Standart
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SNT

EN 733 NORM PUMPS

Handled Liquids

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

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 1700 m^3/h

Head_____up to 100 m

Speed_____up to 2900 rpm

Operating Temperature_____-10 °C' to +140 °C*

Casing Pressure (Pmax)_____10 bar (16 bar)*

Design Type _____OH1

(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 , radially split volute casing type , single stage, end suction centrifugal pump with closed impeller.

•Dimensionally complies with EN 733.

•In addition to 29 basic sizes conforming with EN 733, there are 17 additional sizes. Dimensions of additional sizes may differ from other suppliers.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of SNT type pumps are normally "life time grease lubricated" ball bearings, except the pumps SNT 200-500 and SNT 250-500 which are always oil lubricated.

Shaft Sealing

•In standard production soft packed stuffing boxes are used.

•Depending on customer request, mechanical seals are available. In this case, pump shaft is always stainless steel.

Pump Designation

SNT 100 - 250

Pump Type

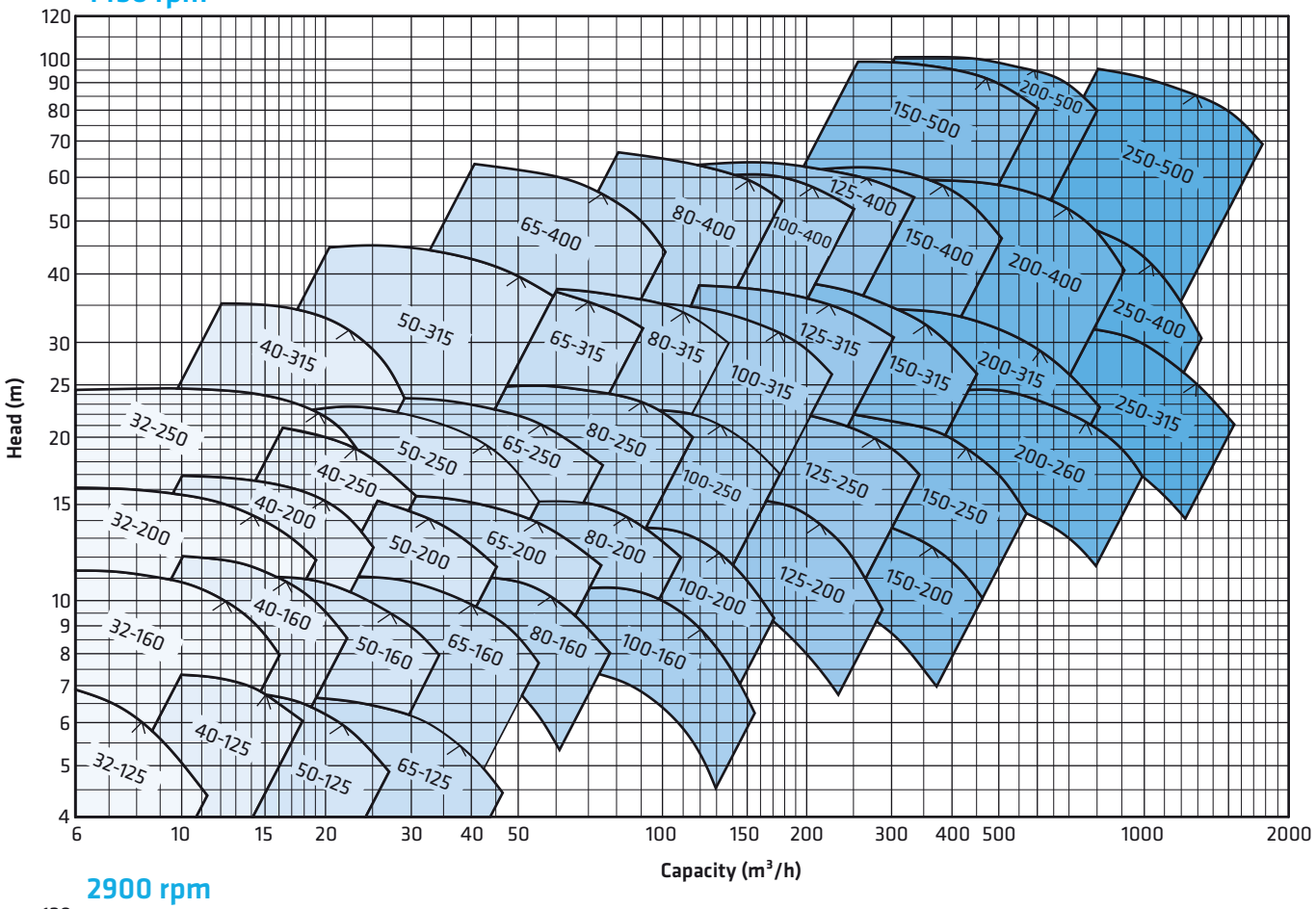
Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

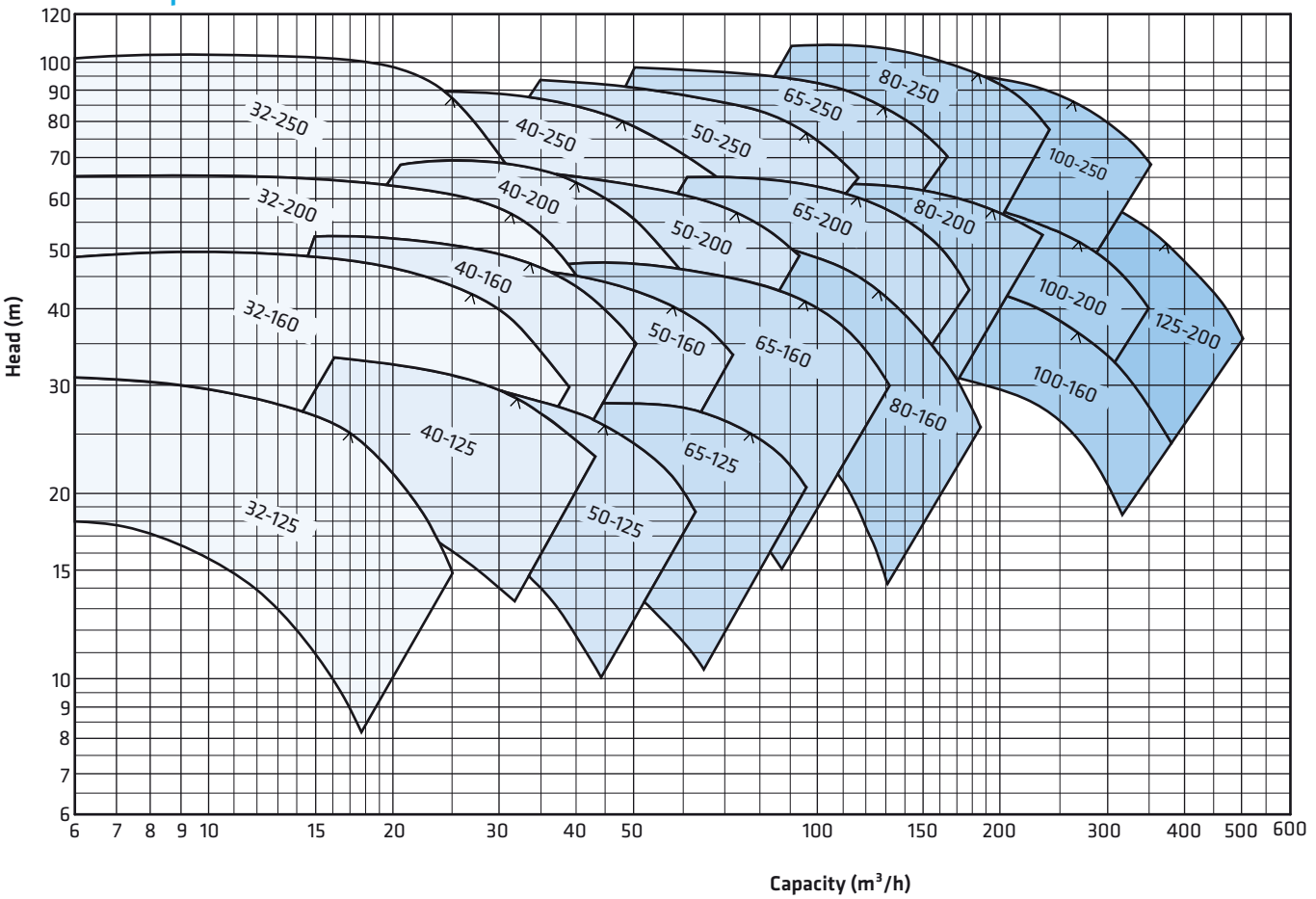
09.2015 / Rev. 1

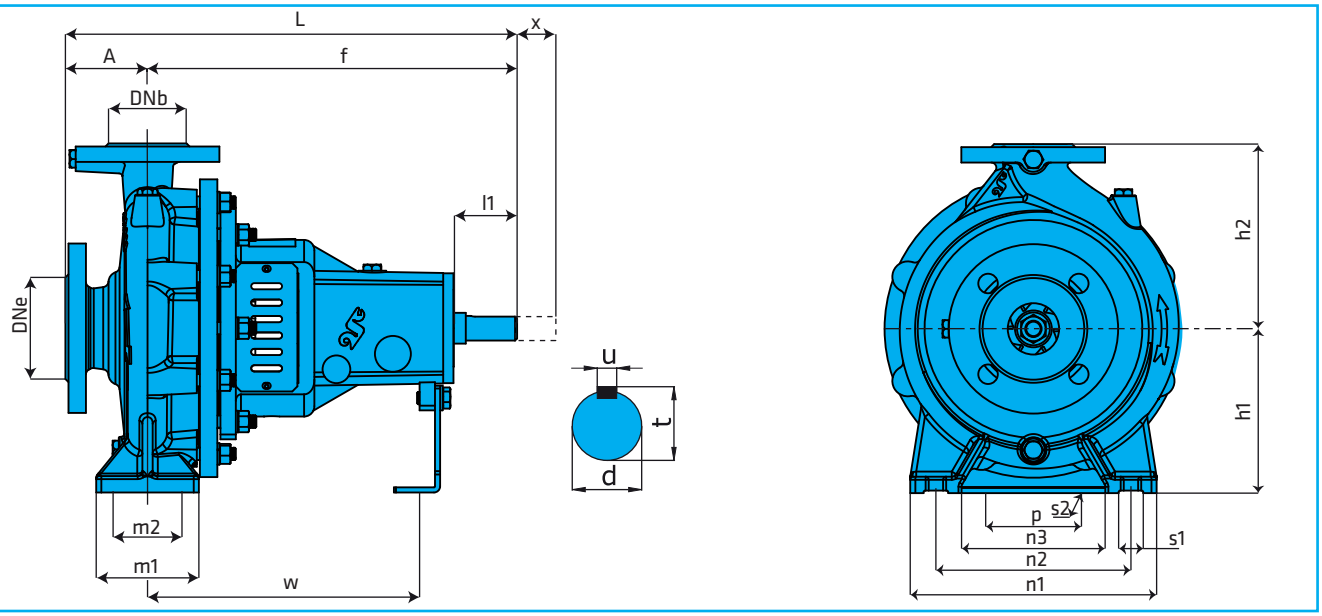
Field Chart

1450 rpm



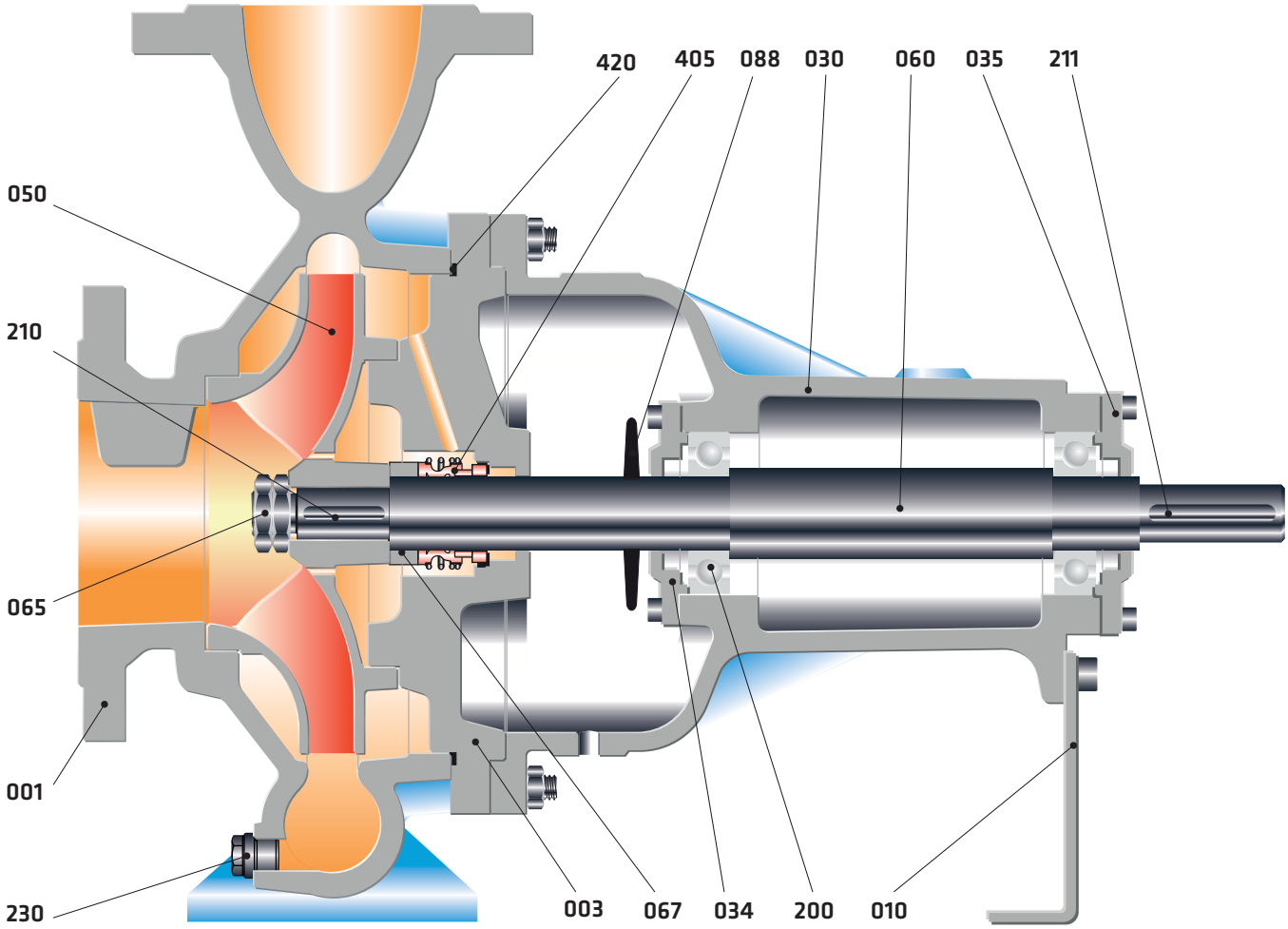
2900 rpm



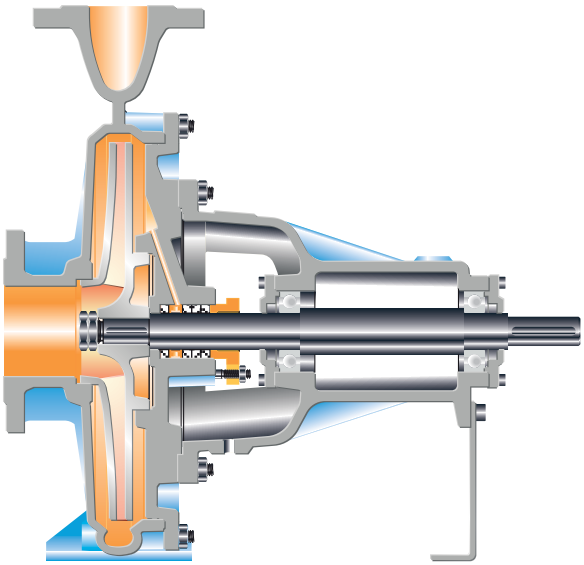


Pump Type		Form	DIMENSIONS																					Weight	Space
			Overall Dimensions							Support & Foot Dimensions									Shaft End					
EN 733	Additional		DNe	DNb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u	(kg)	x**
32-125		F1	50	32	80	360	440	112	140	100	70	190	140	90	14	110	14	260	24	50	27	8	32	100
32-160		F1	50	32	80	360	440	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	39	100
32-200		F2	50	32	80	360	440	160	180	100	70	240	190	140	14	110	14	260	24	50	27	8	41	100
	32-250	F2	50	32	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	53	100
40-125		F1	65	40	80	360	440	112	140	100	70	210	160	110	14	110	14	260	24	50	27	8	33	100
40-160		F1	65	40	80	360	440	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	40	100
40-200		F2	65	40	100	360	460	160	180	100	70	265	212	165	14	110	14	260	24	50	27	8	45	100
40-250		F2	65	40	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	57	100
	40-315	F2	65	40	100	360	460	200	250	125	95	345	280	190	14	110	14	260	24	50	27	8	67	100
50-125		F1	65	50	100	360	460	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	34	100
50-160		F1	65	50	100	360	460	160	180	100	70	265	212	165	14	110	14	260	24	50	27	8	42	100
50-200		F2	65	50	100	360	460	160	200	100	70	265	212	165	14	110	14	260	24	50	27	8	48	100
50-250		F2	65	50	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	57	100
	50-315	F2	80	50	125	470	595	225	280	125	95	345	280	190	19	110	14	340	32	80	35	10	90	100
65-125		F1	80	65	100	360	460	160	180	125	95	280	212	150	14	110	14	260	24	50	27	8	40	100
65-160		F1	80	65	100	360	460	160	200	125	95	280	212	150	14	110	14	260	24	50	27	8	46	100
65-200		F2	80	65	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	51	140
65-250		F2	80	65	100	470	570	200	250	160	120	360	280	200	19	110	14	340	32	80	35	10	90	140
65-315		F2	80	65	125	470	595	225	280	160	120	400	315	240	19	110	14	340	32	80	35	10	105	140
	65-400	F2	100	65	125	470	595	260	355	160	120	435	355	275	19	110	14	340	32	80	35	10	130	140
80-160		F1	100	80	125	360	485	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	49	140
80-200		F1	100	80	125	470	595	180	250	125	95	345	280	215	14	110	14	340	32	80	35	10	63	140
80-250		F2	100	80	125	470	595	200	280	160	120	400	315	240	19	110	14	340	32	80	35	10	95	140
80-315		F2	100	80	125	470	595	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	125	140
	80-400	F3	100	80	125	530	655	280	355	160	120	435	355	275	19	110	14	360	42	110	45	12	175	140
	100-160	F1	125	100	125	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	80	140
100-200		F1	125	100	125	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	87	140
100-250		F2	125	100	140	470	610	225	280	160	120	400	315	240	19	110	14	340	32	80	35	10	100	140
100-315		F2	125	100	140	470	610	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	130	140
100-400		F3	125	100	140	530	670	280	355	200	150	500	400	300	23	110	14	360	42	110	45	12	180	140
	125-200	F1	150	125	140	470	610	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	97	140
125-250		F2	150	125	140	470	610	250	355	160	120	400	315	240	19	110	14	340	32	80	35	10	110	140
125-315		F3	150	125	140	530	670	280	355	200	150	500	400	300	23	110	14	360	42	110	45	12	180	140
125-400		F3	150	125	140	530	670	315	400	200	150	500	400	300	23	110	14	360	42	110	45	12	200	140
	150-200	F1	200	150	160	470	630	280	355	200	150	500	400	300	23	110	14	340	32	80	35	10	150	140
	150-250	F2	200	150	160	470	630	280	375	200	150	500	400	300	23	110	14	340	32	80	35	10	160	140
150-315		F3	200	150	160	530	690	280	400	200	150	550	450	350	23	110	14	360	42	110	45	12	190	140
150-400		F3	200	150	160	530	690	315	450	200	150	550	450	350	23	110	14	360	42	110	45	12	230	140
	150-500	F2	200	150	200	730	930	400	525	250	200	720	600	435	27	140	20	495	55	110	59	16	480	140
	200-260	F3	250	200	200	610	810	355	450	250	200	600	500	360	23	140	20	410	42	110	45	12	280	200
	200-315	F3	250	200	200	610	810	355	450	250	200	600	500	360	23	140	20	410	42	110	45	12	300	180
	200-400	F1	250	200	180	725	905	400	500	250	200	600	500	360	23	140	20	490	55	110	59	16	360	180
	200-500	F3	250	200	210	925	1135	400	525	300	240	720	600	435	27	140	20	640	70	140	74.5	20	640	180
	250-315	F1	300	250	230	740	970	400	525	300	240	720	600	435	27	140	20	520	55	110	59	16	390	200
	250-400	F1	300	250	230	750	980	400	525	300	240	720	600	435	27	140	20	530	55	110	59	16	460	200
	250-500	F3	300	250	225	940	1165	450	630	300	240	720	600	435	27	140	20	670	70	140	74.5	20	660	200

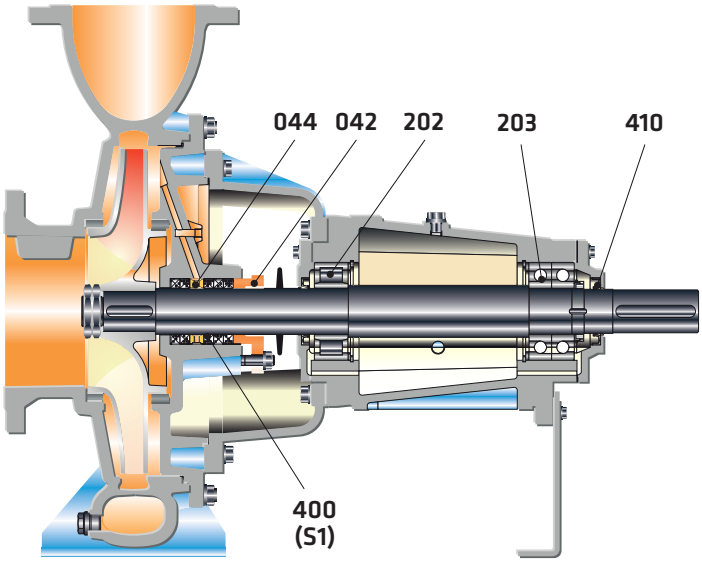
(**) Gap necessary for the withdrawal of the pump rotor from the driven end with out the need for dismantling the motor and pipework (spacer coupling application).



Form F1

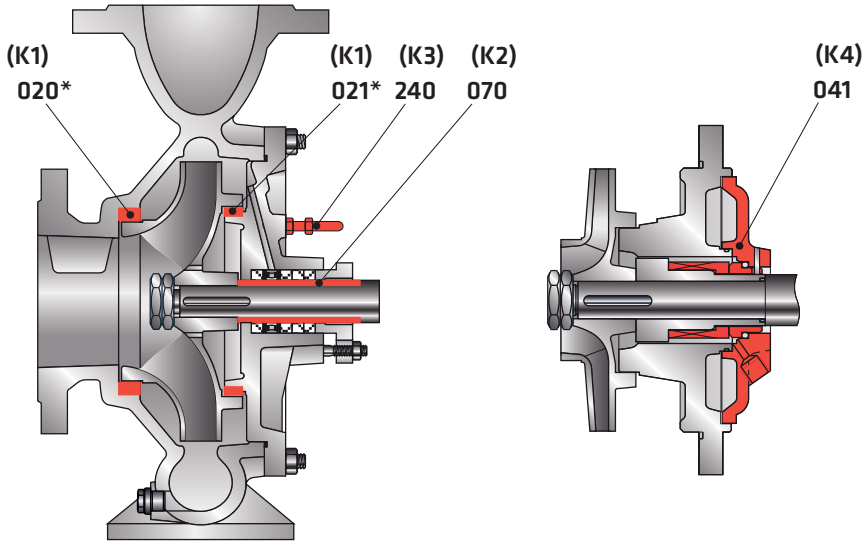


Form F2

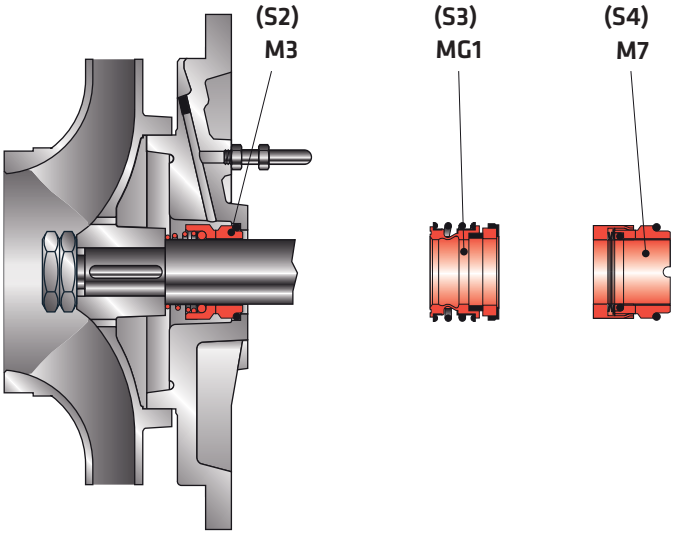


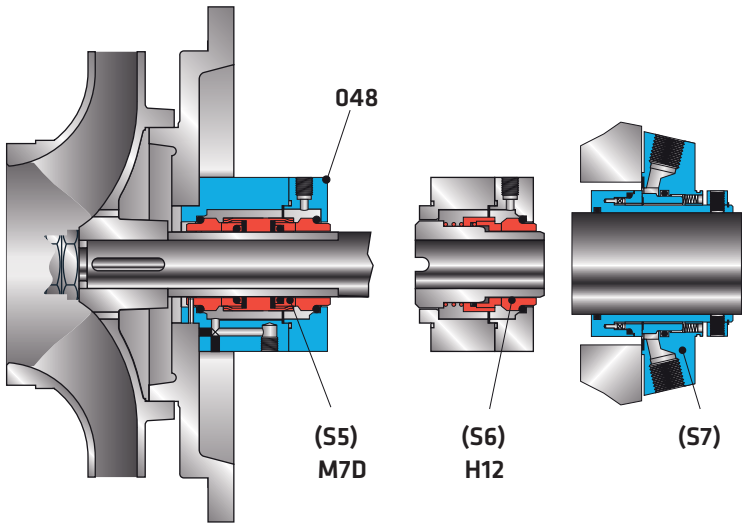
Form F3

Desing & Sealing Options



(K1) Casing wear rings (front - back)
(K2) Shaft sleeve
(K3) Sealing fluid from outside source (for pumping contaminated and/or malodorous liquids)
(K4) Stuffing box cooling (100 °C up to 140 °C)





(S1) Different soft packing types (up to 100 °C)
(S2) M3 mechanical seal (up to 10 bar - 140 °C)
(S3) MG1 mechanical seal (up to 12 bar - 140 °C)
(S4) M7 mechanical seal (up to 16 bar - 140 °C)
(S5) Double mechanical seal
(S6) Balanced mechanical seal
(S7) Cartridge mechanical seal

Part List

001	Volute casing
003	Casing cover
010	Frame foot
020*	Wear ring (casing)
021*	Wear ring (casing cover)
030	Bearing housing
034	Bearing cover
035	Bearing cover
041	Cooling jacket
042	Gland
044	Lantern ring
048	Mechanical seal cover
050	Impeller
060	Pump shaft
065	Impeller nut
067	Spacer sleeve
070	Shaft sleeve
088	Thrower
200	Ball bearing
202	Cylindrical roller bearing
203	Angular contact ball bearing
210	Impeller key
211	Coupling key
230	Drain plug
240	Seal tubing
400	Stuffing box packing
405	Mechanical seal
410	Oil seal
420	O-Ring

(*) Optional

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	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○							
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○							
Shaft														●	○	○	○	○	○	○
Bearing Housing	●	○																		
Wear Ring (Casing)	○	○	○	○	○	○	○	○	○	○	○	○	○							
Spacer 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

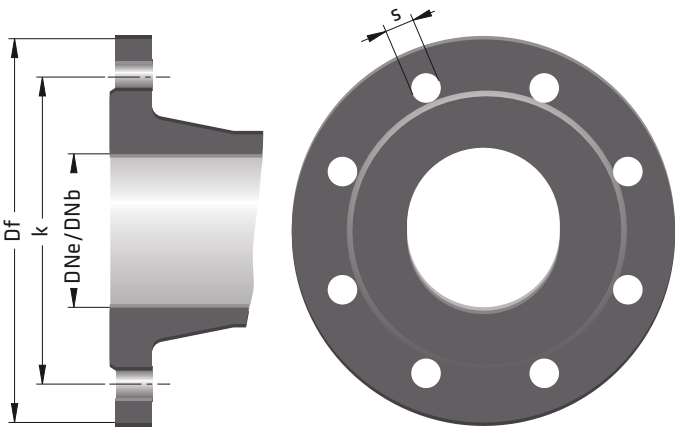
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharhe (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
250	405	355	28	12
300	460	410	28	12

“ n “ number of holes



Standart
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SNMV-H

VERTICAL CENTRIFUGAL PUMPS

Handled Liquids

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

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 1400 m^3/h

Head_____up to 100 m

Speed_____up to 2900 rpm

Operating Temperature_____-10 °C' to +140 °C*

Casing Pressure (Pmax)_____10 bar (16 bar)*

Design Type _____OH3A

(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

•Vertical, radially split volute casing type, single stage, end suction centrifugal pump with closed impeller.

