



Pump • Fire Fighting Units • Booster Set

ECO SNM RIGIDLY COUPLED CENTRIFUGAL PUMPS



Handled Liquids

Clean or slightly contaminated low viscosity liquids without solid & fibrous particles.

Technical Data

Discharge Flange _____ DN 32.....DN 150 mm

Capacity _____ up to 600 m³/h(*)

Head _____ up to 100 m(*)

Operating Temperature _____ -10 °C' to +140 °C(**)

Casing Pressure (Pmax) _____ 10 bar (16 bar)(**)

(Pmax: Suction Pressure + Shut off Head)

(*) Contact company for higher capacity and head values.

(**) The Material of pump differs according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

Design Features

•Horizontal / Vertical rigidly-coupled, volute casing, single stage, end suction centrifugal pump with closed impeller.

•Volute casing dimensions comply with EN 733.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. The flanges are according to EN 1092-1 / PN 16 for steel or stainless steel casing. In case of request, ANSI/ASME flanges can be supplied.

•Pumps are rigidly coupled with electric motors of IEC frame sizes with high efficiency class.

Pump Designation

Pump Type _____

Vertical _____

Discharge Nozzle (DN-mm) _____

Nominal Impeller Diameter (mm) _____

Special Application _____

ECO SNM-V 100 - 250 - XXX

•All impellers are balanced dynamically or statically according to ISO 1940 grade 6.3.

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•In case of request, wear ring and/or shaft sleeve can be supplied.

•The pump and motor have separate shafts connected by a rigid coupling or through slide fit shaft. Axial and radial forces are absorbed by electric motor bearings.

•Rigidly coupled pumps are lighter and smaller comparing to the norm centrifugal pumps of same hydraulic specifications.

•When the elbow is mounted on the suction of the pump, the name is changed to ECO SNM-V. In this case, the pump is always installed vertically.

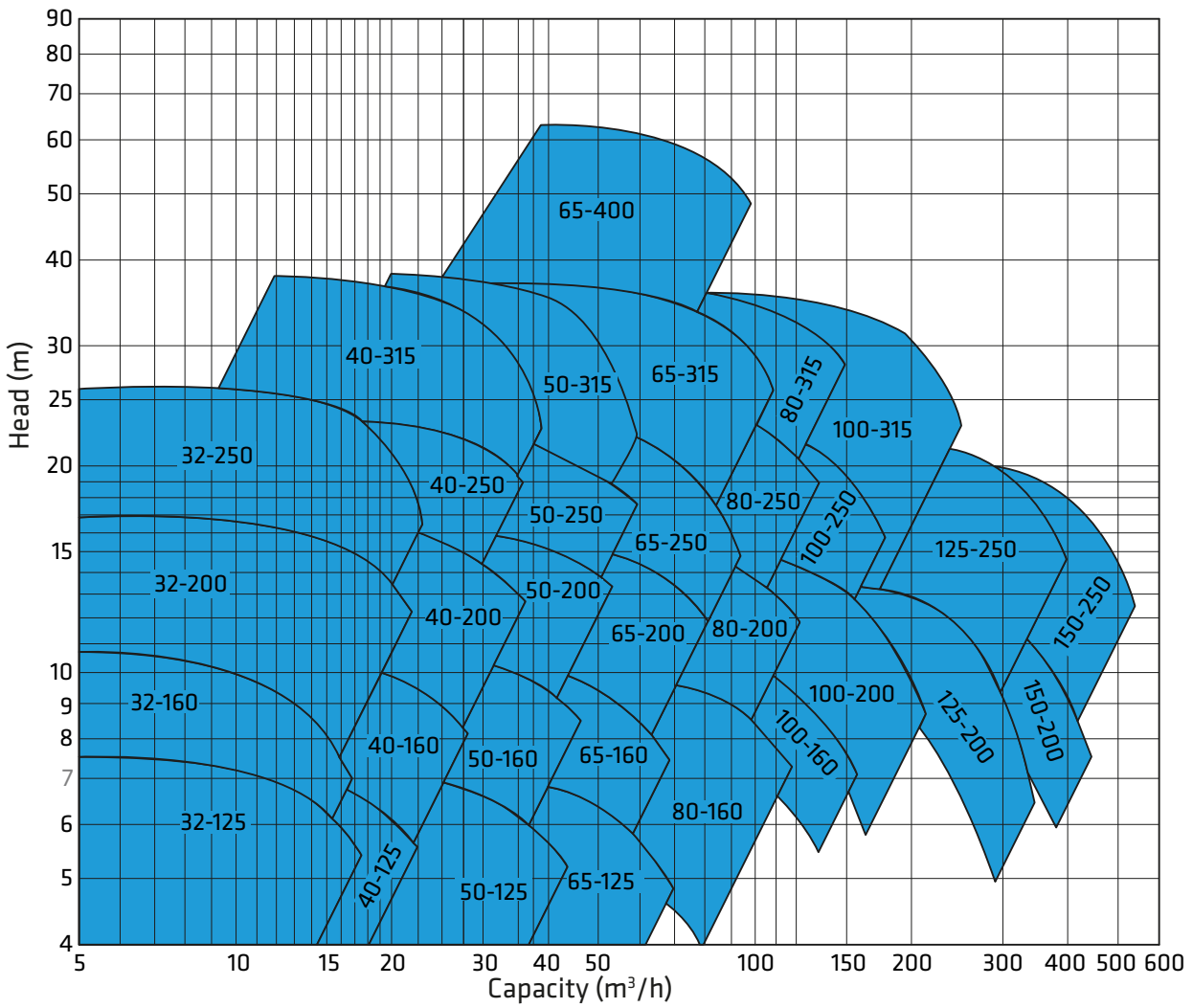
•The electrical motor powers of ECO SNM-V pumps are limited because of its installation type.

