      |
|         | 225M  | 45.00 |                |       |           |      |                 |                 |     | 567            |                |                |     |                |                |                |      |      |                | 1637     |      |
|         | 250M  | 55.00 |                | H160  |           |      |                 |                 |     | 798            |                |                |     |                |                |                |      |      |                | 1760     |      |
|         | 225M  | 45.00 |                | H140  | 603       |      |                 |                 |     | 1637           |                |                |     |                |                |                |      |      |                | 415      | 865  |
| 250M    | 55.00 | H160  |                | 835   | 1760      |      |                 |                 |     |                |                |                |     |                |                |                |      |      |                |          |      |
| 150-400 | 160L  | 15.00 |                | H110  | 230       |      |                 |                 |     | 200            | 200            | 670            | 185 | 380            | 780            | 180            | 1518 |      |                | 1600     |      |
|         | 180M  | 18.50 |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                | 512  |      |                |          | 1642 |
| 180L    | 22.00 | 527   |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                | 1642 |      |                |          |      |
| 200L    | 30.00 | H125  |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                | 576  |      |                |          | 1700 |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken from the SIEMENS catalogue.

## Foundation plan for units with spacer type coupling, bearing brackets 55 and 65



Dimensions in mm

Tolerances for welded parts acc. to DIN 8570 B

n = 1450 rpm

| Size                  | Motor |      | Base plate dimension | Cplg. | Weight kg |           | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | v    | e <sub>1</sub> | e <sub>2</sub> | v <sub>2</sub> | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x    | w*       | w <sub>1</sub> | Rag bolt |         |      |      |
|-----------------------|-------|------|----------------------|-------|-----------|-----------|-----------------|-----------------|-----|----------------|------|----------------|----------------|----------------|----------------|----------------|----------------|------|----------|----------------|----------|---------|------|------|
|                       | size  | kW   |                      |       | pump      | unit      |                 |                 |     |                |      |                |                |                |                |                |                |      |          |                |          |         |      |      |
| 150400 <sup>(1)</sup> | 280S  | 75.0 | 194x73x14            | H180  | 205       | 1072      | 150             | 200             | 160 | 730            | 190  | 1560           | 680            | 780            | 200            | 485            | 935            | 140  | 1835     | 1940           | M16x200  |         |      |      |
|                       | 280M  | 90.0 |                      | 1125  |           | 1835      |                 |                 |     |                |      |                |                |                |                |                |                |      |          |                |          |         |      |      |
| 150-500               | 250M  | 55.0 | 208x82x14            | H160  | 335       | 961       | 150             | 200             | 180 | 820            | 210  | 1660           | 770            | 830            | 240            | 570            | 1070           | 180  | 1960     | 2080           | M16x200  |         |      |      |
|                       | 280S  | 75.0 | 215x82x14            | H180  |           | 1143      |                 |                 |     |                | 210  | 1730           |                | 865            |                |                |                |      | 2035     | 2150           |          |         |      |      |
|                       | 280M  | 90.0 |                      |       |           | 1193      |                 |                 |     |                | 210  | 920            |                | 245            |                |                |                |      | 590      | 1090           | 2035     | M18x200 |      |      |
|                       | 315S  | 110  |                      |       |           | 230x83x16 |                 |                 |     |                | H200 |                |                |                |                |                |                |      |          |                | 1406     |         | 230  | 1840 |
|                       | 315M  | 132  | 1486                 | 230   |           |           |                 |                 |     |                |      |                |                |                |                |                |                |      |          |                | 2170     |         | 2300 |      |
| 200-315               | 200L  | 30.0 | 194x73x14            | H125  | 310       | 715       | 200             | 250             | 200 | 730            | 190  | 1560           | 680            | 780            | 525            | 975            | 180            | 1820 | 1940     | M16x200        |          |         |      |      |
|                       | 225S  | 37.0 | 198x73x14            | H140  |           | 780       |                 |                 |     |                | 190  | 1600           |                | 800            |                |                |                | 1857 | 1980     |                |          |         |      |      |
|                       | 225M  | 45.0 |                      |       |           | 810       |                 |                 |     |                | 190  |                |                | 840            |                |                |                | 2055 | 2170     |                |          |         |      |      |
|                       | 250M  | 55.0 |                      |       |           | 210x73x14 |                 |                 |     |                | H160 | 921            |                | 210            |                |                |                | 1680 | 875      |                | 1980     | 2100    |      |      |
|                       | 280S  | 75.0 | 217x74x14            | H180  |           | 1102      |                 |                 |     |                | 740  | 210            |                | 1750           |                |                |                | 690  | 875      |                | 2035     | 2170    |      |      |