•Volute casing main dimensions comply with EN 733.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of SNMV-H type pumps are "life time grease lubricated" ball bearings.

Shaft Sealing

•In standard production mechanical seals are used according to pumped liquid and working conditions.

Pump Designation

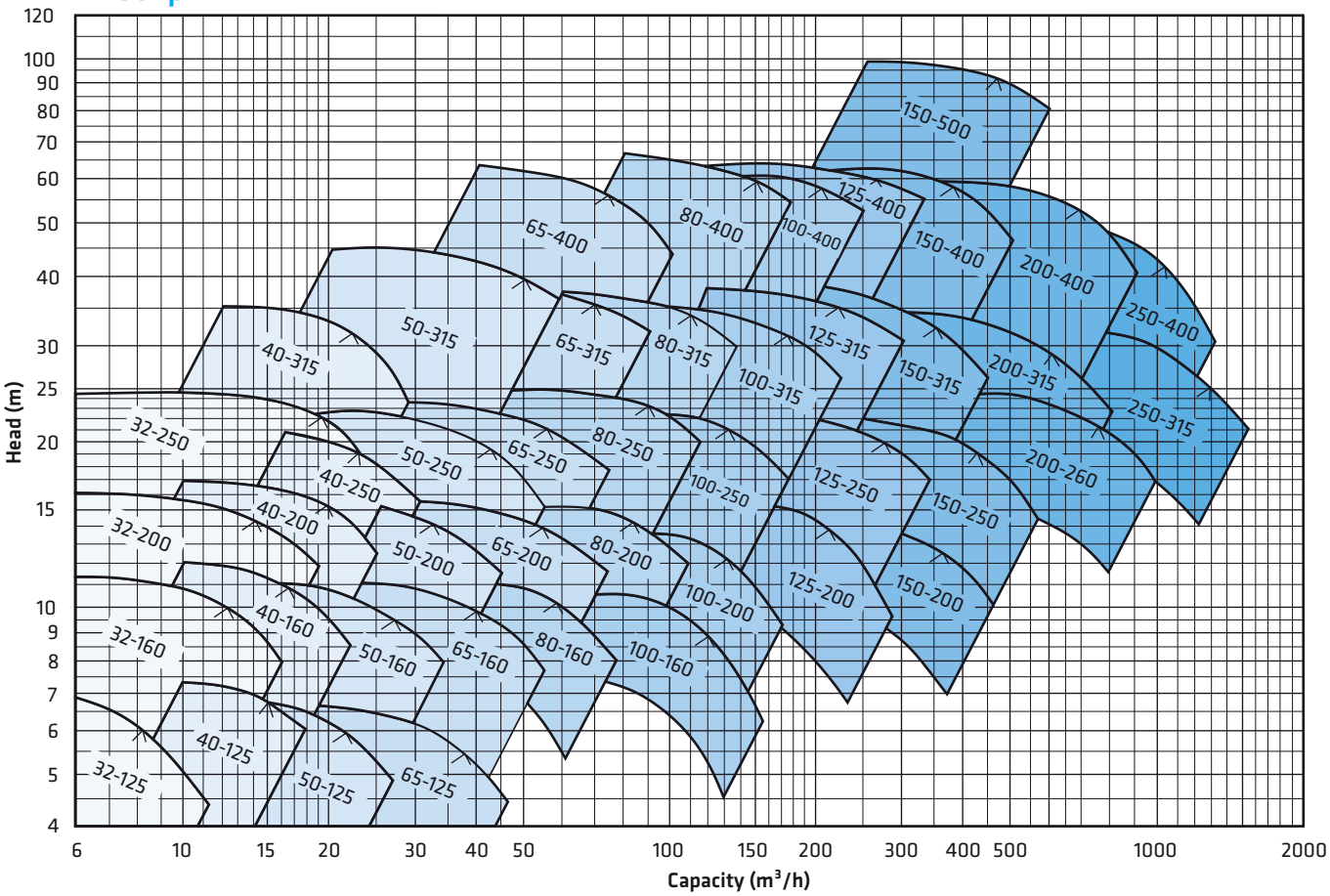
SNMV-H 125 - 315

Pump Type

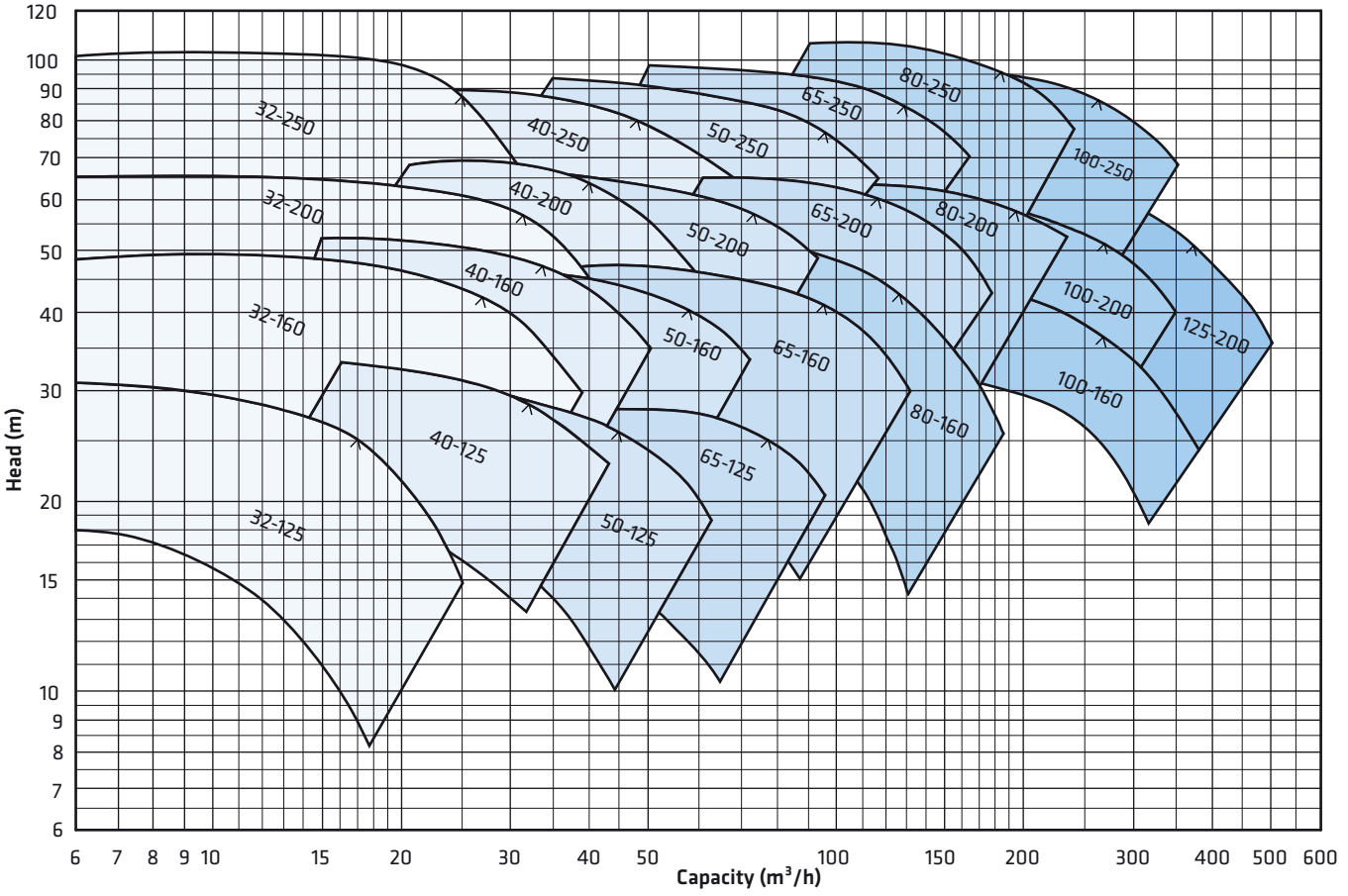
Discharge Nozzle (DN-mm)

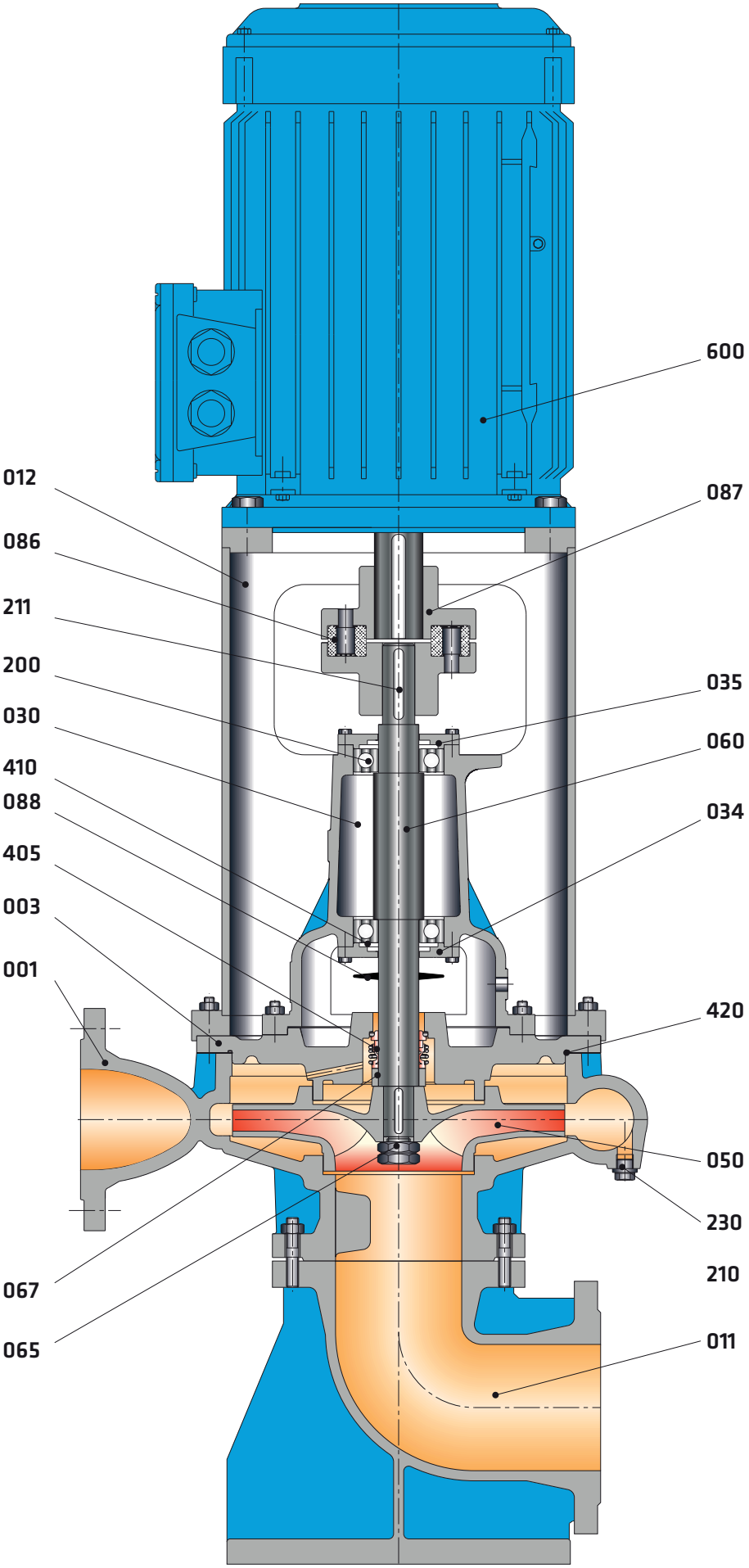
Nominal Impeller Diameter (mm)

1450 rpm



2900 rpm





Part List

001	Volute Casing
003	Casing Cover
011	Elbow Foot
012	Motor Pedestal
030	Bearing Housing
034	Bearing Cover
035	Bearing Cover
050	Impeller
060	Pump Shaft
065	Impeller Nut
067	Spacer Sleeve
086	Coupling Rubber
087	Flexible Coupling
088	Thrower
200	Ball Bearing
210	Impeller Key
211	Coupling Key
230	Drain Plug
405	Mechanical Seal
410	Lip Seal
420	O-Ring
600	Electric Motor

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	●	○	○	○	○	○	○	○	○	○	○	○	○						
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○						
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○						
Shaft														●	○	○	○	○	○
Bearing Housing	●	○																	
Wear Ring (Casing)	○	○	○	○	○	○	○	○	○	○	○	○	○						
Spacer 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

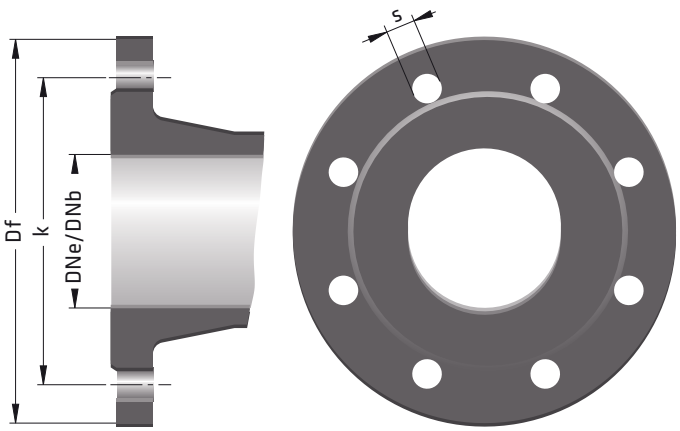
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

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
250	405	355	28	12
300	460	410	28	12

" n " number of holes



Standart
yaşamı koru! save life!

SNM / SNM-V

RIGIDLY COUPLED CENTRIFUGAL PUMPS

Handled Liquids

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

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 500 m^3/h

Head_____up to 100 m

Speed_____up to 2900 rpm

Motor Rating_____up to 55* kW

Operating Temperature_____-10 °C' to +110 °C**

Casing Pressure (Pmax)_____10 bar (16 bar)**

(Pmax: Suction Pressure + Shut off Head)

(*) Contact for 75 kW and 90 kW options
(**) The Material of pumps differ according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

Design Features

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

•Main dimensions of volute casing complies with EN 733.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

•SNM / SNM-V pumps are rigidly coupled with electric motors of IEC frame sizes with high efficiency class.

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•The pump and motor have seperate shafts connected by a rigid coupling and motor bearings absorb all pump axial thrust loads and radial loads.

•SNM / SNM-V type close-coupled pumps are lighter and smaller comparing to the norm centrifugal pumps of same hydraulic specifications.

Shaft Sealing

•Single mechanical seal, flushed by pumped liquid, uncooled and unbalanced.

Pump Designation

SNM- V 100 - 250

Pump Type

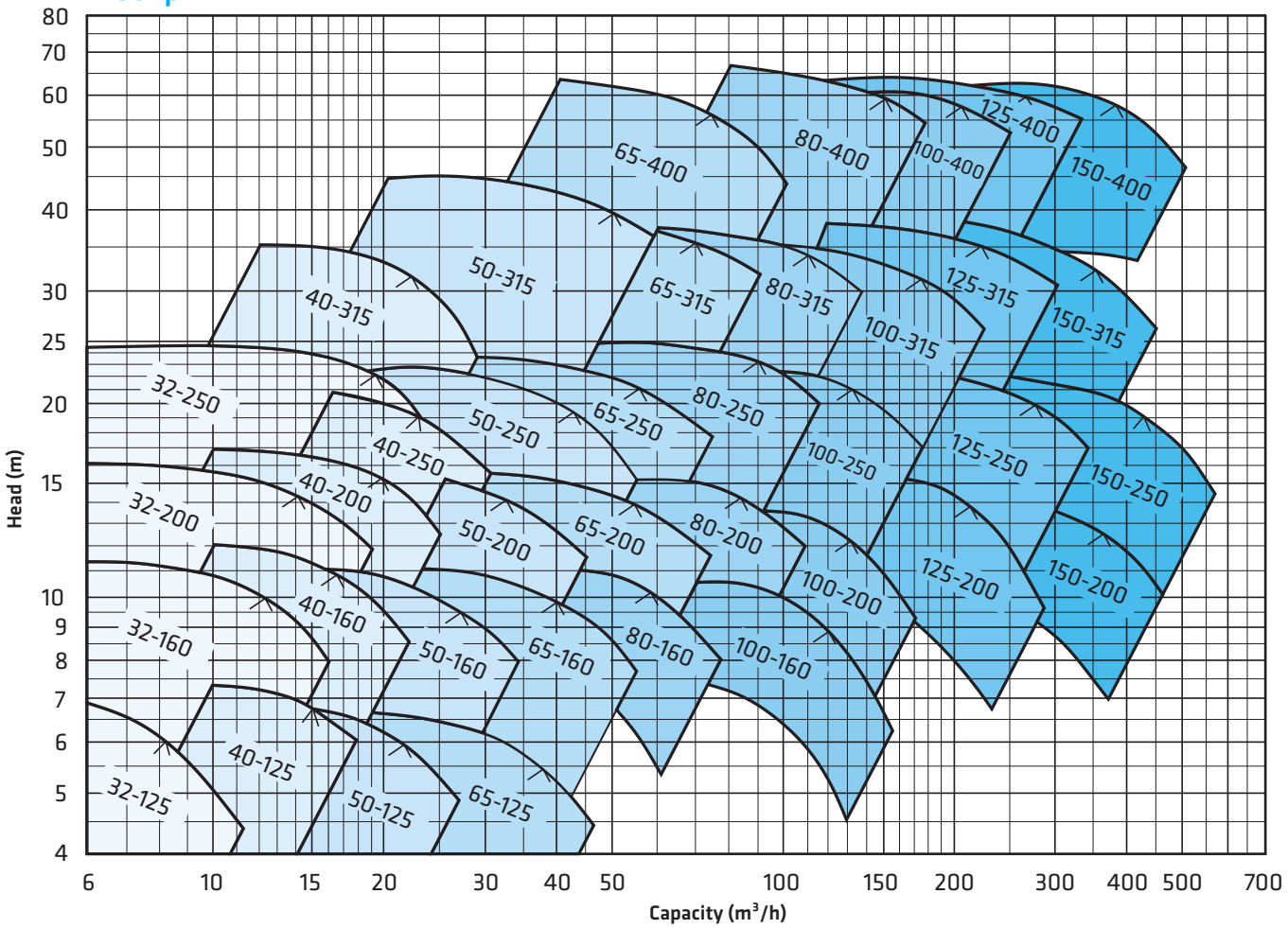
Vertical Installation

Discharge Nozzle (DN-mm)

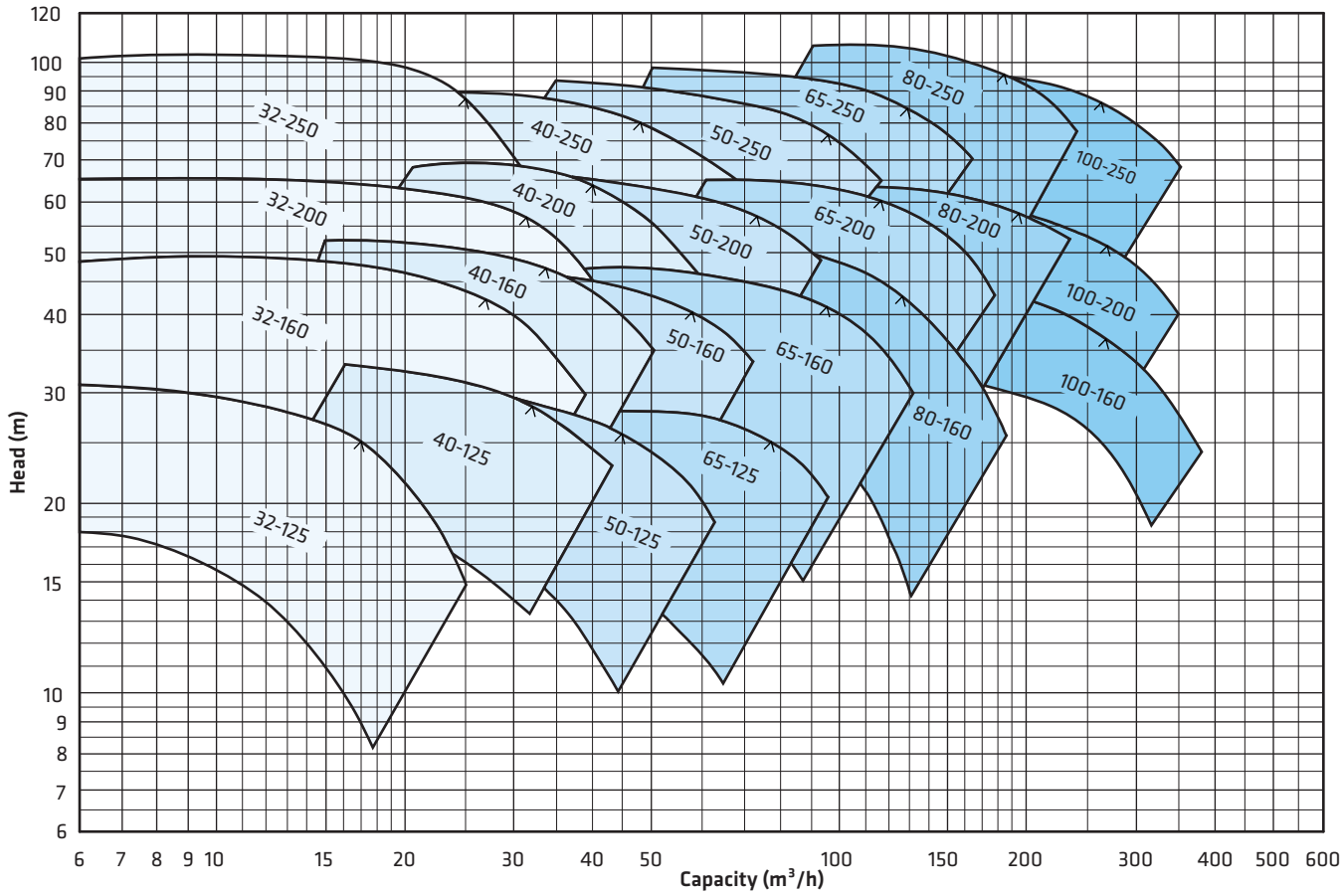
Nominal Impeller Diameter (mm)

09.2015 / Rev. 1

1450 rpm

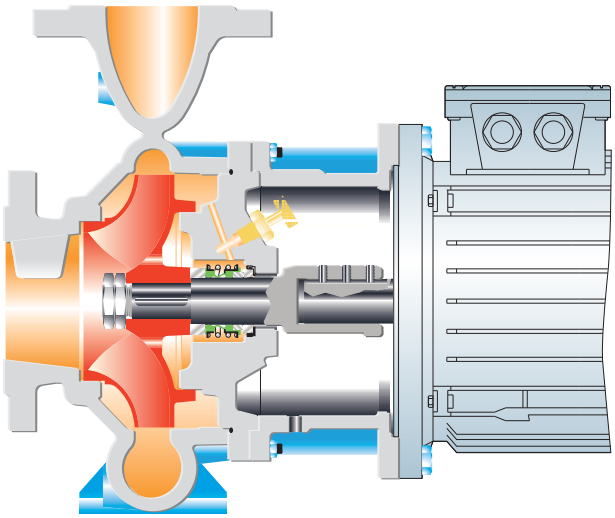


2900 rpm

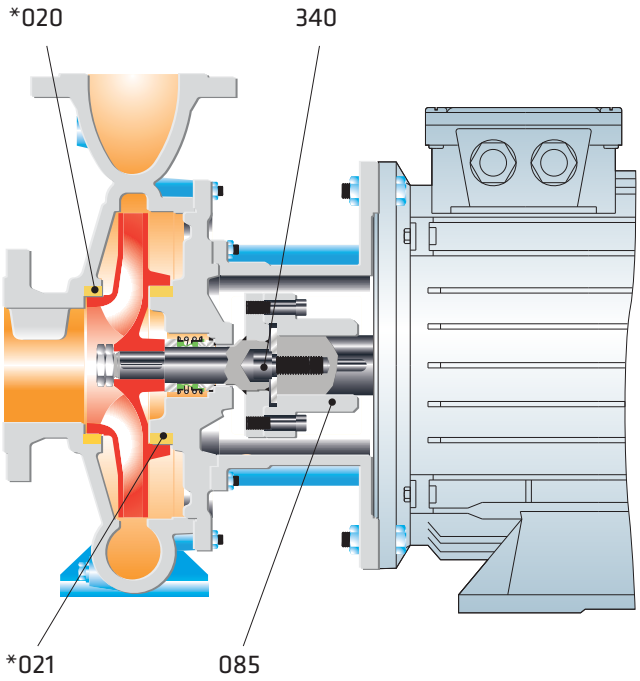


Sectional Drawings

Horizontal Installation (SNM)

