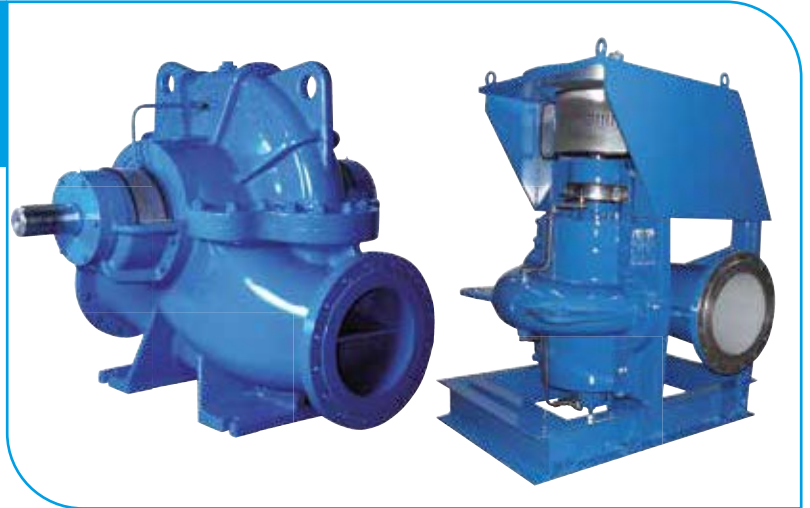


# SDS / SDS-V

## DOUBLE SUCTION PUMPS



### Handled Liquids

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

### Technical Data

**Discharge Flange** ——— DN 65 up to DN 600 mm  
**Capacity** ————— up to 6000 m<sup>3</sup>/h  
**Head** ————— up to 180 m  
**Speed** ————— up to 2900 rpm  
**Operating Temperature** — -10 °C up to 110 °C  
**Casing Pressure (Pmax)** — 16 bar - 25 bar \*

(Pmax : Suction Pressure + Shut off 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.
- Suction and discharge flanges are on the same axis at 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.

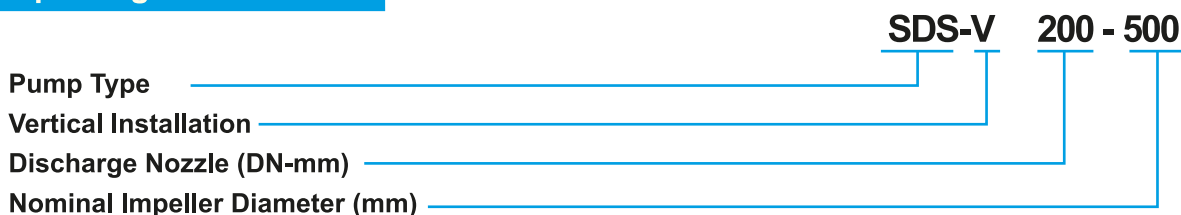
- Suction and Discharge Flanges are conform to EN 1092 - 2 / PN 16 or PN25.
- Impeller is of double suction design. This feature increases pump suction performance in addition with providing the balance of hydraulic axial forces resulting higher bearing lifes and higher reliability.
- All impellers are balanced dynamically according to ISO 1940 class 6.3.
- In standard construction the direction of rotation is clockwise when it is looked from the motor side. 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.