| 200-400               | 225M  | 45.0 | 198x73x14            | H140  | 340       | 840       | 200             | 250             | 180 | 730            | 190  | 1600           | 680            | 800            | 260            | 545            | 1045           | 180  | 1837     | 1980           | M18x200  |         |      |      |
|                       | 250M  | 55.0 | 210x73x14            | H160  |           | 951       |                 |                 |     |                | 210  | 1680           |                | 840            |                |                |                |      | 1960     | 2100           |          |         |      |      |
|                       | 280S  | 75.0 | 217x74x14            | H180  |           | 1132      |                 |                 |     |                | 740  | 210            |                | 1750           |                |                |                |      | 690      | 875            |          | 2035    | 2170 |      |
|                       | 280M  | 90.0 | 230x82x16            | H200  |           | 1182      |                 |                 |     |                | 820  | 210            |                | 1840           |                |                |                |      | 760      | 920            |          | 2035    | 2170 |      |
|                       | 315S  | 110  |                      |       |           | 1409      |                 |                 |     |                | 230  |                |                |                |                |                |                |      |          | 2170           |          | 2300    |      |      |
| 315M                  | 132   | 1489 | 230                  |       |           |           |                 |                 |     |                |      |                |                |                |                |                |                |      |          |                |          |         |      |      |
| 200-500               | 280S  | 75.0 | 217x84x14            | H180  | 395       | 1212      | 200             | 250             | 200 | 840            | 210  | 1750           | 790            | 875            | 265            | 615            | 1175           | 180  | 2055     | 2170           | M16 x200 |         |      |      |
|                       | 280M  | 90.0 | 1262                 | 210   |           |           |                 |                 |     |                |      | 2055           |                |                |                |                |                |      | M18 x200 |                |          |         |      |      |
|                       | 315S  | 110  | 1474                 | 250   |           |           |                 |                 |     |                | 980  | 2190           |                |                |                |                |                |      |          |                |          |         |      |      |
|                       | 315M  | 132  | 246x85x16            | H200  |           | 1554      |                 |                 |     |                | 250  | 1960           |                |                |                |                |                |      |          | 2190           | 2460     |         |      |      |
|                       | 315L  | 160  | 1709                 | 250   |           |           |                 |                 |     |                |      |                |                |                |                |                |                |      |          | 2330           |          |         |      |      |
| 315L                  | 200   | 1849 | 250                  |       |           |           |                 |                 |     |                |      |                |                |                |                |                |                |      |          |                |          |         |      |      |
| 250-300               | 225S  | 37   | 207x88x14            | H140  | 416       | 898       | 250             | 300             | 305 | 880            | 210  | 1650           | 830            | 825            | 365            | 595            | 1145           | 180  | 1947     | 2070           | M16x200  |         |      |      |
|                       | 225M  | 45   | 928                  | 210   |           |           |                 |                 |     |                | 885  | 1947           |                |                |                |                |                |      |          |                |          |         |      |      |
|                       | 250M  | 55   | 219x88x14            | H160  |           | 1044      |                 |                 |     |                | 210  | 1770           |                | 900            |                |                |                |      | 2070     | 2190           |          |         |      |      |
|                       | 280S  | 75   | 226x88x14            | H180  |           | 1225      |                 |                 |     |                | 230  | 1800           |                |                |                |                |                |      | 2145     | 2260           |          |         |      |      |
| 250-315               | 225M  | 45   | 203x80x14            | H140  | 424       | 936       | 250             | 300             | 250 | 800            | 210  | 1610           | 750            | 805            | 310            | 545            | 1105           | 180  | 1907     | 2030           | M16x200  |         |      |      |
|                       | 250M  | 55   | 215x80x14            | H160  |           | 1052      |                 |                 |     |                | 210  | 1730           |                | 865            |                |                |                |      | 2030     | 2150           |          |         |      |      |
|                       | 280S  | 75   | 222x80x14            | H180  |           | 1233      |                 |                 |     |                | 230  | 1760           |                | 880            |                |                |                |      | 2105     | 2220           |          |         |      |      |
|                       | 280M  | 90   |                      |       |           | 1283      |                 |                 |     |                | 230  |                |                |                |                |                |                |      | 2105     |                |          |         |      |      |
|                       | 315S  | 110  | 237x82x16            | H200  |           | 1496      |                 |                 |     |                | 820  | 230            |                | 1910           |                |                |                |      | 760      | 955            |          | 315     | 565  | 1125 |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.