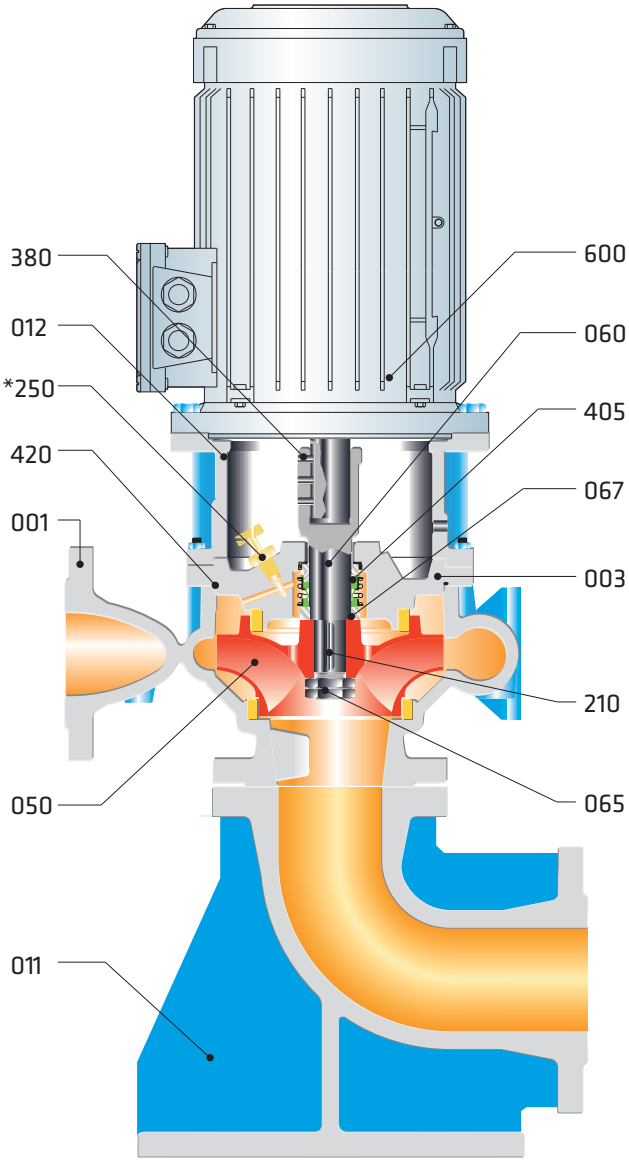


Form **D1**



Form **D2**

Vertical Installation (SNM-V)

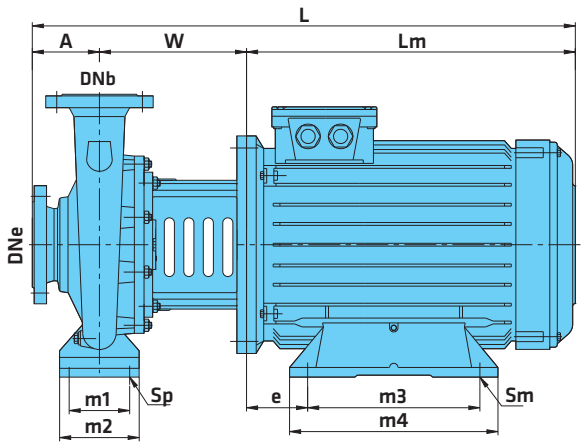


Part List

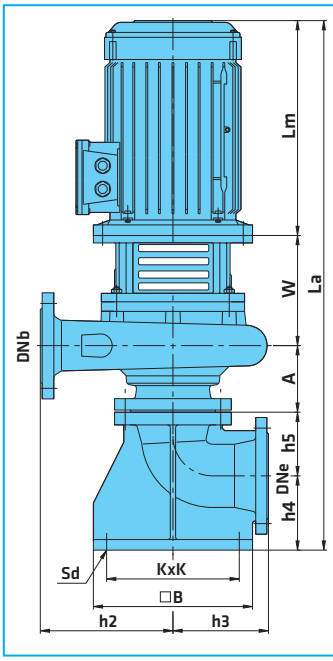
001	Volute Casing	050	Impeller	*250	Air Vent Screw
003	Casing Cover	060	Shaft	340	Allien Bolt
011	Elbow Foot	065	Impeller Nut	380	Set-Screw
012	Motor Pedestal	067	Spacer Sleeve	405	Mechanical Seal
*020	Wear Ring (Casing)	085	Rigid Coupling	420	O-Ring
*021	Wear Ring (Casing Cover)	210	Impeller Key	600	Electric Motor

(*) Optional

SNM Horizontal Installation



SNM-V Vertical Installation



2900 rpm (2 Pole Motor)

FORM	Pump Type	MOTOR		SNM INSTALLATION DIMENSIONS (mm)																		Weight	SNM-V INSTALLATION DIMENSIONS (mm)							Weight
		kW	IEC	DNe	DNb	A	W	Lm	L	H	h1	h2	e	m1	m2	m3	m4	n1	n2	Sp	Sm	(kg)	h3	h4	h5	La	KxK	B	Sd	(kg)
D1	32-125	1,1	80M	50	32	80	165	244	489	252	112	140	-	70	100	-	-	140	190	14	-	43	160	105	110	704	220	270	14	68
D1	32-125	1,5	90S	50	32	80	165	266	511	252	112	140	-	70	100	-	-	140	190	14	-	46	160	105	110	726	220	270	14	71
D1	32-125	2,2	90L	50	32	80	165	266	511	252	112	140	-	70	100	-	-	140	190	14	-	48	160	105	110	726	220	270	14	73
D1	32-125	3	100L	50	32	80	165	292	537	252	112	140	-	70	100	-	-	140	190	14	-	55	160	105	110	752	220	270	14	80
D1	32-160	3	100L	50	32	80	165	292	537	292	132	160	-	70	100	-	-	190	240	14	-	59	160	105	110	752	220	270	14	84
D1	32-160	4	112M	50	32	80	165	336	581	292	132	160	-	70	100	-	-	190	240	14	-	67	160	105	110	796	220	270	14	92
D1	32-160	5,5	132S	50	32	80	195	358	633	292	132	160	-	70	100	-	-	190	240	14	-	69	160	105	110	848	220	270	14	94
D1	32-160	7,5	132S	50	32	80	195	358	633	292	132	160	-	70	100	-	-	190	240	14	-	74	160	105	110	848	220	270	14	99
D1	32-200	5,5	132S	50	32	80	195	361	636	340	160	180	-	70	100	-	-	190	240	14	-	76	160	105	110	851	220	270	14	101
D1	32-200	7,5	132S	50	32	80	195	361	636	340	160	180	-	70	100	-	-	190	240	14	-	81	160	105	110	851	220	270	14	106
D1	32-200	11	160M	50	32	80	238	476	794	340	160	180	108	-	-	210	304	254	312	-	15	125	160	105	110	1009	220	270	14	150
D1	32-250	7,5	132S	50	32	100	195	361	656	405	160	225	-	95	125	-	-	250	320	14	-	91	160	105	110	871	220	270	14	116
D1	32-250	11	160M	50	32	100	240	476	816	405	160	225	108	-	-	210	304	254	312	-	15	135	160	105	110	1031	220	270	14	160
D1	32-250	15	160M	50	32	100	240	476	816	405	160	225	108	-	-	210	304	254	312	-	15	142	160	105	110	1031	220	270	14	167
D1	40-125	2,2	90L	65	40	80	165	266	511	252	112	140	-	70	100	-	-	160	210	14	-	53	160	110	120	741	220	270	14	83
D1	40-125	3	100L	65	40	80	165	292	537	252	112	140	-	70	100	-	-	160	210	14	-	60	160	110	120	767	220	270	14	90
D1	40-125	4	112M	65	40	80	165	336	581	272	132	140	-	70	100	-	-	160	210	14	-	68	160	110	120	811	220	270	14	98
D1	40-125	5,5	132S	65	40	80	195	358	633	272	132	140	89	-	-	140	180	216	260	-	12	70	160	110	120	863	220	270	14	100
D1	40-160	4	112M	65	40	80	165	336	581	292	132	160	-	70	100	-	-	190	240	14	-	69	160	110	120	811	220	270	14	99
D1	40-160	5,5	132S	65	40	80	195	361	636	292	132	160	-	70	100	-	-	190	240	14	-	71	160	110	120	866	220	270	14	101
D1	40-160	7,5	132S	65	40	80	195	361	636	292	132	160	-	70	100	-	-	190	240	14	-	76	160	110	120	866	220	270	14	106
D1	40-160	11	160M	65	40	80	239	476	795	292	160	160	108	-	-	210	304	254	312	-	15	120	160	110	120	1025	220	270	14	150
D1	40-200	7,5	132S	65	40	100	195	361	656	340	160	180	-	60	100	-	-	212	265	14	-	84	160	110	120	886	220	270	14	114
D1	40-200	11	160M	65	40	100	239	476	815	340	160	180	108	-	-	210	304	254	312	-	15	128	160	110	120	1045	220	270	14	158
D1	40-200	15	160M	65	40	100	239	476	815	340	160	180	108	-	-	210	304	254	312	-	15	135	160	110	120	1045	220	270	14	165
D1	40-250	11	160M	65	40	100	240	476	816	405	180	225	-	95	125	-	-	250	320	15	-	141	160	110	120	1046	220	270	14	171
D1	40-250	15	160M	65	40	100	240	476	816	405	180	225	-	95	125	-	-	250	320	15	-	148	160	110	120	1046	220	270	14	178
D1	40-250	18,5	160L	65	40	100	240	476	816	405	180	225	-	95	125	-	-	250	320	15	-	163	160	110	120	1046	220	270	14	193
D1	40-250	22	180M	65	40	100	240	519	859	405	180	225	121	-	-	241	343	279	354	-	15	186	160	110	120	1089	220	270	14	216
D1	40-250	30	200L	65	40	100	240	555	895	425	200	225	133	-	-	305	365	318	400	-	19	223	160	110	120	1125	220	270	14	253
D1	50-125	3	100L	65	50	100	165	292	557	292	132	160	-	70	100	-	-	190	240	14	-	61	160	110	120	787	220	270	14	91
D1	50-125	4	112M	65	50	100	165	336	601	292	132	160	-	70	100	-	-	190	240	14	-	69	160	110	120	831	220	270	14	99
D1	50-125	5,5	132S	65	50	100	195	361	656	292	132	160	89	-	-	140	180	216	260	-	12	71	160	110	120	886	220	270	14	101
D1	50-125	7,5	132S	65	50	100	195	361	656	292	132	160	89	-	-	140	180	216	260	-	12	76	160	110	120	886	220	270	14	106
D1	50-160	5,5	132S	65	50	100	195	361	656	340	160	180	-	70	100	-	-	212	265	14	-	74	160	110	120	886	220	270	14	104
D1	50-160	7,5	132S	65	50	100	195	361	656	340	160	180	-	70	100	-	-	212	265	14	-	79	160	110	120	886	220	270	14	109
D1	50-160	11	160M	65	50	100	239	476	815	340	160	180	108	-	-	210	304	254	312	-	15	123	160	110	120	1045	220	270	14	153
D1	50-200	11	160M	65	50	100	239	476	815	360	160	200	108	-	-	210	304	254	312	-	15	131	160	110	120	1045	220	270	14	161
D1	50-200	15	160M	65	50	100	239	476	815	360	160	200	108	-	-	210	304	254	312	-	15	138	160	110	120	1045	220	270	14	168
D1	50-200	18,5	160L	65	50	100	239	476	815	360	160	200	108	-	-	210	304	254	312	-	15	153	160	110	120	1045	220	270	14	183
D1	50-200	22	180M	65	50	100	239	519	858	380	180	200	121	-	-	241	343	279	354	-	15	176	160	110	120	1088	220	270	14	206

2900 rpm (2 Pole Motor)

FORM	Pump Type	MOTOR		SNM INSTALLATION DIMENSIONS (mm)																	Weight	SNM-V INSTALLATION DIMENSIONS (mm)							Weight
		kW	IEC	DNe	DNb	A	W	Lm	L	H	h1	h2	e	m1	m2	m3	m4	n1	n2	Sp	Sm	(kg)	h3	h4	h5	La	KxK	B	Sd	(kg)
D1	50-250	18,5	160L	65	50	100	239	476	815	405	180	225	-	95	125	-	-	250	320	14	-	166	160	110	120	1045	220	270	14	196
D1	50-250	22	180M	65	50	100	239	519	858	405	200	225	121	-	-	241	343	279	354	-	15	189	160	110	120	1088	220	270	14	219
D1	50-250	30	200M	65	50	100	239	555	894	405	200	225	133	-	-	305	365	250	320	-	19	226	160	110	120	1124	220	270	14	256
D1	50-250	37	200M	65	50	100	239	555	894	405	200	225	133	-	-	305	365	250	320	-	19	245	160	110	120	1124	220	270	14	275
D1	65-125	4	112M	80	65	100	165	336	601	340	160	180	-	95	125	-	-	212	280	14	-	76	180	120	130	851	250	300	19	116
D1	65-125	5,5	132S	80	65	100	195	361	656	340	160	180	-	95	125	-	-	212	280	14	-	78	180	120	130	941	250	300	19	118
D1	65-125	7,5	132S	80	65	100	195	396	691	340	160	180	-	95	125	-	-	212	280	14	-	83	180	120	130	941	250	300	19	123
D1	65-125	11	C132M	80	65	100	195	396	691	340	160	180	-	95	125	-	-	212	280	14	-	103	180	120	130	941	250	300	19	143
D1	65-160	11	160M	80	65	100	239	476	815	360	160	200	108	-	-	210	304	212	280	-	15	127	180	120	130	1065	250	300	19	167
D1	65-160	15	160M	80	65	100	239	476	815	360	160	200	108	-	-	210	304	212	280	-	15	134	180	120	130	1065	250	300	19	174
D1	65-160	18,5	160L	80	65	100	239	476	815	360	160	200	108	-	-	210	304	212	280	-	15	149	180	120	130	1065	250	300	19	189
D1	65-200	18,5	160L	80	65	100	239	476	815	405	180	225	-	95	125	-	-	250	320	14	-	159	180	120	130	1065	250	300	19	199
D1	65-200	22	180M	80	65	100	239	519	858	405	180	225	121	-	-	241	343	279	354	-	-	182	180	120	130	1108	250	300	19	222
D1	65-200	30	200L	80	65	100	239	555	894	405	200	225	133	-	-	305	365	318	400	-	19	219	180	120	130	1144	250	300	19	259
D1	65-250	22	180M	80	65	100	247	519	866	450	200	250	-	120	160	-	-	280	360	15	-	201	180	120	130	1116	250	300	19	241
D1	65-250	30	200L	80	65	100	253	555	908	450	200	250	133	-	-	305	365	318	400	-	19	238	180	120	130	1158	250	300	19	278
D1	65-250	37	200L	80	65	100	253	555	908	450	200	250	133	-	-	305	365	318	400	-	19	257	180	120	130	1158	250	300	19	297
D1	65-250	45	225M	80	65	100	253	625	978	475	225	250	149	-	-	311	383	356	436	-	19	299	180	120	130	1228	250	300	19	339
D2	65-250	55	250M	80	65	100	283	644	1027	500	250	250	168	-	-	349	421	356	436	-	24	333	180	120	130	1277	250	300	19	373
D2	65-250	75	280M2	100	80	125	283	885	1268	450	200	250	192	120	160	-	-	280	360	19	19									
D2	65-250	90	280M2	100	80	125	283	885	1268	450	200	250	192	120	160	-	-	280	360	19	19									
D1	80-160	11	160M	100	80	125	239	476	840	405	180	225	-	95	125	-	-	250	320	14	-	134	230	140	130	1100	250	300	19	177
D1	80-160	15	160M	100	80	125	239	476	840	405	180	225	-	95	125	-	-	250	320	14	-	141	230	140	130	1100	250	300	19	184
D1	80-160	18,5	160L	100	80	125	239	476	840	405	180	225	-	95	125	-	-	250	320	14	-	156	230	140	130	1100	250	300	19	199
D1	80-160	22	180M	100	80	125	239	519	883	405	180	225	121	-	-	241	343	279	354	-	15	179	230	140	130	1153	250	300	19	222
D1	80-200	22	180M	100	80	125	247	519	891	430	180	250	121	-	-	241	343	280	345	-	15	198	230	140	130	1161	250	300	19	241
D1	80-200	30	200L	100	80	125	253	555	933	430	200	250	133	-	-	305	365	280	345	-	19	235	230	140	130	1203	250	300	19	278
D1	80-200	37	200L	100	80	125	253	555	933	430	200	250	133	-	-	305	365	280	345	-	19	254	230	140	130	1203	250	300	19	297
D1	80-200	45	225M	100	80	125	253	625	1003	430	225	250	149	-	-	311	383	280	345	-	24	296	230	140	130	1273	250	300	19	339
D1	80-250	37	200L	100	80	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	268	230	140	130	1203	250	300	19	311
D1	80-250	45	225M	100	80	125	253	625	1003	505	225	280	149	-	-	311	383	356	436	-	19	310	230	140	130	1273	250	300	19	353
D2	80-250	55	250M	100	80	125	253	644	1052	530	250	280	168	-	-	349	421	406	484	-	24	344	230	140	130	1322	250	300	19	387
D2	80-250	75	280M2	100	80	125	283	885	1293	480	200	280	192	120	160	-	-	315	400	19	19									
D2	80-250	90	280M2	100	80	125	283	885	1293	480	200	280	192	120	160	-	-	315	400	19	19									
D1	100-160	30	200L	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	241	200	155	145	1233	280	340	19	304
D1	100-160	37	200L	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	260	200	155	145	1233	280	340	19	323
D1	100-160	45	225M	125	100	125	253	625	1003	505	225	280	149	-	-	311	383	356	436	-	19	302	200	155	145	1303	280	340	19	365
D1	100-200	30	200L	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	249	200	155	145	1233	280	340	19	312
D1	100-200	37	200L	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	268	200	155	145	1233	280	340	19	331
D1	100-200	45	225M	125	100	125	253	625	1003	505	225	280	149	-	-	311	383	383	442	-	19	310	200	155	145	1303	280	340	19	373
D2	100-200	55	250M	125	100	125	283	644	1052	480	250	280	168	-	-	349	421	406	484	-	24	344	200	155	145	1352	280	340	19	407
D2	100-200	75	280M2	125	100	125	283	885	1293	480	200	280	192	120	160	-	-	280	360	19	19									
D2	100-200	90	280M2	125	100	125	283	885	1293	480	200	280	192	120	160	-	-	280	360	19	19									
D1	100-250	45	225M	125	100	140	253	625	1018	505	225	280	149	-	-	311	383	356	436	-	19	319	200	155	145	1318	280	340	19	382
D2	100-250	55	250M	125	100	140	283	644	1067	505	250	280	168	-	-	349	421	406	484	-	24	353	200	155	145	1367	280	340	19	416
D2	100-250	75	280M2	125	100	140	283	885	1308	505	225	280	192	120	160	-	-	315	400	19	19									
D2	100-250	90	280M2	125	100	140	283	885	1308	505	225	280	192	120	160	-	-	315	400	19	19									

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		SNM INSTALLATION DIMENSIONS (mm)														Weight	SNM-V INSTALLATION DIMENSIONS (mm)							Weight
		kW	IEC	DNe	DNb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp	(kg)	h3	h4	h5	La	KxK	B	Sd	(Kg)
D1	32-125	0,25	71M	50	32	80	165	223	468	254	114	140	70	100	140	190	14	39	160	105	110	683	220	270	14	64
D1	32-125	0,37	71M	50	32	80	165	223	468	254	114	140	70	100	140	190	14	40	160	105	110	683	220	270	14	65
D1	32-160	0,37	71M	50	32	80	165	223	468	292	132	160	70	100	190	240	14	44	160	105	110	683	220	270	14	69
D1	32-160	0,55	80M	50	32	80	165	243	488	292	132	160	70	100	190	240	14	46	160	105	110	703	220	270	14	71
D1	32-160	0,75	80M	50	32	80	165	243	488	292	132	160	70	100	190	240	14	47	160	105	110	703	220	270	14	72
D1	32-200	0,55	80M	50	32	80	165	244	489	340	160	180	70	100	190	240	14	53	160	105	110	704	220	270	14	78
D1	32-200	0,75	80M	50	32	80	165	244	489	340	160	180	70	100	190	240	14	54	160	105	110	704	220	270	14	79
D1	32-200	1,1	90S	50	32	80	165	267	532	340	160	180	70	100	190	240	14	56	160	105	110	706	220	270	14	81
D1	32-250	1,1	90S	50	32	100	165	267	532	405	180	225	95	125	250	320	14	66	160	105	110	746	220	270	14	91
D1	32-250	1,5	90L	50	32	100	165	267	532	405	180	225	95	125	250	320	14	68	160	105	110	746	220	270	14	93
D1	32-250	2,2	100L	50	32	100	165	292	557	405	180	225	95	125	250	320	14	76	160	105	110	772	220	270	14	101
D1	32-250	3	100L	50	32	100	165	292	557	405	180	225	95	125	250	320	14	79	160	105	110	772	220	270	14	104
D1	40-125	0,25	71M	65	40	80	165	223	468	252	112	140	70	100	160	210	14	44	160	110	120	698	220	270	14	74
D1	40-125	0,37	71M	65	40	80	165	223	468	252	112	140	70	100	160	210	14	45	160	110	120	698	220	270	14	75
D1	40-125	0,55	80M	65	40	80	165	244	489	252	112	140	70	100	160	210	14	47	160	110	120	719	220	270	14	77
D1	40-160	0,55	80M	65	40	80	165	244	489	292	132	160	70	100	190	240	14	48	160	110	120	719	220	270	14	78
D1	40-160	0,75	80M	65	40	80	165	244	489	292	132	160	70	100	190	240	14	49	160	110	120	719	220	270	14	79
D1	40-160	1,1	90S	65	40	80	165	267	532	292	132	160	70	100	190	240	14	51	160	110	120	721	220	270	14	81