•For ECO SNM and ECO SNM-V drawings, please look at below address www.standartpompa.com.

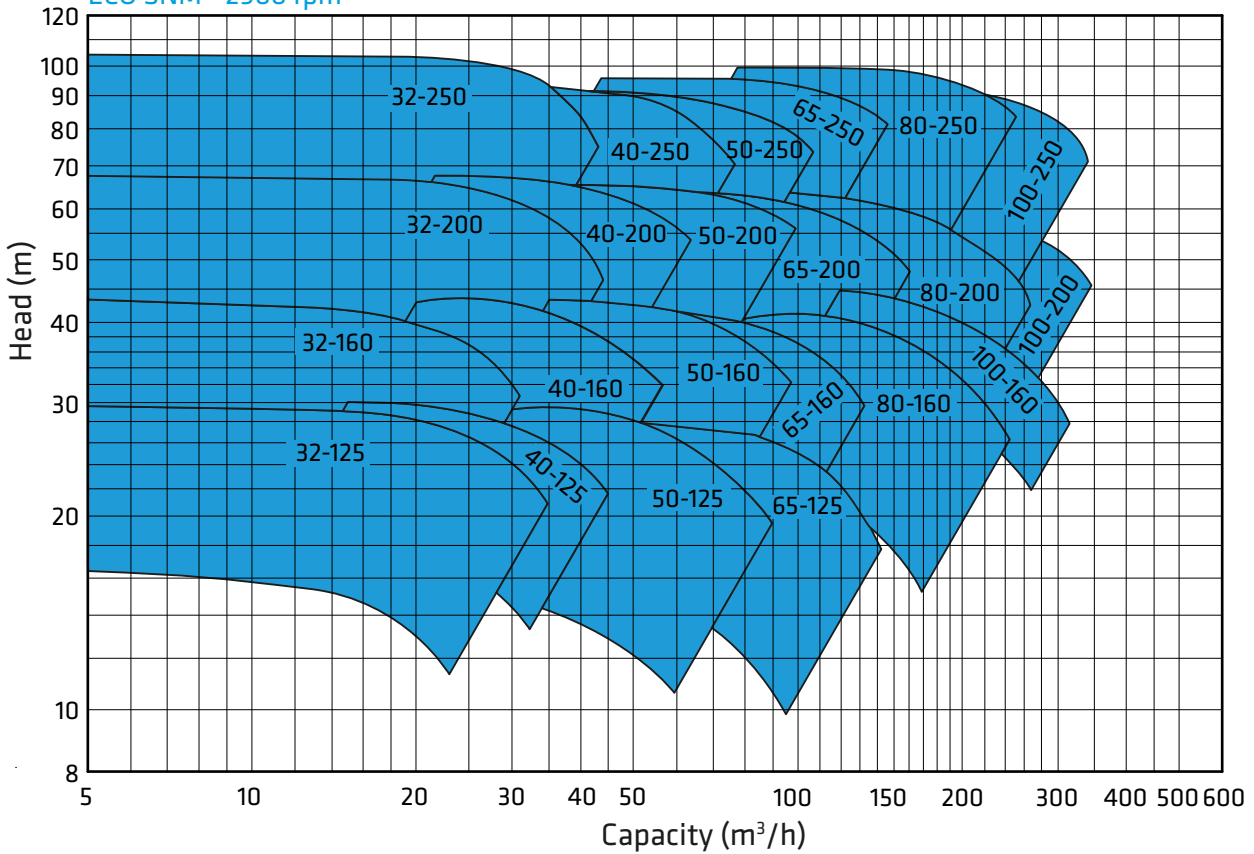
Shaft Sealing

•Depending on customer request or liquid type, mechanical seals are available.

ECO SNM - 1450 rpm



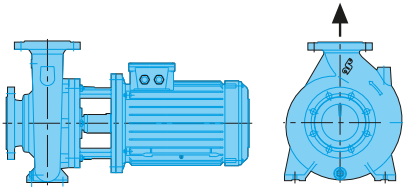
ECO SNM - 2900 rpm



Installation Arrangements

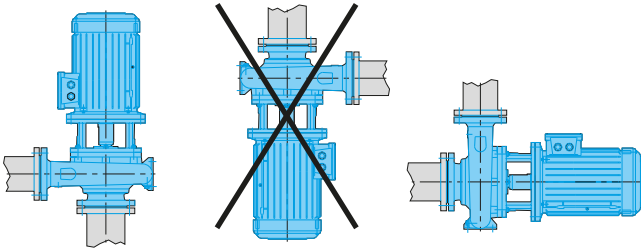
ECO SNM

ECO SNM / ECO SNM-V pumps can be installed in different arrangements



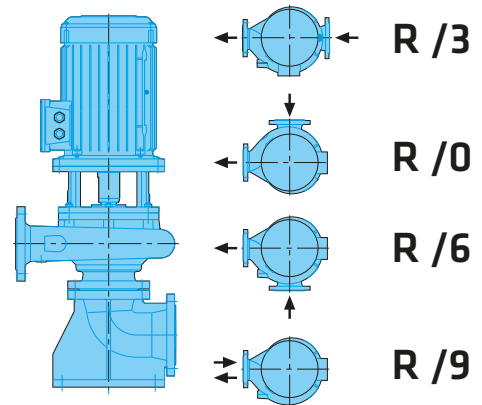
Horizontal installation on ground

Horizontal position on a base plate

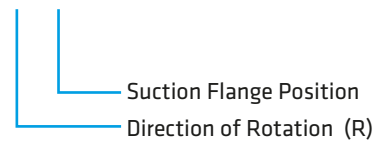


Installation on perpendicular pipes

• Between two perpendicular pipes in horizontal or vertical position. The axis of motor below the horizontal line is not admissible.