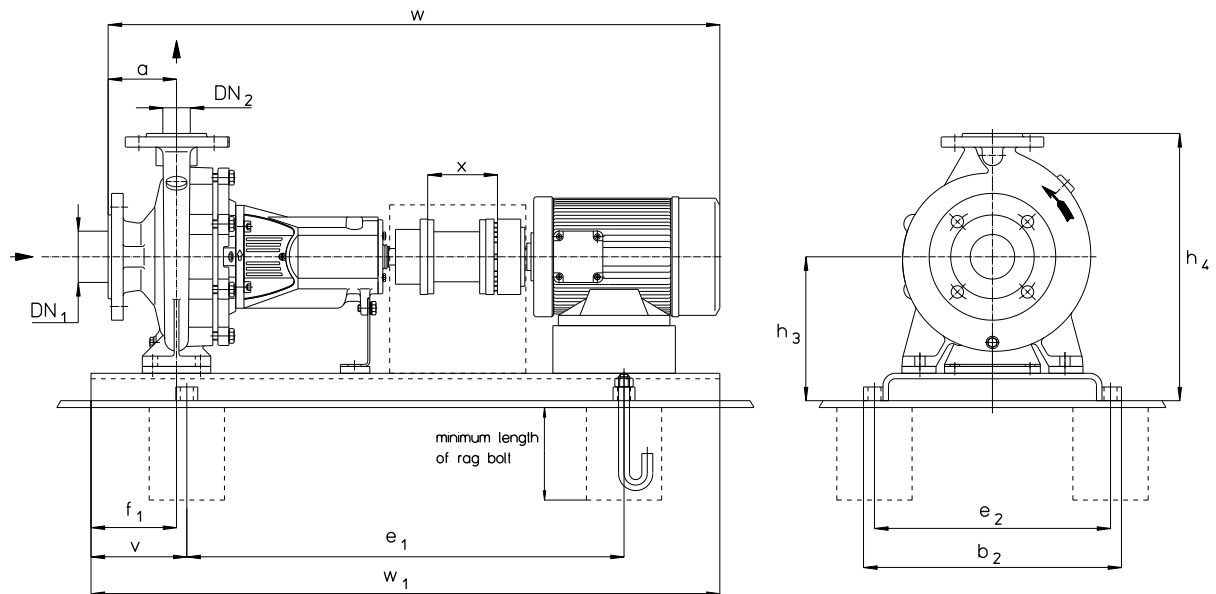
Dimensions listed are taken from the SIEMENS, WEG, LEROY SOMER and ABB catalogues.

(1) Size 150400: bearing bracket 45.

| Size    | Motor |     | Base plate dimension | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a    | b <sub>2</sub> | v    | e <sub>1</sub> | e <sub>2</sub> | v <sub>2</sub> | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x   | w*   | w <sub>1</sub> | Rag bolt |  |  |  |  |  |  |  |  |  |
|---------|-------|-----|----------------------|-------|-----------|------|-----------------|-----------------|------|----------------|------|----------------|----------------|----------------|----------------|----------------|----------------|-----|------|----------------|----------|--|--|--|--|--|--|--|--|--|
|         | size  | kW  |                      |       | pump      | unit |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
| 250-400 | 225M  | 45  | 208x88x14            | H140  | 464       | 991  | 250             | 300             | 250  | 880            | 210  | 1660           | 830            | 830            | 310            | 570            | 1170           | 180 | 1957 | 2080           | M16x200  |  |  |  |  |  |  |  |  |  |
|         | 250M  | 55  | 220x88x14            | H160  |           | 1103 |                 |                 |      |                | 230  | 1740           |                | 870            |                |                |                |     | 2080 | 2200           |          |  |  |  |  |  |  |  |  |  |
|         | 280S  | 75  | 227x88x14            | H180  |           | 1284 |                 |                 |      |                | 230  | 1810           |                | 905            |                |                |                |     | 2155 | 2270           |          |  |  |  |  |  |  |  |  |  |
|         | 280M  | 90  |                      |       |           | 1334 |                 |                 |      |                | 2155 |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315S  | 110 | 256x89x16            | H200  | 1552      | 250  |                 |                 |      | 2060           | 1030 | 590            | 1190           | 2290           | 2560           | M18x200        |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315M  | 132 |                      |       | 1632      | 250  |                 |                 |      |                |      |                |                | 2290           |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315L  | 160 |                      |       | 1787      | 250  |                 |                 |      |                |      |                |                | 2430           |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
| 250-500 | 315S  | 110 | 256x94x16            | H200  | 589       | 1703 | 940             | 250             | 2060 | 880            | 1030 | 315            | 640            | 1310           |                |                | 2290           |     | 2560 | M18x200        |          |  |  |  |  |  |  |  |  |  |
