

SDS / SDS-V

DOUBLE SUCTION PUMPS



Handled Liquids

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

Technical Data

Discharge Flange _____ DN 65.....DN 600 mm

Capacity _____ up to 6000 m³/h

Head _____ up to 180 m

Speed _____ up to 2900 rpm

Operating Temperature _____ -10 °C' to +110 °C(*)

Casing Pressure (Pmax) _____ 16 bar - 25 bar(*)

(Pmax: Suction Pressure + Shut o Head)

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

Design Features

•Horizontal or vertical manufacturing option. Axial split case, single stage, double suction centrifugal pumps.

•Suction and discharge flanges are on the same axis on the bottom casing. Split case design permits easy disassembly of the rotor group for maintenance or repair without distorting pump alignment and suction / discharge piping.

•Suction and Discharge Flanges are conform to EN 1092-2/PN 16 or PN25. (EN 1092-1 / PN 16 or PN 25 for steel or stainless steel casing)

Pump Designation

Pump Type _____

Vertical Installation _____

Discharge Nozzle (DN-mm) _____

Nominal Impeller Diameter (mm) _____

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

•Impeller is of double suction design. This feature increases pump suction performance in addition with providing the balance of hydraulic axial forces resulting higher bearing lifes and higher reliability.

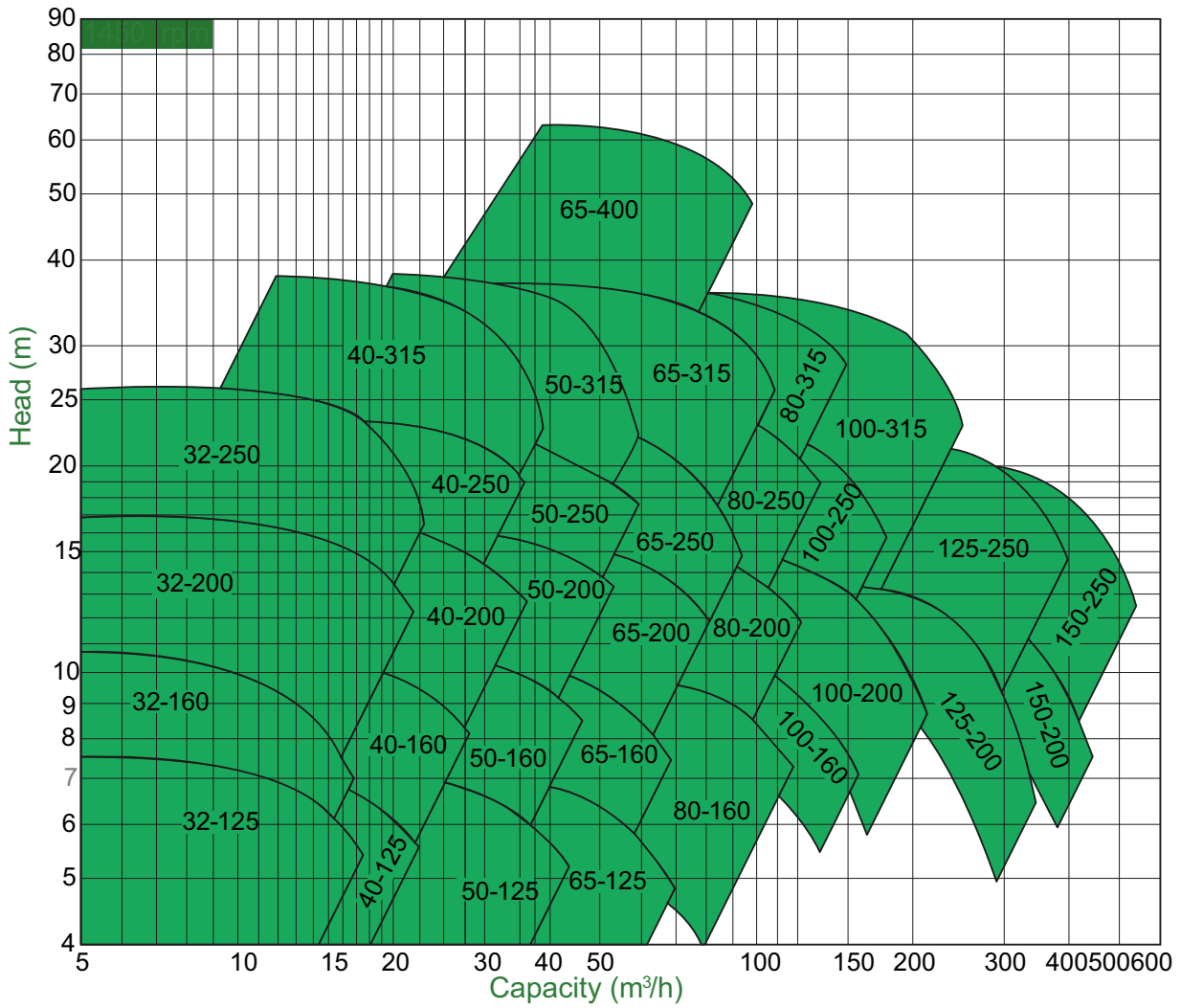
•In standard construction, the direction of rotation is clockwise when it is looked from drive end. In this case, suction flange is on right and discharge flange is on left. Upon request the direction of rotation can be reversed. This time the position of the suction and discharge flanges are also reversed.