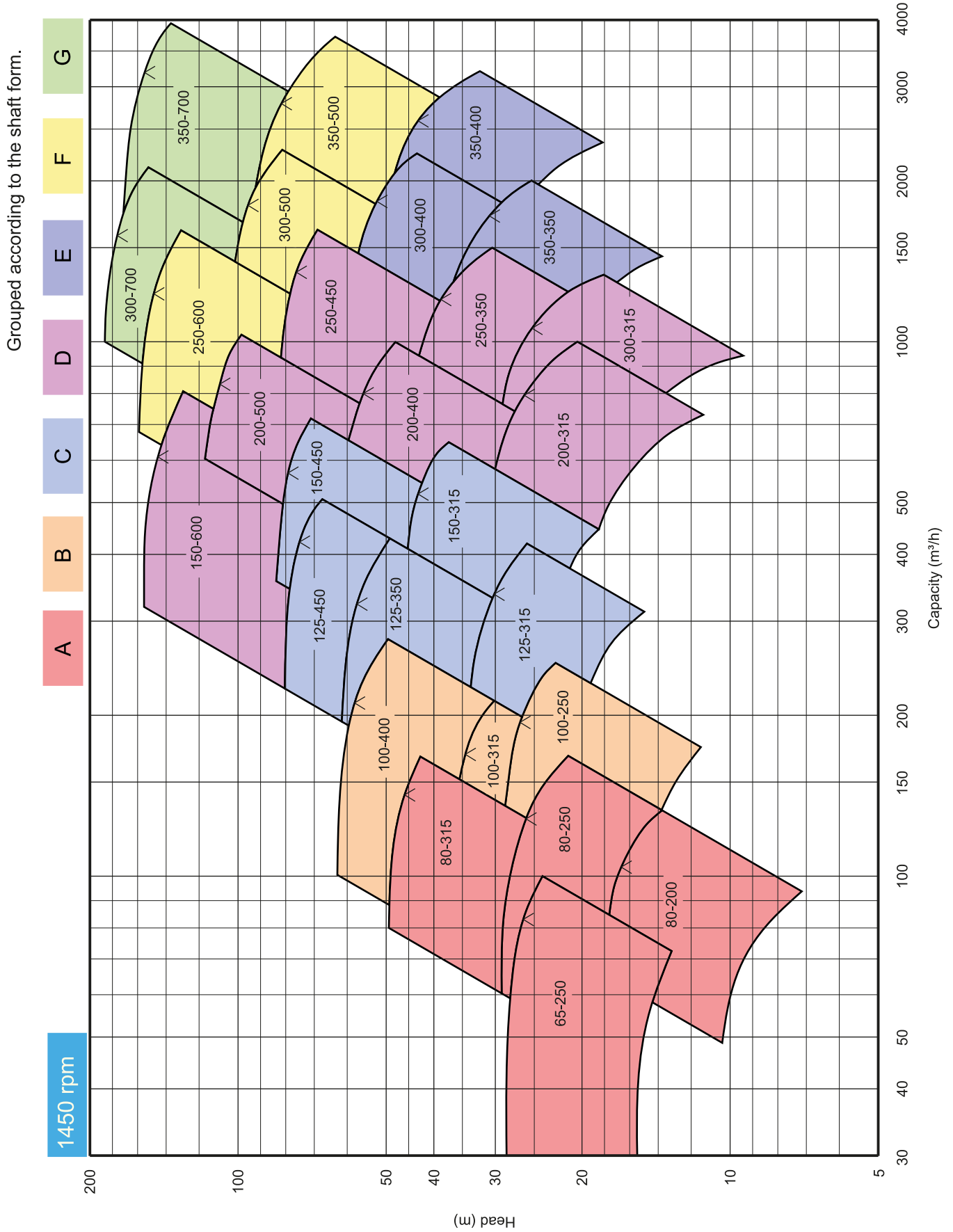
- Grease lubricated ball bearings are used in SDS type pumps.