|         | 315M  | 132 |                      |       |           | 1780 |                 | 250             |      |                |      |                |                |                |                |                | 2290           |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315L  | 160 |                      |       |           | 1933 |                 | 250             |      |                |      |                |                |                |                |                | 2430           |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315L  | 200 |                      |       |           | 2068 |                 | 250             |      |                |      |                |                |                |                |                | 2430           |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315   | 250 |                      |       |           |      |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315   | 315 | **                   | **    | **        | **   | **              | **              | **   | **             | **   | **             | **             | **             | **             | **             | **             | **  |      |                |          |  |  |  |  |  |  |  |  |  |
| 300-400 | 280M  | 90  | 232x94x14            | H180  | 620       | 1515 | 300             | 350             | 300  | 940            | 230  | 1860           | 890            | 930            | 360            | 595            | 1265           | 180 | 2205 | 2320           | M16x200  |  |  |  |  |  |  |  |  |  |
|         | 315S  | 110 | 261X95X16            | H200  |           | 1733 |                 |                 |      | 950            | 270  | 2070           |                | 1035           | 365            | 615            | 1285           |     | 2340 | 2610           | M18x200  |  |  |  |  |  |  |  |  |  |
|         | 315M  | 132 |                      |       |           | 1810 |                 |                 |      |                | 270  |                |                |                |                |                |                |     | 2340 |                |          |  |  |  |  |  |  |  |  |  |
|         | 315L  | 160 |                      |       |           | 1968 |                 |                 |      |                | 270  |                |                |                |                |                |                |     | 2480 |                |          |  |  |  |  |  |  |  |  |  |
|         | 315L  | 200 |                      |       |           | 2103 |                 |                 |      |                | 270  |                |                |                |                |                |                |     | 2480 |                |          |  |  |  |  |  |  |  |  |  |
| 300-500 | 315L  | 200 | 261x103x16           | H200  | 800       | 2313 | 250             | 300             | 250  | 1030           | 270  |                | 970            |                |                | 670            | 1340           | 180 | 2480 |                |          |  |  |  |  |  |  |  |  |  |
|         | 315   | 250 | **                   | **    | **        | **   |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 315   | 315 |                      |       |           |      |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 355   | 355 |                      |       |           |      |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 355   | 400 |                      |       |           |      |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |
|         | 355   | 500 |                      |       |           |      |                 |                 |      |                |      |                |                |                |                |                |                |     |      |                |          |  |  |  |  |  |  |  |  |  |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken from the SIEMENS, WEG, LEROY SOMER and ABB catalogues.  
\*\* On request.