Technical Data

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		SNM INSTALLATION DIMENSIONS (mm)														Weight	SNM-V INSTALLATION DIMENSIONS (mm)							Weight
		kW	IEC	DNe	DNb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp	(kg)	h3	h4	h5	La	KxK	B	Sd	(Kg)
D1	40-200	0,75	80M	65	40	100	165	244	509	340	160	180	60	100	212	265	14	57	160	110	120	739	220	220	14	87
D1	40-200	1,1	90S	65	40	100	165	267	532	340	160	180	60	100	212	265	14	59	160	110	120	741	220	220	14	89
D1	40-200	1,5	90L	65	40	100	165	267	532	340	160	180	60	100	212	265	14	61	160	110	120	741	220	220	14	91
D1	40-200	2,2	100L	65	40	100	165	292	557	340	160	180	60	100	212	265	14	69	160	110	120	787	220	220	14	99
D1	40-250	1,1	90S	65	40	100	165	267	532	405	180	225	95	125	250	320	14	72	160	110	120	761	220	270	14	102
D1	40-250	1,5	90L	65	40	100	165	267	532	405	180	225	95	125	250	320	14	74	160	110	120	761	220	270	14	104
D1	40-250	2,2	100L	65	40	100	165	292	557	405	180	225	95	125	250	320	14	82	160	110	120	787	220	270	14	112
D1	40-250	3	100L	65	40	100	165	292	557	405	180	225	95	125	250	320	14	85	160	110	120	787	220	270	14	115
D1	40-315	2,2	100L	65	40	100	165	292	557	450	200	250	95	125	280	345	14	91	160	110	120	787	220	270	14	121
D1	40-315	3	100L	65	40	100	165	292	557	450	200	250	95	125	280	345	14	94	160	110	120	787	220	270	14	124
D1	40-315	4	112M	65	40	100	165	336	601	450	200	250	95	125	280	345	14	101	160	110	120	831	220	270	14	131
D1	40-315	5,5	132S	65	40	100	195	396	691	450	200	250	95	125	280	345	14	111	160	110	120	886	220	270	14	141
D1	50-125	0,37	71M	65	50	100	165	223	488	292	132	160	70	100	190	240	14	46	160	110	120	718	220	270	14	76
D1	50-125	0,55	80M	65	50	100	165	244	509	292	132	160	70	100	190	240	14	48	160	110	120	739	220	270	14	78
D1	50-125	0,75	80M	65	50	100	165	244	509	292	132	160	70	100	190	240	14	49	160	110	120	739	220	270	14	79
D1	50-160	0,75	80M	65	50	100	165	243	508	340	160	180	70	100	212	265	14	52	160	110	120	738	220	270	14	82
D1	50-160	1,1	90S	65	50	100	165	267	532	340	160	180	70	100	212	265	14	54	160	110	120	761	220	270	14	84
D1	50-160	1,5	90L	65	50	100	165	267	532	340	160	180	70	100	212	265	14	56	160	110	120	761	220	270	14	86
D1	50-200	1,1	90S	65	50	100	165	267	532	360	160	200	70	100	212	265	14	62	160	110	120	741	220	270	14	92
D1	50-200	1,5	90L	65	50	100	165	267	532	360	160	200	70	100	212	265	14	64	160	110	120	741	220	270	14	94
D1	50-200	2,2	100L	65	50	100	165	292	557	360	160	200	70	100	212	265	14	72	160	110	120	787	220	270	14	102
D1	50-200	3	100L	65	50	100	165	292	557	360	160	200	70	100	212	265	14	75	160	110	120	787	220	270	14	105
D1	50-250	2,2	100L	65	50	100	165	292	557	405	180	225	95	125	250	320	14	85	160	110	120	787	220	270	14	115
D1	50-250	3	100L	65	50	100	165	292	557	405	180	225	95	125	250	320	14	88	160	110	120	787	220	270	14	118
D1	50-250	4	112M	65	50	100	165	336	601	405	180	225	95	125	250	320	14	95	160	110	120	831	220	270	14	125
D1	50-250	5,5	132S	65	50	100	195	396	691	405	180	225	95	125	250	320	14	105	160	110	120	886	220	270	14	135
D1	50-315	4	112M	80	50	125	188	336	649	505	225	280	95	125	280	345	19	119	180	120	130	899	250	300	19	159
D1	50-315	5,5	132S	80	50	125	203	396	724	505	225	280	95	125	280	345	19	129	180	120	130	936	250	300	19	169
D1	50-315	7,5	132M	80	50	125	203	396	724	505	225	280	95	125	280	345	19	150	180	120	130	936	250	300	19	190
D1	50-315	11	160M	80	50	125	247	476	848	505	225	280	95	125	280	345	19	175	180	120	130	1098	250	300	19	215
D1	65-125	0,55	80M	80	65	100	165	244	509	340	160	180	95	125	212	280	14	55	180	120	130	759	250	300	19	95
D1	65-125	0,75	80M	80	65	100	165	244	509	340	160	180	95	125	212	280	14	56	180	120	130	759	250	300	19	96
D1	65-125	1,1	90S	80	65	100	165	267	532	340	160	180	95	125	212	280	14	58	180	120	130	761	250	300	19	98
D1	65-160	1,1	90S	80	65	100	165	267	532	360	160	200	95	125	212	280	14	58	180	120	130	761	250	300	19	98
D1	65-160	1,5	90L	80	65	100	165	267	532	360	160	200	95	125	212	280	14	60	180	120	130	761	250	300	19	100
D1	65-160	2,2	100L	80	65	100	165	292	557	360	160	200	95	125	212	280	14	68	180	120	130	807	250	300	19	108
D1	65-200	1,5	90L	80	65	100	165	267	532	405	180	225	95	125	250	320	14	70	180	120	130	761	250	300	19	110
D1	65-200	2,2	100L	80	65	100	165	292	557	405	180	225	95	125	250	320	14	78	180	120	130	807	250	300	19	118
D1	65-200	3	100L	80	65	100	165	292	557	405	180	225	95	125	250	320	14	81	180	120	130	807	250	300	19	121
D1	65-200	4	112M	80	65	100	165	336	601	405	180	225	95	125	250	320	14	88	180	120	130	851	250	300	19	128
D1	65-250	3	100L	80	65	100	188	292	580	450	200	250	120	160	280	360	19	100	180	120	130	830	250	300	19	140
D1	65-250	4	112M	80	65	100	188	335	623	450	200	250	120	160	280	360	19	107	180	120	130	873	250	300	19	147
D1	65-250	5,5	132S	80	65	100	203	396	699	450	200	250	120	160	280	360	19	117	180	120	130	914	250	300	19	157
D1	65-250	7,5	132M	80	65	100	203	396	699	450	200	250	120	160	280	360	19	138	180	120	130	914	250	300	19	178
D1	65-315	5,5	132S	80	65	125	218	396	739	505	225	280	120	160	315	400	19	117	180	120	130	954	250	300	19	157
D1	65-315	7,5	132M	80	65	125	218	396	739	505	225	280	120	160	315	400	19	138	180	120	130	954	250	300	19	178
D1	65-315	11	160M	80	65	125	247	476	848	505	225	280	120	160	315	400	19	163	180	120	130	1098	250	300	19	203
D1	65-315	15	160L	80	65	125	247	476	848	505	225	280	120	160	315	400	19	177	180	120	130	1098	250	300	19	217
D1	65-400	11	160M	100	65	125	237	476	838	615	260	355	120	160	355	435	19	208	180	120	130	1088	250	300	19	251
D1	65-400	15	160L	100	65	125	237	476	838	615	260	355	120	160	355	435	19	222	180	120	130	1088	250	300	19	265
D1	65-400	18,5	180M	100	65	125	237	519	881	615	260	355	120	160	355	435	19	251	180	120	130	1131	250	300	19	294
D1	65-400	22	180L	100	65	125	237	519	881	615	260	355	120	160	355	435	19	259	180	120	130	1131	250	300	19	302
D2	65-400	30	200L	100	65	125	237	555	917	615	260	355	120	160	355	435	19	311	180	120	130	1167	250	300	19	354
D1	80-160	1,5	90L	100	80	125	165	267	557	405	180	225	95	125	250	320	14	67	230	140	130	826	250	300	19	110
D1	80-160	2,2	100L	100	80	125	165	292	582	405	180	225	95	125	250	320	14	75	230	140	130	852	250	300	19	118
D1	80-160	3	100L	100	80	125	165	292	582	405	180	225	95	125	250	320	14	80	230	140	130	852	250	300	19	123
D1	80-200	3	100L	100	80	125	188	292	605	430	180	250	95	125	280	345	14	97	230	140	130	875	250	300	19	140
D1	80-200	4	112M	100	80	125	188	336	649	430	180	250	95	125	280	345	14	104	230	140	130	919	250	300	19	147
D1	80-200	5,5	132S	100	80	125	203	396	724	430	180	250	95	125	280	345	14	114	230	140	130	959	250	300	19	157
D1	80-250	4	112M	100	80	125	188	335	648	480	200	280	120	160	315	400	19	118	230	140	130	918	250	300	19	161
D1	80-250	5,5	132S	100	80	125	203	396	724	480	200	280	120	160	315	400	19	128	230	140	130	959	250	300	19	171
D1	80-250	7,5	132M	100	80	125	203	396	724	480	200	280	120	160	315	400	19	149	230	140	130	959	250	300	19	192
D1	80-250	11	160M	100	80	125	247	466	838	480	200	280	120	160	315	400	19	174	230	140	130	1118	250	300	19	217
D1	80-315	7,5	132M	100	80	125	203	396	724	565	250	315	120	160	315	400	19	175	230	140	130	959	250	300	19	218
D1	80-315	11	160M	100	80	125	247	466	838	565	250	315	120	160	315	400	19	200	230	140	130	1118	250	300	19	243
D1	80-315	15	160L	100	80	125	247	466	838	565	250	315	120	160	315	400	19	214	230	140	130	1118	250	300	19	257
D1	80-315	18,5	180M	100	80	125	247	519	891	565	250	315	120	160	315	400	19	243	230	140	130	1161	250	300	19	286
D1	80-400	18,5	180M	100	80	125	255	519	899	635	280	355	120	160	355	435	19	274	230	140	130	1169	250	300	19	317
D1	80-400	22	180L	100	80	125	255	519	899	635	280	355	120	160	355	435	19	282	230	140	130	1169	250	300	19	325
D2	80-400	30	200L	100	80	125	255	555	935	635	280	355	120	160	355	435	19	334	230	140	130	1205	250	300	19	377
D2	80-400	37	225S	100	80	125	300	625	1050	635	280	355	120	160	355	435	19	384	230	140	130	1320	250	300	19	427

Technical Data

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		SNM INSTALLATION DIMENSIONS (mm)														Weight	SNM-V INSTALLATION DIMENSIONS (mm)							Weight
		kW	IEC	DNe	Dnb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp	(kg)	h3	h4	h5	La	KxK	B	Sd	(kg)
D1	100-160	3	100L	125	100	125	188	292	605	480	200	280	120	160	280	360	19	103	200	155	145	905	280	340	19	166
D1	100-160	4	112M	125	100	125	188	336	649	480	200	280	120	160	280	360	19	110	200	155	145	949	280	340	19	173
D1	100-160	5,5	132M	125	100	125	203	361	689	480	200	280	120	160	280	360	19	120	200	155	145	989	280	340	19	183
D1	100-200	3	100L	125	100	125	188	292	605	480	200	280	120	160	280	360	19	111	200	155	145	905	280	340	19	174
D1	100-200	4	112M	125	100	125	188	335	648	480	200	280	120	160	280	360	19	118	200	155	145	948	280	340	19	181
D1	100-200	5,5	132S	125	100	125	203	396	724	480	200	280	120	160	280	360	19	128	200	155	145	986	280	340	19	191
D1	100-200	7,5	132M	125	100	125	203	396	724	480	200	280	120	160	280	360	19	149	200	155	145	986	280	340	19	212
D1	100-250	5,5	132S	125	100	140	203	396	739	505	225	280	120	160	315	400	19	137	200	155	145	1003	280	340	19	200
D1	100-250	7,5	132M	125	100	140	203	396	739	505	225	280	120	160	315	400	19	158	200	155	145	1003	280	340	19	221
D1	100-250	11	160M	125	100	140	247	466	853	505	225	280	120	160	315	400	19	183	200	155	145	1163	280	340	19	246
D1	100-250	15	160L	125	100	140	247	466	853	505	225	280	120	160	315	400	19	197	200	155	145	1163	280	340	19	260
D1	100-315	11	160M	125	100	140	247	466	853	565	250	315	120	160	315	400	19	207	200	155	145	1163	280	340	19	270
D1	100-315	15	160L	125	100	140	247	466	853	565	250	315	120	160	315	400	19	221	200	155	145	1163	280	340	19	284
D1	100-315	18,5	180M	125	100	140	247	519	906	565	250	315	120	160	315	400	19	250	200	155	145	1206	280	340	19	313
D1	100-315	22	180L	125	100	140	247	519	906	565	250	315	120	160	315	400	19	258	200	155	145	1206	280	340	19	321
D2	100-315	30	200L	125	100	140	253	555	948	565	250	315	120	160	315	400	19	310	200	155	145	1248	280	340	19	373
D1	100-400	22	180L	125	100	140	255	519	914	635	280	355	150	200	400	500	19	306	200	155	145	1214	280	340	19	369
D2	100-400	30	200L	125	100	140	255	555	950	635	280	355	150	200	400	500	19	358	200	155	145	1250	280	340	19	421
D2	100-400	37	225S	125	100	140	310	625	1075	635	280	355	150	200	400	500	19	408	200	155	145	1375	280	340	19	471
D2	100-400	45	225M	125	100	140	310	625	1075	635	280	355	150	200	400	500	19	445	200	155	145	1375	280	340	19	508
D2	100-400	55	250M	125	100	140	285	644	1069	635	280	355	150	200	400	500	19	470	200	155	145	1369	280	340	19	533
D2	100-400	75	280M4	125	100	140	285	885	1310	615	280	335	120	160	400	500	23									
D2	100-400	90	280M4	125	100	140	285	885	1310	615	280	335	120	160	400	500	23									
D1	125-200	7,5	132M	150	125	140	203	396	739	565	250	315	120	160	315	400	19	157	250	190	180	1074	340	400	23	237
D1	125-200	11	160M	150	125	140	247	466	853	565	250	315	120	160	315	400	19	182	250	190	180	1233	340	400	23	262
D1	125-200	15	160L	150	125	140	247	466	853	565	250	315	120	160	315	400	19	196	250	190	180	1233	340	400	23	276
D1	125-250	11	160M	150	125	140	247	466	853	605	250	355	120	160	315	400	19	198	250	190	180	1233	340	400	23	278
D1	125-250	15	160L	150	125	140	247	466	853	605	250	355	120	160	315	400	19	212	250	190	180	1233	340	400	23	292
D1	125-250	18,5	180L	150	125	140	247	519	906	605	250	355	120	160	315	400	19	241	250	190	180	1276	340	400	23	321
D1	125-250	22	180M	150	125	140	247	519	906	605	250	355	120	160	315	400	19	249	250	190	180	1276	340	400	23	329
D1	125-315	15	160L	150	125	140	255	476	871	635	280	355	150	200	400	500	23	249	250	190	180	1241	340	400	23	329
D1	125-315	18,5	180M	150	125	140	255	519	914	635	280	355	150	200	400	500	23	278	250	190	180	1284	340	400	23	358
D1	125-315	22	180M	150	125	140	255	519	914	635	280	355	150	200	400	500	23	286	250	190	180	1284	340	400	23	366
D2	125-315	30	200L	150	125	140	255	555	950	635	280	355	150	200	400	500	23	338	250	190	180	1320	340	400	23	418
D2	125-315	37	225S	150	125	140	310	625	1075	635	280	355	150	200	400	500	23	388	250	190	180	1445	340	400	23	468
D2	125-400	37	225S	150	125	160	310	625	1095	635	280	355	150	200	400	500	23	413	250	190	180	1465	340	400	23	493
D2	125-400	45	225M	150	125	160	310	625	1095	635	280	355	150	200	400	500	23	450	250	190	180	1465	340	400	23	530
D2	125-400	55	250M	150	125	160	310	644	1114	635	280	355	150	200	400	500	23	475	250	190	180	1484	340	400	23	555
D2	125-400	75	280M4	150	125	140	310	885	1334	615	315	335	192	200	400	500	23									
D2	125-400	90	280M4	150	125	140	310	885	1334	615	315	335	192	200	400	500	23									
D1	150-200	11	160M	200	150	160	247	466	873	635	280	355	150	200	400	500	23	221	315	225	330	1438	530	600	23	336
D1	150-200	15	160L	200	150	160	247	466	873	635	280	355	150	200	400	500	23	235	315	225	330	1438	530	600	23	350
D1	150-200	18,5	180M	200	150	160	247	519	926	635	280	355	150	200	400	500	23	264	315	225	330	1481	530	600	23	379
D1	150-250	15	160L	200	150	160	247	466	873	655	280	375	150	200	400	500	23	265	315	225	330	1333	530	600	23	380
D1	150-250	18,5	180M	200	150	160	247	519	926	655	280	375	150	200	400	500	23	294	315	225	330	1438	530	600	23	409
D1	150-250	22	180L	200	150	160	247	519	926	655	280	375	150	200	400	500	23	302	315	225	330	1481	530	600	23	417
D2	150-250	30	200L	200	150	160	253	555	968	655	280	375	150	200	400	500	23	354	315	225	330	1481	530	600	23	469
D1	150-315	22	180L	200	150	160	255	519	934	680	280	400	150	200	450	550	23	306	315	225	330	1523	530	600	23	421
D2	150-315	30	200L	200	150	160	255	555	970	680	280	400	150	200	450	550	23	358	315	225	330	1489	530	600	23	473
D2	150-315	37	225S	200	150	160	310	625	1095	680	280	400	150	200	450	550	23	408	315	225	330	1650	530	600	23	523
D2	150-315	45	225M	200	150	160	310	625	1905	680	280	400	150	200	450	550	23	445	315	225	330	1650	530	600	23	560
D2	150-400	45	225M	200	150	160	310	625	1095	765	315	450	150	200	450	550	23	472	315	225	330	1650	530	600	23	587
D2	150-400	55	250M	200	150	160	310	644	1114	765	315	450	150	200	450	550	23	497	315	225	330	1669	530	600	23	612
D2	150-400	75	280M4	200	150	160	310	885	1355	765	315	450	192	200	450	550	23									
D2	150-400	90	280M4	200	150	160	310	885	1355	765	315	450	192	200	450	550	23									

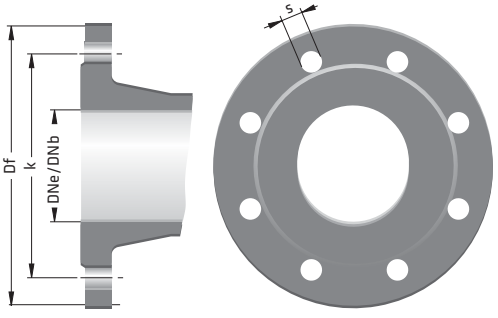
NOT: Dimensions and weight may change according to motor brand. Rights reserved to change without notice.

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



Material Options

Part List	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4317	2.1050.01	2.0975.01	1.4021	1.4301	1.4306	1.4401	1.4404
Volute Casing	●	○	○	○	○	○	○	○	○	○					
Casing Cover	●	○	○	○	○	○	○	○	○	○					
Impeller	●	○	○	○	○	○	○	○	○	○					
Shaft											●	○	○	○	○
Motor Pedestal	●	○													
Wear Ring (casing)	○	○	○	○	○	○	○	○	○	○					
Mechanical Seal (*)	EN 12756 / DIN 24960														

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

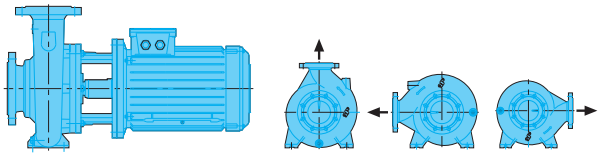
● Standart manufacturing
○ Optional

Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	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
Martenzitic Stainless Cast Steel	1.4317	G-X4 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 316L

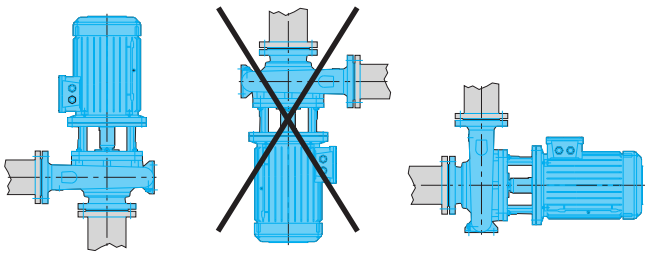
Installation Arrangements

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



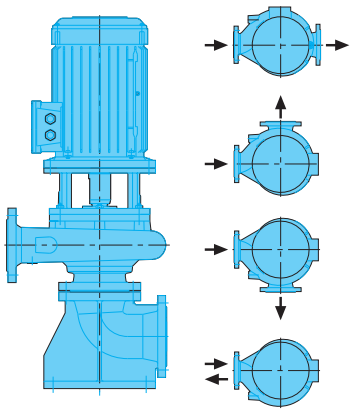
Horizontal installation on ground

Horizontal position on a base plate



Installation on perpendicular pipes

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



Veritical installation on ground

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

•Standard manufacturing is as in the drawings above. Suction elbow position can be adjusted for different positions.

Standart
yaşamı koru! save life!

SNL
IN-LINE PUMPS

Handled Liquids

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

Technical Data

Discharge Flange_____DN 40.....DN 200 mm

Capacity_____up to 500 m^3/h

Head_____up to 95 m

Speed_____up to 2900 rpm

Motor Rating_____up to 55 kW*

Operating Temperature_____-10 °C' to +110 °C**

Casing Pressure (Pmax)_____10 bar (16 bar)**

Design Type _____OH4

(Pmax: Suction Pressure + Shut off Head)

(*) Contact for 75 kW and 90 kW options
(**) The Material of pumps differ according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

Design Features

•Volute casing, single stage, rigidly coupled in-line centrifugal pump with closed impeller.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

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

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

•Axial thrust is balanced by impeller balancing holes system.

•The pump and motor have seperate shafts connected by a rigid coupling and motor bearings absorb all pump axial thrust bads and radial load.

•Direction of rotation is clockwise viewed from drive end.

Shaft Sealing

•Single mechanical seal, flushed by pumped liquid, uncooled and unbalanced.

Pump Designation

SNL 100 - 250

Pump Type

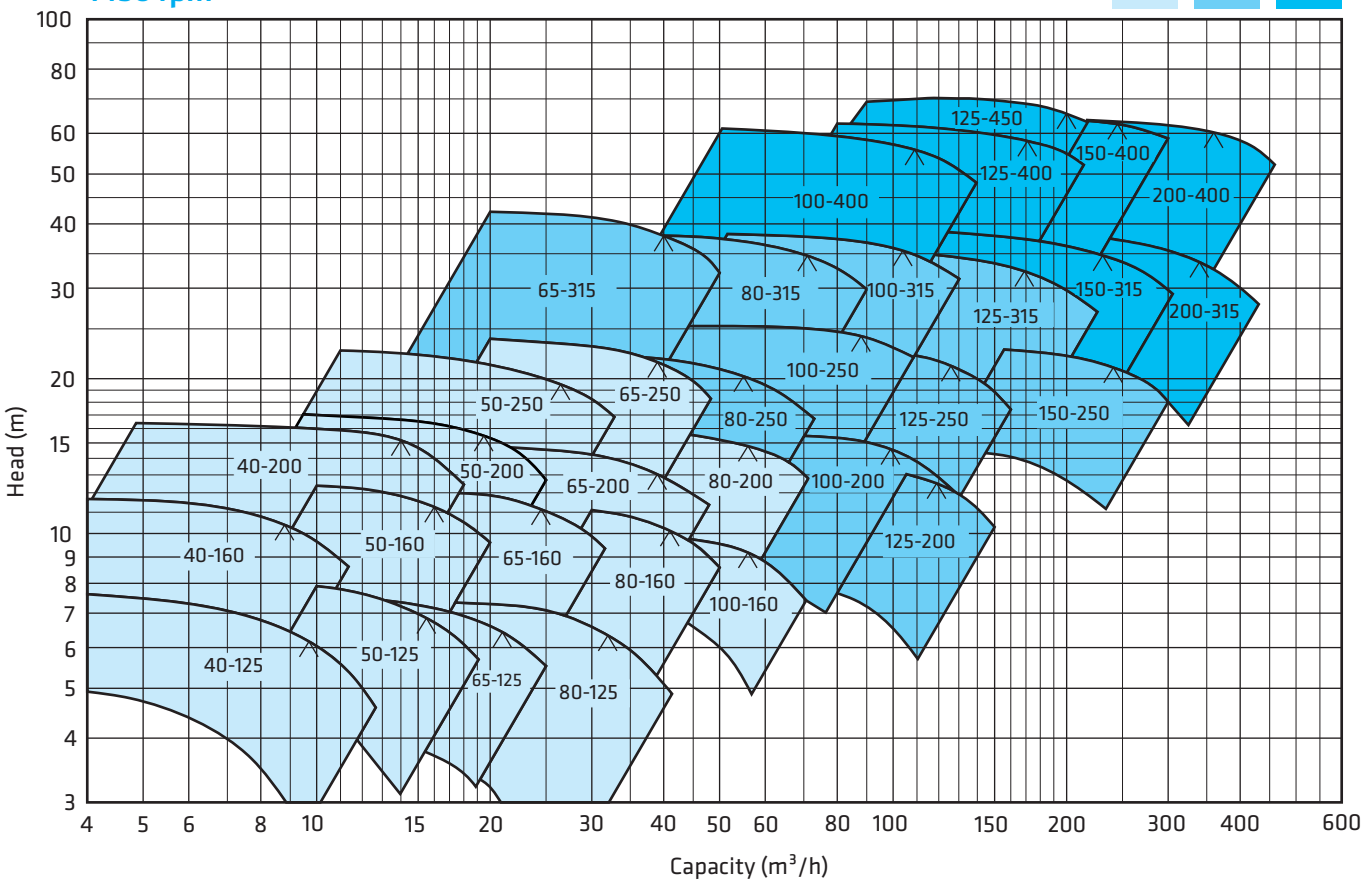
Suction and Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

Field Chart

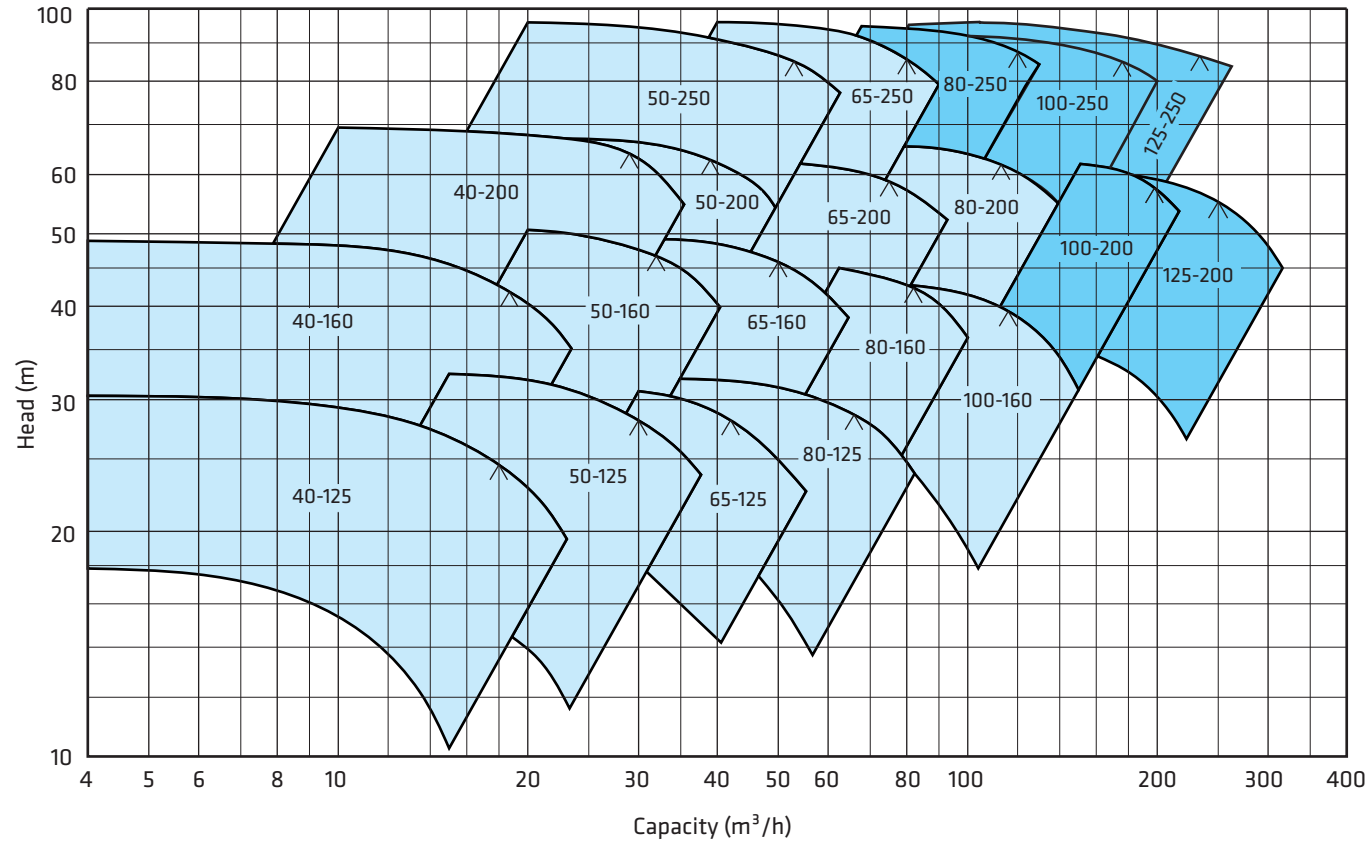
1450 rpm

Grouped according to mechanical seal dimension A B C

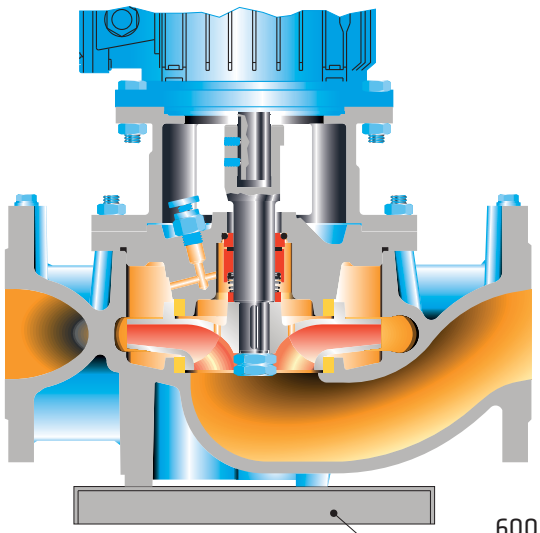


2900 rpm

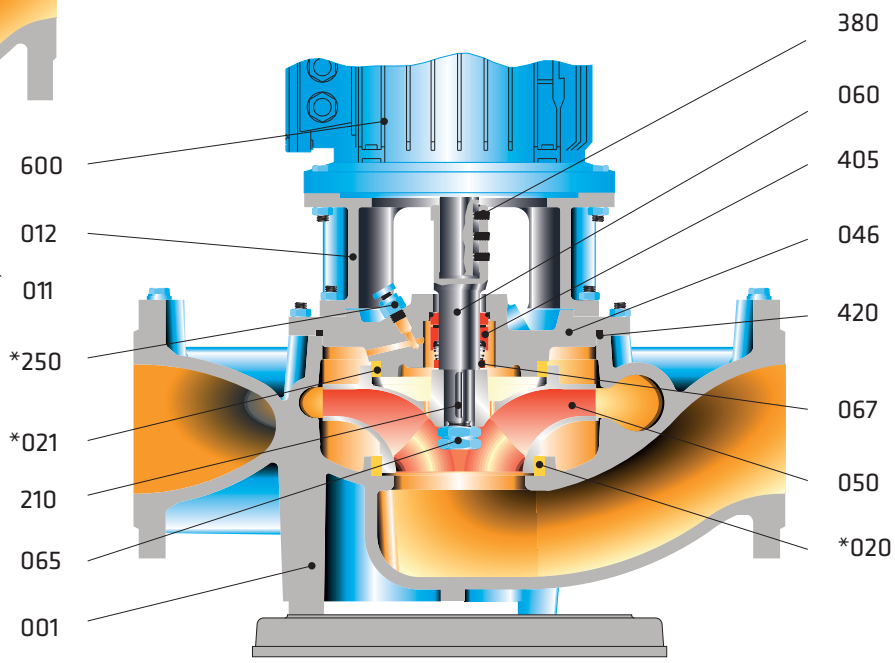
Grouped according to mechanical seal dimension A B