### Shaft Sealing

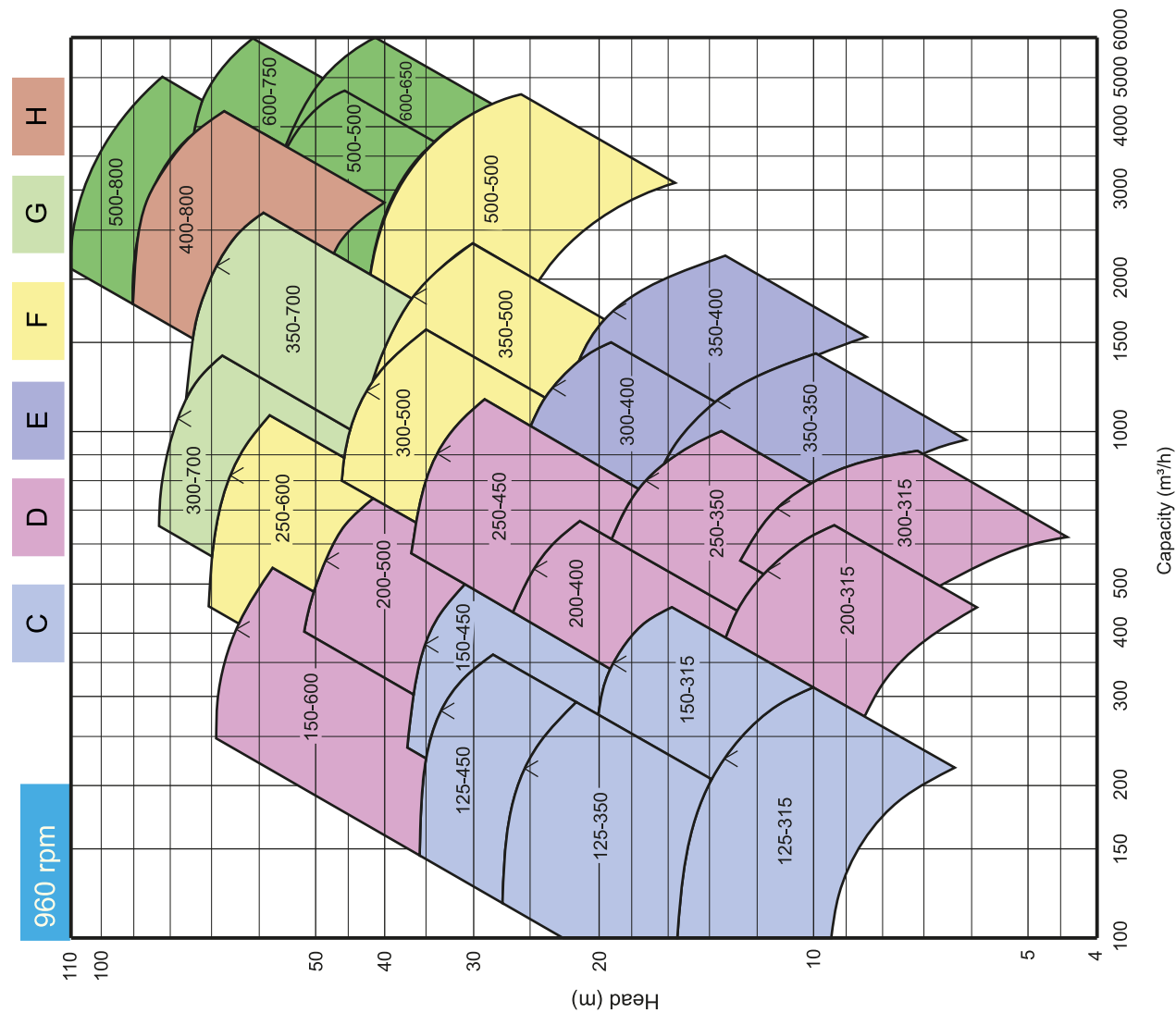
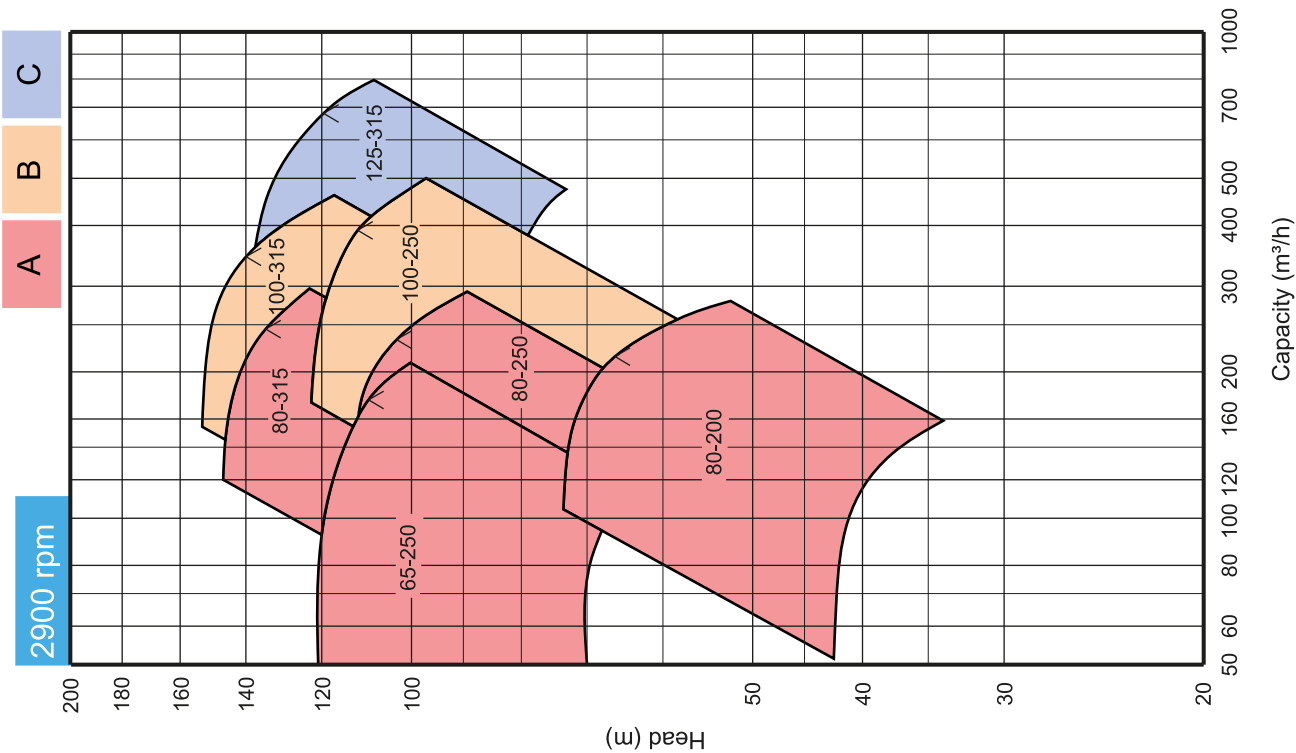
- Depending on request or requirement, pumps with soft packing or single, double and cartridge type mechanical seals can be supplied.