# Foundation plan for units with spacer type coupling, bearing brackets 25, 35 and 45



Dimensions in mm

Tolerances for welded parts acc. to DIN 8570 B

n = 2900 rpm

| Size   | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x   | w*      | w <sub>1</sub> | Rag bolt |      |         |      |     |         |      |         |         |         |         |
|--------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|-----|---------|----------------|----------|------|---------|------|-----|---------|------|---------|---------|---------|---------|
|        | size  | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 32-125 | 71    | 0.55  | S272           | H80   | 31        | 70   | 32              | 50              | 80  | 360            | 540            | 320            | 140 | 60             | 177            | 317            | 100 | 823     | 820            | M16x200  |      |         |      |     |         |      |         |         |         |         |
|        | 80    | 0.75  | 71             |       |           | 857  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 80    | 1.10  | 73             |       |           | 857  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 90S   | 1.50  | 76             |       |           | 915  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 90L   | 2.20  | 79             |       |           | 915  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 90S    | 1.50  | 78    | 915            |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 32-160 | 90L   | 2.20  | S385           |       | 33        | 81   |                 |                 |     |                |                |                |     |                | 490            | 740            |     | 440     |                |          | 200  | 60      | 212  | 372 | 100     | 915  | 1140    | M20x400 |         |         |
|        | 100L  | 3.00  |                |       |           | 89   |                 |                 |     |                |                |                |     |                |                |                |     |         | 956            |          |      |         |      |     |         |      |         |         |         |         |
|        | 112M  | 4.00  |                |       |           | 96   |                 |                 |     |                |                |                |     |                |                |                |     |         | 977            |          |      |         |      |     |         |      |         |         |         |         |
| 32-200 | 90L   | 2.20  |                |       | 34        | 82   |                 |                 |     |                |                |                |     |                |                |                |     |         | 240            | 420      |      |         | 915  |     |         |      |         |         |         |         |
|        | 100L  | 3.00  |                |       |           | 90   |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         | 956  |     |         |      |         |         |         |         |
|        | 112M  | 4.00  |                |       |           | 97   |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         | 977  |     |         |      |         |         |         |         |
|        | 132S  | 5.50  |                |       |           | 121  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         | 1053 |     |         |      |         |         |         |         |
|        | 132S  | 7.50  |                |       |           | 131  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         | 1053 |     |         |      |         |         |         |         |
| 32-250 | 132S  | 7.50  |                | H95   | 46        | 152  | 100             | 75              | 260 | 485            | 1073           |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 160M  | 11.0  |                |       |           | 164  |                 |                 |     |                | 1191           |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 160M  | 15.0  |                |       |           | 177  |                 |                 |     |                | 1191           |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 40-125 | 80    | 1.10  |                | S385  | H80       | 28   | 70              | 40              | 65  | 80             | 730            | 740            | 670 | 190            |                |                | 60  |         | 192            | 332      |      |         | 100  | 857 |         | 1140 | M20x400 |         |         |         |
|        | 90S   | 1.50  |                | 73    |           |      | 915             |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 90L   | 2.20  |                | 76    |           |      | 915             |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 100L  | 3.00  | 84             | 192   |           |      | 332             |                 |     |                |                |                |     |                | 956            | 1140           |     | M20x400 |                |          |      |         |      |     |         |      |         |         |         |         |
| 40-160 | 90S   | 1.50  | S385           | 30    |           | 75   | 100             |                 |     | 212            |                |                |     |                | 372            |                |     |         | 915            |          |      |         |      |     |         |      |         |         |         |         |
|        | 90L   | 2.20  | 78             |       |           | 915  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 100L  | 3.00  | 86             |       |           | 956  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 112M  | 4.00  | 93             |       |           | 977  |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 40-200 | 132S  | 5.50  | S605           | H95   |           | 36   |                 |                 |     | 116            |                |                |     |                | 40             | 65             |     | 100     | 730            | 740      | 670  | 190     |      | 60  | 232     | 392  | 100     | 1053    | 1120    | M24x400 |
|        | 100L  | 3.00  |                |       |           |      |                 |                 |     | 101            |                |                |     |                |                |                |     |         |                |          |      |         |      |     | 976     |      |         |         |         |         |
|        | 112M  | 4.00  |                | 106   |           |      |                 |                 |     | 997            |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 132S  | 5.50  |                | 123   |           |      |                 |                 |     | 1073           |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 132S  | 7.50  |                | 133   |           |      |                 |                 |     | 1073           |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 40-250 | 160M  | 11.00 |                | H95   |           | 46   |                 |                 |     | 164            |                |                |     |                |                |                |     | 75      |                |          |      |         |      | 280 | 505     | 1191 |         |         |         |         |
|        | 132S  | 7.50  |                |       | 152       |      |                 | 1073            |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 160M  | 11.00 |                |       | 193       |      |                 | 1191            |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 160M  | 15.00 |                |       | 207       |      |                 | 1191            |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 160L  | 18.50 |                |       | 225       |      |                 | 1253            |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
| 50-125 | 90S   | 1.50  |                | S015  | H80       | 30   | 75              | 50              | 65  | 100            | 361            | 600            | 325 | 160            |                |                | 60  | 182     |                |          |      |         | 342  | 100 | 935     | 920  |         | M12x100 |         |         |
|        | 90L   | 2.20  |                | 78    |           |      | 935             |                 |     |                |                |                |     |                |                |                |     |         |                |          |      |         |      |     |         |      |         |         |         |         |
|        | 132S  | 5.50  |                | S434  |           |      | 116             |                 |     |                | 212            |                |     |                |                |                |     | 372     |                |          |      |         | 1073 |     | 1000    |      |         |         | M20x400 |         |
| 50-160 | 90L   | 2.20  |                | S303  | H80       | 36   | 93              |                 |     |                | 390            | 600            | 350 | 160            |                |                |     | 225     |                |          |      |         | 405  |     |         | 100  |         | 935     |         | 920     |
|        | 100L  | 3.00  | S385           | 101   |           |      | 490             |                 |     |                | 740            |                |     |                | 440            | 200            |     | 240     | 420            | 976      | 1140 | M20x400 |      |     |         |      |         |         |         |         |
|        | 112M  | 4.00  | S303           | 108   |           |      | 390             |                 |     |                |                |                |     |                |                |                |     | 600     |                | 350      |      |         |      |     | 160     |      | 225     | 405     | 997     |         |
|        | 132S  | 5.50  | S434           | 123   |           |      | 540             |                 |     |                | 660            |                |     |                | 490            | 170            |     | 240     | 420            | 1073     | 1000 | M20x400 |      |     |         |      |         |         |         |         |
|        | 132S  | 7.50  | H95            | 133   |           |      | 730             |                 |     |                | 740            |                |     |                | 670            | 190            |     | 60      | 260            | 440      | 1073 |         |      |     |         |      |         |         |         |         |
|        | 160M  | 11.00 |                | 164   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          | 1191 | 1120    |      |     | M24x400 |      |         |         |         |         |
|        | 160L  | 18.50 |                | 225   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |         |                |          | 1253 |         |      |     |         |      |         |         |         |         |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken from the SIEMENS catalogue.