R/3



Direction of rotation viewed from driver end: R : Right

Vertical installation on ground

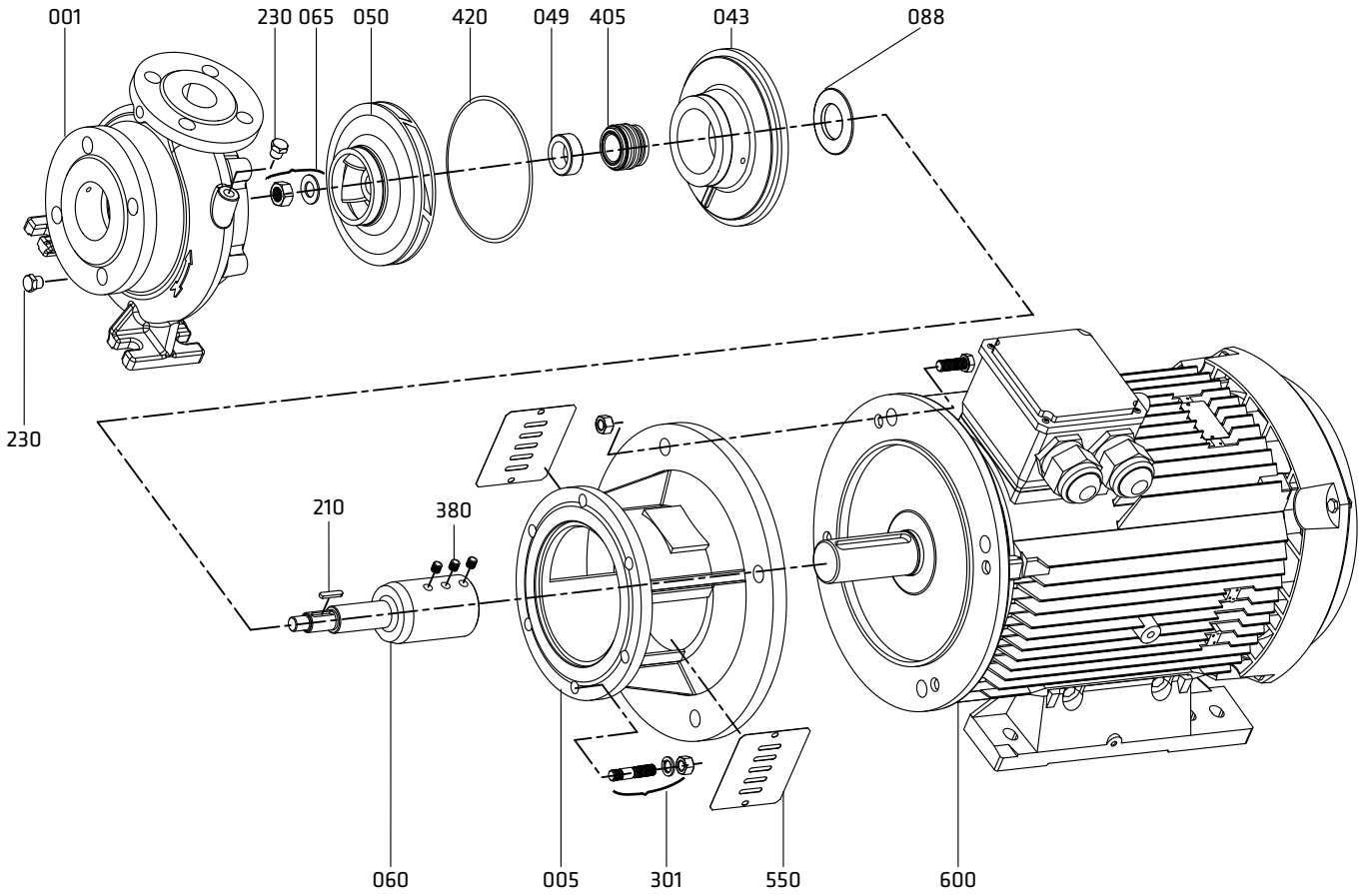
• Vertical position by means of a special suction elbow with foot.