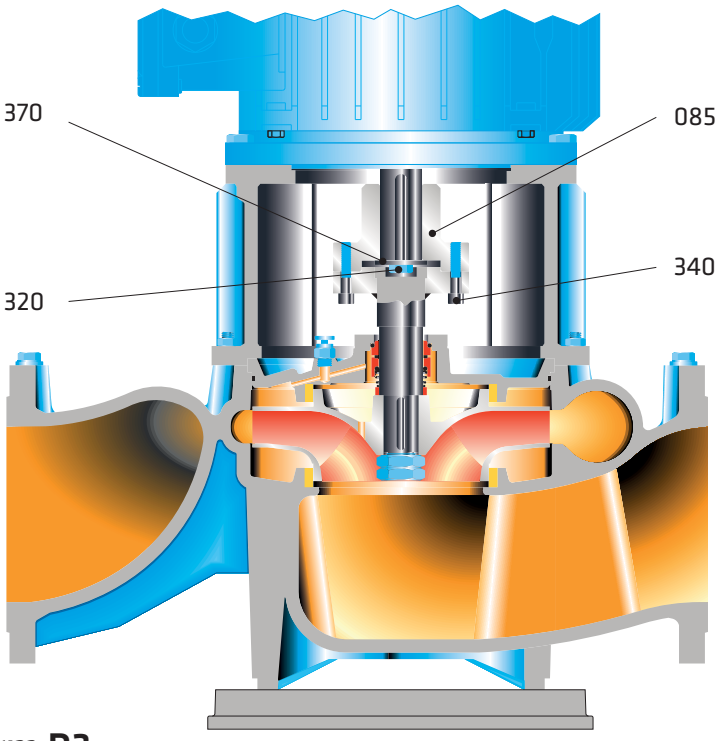
Sectional Drawings



Form D1



Form D2

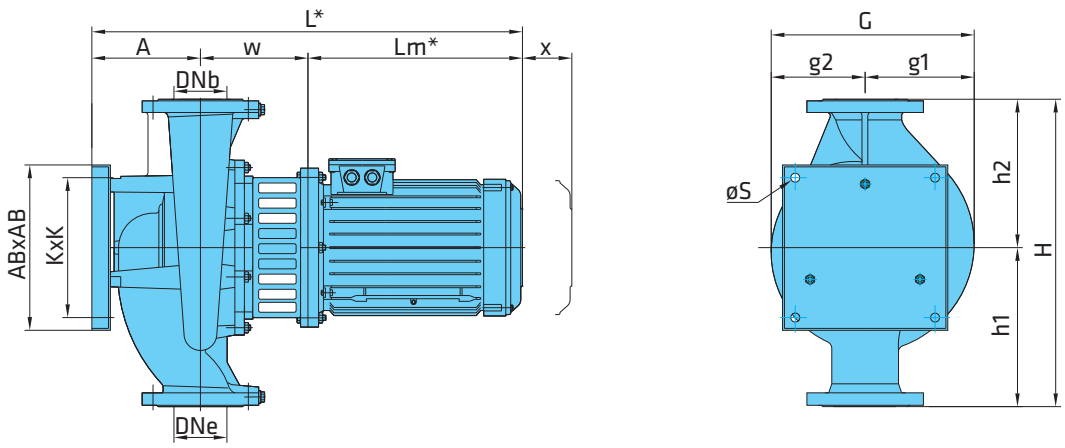


Form D3

Part List

001	Volute Casing
011	Base Plate (Foot)
012	Motor Pedestal
*020	Wear Ring (Casing)
*021	Wear Ring (Casing Cover)
046	Casing Cover
050	Impeller
060	Pump Shuft
065	Impeller Nut
067	Spacer Sleve
085	Rigid Coupling
210	Impeller Key
*250	Air Vent Screw
320	Hex. Head Bolt
340	Allien Bolt
370	Washer
380	Set-screw
405	Mechanical Seal
420	O-Ring
600	Electric Motor

(*) Optional



2900 rpm (2 Pole Motor)

FORM	Pump Type	MOTOR		DNe DNb	SNL DIMENSIONS (mm)														Base Plate	Weight
		kW	IEC	mm	A	W	Lm	L	H	h1	h2	X	G	g1	g2	ABxAB	KxK	øS	(**)	(kg)
D1	40-125	1,1	80M	40	98	165	244	507	300	160	140	100	208	108	100	170	130	14	T0	36
D1	40-125	1,5	90S	40	98	165	246	509	300	160	140	100	208	108	100	170	130	14	T0	40
D1	40-125	2,2	90L	40	98	165	266	529	300	160	140	100	208	108	100	170	130	14	T0	42
D2	40-125	3	100L	40	98	165	292	555	300	160	140	100	208	108	100	200	160	14	T1	46
D2	40-160	3	100L	40	98	165	292	555	340	180	160	100	236	122	114	200	160	14	T1	48
D2	40-160	4	112M	40	98	165	336	599	340	180	160	100	236	122	114	200	160	14	T1	54
D2	40-160	5,5	132S	40	98	195	361	654	340	180	160	100	236	122	114	200	160	14	T1	67
D2	40-200	4	112M	40	102	165	336	603	380	200	180	100	275	140	135	260	220	14	T2	61
D2	40-200	5,5	132S	40	102	195	361	658	380	200	180	100	275	140	135	260	220	14	T2	81
D2	40-200	7,5	132S	40	102	195	361	658	380	200	180	100	275	140	135	260	220	14	T2	88
D2	40-200	11	160M	40	102	239	476	817	380	200	180	100	275	140	135	260	220	14	T2	92
D1	50-125	1,5	90S	50	113	165	246	524	300	160	140	100	212	110	102	170	130	14	T0	43,5
D1	50-125	2,2	90L	50	113	165	266	544	300	160	140	100	212	110	102	170	130	14	T0	46,5
D2	50-125	3	100L	50	113	165	292	570	300	160	140	100	212	110	102	200	160	14	T1	52
D2	50-125	4	112M	50	113	165	336	614	300	160	140	100	212	110	102	200	160	14	T1	60
D2	50-125	5,5	132S	50	113	195	361	669	300	160	140	100	212	110	102	200	160	14	T1	75
D2	50-125	7,5	132S	50	113	195	361	669	300	160	140	100	212	110	102	200	160	14	T1	81
D2	50-160	3	100L	50	113	165	292	570	340	180	160	100	238	124	114	200	160	14	T1	47,5
D2	50-160	4	112M	50	113	165	336	614	340	180	160	100	238	124	114	200	160	14	T1	57
D2	50-160	5,5	132S	50	113	195	361	669	340	180	160	100	238	124	114	200	160	14	T1	78
D2	50-160	7,5	132S	50	113	195	361	669	340	180	160	100	238	124	114	200	160	14	T1	85
D2	50-160	11	160M	50	113	239	476	828	340	180	160	100	238	124	114	200	160	14	T1	93
D2	50-200	5,5	132S	50	117	195	361	672	425	225	200	100	280	145	135	260	220	14	T2	85
D2	50-200	7,5	132S	50	117	195	361	672	425	225	200	100	280	145	135	260	220	14	T2	92
D2	50-200	11	160M	50	117	239	476	832	425	225	200	100	280	145	135	260	220	14	T2	121
D2	50-200	15	160M	50	117	239	476	832	425	225	200	100	280	145	135	260	220	14	T2	132
D2	50-250	11	160M	50	117	239	476	832	475	250	225	100	342	175	167	260	220	14	T2	135
D2	50-250	15	160M	50	117	239	476	832	475	250	225	100	342	175	167	260	220	14	T2	146
D2	50-250	18,5	160L	50	117	239	476	832	475	250	225	100	342	175	167	260	220	14	T2	155
D2	50-250	22	180M	50	117	239	519	875	475	250	225	100	342	175	167	260	220	14	T2	160
D2	50-250	30	200L	50	125	239	555	919	475	250	225	125	342	175	167	320	270	18	T3	194
D2	65-125	3	100L	65	133	165	292	590	340	180	160	100	222	120	102	200	160	14	T1	52
D2	65-125	4	112M	65	133	165	336	634	340	180	160	100	222	120	102	200	160	14	T1	58
D2	65-125	5,5	132S	65	133	195	361	689	340	180	160	100	222	120	102	200	160	14	T1	79
D2	65-125	7,5	132S	65	133	195	361	689	340	180	160	100	222	120	102	200	160	14	T1	86
D2	65-160	5,5	132S	65	137	195	361	693	380	200	180	100	252	136	116	260	220	14	T2	84
D2	65-160	7,5	132S	65	137	195	361	693	380	200	180	100	252	136	116	260	220	14	T2	91
D2	65-160	11	160M	65	137	239	476	852	380	200	180	100	252	136	116	260	220	14	T2	98
D2	65-200	11	160M	65	137	239	476	852	475	250	225	100	315	162	153	260	220	14	T2	129
D2	65-200	15	160M	65	137	239	476	852	475	250	225	100	315	162	153	260	220	14	T2	140
D2	65-200	18,5	160L	65	137	239	476	852	475	250	225	100	315	162	153	260	220	14	T2	152
D2	65-200	22	180M	65	137	239	519	895	475	250	225	100	315	162	153	260	220	14	T2	181
D2	65-250	15	160M	65	137	239	476	852	475	250	225	125	343	177	166	260	220	14	T2	144
D2	65-250	18,5	160L	65	137	239	476	852	475	250	225	125	343	177	166	260	220	14	T2	160
D2	65-250	22	180M	65	137	239	519	895	475	250	225	125	343	177	166	260	220	14	T2	175
D2	65-250	30	200L	65	145	239	555	939	475	250	225	125	343	177	166	320	270	18	T3	235
D2	65-250	37	200L	65	145	239	555	939	475	250	225	125	343	177	166	320	270	18	T3	295
D2	80-125	4	112M	80	153	165	336	654	380	200	180	125	252	138	114	200	160	14	T1	66
D2	80-125	5,5	132S	80	157	195	361	713	380	200	180	125	252	138	114	260	220	14	T2	83
D2	80-125	7,5	132S	80	157	195	361	713	380	200	180	125	252	138	114	260	220	14	T2	90
D2	80-125	11	160M	80	157	239	476	872	380	200	180	125	252	138	114	260	220	14	T2	100
D2	80-125	15	160M	80	157	239	476	872	380	200	180	125	252	138	114	260	220	14	T2	116

Technical Data

2900 rpm (2 Pole Motor)

FORM	Pump Type	MOTOR		DNe DNb	SNL DIMENSIONS (mm)													Base Plate	Weight
		kW	IEC	mm	A	W	Lm	L	H	h1	h2	X	G	g1	g2	ABxAB	KxK	øS	(**)	(kg)
D2	80-160	11	160M	80	157	239	476	872	425	225	200	125	280	152	128	260	220	14	T2	136
D2	80-160	15	160M	80	157	239	476	872	425	225	200	125	280	152	128	260	220	14	T2	148
D2	80-160	18,5	160L	80	157	239	476	872	425	225	200	125	280	152	128	260	220	14	T2	151
D2	80-200	11	160M	80	157	239	476	872	475	250	225	125	315	170	145	260	220	14	T2	136
D2	80-200	15	160M	80	157	239	476	872	475	250	225	125	315	170	145	260	220	14	T2	143
D2	80-200	18,5	160L	80	157	239	476	872	475	250	225	125	315	170	145	260	220	14	T2	159
D2	80-200	22	180M	80	157	239	519	915	475	250	225	125	315	170	145	260	220	14	T2	189
D2	80-200	30	200L	80	165	239	555	959	475	250	225	125	315	170	145	320	270	18	T3	240
D2	80-200	37	200L	80	165	239	555	959	475	250	225	125	315	170	145	320	270	18	T3	290
D2	80-250	22	180M	80	175	247	519	941	560	280	280	125	379	197	182	320	270	18	T3	190
D2	80-250	30	200L	80	175	253	555	983	560	280	280	125	379	197	182	320	270	18	T3	250
D2	80-250	37	200L	80	175	253	555	983	560	280	280	140	379	197	182	320	270	18	T3	310
D2	80-250	45	225M	80	175	253	625	1053	560	280	280	140	379	197	182	320	270	18	T3	320
D3	80-250	55	250M	80	175	283	644	1102	560	280	280	140	379	197	182	320	270	18	T3	350
D3	80-250	75	280M2		175	283	885	1243	560	280	280		379	197	182	320	270	18	T3	
D3	80-250	90	280M2		175	283	885	1243	560	280	280		379	197	182	320	270	18	T3	
D2	100-160	11	160M	100	158	239	476	873	475	250	225	140	292	162	130	260	220	14	T2	146
D2	100-160	15	160M	100	158	239	476	873	475	250	225	140	292	162	130	260	220	14	T2	175
D2	100-160	18,5	160L	100	158	239	476	873	475	250	225	140	292	162	130	260	220	14	T2	185
D2	100-160	22	180M	100	158	247	519	924	475	250	225	140	292	162	130	260	220	14	T2	201
D2	100-200	22	180M	100	197	247	519	963	525	275	250	140	362	192	170	260	220	14	T2	200
D2	100-200	30	200L	100	205	253	555	1013	525	275	250	140	362	192	170	320	270	18	T3	251
D2	100-200	37	200L	100	205	253	555	1013	525	275	250	140	362	192	170	320	270	18	T3	305
D2	100-200	45	225M	100	205	253	625	1083	525	275	250	140	362	192	170	320	270	18	T3	335
D2	100-250	37	200L	100	205	253	546	1004	580	300	280	140	384	206	178	320	270	18	T3	300
D2	100-250	45	225M	100	205	253	625	1083	580	300	280	140	384	206	178	320	270	18	T3	326
D3	100-250	55	250M	100	205	283	644	1132	580	300	280	140	384	206	178	320	270	18	T3	346
D3	100-250	75	280M2		205	283	885	1373	580	300	280		362	192	170	320	270	18	T3	
D3	100-250	90	280M2		205	283	885	1373	580	300	280		362	192	170	320	270	18	T3	
D2	125-200	37	200L	125	220	278	555	1053	560	280	280	140	390	208	182	400	350	18	T4	315
D2	125-200	45	225M	125	220	278	625	1123	560	280	280	140	390	208	182	400	350	18	T4	345
D3	125-200	55	250M	125	220	308	644	1172	560	280	280	140	390	208	182	400	350	18	T4	350
D3	125-200	75	280M2		220	308	885	1413	560	280	280		390	208	182	400	350	18	T4	
D3	125-200	90	280M2		220	308	885	1413	560	280	280		390	208	182	400	350	18	T4	
D2	125-250	45	225M	125	220	277	625	1121	630	315	315	140	413	218	195	400	350	18	T4	340
D3	125-250	55	250M	125	220	307	644	1171	630	315	315	140	413	218	195	400	350	18	T4	360
D3	125-250	75	280M2		220	307	885	1412	630	315	315		413	218	195	400	350	18	T4	
D3	125-250	90	280M2		220	307	885	1412	630	315	315		413	218	195	400	350	18	T4	

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		DNe DNb	SNL DIMENSIONS (mm)													Base Plate	Weight
		kW	IEC	mm	A	W	Lm	L	H	h1	h2	X	G	g1	g2	ABxAB	KxK	øS	(**)	(kg)
D1	40-125	0,37	71M	40	98	165	223	486	300	160	140	100	208	108	100	170	130	14	T0	31
D1	40-160	0,37	71M	40	98	165	223	486	340	180	160	100	236	122	114	170	130	14	T0	35
D1	40-160	0,55	80M	40	98	165	244	507	340	180	160	100	236	122	114	170	130	14	T0	37
D1	40-160	0,75	80M	40	98	165	244	507	340	180	160	100	236	122	114	170	130	14	T0	38,5
D1	40-200	0,55	80M	40	98	165	244	507	380	200	180	100	275	140	135	200	160	14	T1	39
D1	40-200	0,75	80M	40	98	165	244	507	380	200	180	100	275	140	135	200	160	14	T1	41
D1	40-200	1,1	90S	40	98	165	246	509	380	200	180	100	275	140	135	200	160	14	T1	43,5
D1	50-125	0,37	71M	50	113	165	223	501	300	160	140	100	212	110	102	170	130	14	T0	34
D1	50-125	0,55	80M	50	113	165	244	522	300	160	140	100	212	110	102	170	130	14	T0	38,5
D1	50-125	0,75	80M	50	113	165	244	522	300	160	140	100	212	110	102	170	130	14	T0	40
D1	50-160	0,37	71M	50	113	165	223	501	340	180	160	100	238	124	114	170	130	14	T0	35
D1	50-160	0,55	80M	50	113	165	244	522	340	180	160	100	238	124	114	170	130	14	T0	38
D1	50-160	0,75	80M	50	113	165	244	522	340	180	160	100	238	124	114	170	130	14	T0	39,5
D1	50-160	1,1	90S	50	113	165	246	524	340	180	160	100	238	124	114	170	130	14	T0	43
D1	50-160	1,5	90L	50	113	165	266	544	340	180	160	100	238	124	114	170	130	14	T0	45
D1	50-200	0,75	80M	50	113	165	244	522	425	225	200	100	280	145	135	200	160	14	T1	51
D1	50-200	1,1	90S	50	113	165	246	525	425	225	200	100	280	145	135	200	160	14	T1	53
D1	50-200	1,5	90L	50	113	165	266	544	425	225	200	100	280	145	135	200	160	14	T1	55
D2	50-200	2,2	100L	50	113	165	292	570	425	225	200	100	280	145	135	200	160	14	T1	57
D1	50-250	1,5	90L	50	117	165	267	548	475	250	225	100	342	175	167	260	220	14	T2	63
D2	50-250	2,2	100L	50	117	165	292	574	475	250	225	100	342	175	167	260	220	14	T2	67
D2	50-250	3	100L	50	117	165	292	574	475	250	225	100	342	175	167	260	220	14	T2	70
D1	65-125	0,37	71M	65	133	165	223	521	340	180	160	100	222	120	102	200	160	14	T1	39
D1	65-125	0,55	80M	65	133	165	244	542	340	180	160	100	222	120	102	200	160	14	T1	41
D1	65-125	0,75	80M	65	133	165	244	542	340	180	160	100	222	120	102	200	160	14	T1	42,5
D1	65-125	1,1	90S	65	133	165	246	544	340	180	160	100	222	120	102	200	160	14	T1	46,5
D1	65-125	1,5	90L	65	133	165	266	564	340	180	160	100	222	120	102	200	160	14	T1	49

Technical Data

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		DNe DNb	SNL DIMENSIONS (mm)														Base Plate	Weight
		kW	IEC	mm	A	W	Lm	L	H	h1	h2	X	G	g1	g2	ABxAB	KxK	øS	(**)	(kg)
D1	65-160	0,75	80M	65	133	165	244	542	380	200	180	100	252	136	116	200	160	14	T1	45
D1	65-160	1,1	90S	65	133	165	266	564	380	200	180	100	252	136	116	200	160	14	T1	49
D1	65-160	1,5	90L	65	133	165	266	564	380	200	180	100	252	136	116	200	160	14	T1	52
D1	65-200	1,1	90S	65	137	165	246	549	475	250	225	100	315	162	153	260	220	14	T2	59
D1	65-200	1,5	90L	65	137	165	266	569	475	250	225	100	315	162	153	260	220	14	T2	61
D2	65-200	2,2	100L	65	137	165	292	594	475	250	225	100	315	162	153	260	220	14	T2	67
D2	65-200	3	100L	65	137	165	292	594	475	250	225	100	315	162	153	260	220	14	T2	70
D2	65-250	2,2	100L	65	137	165	292	594	475	250	225	125	343	177	166	260	220	14	T2	73
D2	65-250	3	100L	65	137	165	292	594	475	250	225	125	343	177	166	260	220	14	T2	76
D2	65-250	4	112M	65	137	165	336	638	475	250	225	125	343	177	166	260	220	14	T2	81
D2	65-250	5,5	132S	65	137	202	361	700	475	250	225	125	343	177	166	260	220	14	T2	102
D2	65-315	3	100L	65	170	188	292	650	560	280	280	125	418	216	202	400	350	18	T4	121
D2	65-315	4	112M	65	170	188	336	693	560	280	280	125	418	216	202	400	350	18	T4	131
D2	65-315	5,5	132S	65	170	203	361	733	560	280	280	125	418	216	202	400	350	18	T4	138
D2	65-315	7,5	132M	65	170	203	361	733	560	280	280	125	418	216	202	400	350	18	T4	149
D2	65-315	11	160M	65	170	247	476	893	560	280	280	125	418	216	202	400	350	18	T4	160
D1	80-125	0,37	71M	80	153	165	223	541	380	200	180	125	252	138	114	200	160	14	T1	46
D1	80-125	0,55	80M	80	153	165	244	562	380	200	180	125	252	138	114	200	160	14	T1	48
D1	80-125	0,75	80M	80	153	165	244	562	380	200	180	125	252	138	114	200	160	14	T1	49,5
D1	80-125	1,1	90S	80	153	165	246	564	380	200	180	125	252	138	114	200	160	14	T1	54
D1	80-125	1,5	90L	80	153	165	266	588	380	200	180	125	252	138	114	200	160	14	T1	56
D1	80-160	0,55	80M	80	153	165	244	562	425	225	200	125	280	152	128	200	160	14	T1	55
D1	80-160	0,75	80M	80	153	165	244	562	425	225	200	125	280	152	128	200	160	14	T1	57
D1	80-160	1,1	90S	80	153	165	246	564	425	225	200	125	280	152	128	200	160	14	T1	59
D1	80-160	1,5	90L	80	153	165	266	584	425	225	200	125	280	152	128	200	160	14	T1	61
D2	80-160	2,2	100L	80	153	165	292	610	425	225	200	125	280	152	128	200	160	14	T1	65
D1	80-200	1,1	90S	80	157	165	246	569	475	250	225	125	315	170	145	260	220	14	T2	63
D1	80-200	1,5	90L	80	157	165	266	589	475	250	225	125	315	170	145	260	220	14	T2	66
D2	80-200	2,2	100L	80	157	165	292	614	475	250	225	125	315	170	145	260	220	14	T2	70
D2	80-200	3	100L	80	157	165	292	614	475	250	225	125	315	170	145	260	220	14	T2	73
D2	80-200	4	112M	80	157	165	336	658	475	250	225	125	315	170	145	260	220	14	T2	76
D2	80-250	2,2	100L	80	175	188	292	620	560	280	280	125	379	197	182	320	270	18	T3	88
D2	80-250	3	100L	80	175	188	292	620	560	280	280	125	379	197	182	320	270	18	T3	91
D2	80-250	4	112M	80	175	188	336	699	560	280	280	125	379	197	182	320	270	18	T3	108
D2	80-250	5,5	132S	80	175	203	396	739	560	280	280	125	379	197	182	320	270	18	T3	128
D2	80-315	5,5	132S	80	190	203	361	753	595	315	280	140	425	220	205	400	350	18	T4	160
D2	80-315	7,5	132M	80	190	203	361	753	595	315	280	140	425	220	205	400	350	18	T4	168
D2	80-315	11	160M	80	190	247	476	913	595	315	280	140	425	220	205	400	350	18	T4	205
D2	80-315	15	160L	80	190	247	476	913	595	315	280	140	425	220	205	400	350	18	T4	245
D1	100-160	1,5	90L	100	158	165	266	589	475	250	225	140	292	162	130	260	220	14	T2	65
D2	100-160	2,2	100L	100	158	165	292	615	475	250	225	140	292	162	130	260	220	14	T2	70
D2	100-160	3	100L	100	158	165	292	615	475	250	225	140	292	162	130	260	220	14	T2	73
D2	100-200	3	100L	100	197	188	292	677	525	275	250	140	362	192	170	260	220	14	T2	92
D2	100-200	4	112M	100	197	188	336	720	525	275	250	140	362	192	170	260	220	14	T2	96
D2	100-200	5,5	132S	100	197	203	361	761	525	275	250	140	362	192	170	260	220	14	T2	121
D2	100-200	7,5	132S	100	197	203	361	761	525	275	250	140	362	192	170	260	220	14	T2	132
D2	100-250	4	112M	100	205	188	336	729	580	300	280	140	384	206	178	320	270	18	T3	120
D2	100-250	5,5	132S	100	205	205	361	771	580	300	280	140	384	206	178	320	270	18	T3	136
D2	100-250	7,5	132M	100	205	205	361	771	580	300	280	140	384	206	178	320	270	18	T3	146
D2	100-250	11	160M	100	205	248	476	929	580	300	280	140	384	206	178	320	270	18	T3	174
D2	100-315	7,5	132M	100	200	205	361	765	670	355	315	140	455	240	215	400	350	18	T4	178
D2	100-315	11	160M	100	200	250	476	926	670	355	315	140	455	240	215	400	350	18	T4	225
D2	100-315	15	160L	100	200	250	476	926	670	355	315	140	455	240	215	400	350	18	T4	240
D2	100-315	18,5	180M	100	200	250	519	969	670	355	315	140	455	240	215	400	350	18	T4	253
D2	100-400	15	160L	100	190	255	476	921	800	400	400	160	558	288	270	400	350	18	T4	270
D2	100-400	18,5	180M	100	190	255	519	964	800	400	400	160	558	288	270	400	350	18	T4	293
D2	100-400	22	180L	100	190	255	519	964	800	400	400	160	558	288	270	400	350	18	T4	307
D3	100-400	30	200L	100	190	255	555	1000	800	400	400	160	558	288	270	400	350	18	T4	356
D3	100-400	37	225S	100	190	300	625	1115	800	400	400	160	558	288	270	400	350	18	T4	403
D2	125-200	3	100L	125	220	213	292	725	560	280	280	140	390	208	182	400	350	18	T4	116
D2	125-200	4	112M	125	220	213	336	768	560	280	280	140	390	208	182	400	350	18	T4	123
D2	125-200	5,5	132S	125	220	228	361	809	560	280	280	140	390	208	182	400	350	18	T4	148
D2	125-200	7,5	132M	125	220	228	361	809	560	280	280	140	390	208	182	400	350	18	T4	159
D2	125-250	5,5	132S	125	220	228	363	811	630	315	315	140	413	218	195	400	350	18	T4	158
D2	125-250	7,5	132M	125	220	228	363	811	630	315	315	140	413	218	195	400	350	18	T4	169
D2	125-250	11	160M	125	220	272	476	968	630	315	315	140	413	218	195	400	350	18	T4	198
D2	125-250	15	160L	125	220	272	476	968	630	315	315	140	413	218	195	400	350	18	T4	213
D2	125-315	11	160M	125	200	280	476	956	710	355	355	140	488	258	230	400	350	18	T4	241
D2	125-315	15	160L	125	200	280	476	956	710	355	355	140	488	258	230	400	350	18	T4	273
D2	125-315	18,5	180M	125	200	280	519	999	710	355	355	140	488	258	230	400	350	18	T4	273
D2	125-315	22	180L	125	200	280	519	999	710	355	355	140	488	258	230	400	350	18	T4	292
D3	125-315	30	200L	125	200	280	555	1035	710	355	355	140	488	258	230	400	350	18	T4	324