| Size    | Motor |       | Base plate No. | Cplg. | Weight kg |      | DN <sub>2</sub> | DN <sub>1</sub> | a   | b <sub>2</sub> | e <sub>1</sub> | e <sub>2</sub> | v   | f <sub>1</sub> | h <sub>3</sub> | h <sub>4</sub> | x   | w*   | w <sub>1</sub> | Rag bolt |          |     |      |      |          |      |         |
|---------|-------|-------|----------------|-------|-----------|------|-----------------|-----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----------------|-----|------|----------------|----------|----------|-----|------|------|----------|------|---------|
|         | size  | kW    |                |       | pump      | unit |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
| 50-200  | 100L  | 3.00  | S303           | H80   | 40        | 105  | 50              | 65              | 100 | 390            | 600            | 350            | 160 | 60             | 225            | 425            | 100 | 976  | 920            | M16 x200 |          |     |      |      |          |      |         |
|         | 112M  | 4.00  |                | 112   |           |      |                 |                 |     |                |                |                |     |                |                | 997            |     |      |                |          |          |     |      |      |          |      |         |
|         | 132S  | 5.50  | S434           | 127   |           | 540  |                 |                 |     | 660            | 490            | 170            | 240 |                | 440            | 1073           |     | 1000 | M20 x400       |          |          |     |      |      |          |      |         |
|         | 132S  | 7.50  |                | 137   |           |      |                 |                 |     |                |                |                |     |                | 1073           |                |     |      |                |          |          |     |      |      |          |      |         |
|         | 160M  | 11.00 |                | 168   |           |      |                 |                 |     |                |                |                | 260 |                | 460            | 1191           |     | 1120 | M24x400        |          |          |     |      |      |          |      |         |
|         | 160M  | 15.00 | S605           | 182   |           | 730  |                 |                 |     | 740            | 670            | 190            |     |                |                | 1191           |     |      |                |          |          |     |      |      |          |      |         |
| 50-250  | 160M  | 15.00 |                | H95   | 50        | 211  |                 |                 |     |                |                |                |     | 75             | 280            | 505            |     | 1191 |                |          |          |     |      |      |          |      |         |
|         | 160L  | 18.50 | S385           |       |           | 229  |                 |                 |     | 490            |                | 440            | 200 |                | 260            | 485            |     | 1253 | 1140           | M20x400  |          |     |      |      |          |      |         |
|         | 180M  | 22.00 | S486           |       |           | 250  |                 |                 |     | 610            | 840            | 550            | 205 |                | 280            | 505            |     | 1315 | 1250           | M24 x400 |          |     |      |      |          |      |         |
|         |       |       |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
|         | 200L  | 30.00 |                |       |           | H110 |                 |                 |     | 281            |                |                |     |                | 300            | 525            |     | 1373 |                |          |          |     |      |      |          |      |         |
|         |       |       | H125           |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
| 65-125  | 100L  | 3.00  | S383           | H80   | 33        | 108  |                 |                 |     | 490            | 600            | 440            | 160 | 60             | 240            | 660            | 100 | 976  | 920            |          |          |     |      |      |          |      |         |
|         | 112M  | 4.00  | S385           | 115   |           |      |                 |                 |     | 740            |                | 200            | 997 |                |                |                |     | 1140 |                |          |          |     |      |      |          |      |         |
|         | 132S  | 5.50  | S434           | 130   |           | 540  |                 |                 |     | 660            | 490            | 170            |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
|         | 132S  | 7.50  |                | 141   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     | 1073 | 1000 | M20x400  |      |         |
| 65-160  | 132S  | 5.50  |                | H95   | 39        | 136  | 65              | 80              | 100 | 730            | 740            | 670            | 190 |                | 260            | 460            |     | 1073 |                |          |          |     |      |      |          |      |         |
|         | 132S  | 7.50  | 147            |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     | 1073 |      |          |      |         |
|         | 160M  | 11.00 |                |       |           | 167  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      | 1191     |      |         |
|         | 160M  | 15.00 | S605           |       |           | 180  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     | 1191 | 1120 | M24 x400 |      |         |
| 65-200  | 160M  | 11.00 |                | H110  | 45        | 192  |                 |                 |     | 490            |                | 440            | 200 | 75             | 280            | 505            |     | 1191 |                |          |          |     |      |      |          |      |         |
|         | 160M  | 15.00 |                |       |           | 206  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      | 1191     |      |         |
|         | 160L  | 18.50 | S385           |       |           | 224  |                 |                 |     |                |                |                |     |                |                |                |     | 610  | 840            |          | 550      | 205 | 260  | 485  | 1253     | 1140 | M20x400 |
|         | 180M  | 22.00 | S486           |       |           | 240  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     | 280  | 505  | 1315     | 1250 |         |
|         | 200L  | 30.00 |                |       |           | H125 |                 |                 |     |                |                |                |     |                |                |                |     | 300  |                |          |          |     | 525  | 1373 |          |      |         |
|         |       |       |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
| 65-250  | 160L  | 18.50 |                | H95   | 70        | 264  |                 |                 |     | 730            | 940            | 670            | 230 | 90             | 300            | 550            | 140 | 1363 |                | M24x400  |          |     |      |      |          |      |         |
|         | 180M  | 22.00 | S607           | H110  |           | 280  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1425 | 1400     |      |         |
|         | 200L  | 30.00 |                | H125  |           | 389  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1483 |          |      |         |
|         | 200L  | 37.00 |                |       |           | 335  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1483 |          |      |         |
|         | 225M  | 45.00 | S608           |       |           | 414  |                 |                 |     |                |                |                |     |                |                |                |     |      | 1060           |          |          | 270 | 325  | 575  | 1513     | 1600 |         |
|         |       |       |                |       |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      |          |      |         |