• Standard manufacturing is as in the drawings above (R/3). Suction elbow position can be adjusted for different positions.

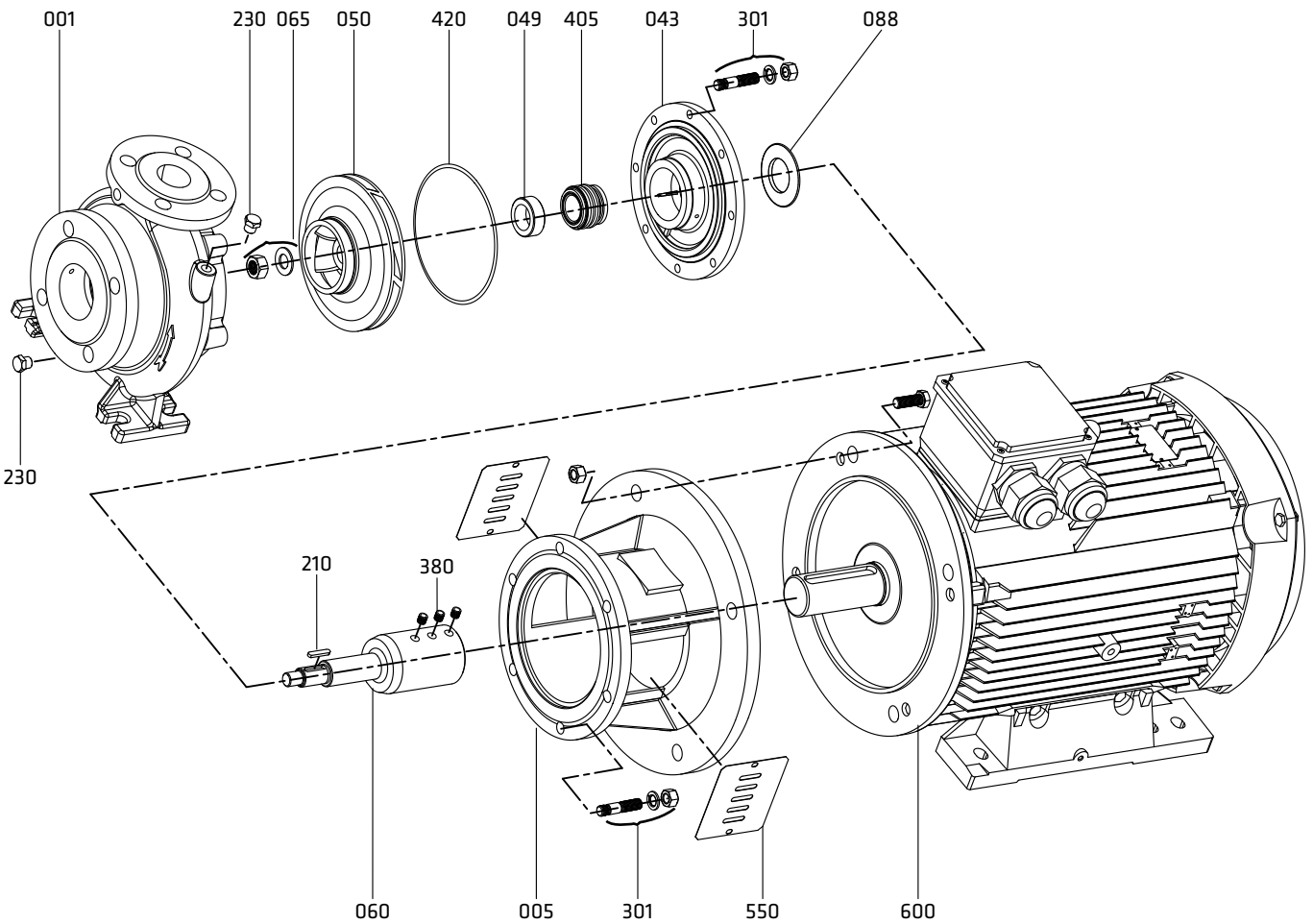
Assembly Drawings

ECO SNM

Form: F1 (Slide - fit shaft application)