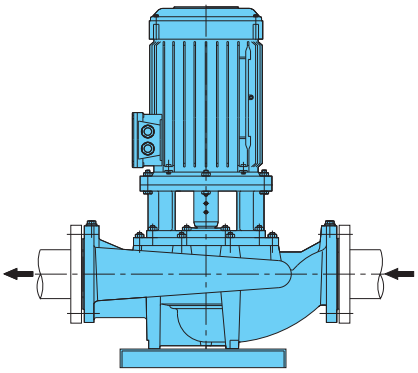
Technical Data

1450 rpm (4 Pole Motor)

FORM	Pump Type	MOTOR		DNe DNb	SNL DIMENSIONS (mm)														Base Plate	Weight
		kW	IEC	mm	A	W	Lm	L	H	h1	h2	X	G	g1	g2	ABxAB	KxK	øS	(**)	(kg)
D2	125-400	22	180L	125	200	280	519	999	800	400	400	160	562	292	270	400	350	18	T4	336
D3	125-400	30	200L	125	200	280	555	1035	800	400	400	160	562	292	270	400	350	18	T4	385
D3	125-400	37	225S	125	200	325	625	1150	800	400	400	160	562	292	270	400	350	18	T4	432
D3	125-400	45	225M	125	200	325	625	1150	800	400	400	160	562	292	270	400	350	18	T4	469
D3	125-450	45	225M	125	205	325	625	1155	850	425	425	160	613	316	297	440	380	23	T5	574
D3	125-450	55	250M	125	205	325	644	1174	850	425	425	160	613	316	297	440	380	23	T5	594
D3	125-450	75	280M4	125	205	325	885	1415	850	425	425		613	316	293	440	380	23	T5	
D3	125-450	90	280M4	125	205	325	885	1415	850	425	425		613	316	293	440	380	23	T5	
D2	150-250	11	160M	150	220	304	476	1000	710	355	355	140	474	254	220	400	350	18	T4*	262
D2	150-250	15	160L	150	220	304	476	1000	710	355	355	140	474	254	220	400	350	18	T4*	276
D2	150-250	18,5	180M	150	220	304	519	1043	710	355	355	140	474	254	220	400	350	18	T4*	294
D2	150-250	22	180L	150	220	304	519	1043	710	355	355	140	474	254	220	400	350	18	T4*	315
D2	150-315	15	160L	150	225	315	476	1016	710	355	355	160	548	290	258	400	350	23	T5	290
D2	150-315	18,5	180M	150	225	315	519	1059	710	355	355	160	548	290	258	440	380	23	T5	319
D2	150-315	22	180L	150	225	315	519	1059	710	355	355	160	548	290	258	440	380	23	T5	327
D3	150-315	30	200L	150	225	315	555	1095	710	355	355	160	548	290	258	440	380	23	T5	376
D3	150-315	37	225S	150	225	360	625	1210	710	355	355	160	548	290	258	440	380	23	T5	423
D3	150-400	37	225S	150	225	360	625	1210	800	400	400	160	604	314	290	440	380	23	T5	483
D3	150-400	45	225M	150	225	360	625	1210	800	400	400	160	604	314	290	440	380	23	T5	520
D3	150-400	55	250M	150	225	360	644	1229	800	400	400	160	604	314	290	440	380	23	T5	540
D3	150-400	75	280M4	150	225	360	885	1470	800	400	400		604	314	290	440	380	23	T5	
D3	150-400	90	280M4	150	225	360	885	1470	800	400	400		604	314	290	440	380	23	T5	
D2	200-315	18,5	180M	200	245	355	519	1119	800	350	450	160	547	295	252	440	380	23	T5	384
D2	200-315	22	180L	200	245	355	519	1119	800	350	450	160	547	295	252	440	380	23	T5	392
D3	200-315	30	200L	200	245	355	555	1155	800	350	450	160	547	295	252	440	380	23	T5	441
D3	200-315	37	225S	200	245	385	625	1255	800	350	450	160	547	295	252	440	380	23	T5	488
D3	200-315	45	225M	200	245	385	625	1255	800	350	450	160	547	295	252	440	380	23	T5	522
D3	200-400	37	225S	200	245	400	625	1270	900	400	500	160	618	328	290	440	380	23	T5	493
D3	200-400	45	225M	200	245	400	625	1270	900	400	500	160	618	328	290	440	380	23	T5	527
D3	200-400	55	250M	200	245	400	644	1289	900	400	500	160	618	328	290	440	380	23	T5	550
D3	200-400	75	280M4	200	245	400	885	1530	900	400	500		618	328	290	440	380	23	T5	
D3	200-400	90	280M4	200	245	400	885	1530	900	400	500		618	328	290	440	380	23	T5	

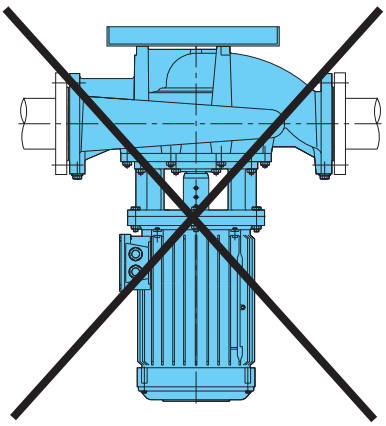
1- (*) Dimensions and weights may change according to motor brand.
2- (**) Optional
3- Rights reserved to change without notice
4- Base plate (foot) may differ for marine sector. Please consult to sales depermant for more information.

Installation Arrangements

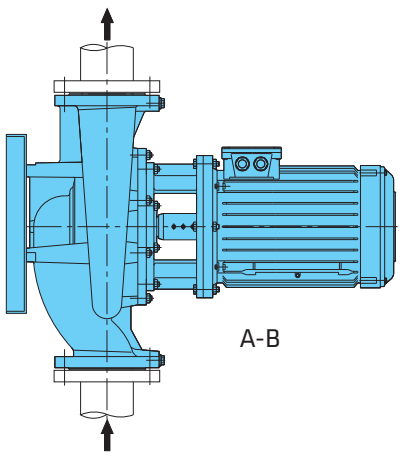


A-B-C

Standard installation type to horizontal pipe. (on ground)



The axis of motor below the horizontal line is not admissible.



A-B

Please consult to Standart Pompa incase of installation to vertical pipes.

Note : A, B and C represent the groups in the field chart.

Technical Data

Material Options

PART LIST	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4317	2.1050.01	2.0975.01	1.4021	1.4301	1.4306	1.4401	1.4404
Volute Casing	●	○	○	○	○	○	○	○	○	○					
Casing Cover	●	○	○	○	○	○	○	○	○	○					
Impeller	●	○	○	○	○	○	○	○	○	○					
Shaft											●	○	○	○	○
Motor Pedestal	●	○													
Wear Ring (casing)	○	○	○	○	○	○	○	○	○	○					
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

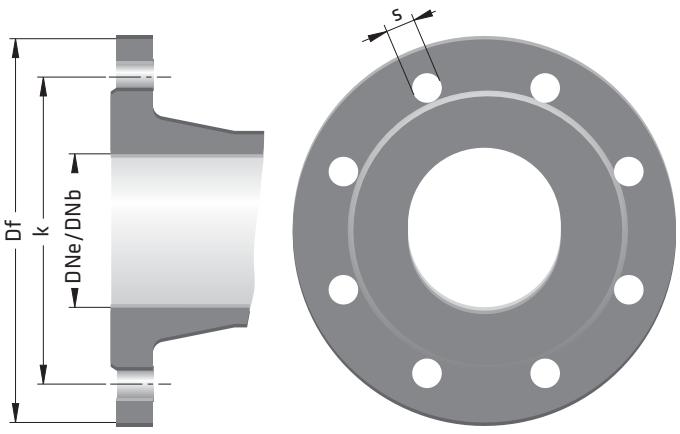
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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
Martenzitic Stainless Cast Steel	1.4317	G-X4 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 316L

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 16)			
	Df	k	s	n
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



Standart
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SNLV-H

IN-LINE PUMPS

Handled Liquids

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

Technical Data

Discharge Flange_____DN 40.....DN 250 mm

Capacity_____up to 800 m^3/h

Head_____up to 95 m

Speed_____up to 2900 rpm

Operating Temperature_____-10 °C' to +140 °C*

Casing Pressure (Pmax)_____10 bar (16 bar)*

Design Type _____OH3

(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

•Volute casing, single stage, vertical in-line centrifugal pump with closed impeller and with seperate own bearing bracket.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

•SNLV-H pumps are short coupled with electric motors of IEC frame sizes with high efficiency class.

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of SNLV-H type pumps are "life time grease lubricated" ball bearings.

Shaft Sealing

•Single mechanical seal, flushed by pumped liquid, uncooled and unbalanced.

Pump Designation

SNLV-H 100 - 250

Pump Type

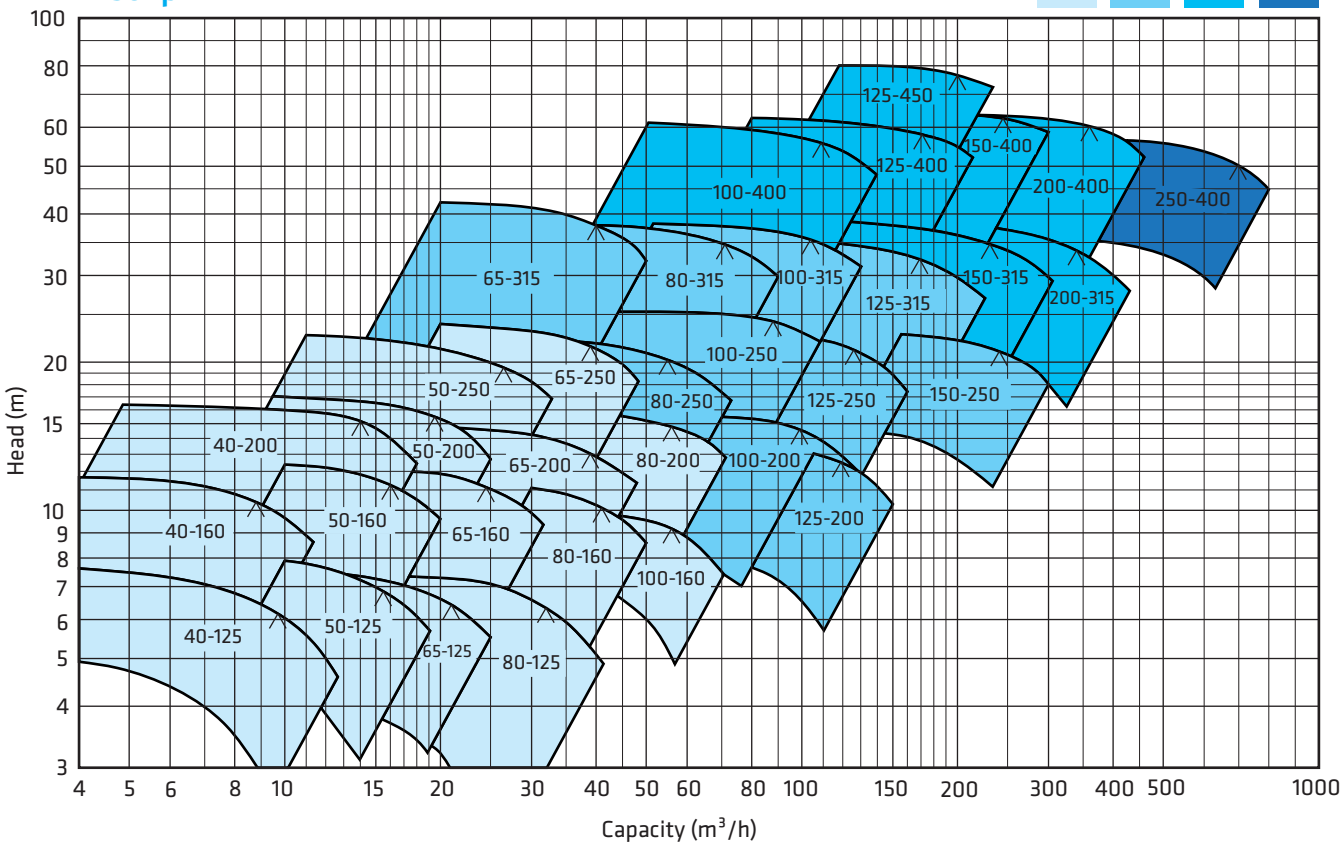
Suction and Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

Field Chart

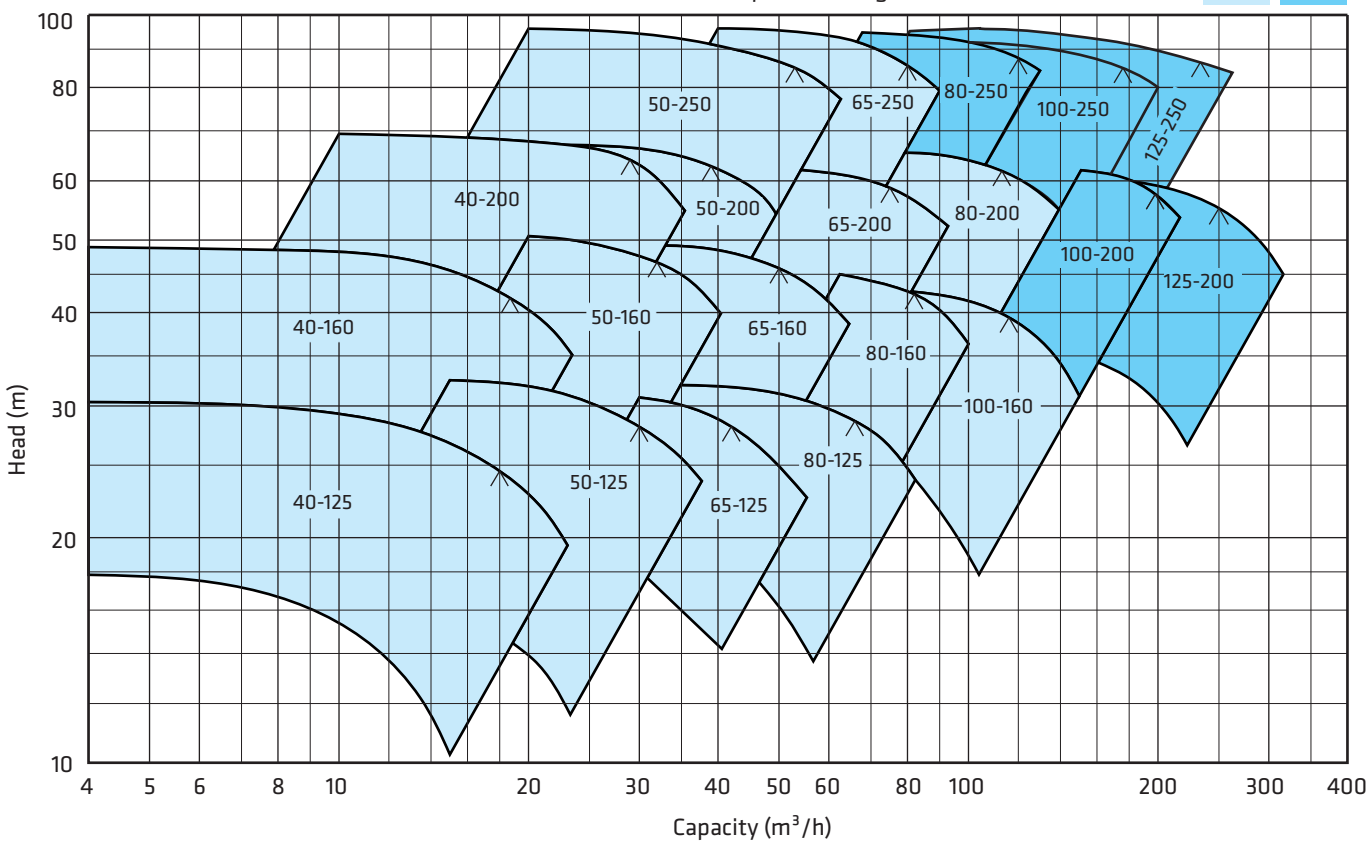
1450 rpm

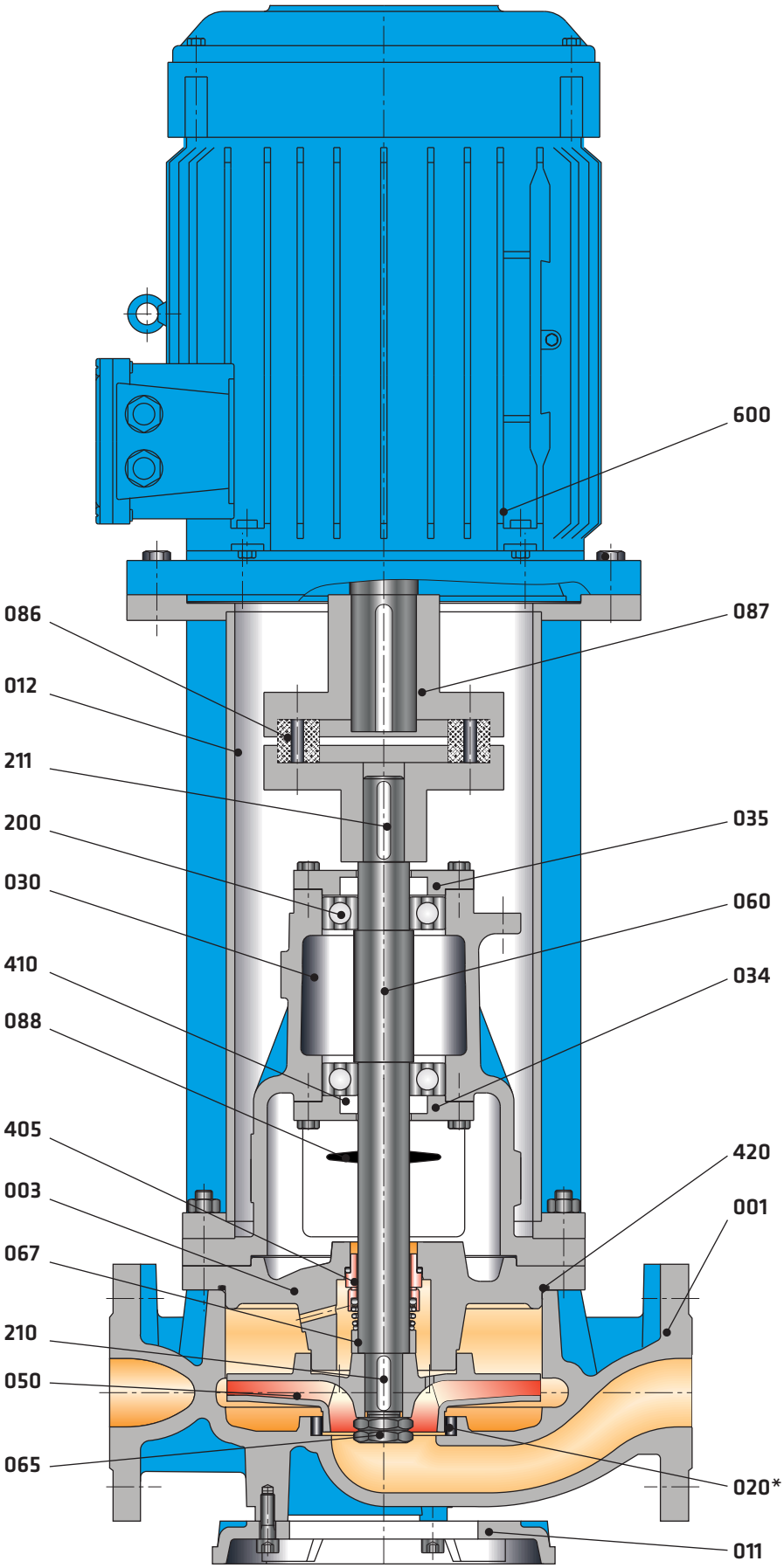
Grouped according to mechanical seal dimension A B C D



2900 rpm

Grouped according to mechanical seal dimension A B





Part List

001	Volute Casing
003	Casing Cover
011	Base Plate
012	Motor Pedestal
*020	Wear Ring
030	Bearing Bracket
034	Bearing Cover
035	Bearing Cover
050	Impeller
060	Pump Shaft
065	Impeller Nut
067	Spacer Sleeve
086	Coupling Rubber
087	Flexible Coupling
088	Thrower
200	Ball Bearing
210	Impeller Key
211	Coupling Key
405	Mechanical Seal
410	Lip Seal
420	O-Ring
600	Electric Motor

(*) Optional

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	●	○	○	○	○	○	○	○	○	○	○	○	○						
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○						
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○						
Shaft														●	○	○	○	○	○
Motor Pedestal	●	○																	
Wear Ring (casing)	○	○	○	○	○	○	○	○	○	○	○	○	○						
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

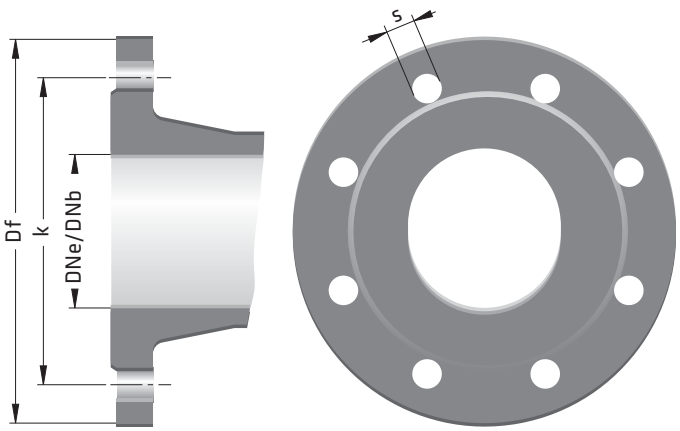
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 16)			
	Df	k	s	n
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
250	405	355	28	12

" n " number of holes



Standart
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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 m^3/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*

Design Type (SDS) _____BB1

(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. 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 comform to EN 1092-2/PN 16 or PN25. (EN 1092-1 / PN 16 or PN 25 for steel or stainless steel casing)

•All impellers are balanced dynamically 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.