### Pump Designation

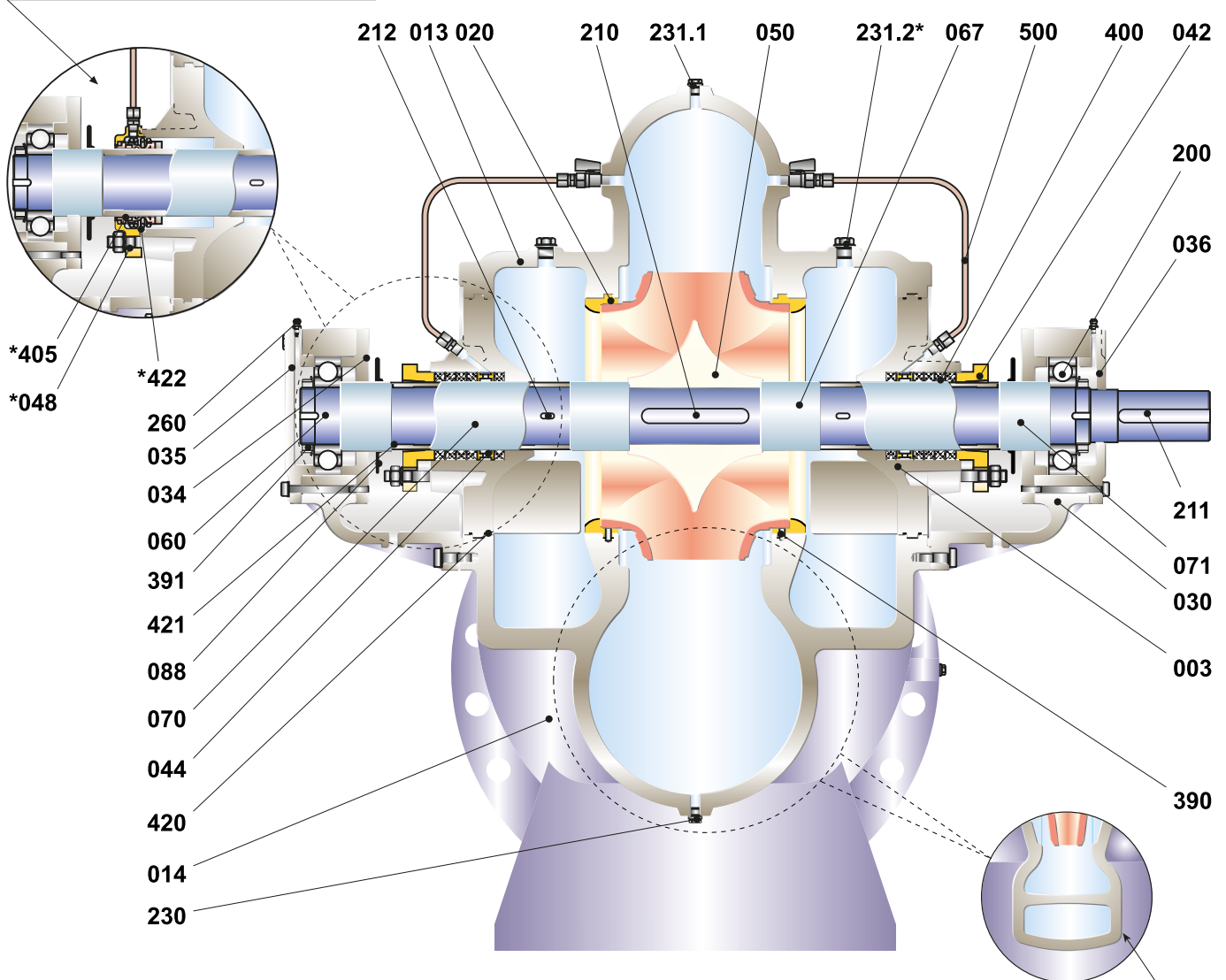




Grouped according to the shaft form



## \* Mechanical Seal Application



## Part List

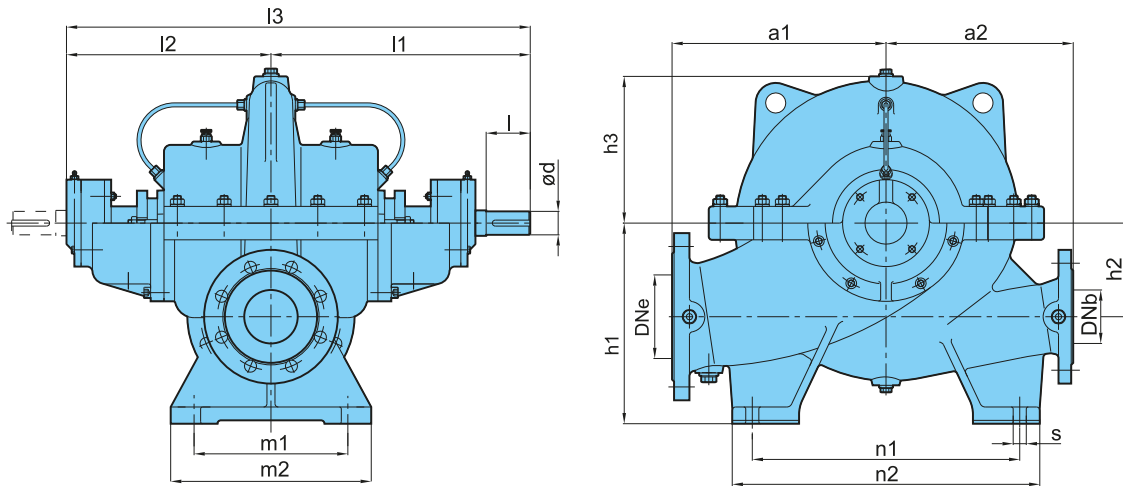
## \*\* Double Volute Application

003	Stuffing Box	200	Ball Bearing
013	Volute Casing (top half)	210	Impeller Key
014	Volute Casing (bottom half)	211	Coupling Key
020	Wear Ring	212	Spacer Sleeve Key
030	Bearing Bracket	230	Drain Plug
034	Bearing Cover (inboard)	231.1	Air Plug
035	Bearing Cover (outboard)	*231.2	Air Plug
036	Bearing Cover (coupling)	260	Grease Nipple
042	Stuffing Box Gland	390	Pin
044	Lantern Ring	391	Shaft Nut & Lock Washer
*048	Mechanical Seal Cover	400	Stuffing Box Packing
050	Impeller	*405	Mechanical Seal
060	Pump Shaft	420	O-Ring
067	Spacer Sleeve	421	O-Ring
070	Shaft Protecting Sleeve	*422	O-Ring
071	Shaft Protecting Sleeve	500	Flushing Pipe
088	Thrower		

( \* ) Optional

( \*\* ) Double Volute Desing Is Applied to :

**SDS 200-500, 250-600,  
300-500, 300-700,  
350-500, 350-700**



Pump Type	Dimensions (mm)																			Weight (kg)
	PN <sub>e</sub>	PN <sub>b</sub>	DN <sub>e</sub>	DN <sub>b</sub>	ø <sub>d</sub>	l	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	a <sub>1</sub>	a <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	n <sub>1</sub>	n <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	s	
65-250	16	16	100	65	35	80	400	310	710	320	280	300	140	200	400	460	230	300	20	165
80-200														200						165
80-250	16	16	125	80	35	80	400	310	710	320	280	300	140	200	400	460	230	300	20	175
80-315										360	300			260						197
100-250										360	310			235	400	480				220
100-315	16	16	150	100	42	90	450	350	800	420	370	355	170	250	460	540	280	340	20	230