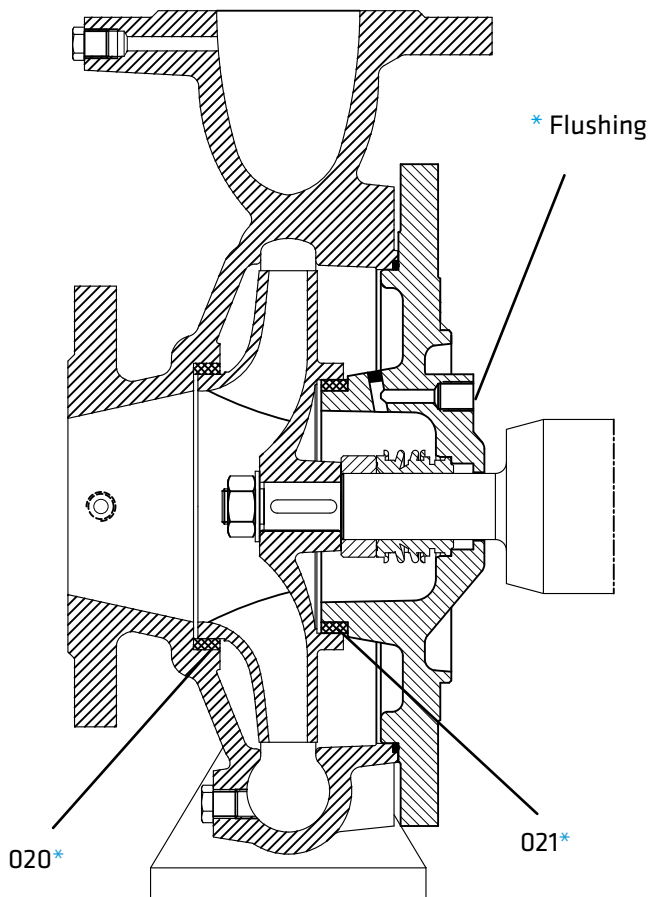
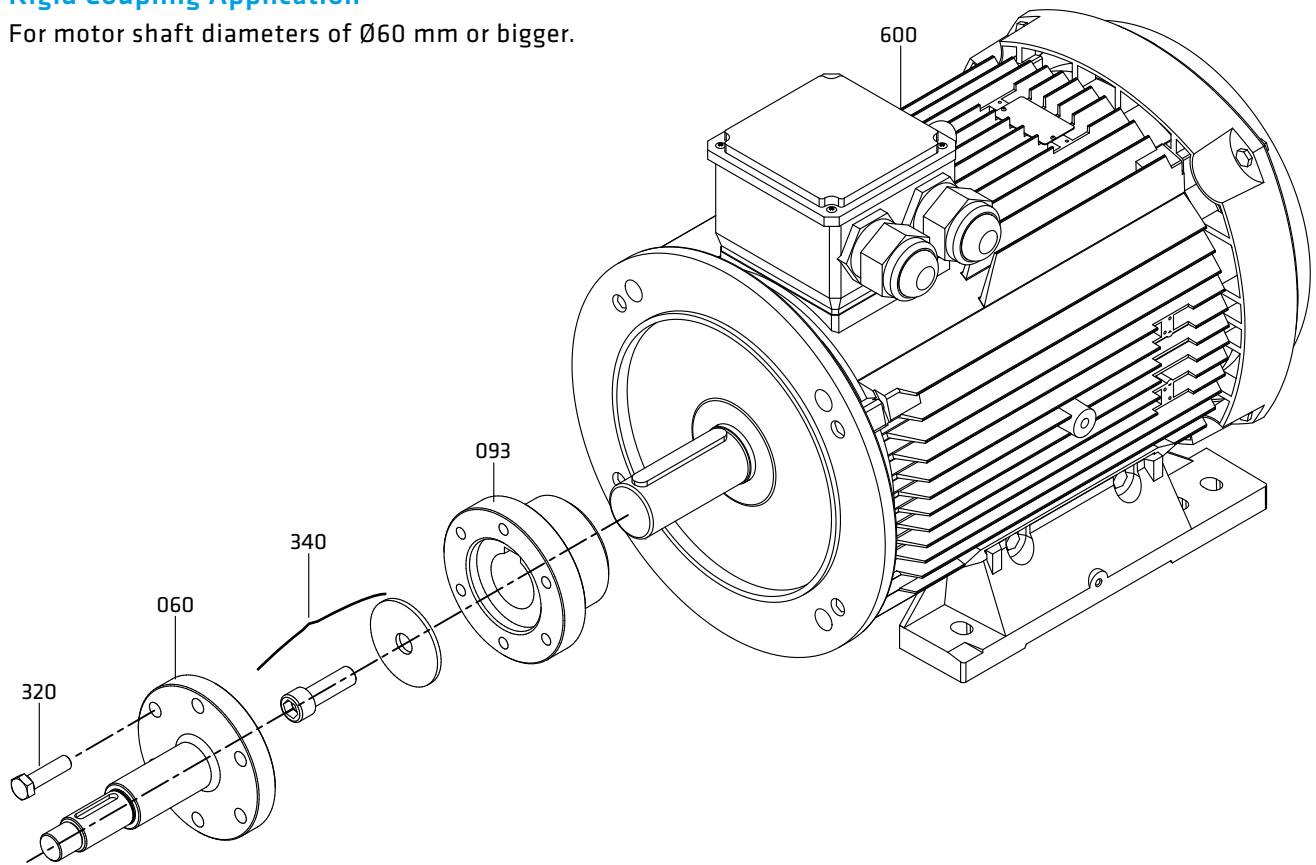