•Grease lubricated ball bearings are used in horizontal installation. In case of vertical installation, pumping liquid lubricated journal bearings on top and grease lubricated ball bearings on bottom are used.

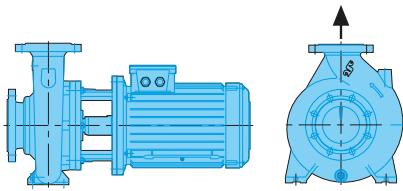
Shaft Sealing

•Depending on request or requirement, pumps with soft packing or single, double and cartridge type mechanical seals can be supplied.

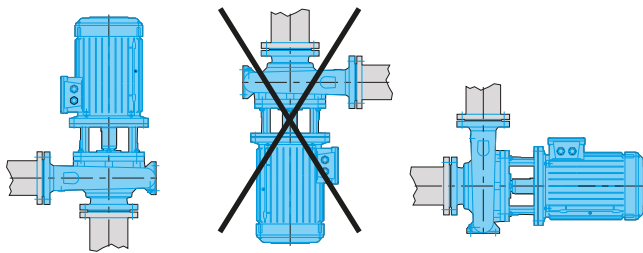
SDS - V 200 - 500



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

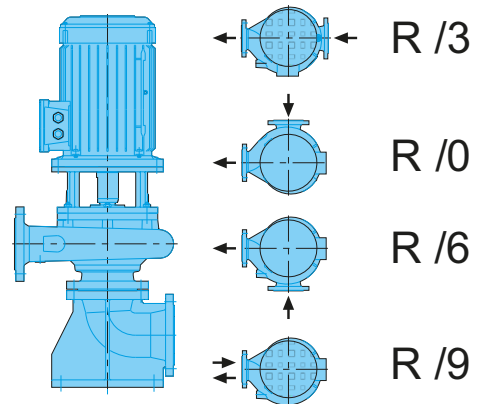


Horizontal installation on ground
Horizontal position on a base plate

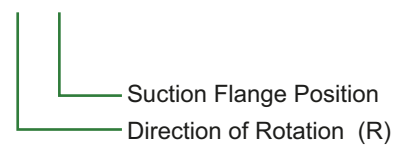


Installation on perpendicular pipes

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



R/3



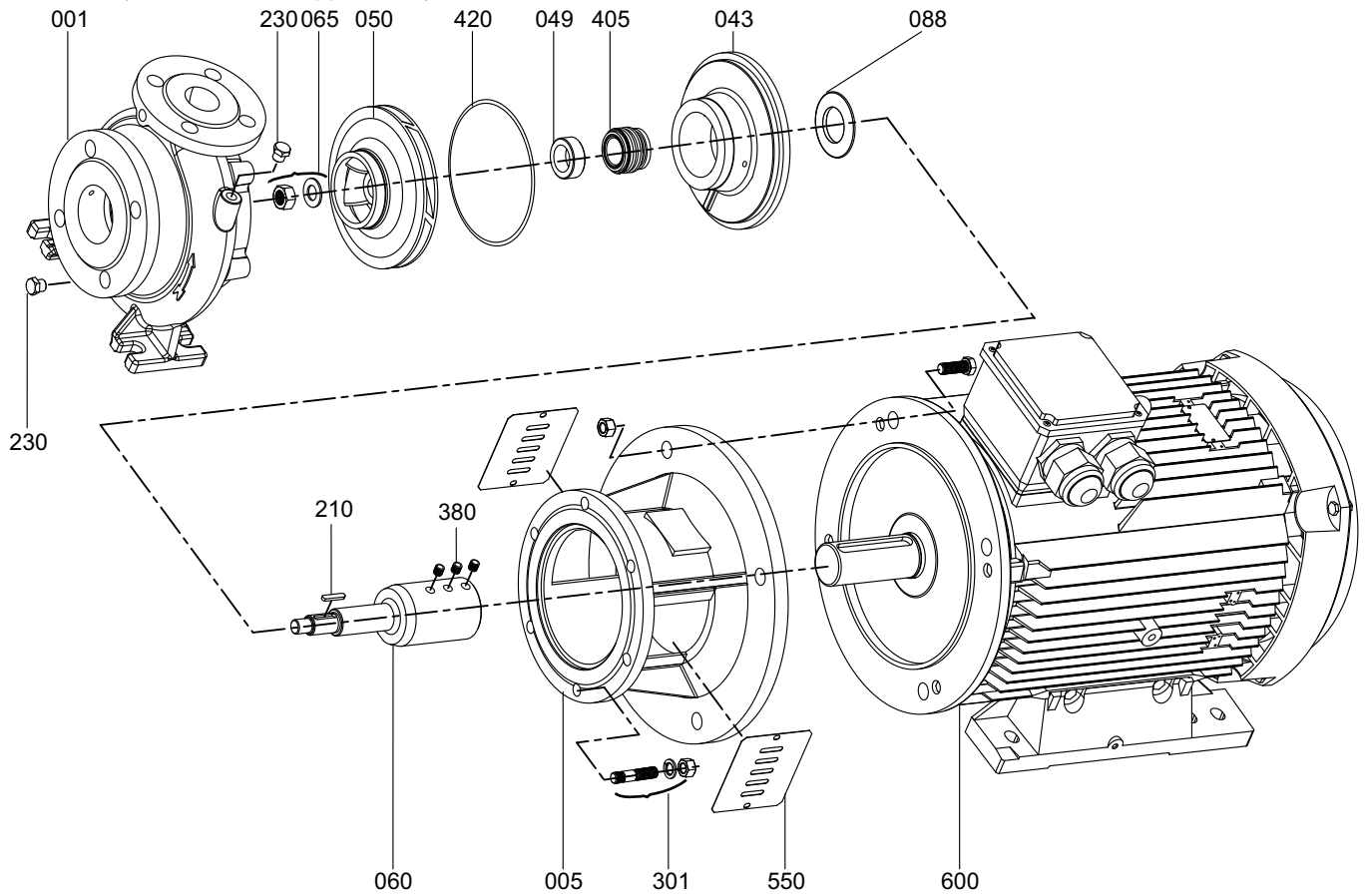
Direction of rotation viewed from driver end: R : Right