Pump Designation

SDS - V 200 - 500

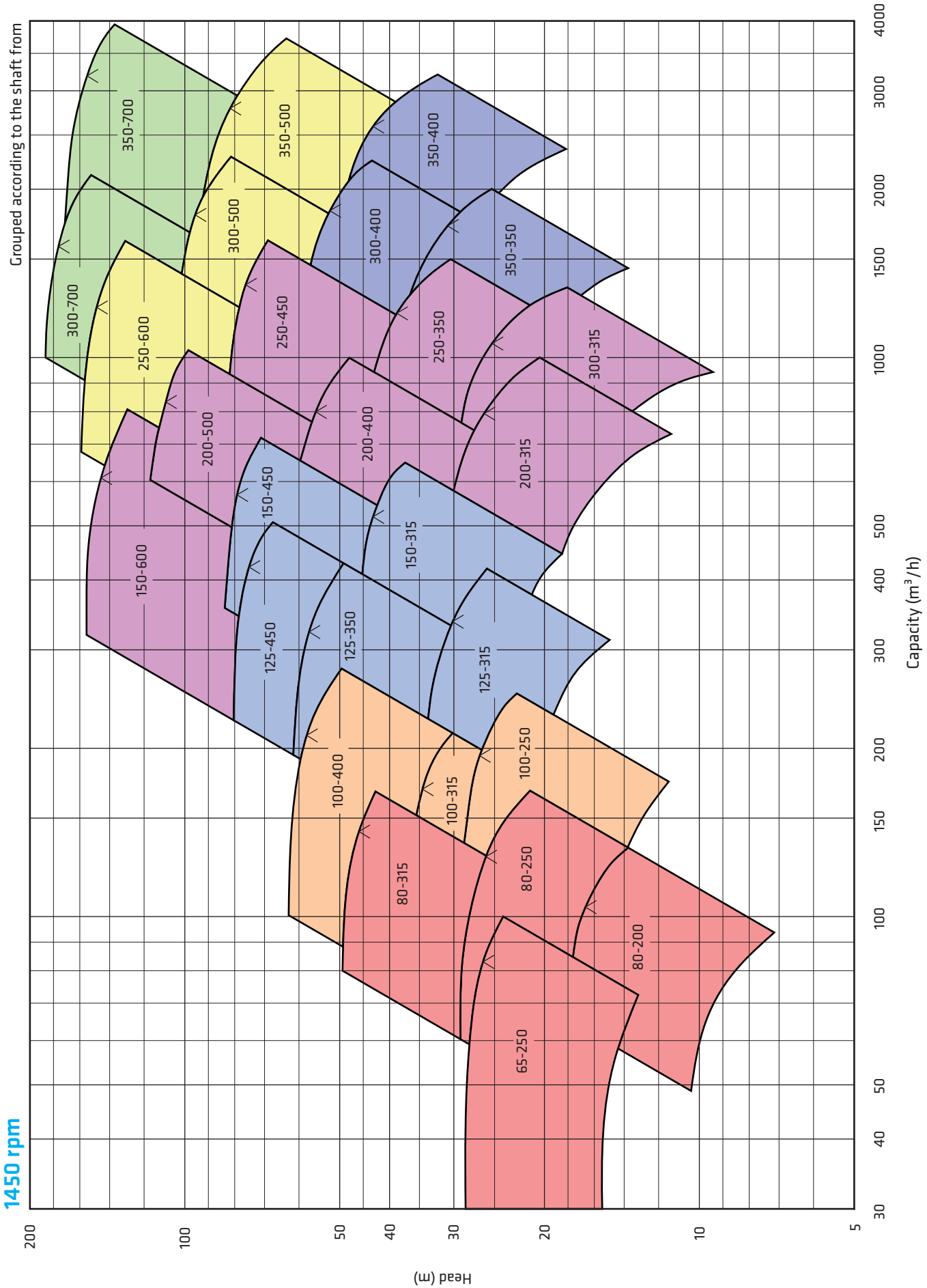
Pump Type

Vertical Installation

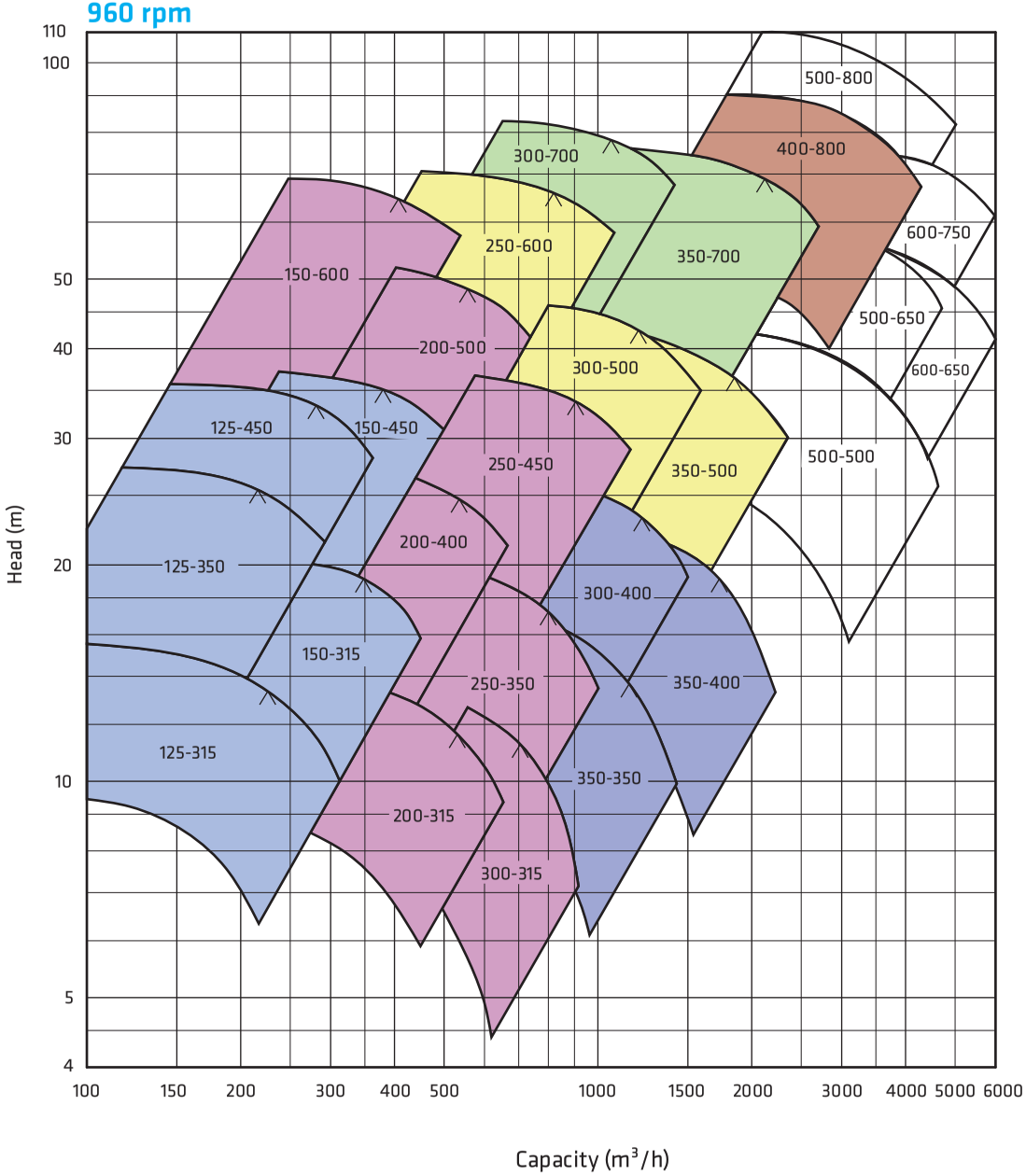
Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

09.2015 / Rev. 1

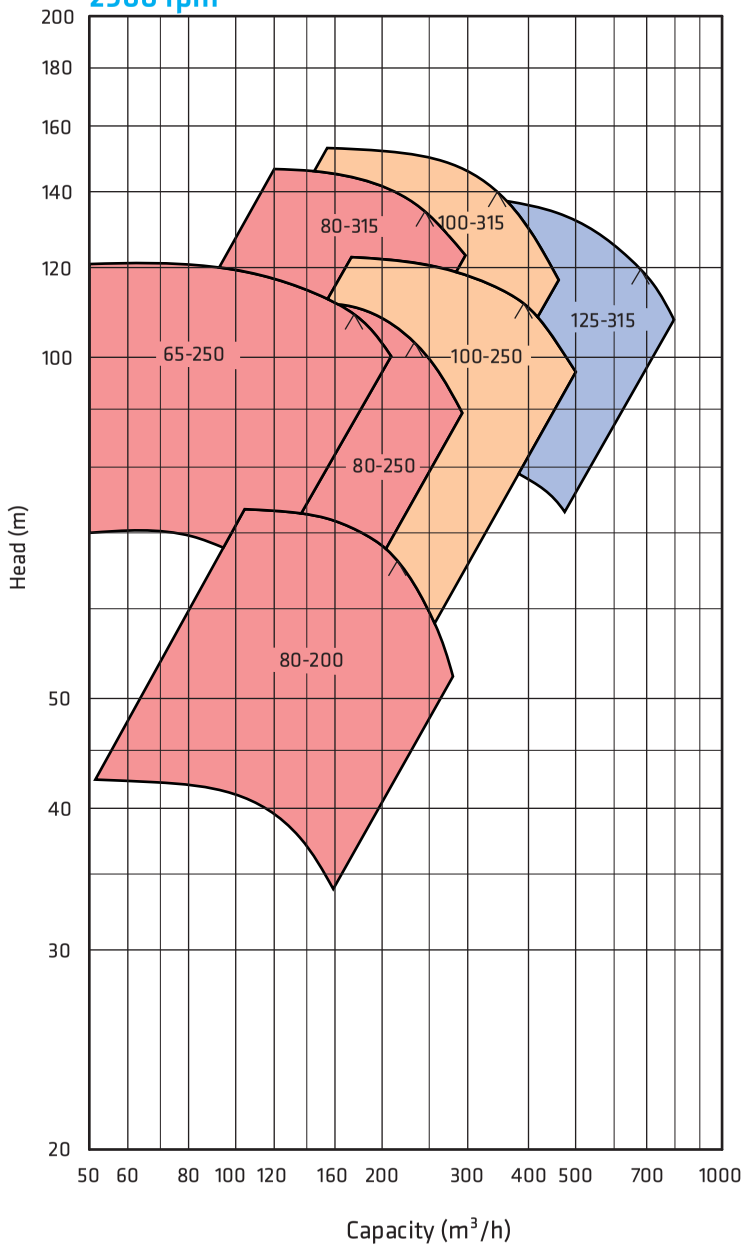

Grouped according to the shaft from
1450 rpm
Head (m)
Capacity (m³/h)
200
100
50
40
30
20
10
5
30
40
50
100
150
200
300
400
500
1000
1500
2000
3000
4000
300-700
350-700
250-600
300-500
350-500
250-450
300-400
350-400
200-500
250-350
350-350
150-600
200-400
300-315
150-450
200-315
150-315
125-450
125-350
125-315
100-400
100-315
100-250
80-315
80-250
80-200
65-250

960 rpm

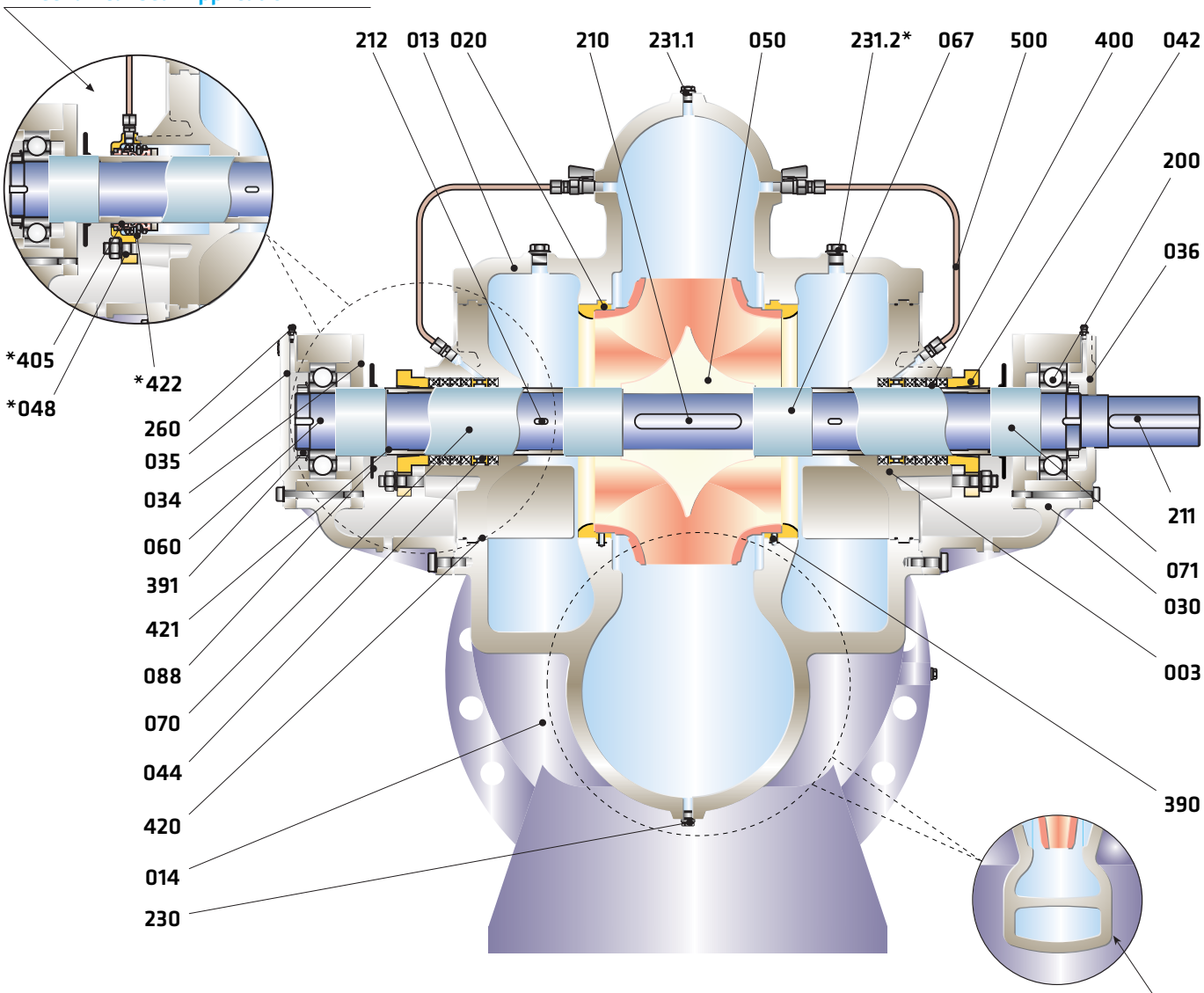


2900 rpm

Grouped according to the shaft from



Sectional Drawings



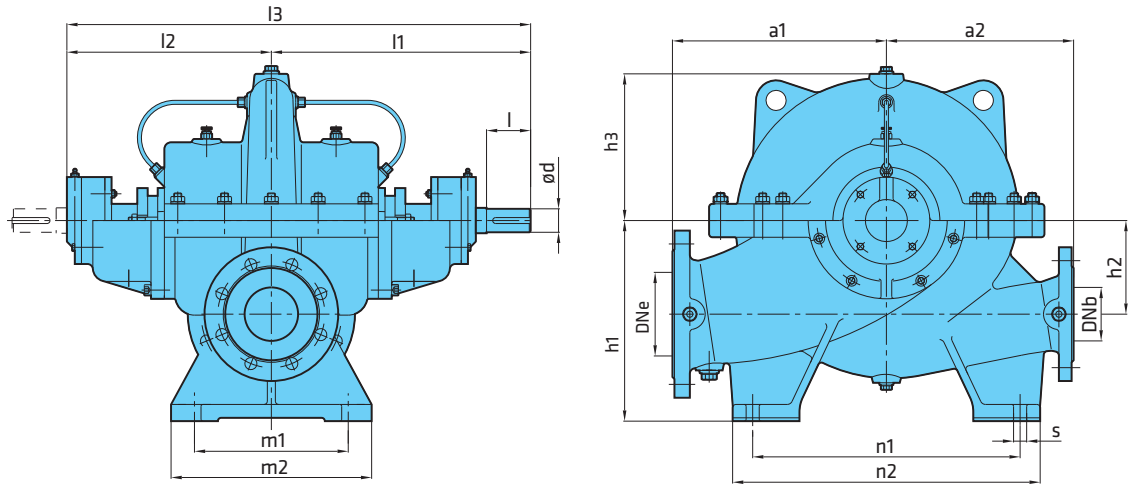
Part List

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

(**) Doble Volute Desing Is Applied to :

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



Pump Type	Dimensions (mm)																			Weight
	PNe	PNb	DNe	DNb	ød	l	l1	l2	l3	a1	a2	h1	h2	h3	n1	n2	m1	m2	s	(kg)
65-250	16	16	100	65	35	80	400	310	710	320	280	300	140	200	400	460	230	300	20	165
80-200	16	16	125	80	35	80	400	310	710	320	280	300	140	200	400	460	230	300	20	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	16	16	125	80	35	80	400	310	710	360	300	300	140	260	400	460	230	300	20	197
100-250	16	16	150	100	42	90	450	350	800	360	310	355	170	235	400	480	280	340	20	220
100-315	16	16	150	100	42	90	450	350	800	360	310	355	170	250	400	480	280	340	20	230
100-400	16	16	150	100	42	90	450	350	800	420	370	355	170	300	460	540	280	340	20	290
125-315	16	16	200	125	55	120	555	420	975	420	370	400	200	280	460	540	320	380	22	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	16	16	200	125	55	120	555	420	975	500	450	400	200	350	540	640	320	380	22	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	16	16	200	150	55	120	555	420	975	500	450	400	200	365	540	640	320	380	22	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	16	16	250	200	65	130	645	500	1145	500	450	500	240	315	540	640	360	420	22	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	16	16	250	200	65	130	645	500	1145	550	500	560	300	380	620	720	360	420	22	700
250-350	16	16	300	250	65	130	645	500	1145	600	500	600	300	390	620	720	360	420	22	682
250-450	16	16	300	250	65	130	645	500	1145	600	500	600	300	415	620	720	360	420	22	780
250-600	25	25	300	250	80	170	720	540	1260	650	550	600	300	430	620	710	415	485	26	1190
300-315	16	16	350	300	65	130	645	500	1145	600	500	630	300	400	620	700	360	420	22	700
300-400	16	16	400	300	75	140	770	615	1385	700	550	710	350	450	720	800	420	520	26	1125
300-500	16	16	400	300	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	16	16	400	350	75	140	770	615	1385	700	550	670	350	450	720	800	420	520	26	1100
350-400	16	16	500	350	75	140	770	615	1385	800	600	800	380	500	800	960	500	600	26	1400
350-500	16	16	500	350	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	Contact for detailed information															
500-650	16	16	600	500																
500-800	16	16	600	500																
600-650	16	16	700	600																
600-750	16	16	700	600																

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.

(**) 0.7040 material is used in standard production for types which has PN 25 casing pressure class

● Standard manufacturing
○ Optional

Material Equivalents

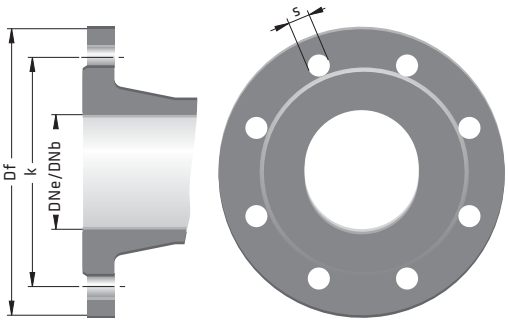
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

EN 1092 - 2

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	41	24

" n " number of holes



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SCP

ISO 2858
NORM PUMP

Handled Liquids

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

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 1700 m^3/h

Head_____up to 160 m

Speed_____up to 2900 rpm

Operating Temperature_____-10 °C' to +175 °C*

Casing Pressure (Pmax)_____16 bar (25 bar)*

Design Type _____OH1

(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, radially split volute casing type, single stage, end suction centrifugal pumps with closed or semi-open impeller.

•In addition to 28 basic sizes conforming with ISO 2858, there are 10 additional sizes. Dimensions of additional sizes may differ from other suppliers.

•Heavy duty shaft not in contact with the medium handled (dry shaft)

•For casing sealing, confined gaskets are used to prevent blow-out under pressure.

•Suction and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•For closed impellers, axial thrust is balanced by impeller balancing holes system while for semi-open impellers, it is balanced by back ribs.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of SCP type pumps are always oil lubricated.

Shaft Sealing

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

•External seal cooling system may be used if required.

Pump Designation

SCP 125 - 315 -A

Pump Type

Discharge Nozzle (DN-mm)

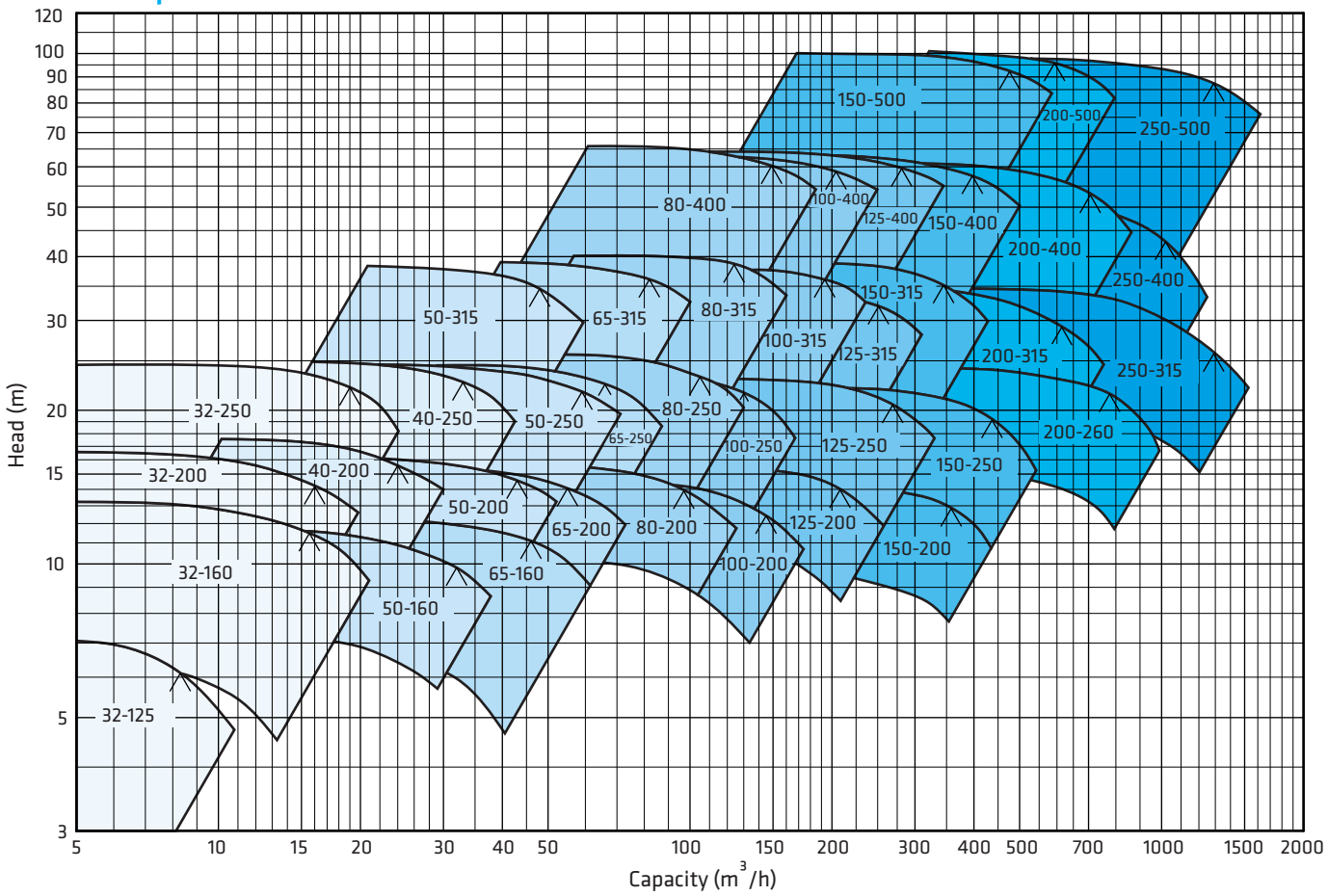
Nominal Impeller Diameter(mm)

Impeller Type (A: semi-open)