Form: F2 (Slide - fit shaft application)



Rigid Coupling Application

For motor shaft diameters of Ø60 mm or bigger.



Part List

| | |
|------|-------------------------------|
| 001 | Volute Casing |
| 005 | Motor Pedestal |
| 020* | Wear Ring (casing) |
| 021* | Wear Ring (seal cover) |
| 043 | Mechanical Seal Cover |
| 049 | Mechanical Seal Spacer Sleeve |
| 050 | Impeller |
| 060 | Shaft |
| 065 | Impeller Nut and Washer |
| 088 | Thrower |
| 093 | Rigid Coupling |
| 210 | Impeller Key |
| 230 | Screw |
| 301 | Stud, Washer and Nut |
| 320 | Screw |
| 340 | Allen Screw and Washer |
| 380 | Set Screw |
| 405 | Mechanical Seal |
| 420 | O-ring |
| 550 | Guard |
| 600 | Electric Motor |

(*) Optional

| Part List | 10 | 30 | 35 | 20 | 60 | 6L | 70 | 7L | 8M | 7D | 7S | 8N | 80 | 4C | 4A | 40 | 80 | 8T | 60 | 7L | 7E | 7D | |
|--------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|-----------|-----------|--------|-----------|--------|--------|--------|--------|---|
| | 0.6025 | 0.7040 | 0.7043 | 1.0619 | 1.4308 | 1.4309 | 1.4408 | 1.4409 | 1.4500 | 1.4517 | 1.4469 | 1.4317 | 1.4008 | 2.1050.01 | 2.0975.01 | 2.1096.01 | 1.4021 | 1.4021+QT | 1.4301 | 1.4404 | 1.4460 | 1.4462 | |
| Volute Casing | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | |
| Mechanical Seal Cover | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | |
| Impeller | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | ○ | |
| Shaft | | | | | | | | | | | | | | | | | ● | ○ | ○ | ○ | | | ○ |
| Bearing Housing | ● | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | |
| Wear Ring | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | |
| Mech. Seal Spacer Sleeve | | | | | | | | | | | | | | | | | ● | ○ | ○ | ○ | | | ○ |
| Mechanical Seal (*) | EN 12756 | | | | | | | | | | | | | | | | | | | | | | |

(*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing

NOTE: Depends on the request, different than above casting and shaft material can be supplied.