Vertical installation on ground

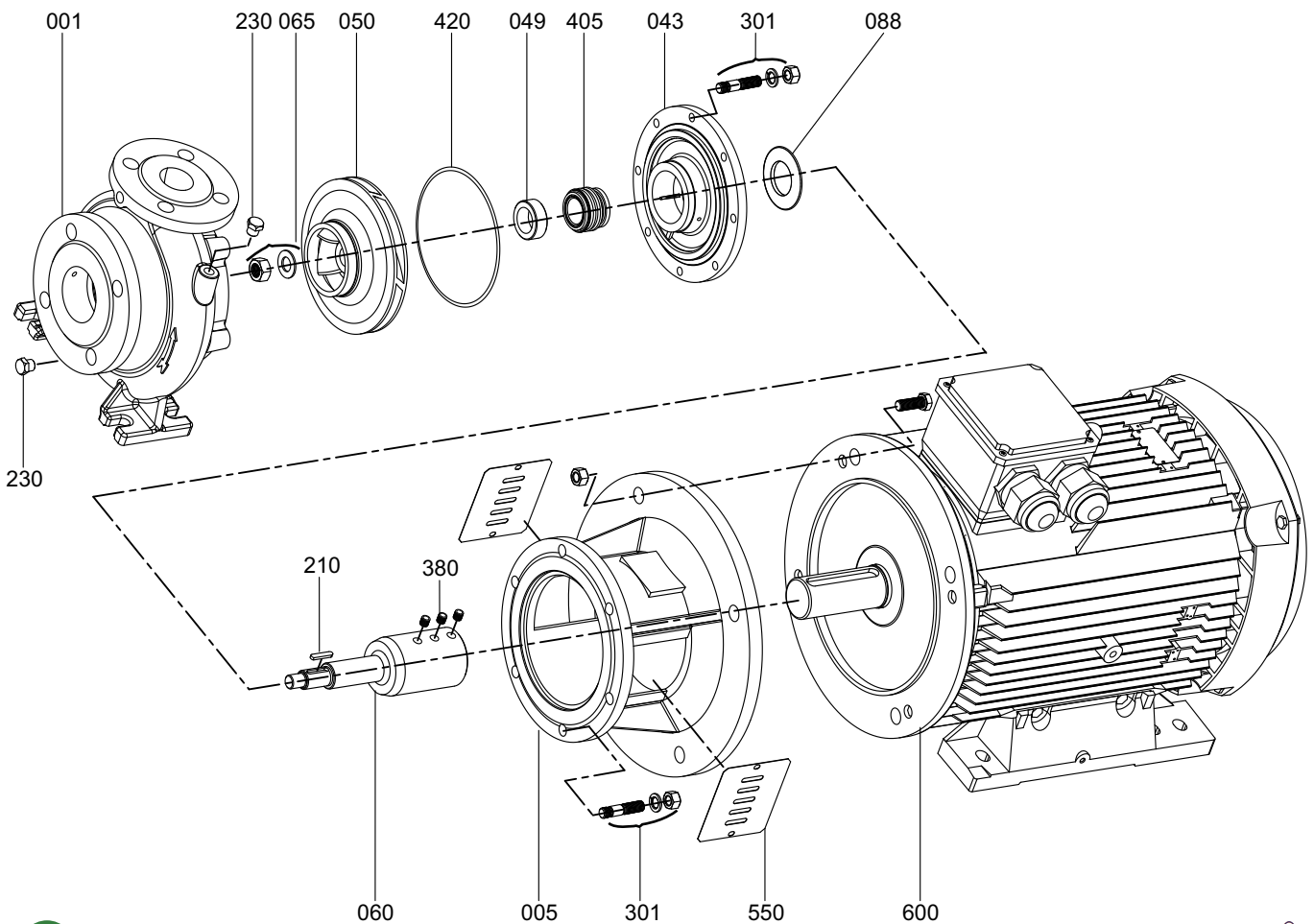
• Vertical position by means of a special suction elbow with foot.

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

Form: F1 (Slide - fit shaft application)