100-400										420	370			300	460	540				290
125-315										420	370			280	460	540				330
125-350	16	16	200	125	55	120	555	420	975	470	450	400	200	300	540	660	320	380	22	380
125-450										500	450			350	640	640				410
150-315	16	16	200	150	55	120	555	420	975	470	400	400	200	310	540	640	320	380	22	395
150-450										500	450			365	640	640				430
150-600	25	25	250	150	65	130	645	500	1145	550	500	560	300	445	540	640	360	420	22	800
200-315										500	450	500	240	315	540	640				570
200-400	16	16	250	200	65	130	645	500	1145	500	450	500	240	360	540	640	360	420	22	575
200-500										550	500	560	300	380	620	720				700
250-350	16	16			65	130	645	500	1145	600	500			390			360	420	22	682
250-450			300	250								600	300	415	620	720				780
250-600	25	25			80	170	720	540	1260	650	550			430		710	415	485	26	1190
300-315			350		65	130	645	500	1145	600	500	630	300	400	620	700	360	420	22	700
300-400	16	16		300	75	140	770	615	1385	700	550	710	350	450	720	800	420	520	26	1125
300-500			400		85	170	755	585	1340	700	750	710	350	425	700	800	420	520	26	1500
300-700	25	25	400	300	100	180	865	675	1540	750	800	710	350	470	720	880	420	520	26	1650
350-350			400					615	1385	700	550	670	350	450	720	800	420	520		1100
350-400	16	16		350	75	140	770	615	1385	800	600	800	380	500	800	960	500	600	26	1400
350-500			500		80	170	755	585	1340	800	600	800	400	435	740	900	500	600	26	1435
350-700	25	25	500	350	100	180	865	675	1540	850	750	850	450	525	720	880	500	600	26	2000
400-800	16	16	600	400	105	220	1035	810	1845	900	900	880	450	565	950	1120	630	740	26	3400
500-500	16	16	600	500																
500-650	16	16	600	500																
500-800	16	16	600	500																
600-650	16	16	700	600																
600-750	16	16	700	600																