| 80-160  | 132S  | 7.50  | S605           | H95   | 43        | 149  | 80              | 100             | 125 | 730            | 740            | 670            | 190 | 75             | 280            | 505            | 140 | 1098 | 1120           | M24x400  |          |     |      |      |          |      |         |
|         | 160M  | 11.00 |                |       |           | 190  |                 |                 |     |                |                |                |     |                |                |                |     |      | 1216           |          |          |     |      |      |          |      |         |
|         | 160M  | 15.00 | S385           |       |           | 204  |                 |                 |     | 490            |                |                | 440 |                | 200            | 260            |     | 485  | 1216           | 1140     | M20 x400 |     |      |      |          |      |         |
|         | 160L  | 18.50 |                |       |           | 222  |                 |                 |     |                |                |                |     |                |                |                |     |      | 1278           |          |          |     |      |      |          |      |         |
|         | 180M  | 22.00 |                |       |           | H110 |                 |                 |     | 237            |                |                |     |                |                |                |     |      | 505            | 1340     |          |     |      |      |          |      |         |
| 80-200  | 160M  | 15.00 | S486           | H95   | 60        | 227  |                 |                 |     | 610            | 840            | 550            | 205 | 75             | 280            | 530            | 140 | 1326 | 1250           | M24x400  |          |     |      |      |          |      |         |
|         | 160L  | 18.50 |                | 253   |           |      |                 |                 |     |                |                |                |     |                |                |                |     | 1388 |                |          |          |     |      |      |          |      |         |
|         | 180M  | 22.00 | S436           | H110  |           | 269  |                 |                 |     | 540            |                | 490            | 215 |                | 260            | 510            |     | 1450 | 1270           | M20x400  |          |     |      |      |          |      |         |
|         | 200L  | 30.00 |                | H125  |           | 324  |                 |                 |     |                |                |                |     |                |                | 550            |     | 1508 |                |          |          |     |      |      |          |      |         |
|         | 200L  | 37.00 |                |       |           | 348  |                 |                 |     |                |                |                |     |                |                |                |     | 1508 |                |          |          |     |      |      |          |      |         |
| 80-250  | 180M  | 22.00 | S607           | H110  | 75        | 295  |                 |                 |     | 730            | 940            | 670            | 230 | 90             | 300            | 580            | 140 | 1450 | 1400           | M24x400  |          |     |      |      |          |      |         |
|         | 200L  | 30.00 | H125           | 350   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1508 |          |      |         |
|         | 200L  | 37.00 |                | 374   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1508 |          |      |         |
|         | 225M  | 45.00 | S608           | H125  |           | 450  |                 |                 |     |                |                |                |     |                |                |                |     |      | 1060           |          |          | 270 | 325  | 605  | 1538     | 1600 |         |
|         | 250M  | 55.00 |                | H140  |           | 655  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     | 350  | 630  | 1668     |      |         |
| 100-160 | 160L  | 18.50 | S607           | H95   | 78        | 272  |                 |                 |     |                |                |                |     |                | 300            | 580            | 140 | 1388 |                |          |          |     |      |      |          |      |         |
|         | 180M  | 22.00 |                | H110  |           | 288  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      | 1450     |      |         |
|         | 200L  | 30.00 |                | H125  |           | 343  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      | 1508     | 1400 |         |
|         | 200L  | 37.00 |                |       |           | 367  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      |      | 1508     |      |         |
| 100-200 | 160L  | 18.50 |                | H95   | 70        | 264  | 100             | 125             | 125 | 730            |                |                |     |                |                |                | 140 | 1388 |                | M24x400  |          |     |      |      |          |      |         |
|         | 180M  | 22.00 | H110           | 280   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1450 |          |      |         |
|         | 200L  | 30.00 |                | 335   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1508 |          |      |         |
|         | 200L  | 37.00 |                | 359   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1508 |          |      |         |
| 100-250 | 225M  | 45.00 | S608           | H125  | 85        | 445  |                 |                 |     |                | 1060           | 940            |     |                |                |                | 140 | 1538 | 1600           |          |          |     |      |      |          |      |         |
|         | 200L  | 30.00 | S607           | 350   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1523 | 1400     |      |         |
|         | 200L  | 37.00 |                | 374   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1523 |          |      |         |
|         | 225M  | 45.00 | S608           | 461   |           |      |                 |                 |     |                |                |                |     |                |                |                |     | 1060 |                |          | 270      | 350 | 630  | 1683 | 1600     |      |         |
|         | 250M  | 55.00 |                | 666   |           |      |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1683 |          |      |         |
|         | 280S  | 75.00 | S609A          | 850   |           | 744  |                 |                 |     |                |                |                |     |                |                |                |     | 1200 | 696            |          | 300      | 380 | 660  | 1783 | 1800     |      |         |
|         | 280M  | 90.00 |                |       |           | 892  |                 |                 |     |                |                |                |     |                |                |                |     |      |                |          |          |     |      | 1783 |          |      |         |
| 125-200 | 250M  | 55.00 | S608           | H140  | 100       | 682  | 125             | 150             | 140 | 730            | 1060           | 670            | 270 | 90             | 350            | 665            | 140 | 1683 | 1600           | M24 x400 |          |     |      |      |          |      |         |
|         | 280S  | 75.00 | S609A          | H160  |           | 865  |                 |                 |     | 744            | 1200           | 696            | 300 |                | 380            | 695            |     | 1783 | 1800           |          |          |     |      |      |          |      |         |
|         | 280M  | 90.00 |                |       |           | 907  |                 |                 |     |                |                |                |     |                |                |                |     | 1783 |                |          |          |     |      |      |          |      |         |