○ Optional

Material Equivalents

| TANIM | DIN / EN | AISI / SAE / ASTM | |
|--|-----------|----------------------------|------------------|
| Cast Iron | 0.6025 | EN-GJL-250 (GG25) | A48 Class 40B |
| Nodular Cast Iron | 0.7040 | EN-GJS-400-15 (GGG40) | A536 60-40-18 |
| Nodular Cast Iron | 0.7043 | EN-GJS-400-18-LT (GGG40.3) | A536 60-40-18 |
| Cast Steel | 1.0619 | GP240GHGS-C25 | A216 WCB |
| Chrome Nickel Cast Steel | 1.4308 | GX5CrNi19-10 | A351 CF8 |
| Chrome Nickel Cast Steel (low carbon) | 1.4309 | GX2CrNi19-11 | A351 CF3 |
| Chrome Nickel Molybdenum Cast Steel | 1.4408 | GX5CrNiMo19-11-2 | A351 CF8M |
| Chrome Nickel Molybdenum Cast Steel (low carbon) | 1.4409 | GX2CrNiMo19-11-2 | A351 CF3M |
| Austenitic Cast Steel | 1.4500 | GX7NiCrMoCuNb25-20 | A351 CN7M |
| Austenitic - Ferritic Cast Steel (duplex) | 1.4517 | GX2CrNiMoCuN25-6-3-3 | A890 CD4MCuN |
| Austenitic - Ferritic Cast Steel (super duplex) | 1.4469 | GX2CrNiMoN26-7-4 | A890 CE3MN |
| Martenzitic Stainless Cast Steel | 1.4317 | GX4CrNi13-4 | A352 CA6NM |
| Martenzitic Stainless Cast Steel | 1.4008 | GX7CrNiMo12-1 | A217 CA15 |
| Cast Bronze (tin alloy) | 2.1050.01 | G-CuSn10 | B427 C90700 |
| Cast Bronze (nickel alloy) | 2.0975.01 | G-CuAl10Ni | B148 C95500 |
| Cast Bronze (Leaded) | 2.1096.01 | G-CuSn5ZnPb | B584 C83600 |
| Chrome Steel | 1.4021 | X20Cr13 | A276 Type 420 |
| Chrome Steel(heat treated) | 1.4021 | X20Cr13 | A276 Type 420+QT |
| Chrome Nickel Steel | 1.4301 | X5CrNi18-10 | A276 Type 304 |
| Chrome Nickel Steel (low carbon) | 1.4404 | X2CrNiMo17-12-2 | A276 Type 316L |
| Duplex (austenitic-ferritic) Steel | 1.4460 | X3CrNiMoN27-5-2 | AISI 329 |
| Duplex (austenitic-ferritic) Steel | 1.4462 | X2CrNiMoN22-5-3 | UNS S32205 |

Flange Dimensions

EN 1092 - 2

| DNe/DNb | Suction & Discharge (PN 16) | | | |
|---------|-----------------------------|-----|----|----|
| | Df | k | s | n |
| 32 | 140 | 100 | 19 | 4 |
| 40 | 150 | 110 | 19 | 4 |
| 50 | 165 | 125 | 19 | 4 |
| 65 | 185 | 145 | 19 | 4 |
| 80 | 200 | 160 | 19 | 8 |
| 100 | 220 | 180 | 19 | 8 |
| 125 | 250 | 210 | 19 | 8 |
| 150 | 285 | 240 | 23 | 8 |
| 200 | 340 | 295 | 23 | 12 |

" n " number of holes