Contact for detailed information

Technical Data

Material Options

Part List	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4500	1.4517	1.4469	1.4317	2.1050.01	2.0975.01	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462	
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○							
Shaft														●	○	○	○	○	○	
Bearing Housing	●	○																		
Wear Ring (Casing)	●	○	○	○	○	○	○	○	○	○	○	○	○							
Shaft Protecting Sleeve														●	○	○	○	○	○	
Mechanical Seal (*)	EN 12756 / DIN 24960																			

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

● Standart manufacturing  
○ Optional

Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast iron	0.6025	GJL-250 (GG 25)	A 48 Class 40-B
Nodular cast iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome nickel cast steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome nickel cast steel (low carbon)	1.4309	G-X2 Cr Ni 19-11	A 351/743/744 Gr. CF3
Chrome nickel molybdenum cast steel	1.4408	G-X5 Cr Ni Mo 19-11-2	A 351/743/744 Gr. CF8M
Chrome nickel molybdenum cast steel (low carbon)	1.4409	G-X2 Cr Ni Mo 19-11-2	A 351/743/744 CF3M
Austenitic cast steel	1.4500	G-X7 Cr Ni Mo Cu Nb 25-20	A 351/743/744 (CN7M)
Austenitic-ferritic cast steel (duplex)	1.4517	G-X2 Cr Ni Mo Cu N 25-6-3-3	A 890 Gr. 1B (CD4MCuN)
Austenitic-ferritic cast steel (super duplex)	1.4469	G-X2 Cr Ni Mo N 26-7-4	A 890 Gr. 5A (CE3MN)
Martenzitic Stainless Cast Steel	1.4317	GX4 Cr Ni 13-4	A 351/743/744 (CA6NM)
Cast bronze (tin alloy)	2.1050.01	G-Cu Sn 10	B 584 C 90700
Cast bronze (nickel alloy)	2.0975.01	G-Cu Al 10 Ni	B 148 C 95800
Chrome steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome nickel steel	1.4301	X5 Cr Ni 18-10	A 276 Type 304
Chrome nickel steel (low carbon)	1.4306	X2 Cr Ni 19-11	A 276 Type 304L
Chrome nickel molybdenum steel	1.4401	X5 Cr Ni Mo 17-12-2	A 276 Type 316
Chrome nickel molybdenum steel (low carbon)	1.4404	X2 Cr Ni Mo 17-12-2	A 276 Type 316 L
Duplex (austenitic-ferritic) steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

DNe/DNb	Suction & Discharge (PN 16)				Suction & Discharge (PN 25)			
	Df	k	s	n	Df	k	s	n
65	185	145	19	4	185	145	19	8
80	200	160	19	8	200	160	19	8
100	220	180	19	8	235	190	23	8
125	250	210	19	8	270	220	28	8
150	285	240	23	8	300	250	28	8
200	340	295	23	12	360	310	28	12
250	405	355	28	12	425	370	31	12
300	460	410	28	12	485	430	31	16
350	520	470	28	16	555	490	34	16
400	580	525	31	16	620	550	37	16
500	715	650	34	20	730	660	37	20
600	840	770	37	20	845	770	41	20
700	910	840	37	24	960	875	44	24

"n" number of holes