\* Motor protection type IP 55, dimensions depend on the motor manufacturer.  
Dimensions listed are taken from the SIEMENS catalogue.

Data regarding size - order information

| Type | Size   | Hydraulic + Bearing                                                                                                                                                                                                                                                                                                                                                          | Shaft Seal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Material                                                                                                                                                                                                                        | Casing Gasket                                                                           |
|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|      |        | <div><div>A• First hydraulic</div><div>B• Second hydraulic</div><div>D• Double volute</div><div>•B Two ball bearings greased for life (2Z)</div><div>•C Two ball bearings oil lubricated</div><div>•S One double row angular contact bearing plus one ball bearing, grease lubricated</div><div>•T One double row ball bearing plus ball bearing, oil lubricated</div></div> | 041: Self-sealed, uncooled packing rings<br>052: Uncooled packing rings, external seal liquid<br>B27: Unbalanced bellows mechanical seal, seal face materials WC/Carbon, elastomer EPDM<br>AF3: Balanced mechanical seal, seal face materials SiC/Carbon, elastomer EPDM<br>BJ3: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM<br>C23: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM<br>AFS: Balanced mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)<br>BJS: Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)<br>C2S: Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)<br>AFK: Balanced mechanical seal, seal face materials SiC/carbon, elastomer FPM (Viton) double PTFE (Teflon) wrapped<br>AFJ: Balanced mechanical seal, seal face materials SiC/carbon, elastomer FPM (Viton)<br>BJJ: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)<br>C2J: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)<br>AX3,AXS,AXK: AF3,AFS,AFK plus quench<br>AY3,AYS,AYK: AF3,AFS,AFK. plus heating<br>A93,A9S,A9K,A9J: AF3,AFS,AFK,AFJ plus external flushing<br>M1S: Tandem mechanical seal, type GNZ, seal face materials SiC / SiC, elastomer FPM (Viton)<br>N1S: Tandem mechanical seal, type M7N, seal face materials SiC / SiC, elastomer FPM (Viton)<br>NFS: Back to back seal, type M7N, seal face materials SiC / SiC, elastomer FPM (Viton) | 0B: Cast iron GG25<br><br>0C: Cast iron GG25 Bronze G-CuSn10 impeller<br><br>0E: Cast iron GG25 stainless steel 1.4408 impeller<br><br>1B: Ductile cast iron GGG 40.3 Cast iron GG25 impeller<br><br>4B: Stainless steel 1.4408 | 2: Confined flat gasket of EWP 210 material<br><br><br>4: Confined flat gasket of PTFE. |
| ZLND | 32125  | AB, AC                                                                                                                                                                                                                                                                                                                                                                       | Alternatively<br><br>041,052,B27(*),BJ3,C23,AF3,AX3,AY3,A93,BJS,C2S,AFS,AXS,AYS,A9S,BJJ,C2J,AFJ,A9J,M1S, N1S, NFS<br><br>(* ) only configuration valid for hot water up to 140°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Alternatively<br><br>0B, 0C, 0E, 1B, 4B                                                                                                                                                                                         | Alternatively<br><br>2 or 4                                                             |
|      | 32160  | AB, AC, BB,BC                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 32200  | AB, AC, BB, BC                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 32250  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 40125  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 40160  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 40200  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 40250  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 40315  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 50125  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 50160  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 50200  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 50250  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 50315  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 65125  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 65160  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 65200  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 65250  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 65315  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 80160  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 80200  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 80250  | AB, AC                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 80315  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 80400  |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 100160 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 100200 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 100250 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 100315 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 100400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 125200 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 125250 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 125315 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 125400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 150200 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 150250 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 150315 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 150400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 200250 | AB, AC                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 150500 | AS, AT                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 200315 | AS , AT                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 200400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 200500 | DS, DT                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 250300 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 250315 | AS, AT                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 250400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 250500 | DS, DT                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 300400 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      | 300500 |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                         |
|      |        |                                                                                                                                                                                                                                                                                                                                                                              | Alternatively<br><br>041, 052, BJ3, C23, AF3, AX3, AY3, A93, BJS, C2S, AFS, AXS, AYS, A9S, BJJ, C2J, AFK, AXK, AYK, A9K,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                 |                                                                                         |

Designs are subject to amendment without prior notice.

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