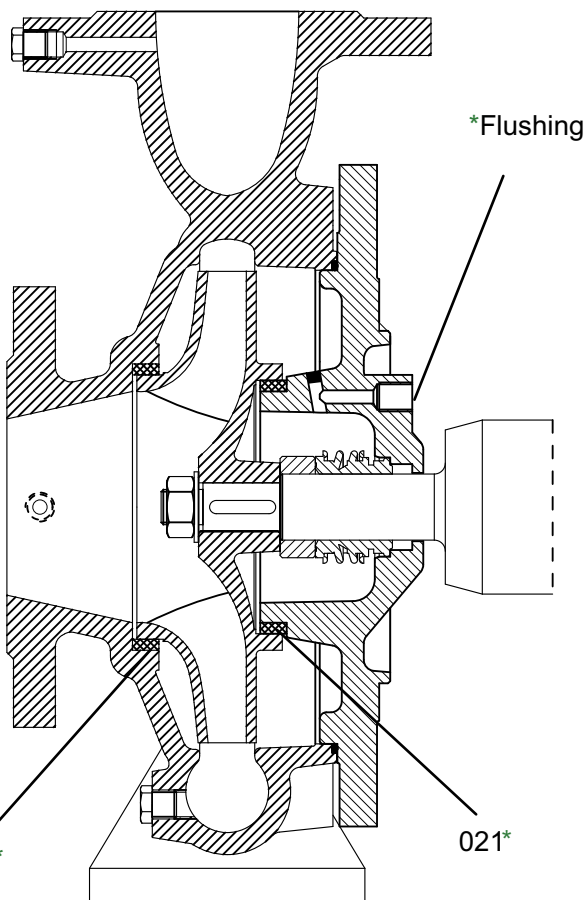
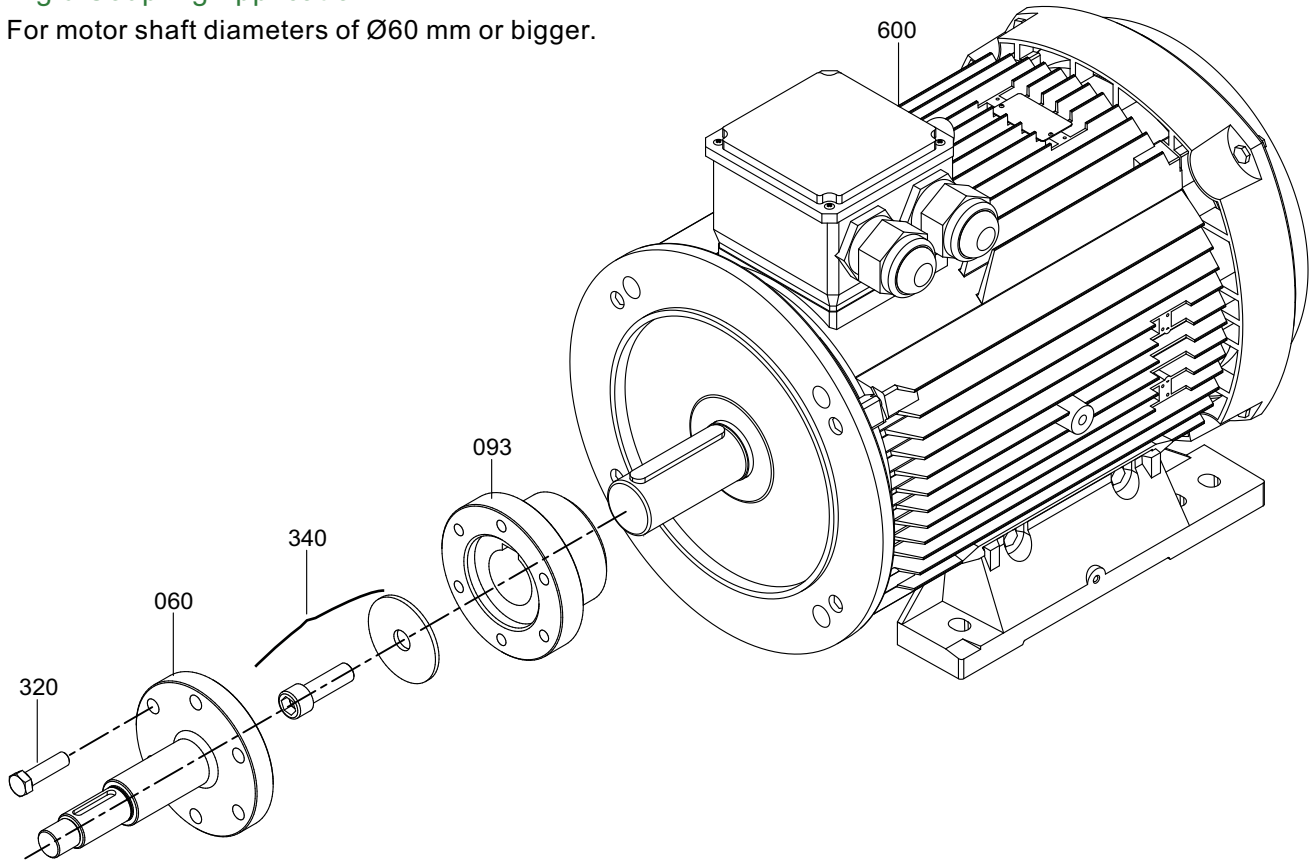


Form: F2 (Slide - fit shaft application)



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	Alien Screw and Washer
380	Set Screw
405	Mechanical Seal
420	O-ring
550	Guard
600	Electric Motor

(*) Optional

Material Options

Part List	10	30	3S	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 ○ Optional
 NOTE: Depends on the request, different than above casting and shaft material can be supplied.

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

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