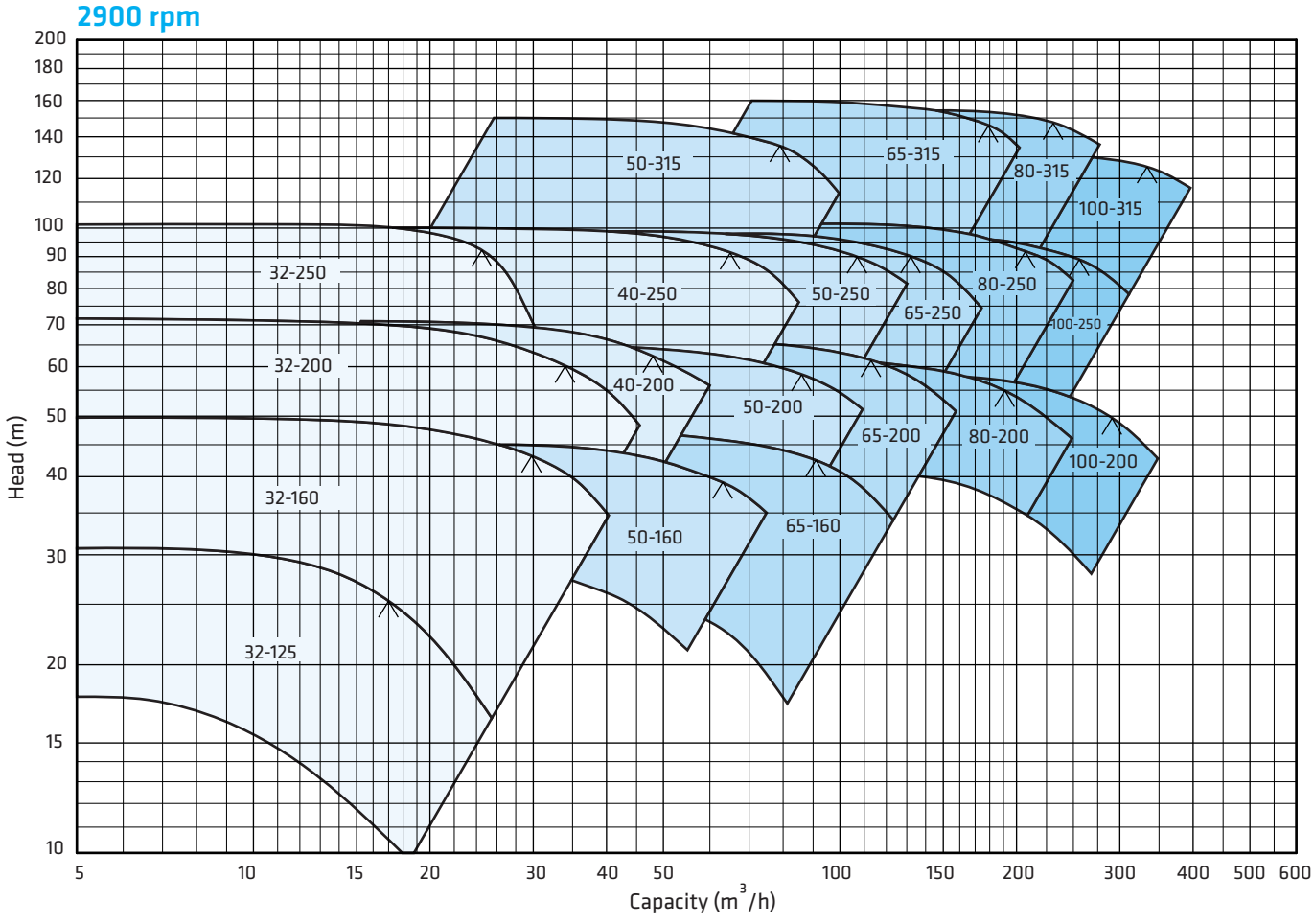
09.2015 / Rev. 1

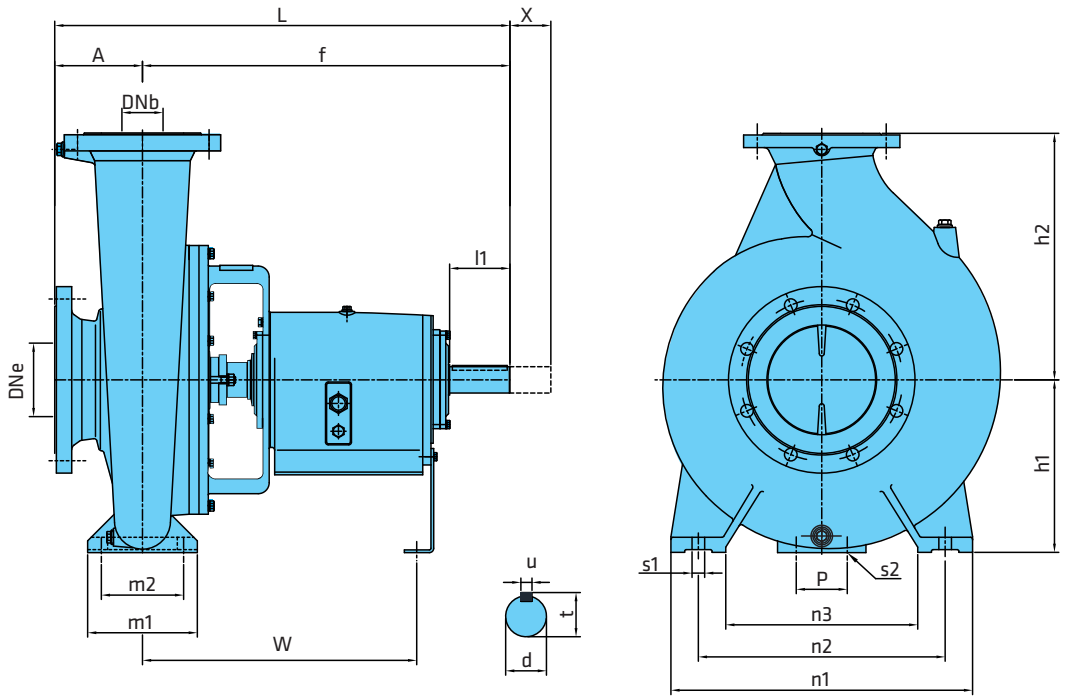
Field Chart

1450 rpm

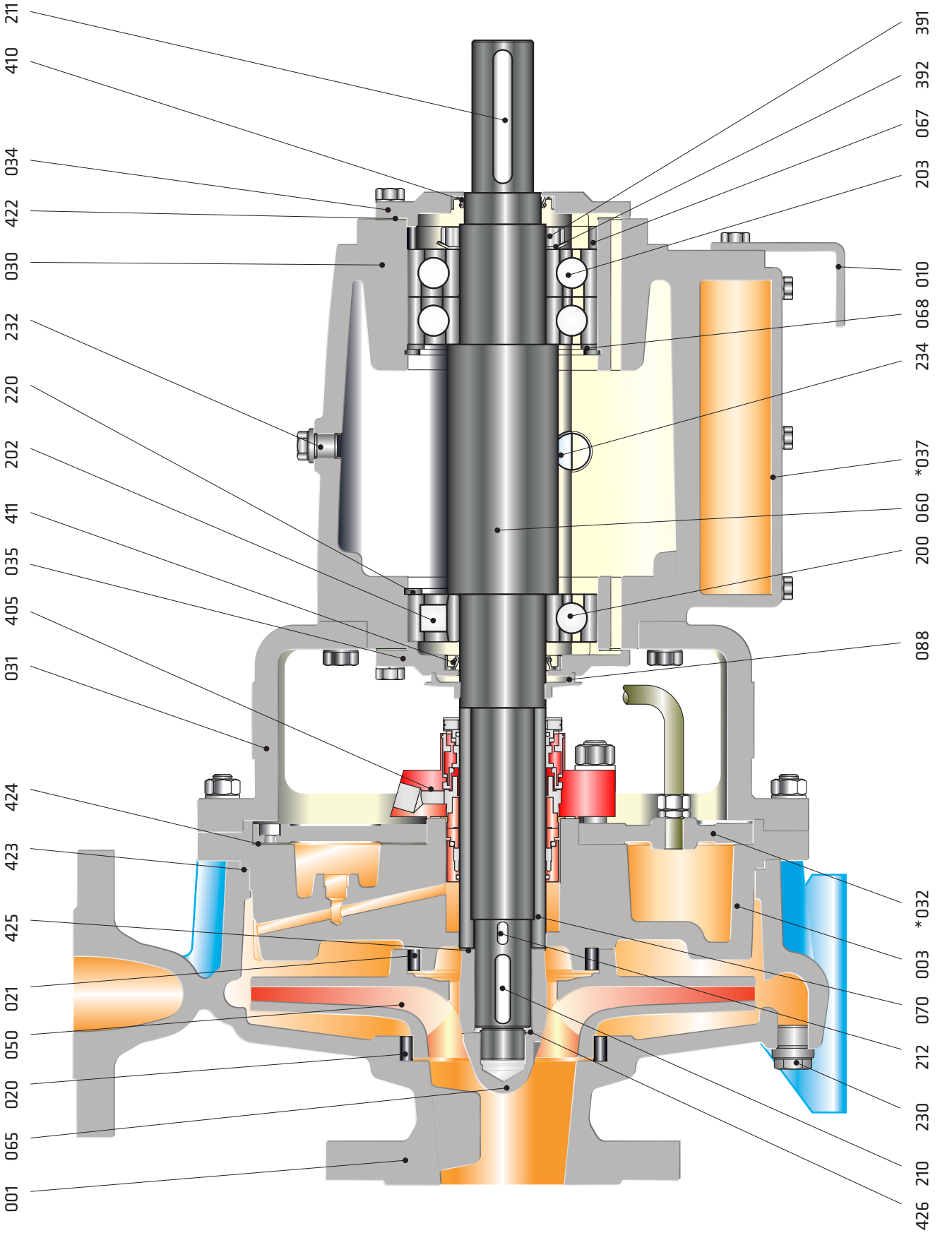


2900 rpm



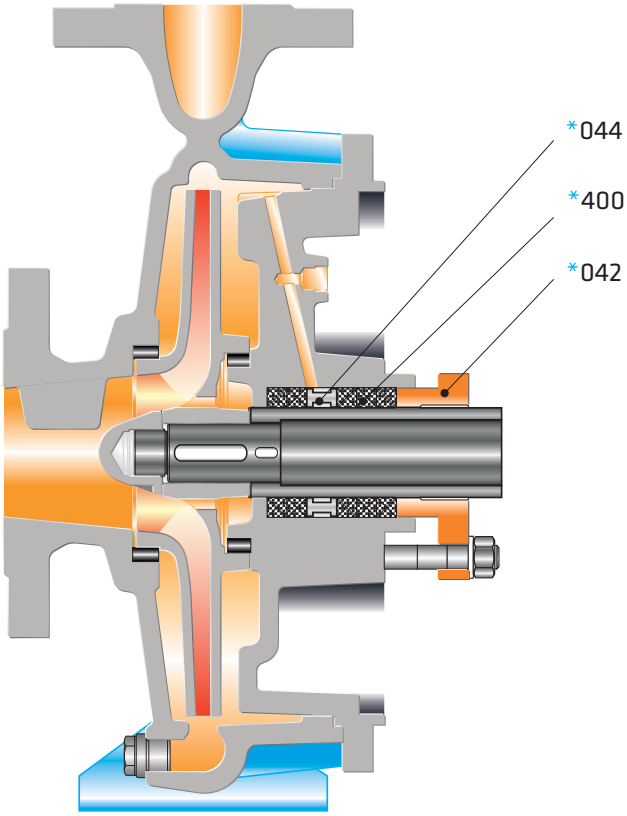


PUMP TYPE		Dimensions (mm)																				
		Overall Dimensions							Support and Foot Dimensions									Shaft End				Spacer
ISO 2858	Additional	DNe	DNb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u	x
32-125		50	32	80	385	465	112	140	100	70	190	140	90	14	110	14	285	24	50	27	8	100
32-160		50	32	80	385	465	132	160	100	70	240	190	140	14	110	14	285	24	50	27	8	100
32-200		50	32	80	385	465	160	180	100	70	240	190	140	14	110	14	285	24	50	27	8	100
32-250		50	32	80	385	465	180	225	125	95	320	250	190	14	110	14	370	32	80	35	10	100
40-200		65	40	100	385	485	160	180	100	70	265	212	165	14	110	14	285	24	50	27	8	100
40-250		65	40	100	500	600	180	225	125	95	320	250	190	14	110	14	370	32	80	35	10	100
50-160		80	50	100	385	485	160	180	100	70	265	212	165	14	110	14	285	24	50	27	8	100
50-200		80	50	100	385	485	160	200	100	70	265	212	165	14	110	14	285	24	50	27	8	100
50-250		80	50	125	500	625	180	225	125	95	320	250	190	14	110	14	370	32	80	35	10	100
50-315		80	50	125	500	625	225	280	125	95	345	280	215	14	110	14	370	32	80	35	10	100
65-160		100	65	100	500	600	160	200	125	95	280	212	150	14	110	14	370	32	80	35	10	140
65-200		100	65	100	500	600	180	225	125	95	320	250	190	14	110	14	370	32	80	35	10	140
65-250		100	65	125	500	625	200	250	160	120	360	280	200	19	110	14	370	32	80	35	10	140
65-315		100	65	125	530	655	225	280	160	120	400	315	240	19	110	14	370	42	110	45	12	140
80-200		125	80	125	500	625	180	250	125	95	345	280	215	14	110	14	370	32	80	35	10	140
80-250		125	80	125	500	625	225	280	160	120	400	315	240	19	110	14	370	32	80	35	10	140
80-315		125	80	125	530	655	250	315	160	120	400	315	240	19	110	14	370	42	110	45	12	140
80-400		125	80	125	530	655	280	355	160	120	435	355	275	19	110	14	370	42	110	45	12	140
100-200		125	100	125	500	625	200	280	160	120	360	280	200	19	110	14	370	32	80	35	10	140
100-250		125	100	140	530	670	225	280	160	120	400	315	240	19	110	14	370	42	110	45	12	140
100-315		125	100	140	530	670	250	315	160	120	400	315	240	19	110	14	370	42	110	45	12	140
100-400		125	100	140	530	670	280	355	200	150	500	400	300	23	110	14	370	42	110	45	12	140
	125-200	150	125	140	500	640	250	315	160	120	400	315	240	19	110	14	370	32	80	35	10	140
125-250		150	125	140	530	670	250	355	160	120	400	315	240	19	110	14	370	42	110	45	12	140
125-315		150	125	140	530	670	280	355	200	150	500	400	300	23	110	14	370	42	110	45	12	140
125-400		150	125	140	530	670	315	400	200	150	500	400	300	23	110	14	370	42	110	45	12	140
	150-200	200	150	160	545	705	280	355	200	150	550	450	350	23	140	14	381	42	110	45	10	180
150-250		200	150	160	530	690	280	375	200	150	550	450	350	23	140	14	366	42	110	45	12	180
150-315		200	150	160	670	830	315	400	200	150	550	450	350	23	140	19	500	48	110	51,5	14	180
150-400		200	150	160	670	830	315	450	200	150	550	450	350	23	140	19	500	48	110	51,5	14	180
	150-500	200	150	200	730	930	400	525	250	200	720	600	435	27	140	19	495	55	110	59	16	140
	200-260	250	200	200	630	830	355	450	250	200	600	500	360	23	140	20	410	48	110	51,55	14	160
	200-315	250	200	200	684	884	355	450	250	200	600	500	360	23	140	20	520	48	110	45	14	160
	200-400	250	200	180	725	905	400	500	250	200	600	500	360	23	140	20	490	55	110	59	16	160
	200-500	250	200	210	925	1135	400	525	300	240	720	600	435	27	140	20	640	70	140	74,5	20	160
	250-315	300	250	230	730	960	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	200
	250-400	300	250	230	750	980	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	200
	250-500	300	250	225	940	1165	450	630	300	240	720	600	435	27	140	20	670	70	140	74,5	20	200

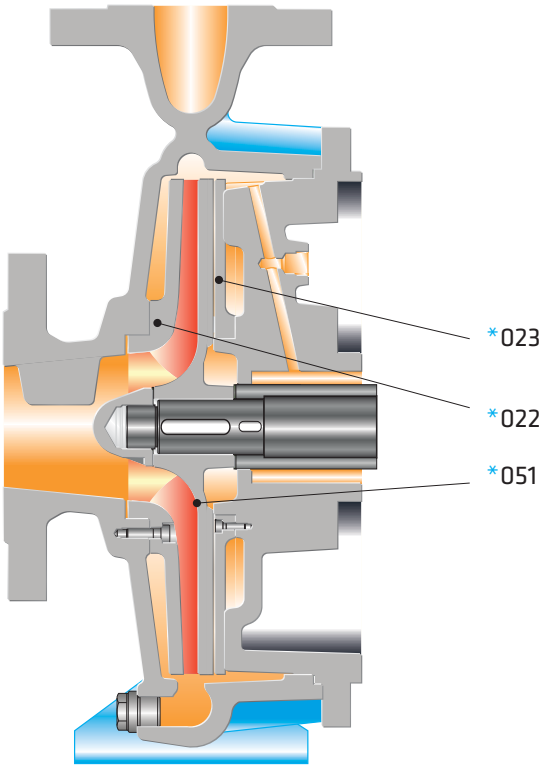

211
410
034
422
030
232
220
202
411
035
405
031
424
423
425
021
050
020
065
001
391
392
067
203
010
068
234
*037
060
200
088
*032
003
070
212
230
210
426

Sectional Drawings

Soft Packing Application



Semi-open Impeller Application



Part List

001	Volute Casing
003	Casing Cover
010	Support Foot
020	Wear Ring (casing)
021	Wear Ring (casing cover)
*022	Front Wear Plate
*023	Back Wear Plate
030	Bearing Bracket
031	Bearing Bracket Lantern
*032	Cooling-Heating Jacket Cover
034	Bearing Cover (outboard)
035	Bearing Cover (inboard)
*037	Bearing Cooling Cover
*042	Gland
*044	Lantern Ring
050	Impeller
*051	Semi-open impeller
060	Shaft
065	Impeller Nut
067	Bearing Spacer Sleeve
068	Bearing Spacer Sleeve
070	Shaft Sleeve
088	Thrower
200	Ball Bearing
202	Cylindrical Roller Bearing
203	Angular Contact Ball Bearing
210	Key (impeller)
211	Key (coupling)
212	Shaft Sleeve Key
220	Circlip
230	Drain Plug
232	Oil Filling Plug
234	Oil Sight Gauge
391	Shaft Nut
392	Lock Washer
*400	Soft Packing
405	Mechanical Seal
410	Lip Seal
411	Lip Seal
422	Gasket
423	Gasket
424	Gasket
425	Gasket
426	Gasket

* Optional

Technical Data

Material Option

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	●	○	○	○	○	○	○	○	○	○	○	○	○						
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○						
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○						
Shaft														●	○	○	○	○	○
Bearing Bracket	●	○																	
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

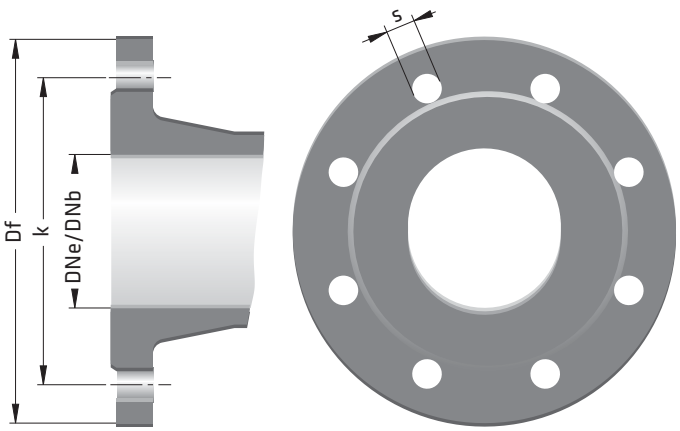
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

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
250	405	355	28	12
300	460	410	28	12

" n " number of holes



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SCP-HT

HOT WATER PUMPS

Handled Liquids

SCP-HT pumps are speacially designed for hot water and geothermal water application.

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 1700 m^3/h

Head_____up to 160 m

Speed_____up to 2900 rpm

Operating Temperature_____up to +230 °C*

Casing Pressure (Pmax)_____25 bar (40 bar)*

Design Type _____OH2

(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, radially split volute casing type, single stage, end suction centrifugal pumps with closed impeller.

•Heavy duty shaft not in contact with the medium handled (dry shaft)

•For casing sealing, confined gaskets are used to prevent blow-out under pressure.

•Coupling misalignment due to thermal expansions are mainly reduced with centerline mounting design.

•Suction and discharge flanges conform to EN 1092-2 / PN 25. (EN 1092-1 / PN 25 for steel or stainless steel casing)

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

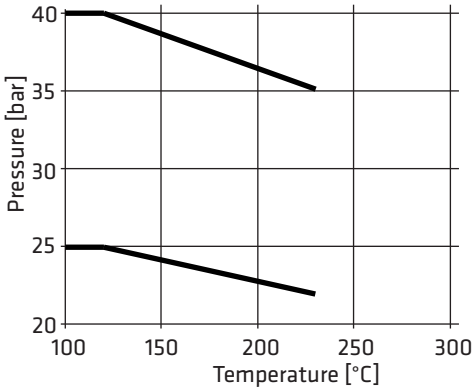
•Bearings of SCP-HT type pumps are always oil lubricated.

Shaft Sealing

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

•External seal cooling system may be used if required.

Pressure & Temperature Limits



Pump Designation

SCP-HT 100 - 250

Pump Type

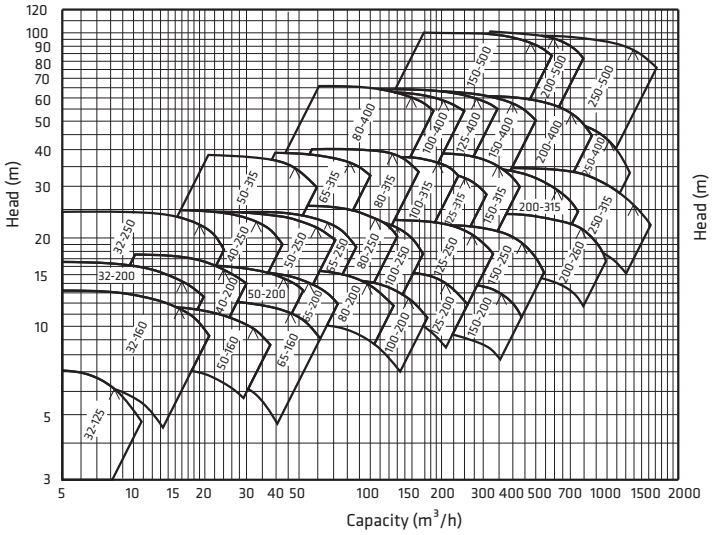
Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

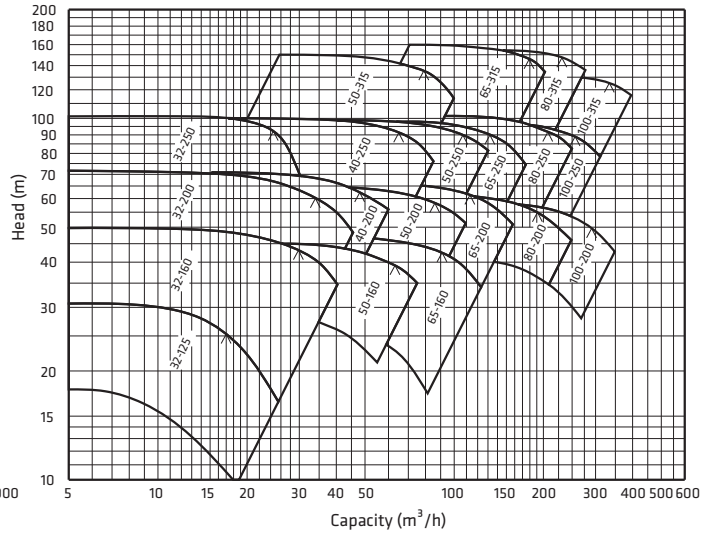
09.2015 / Rev. 1

Field Chart

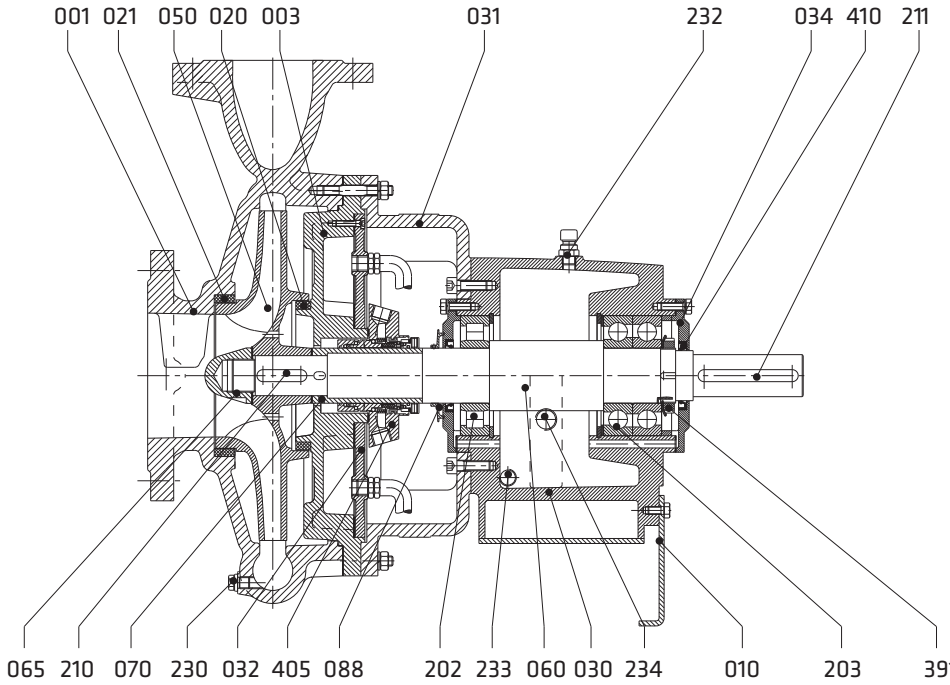
1450 rpm

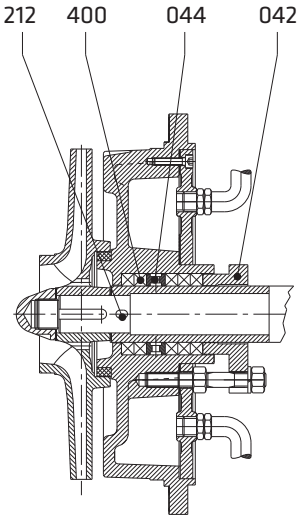


2900 rpm



Sectional Drawings





Part List

001 Volute Casing	044 Lantern Ring	212 Shaft Sleeve Key
003 Casing Cover	050 Impeller	230 Drain Plug
010 Support Foot	060 Shaft	232 Oil Filling Plug
020 Wear Ring (casing)	065 Impeller Nut	233 Oil Drain Plug
021 Wear Ring (casing cover)	070 Shaft Sleeve	234 Oil Sight Gauge
030 Bearing Bracket	088 Thrower	391 Shaft Nut
031 Bearing Bracket Lantern	202 Cylindrical Roller Bearing	400 Soft Packing Seal
032 Cooling - Heating jacket Cover	203 Angular Contact Ball Bearing	405 Mechanical Seal
034 Bearing Cover	210 Impeller Key	410 Lip Seal
042 Gland	211 Key (coupling)	

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SKY

THERMAL OIL PUMPS

Handled Liquids

Heat transfer oil or low viscosity industrial oil without agressive solid particles.

Technical Data

Discharge Flange_____DN 32.....DN 125 mm

Capacity _____up to 350 m^3/h

Head _____up to 105 m

Speed_____up to 2900 rpm

Operating Temperature_____up to 350 °C

Cooling Method_____With Air

Casing Pressure (Pmax)_____10 bar (16 bar)

Desing Type _____OH1

(Pmax: Suction Pressure + Shut off Head)

Desing Features

•Horizontal, radially split volute casing type, single stage, end suction, air cooled centrifugal pumps with closed impeller.

•Suction and discharge flanges conform to EN 1092-2 / PN 16.

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

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

•Axial thrust is balanced by impeller back ribs.

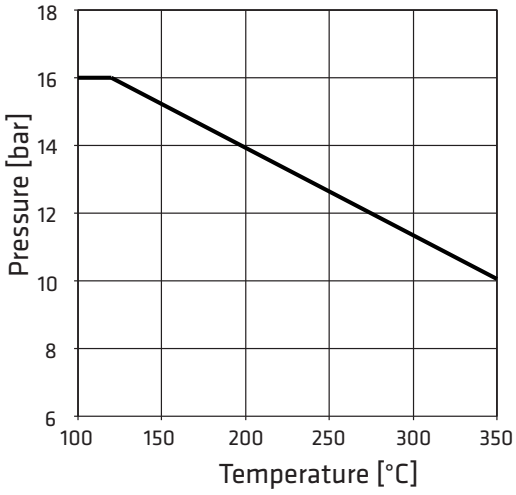
•Direction of rotation is clockwise viewed from drive end.

•Bearings of SKY type pumps are "life time grease lubricated" ball bearings.

Shaft Sealing

•High temperature resistant mechanical seals are used.

Pressure & Temperature Limits



Pump Designation

SKY 100 - 250

Pump Type

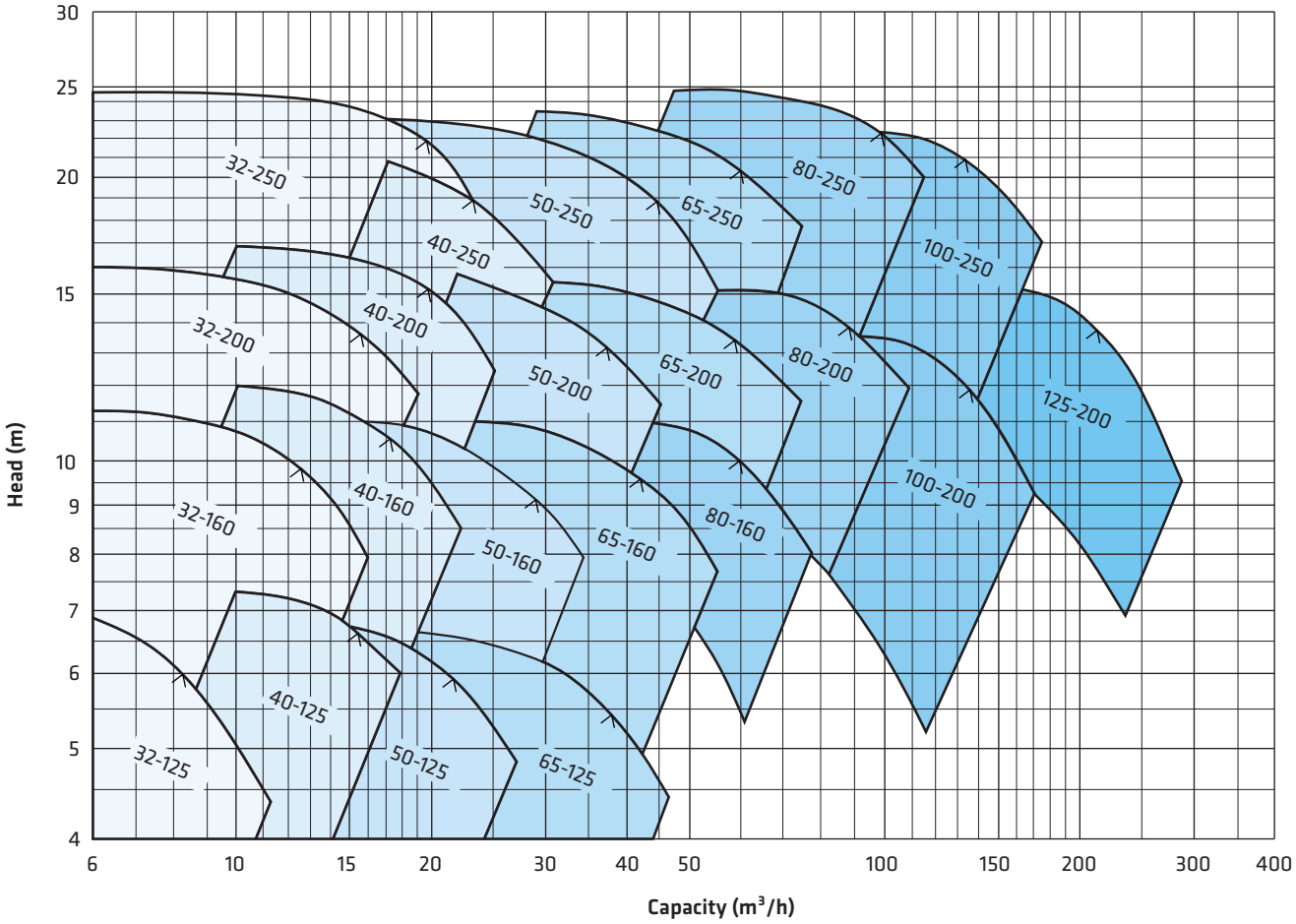
Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

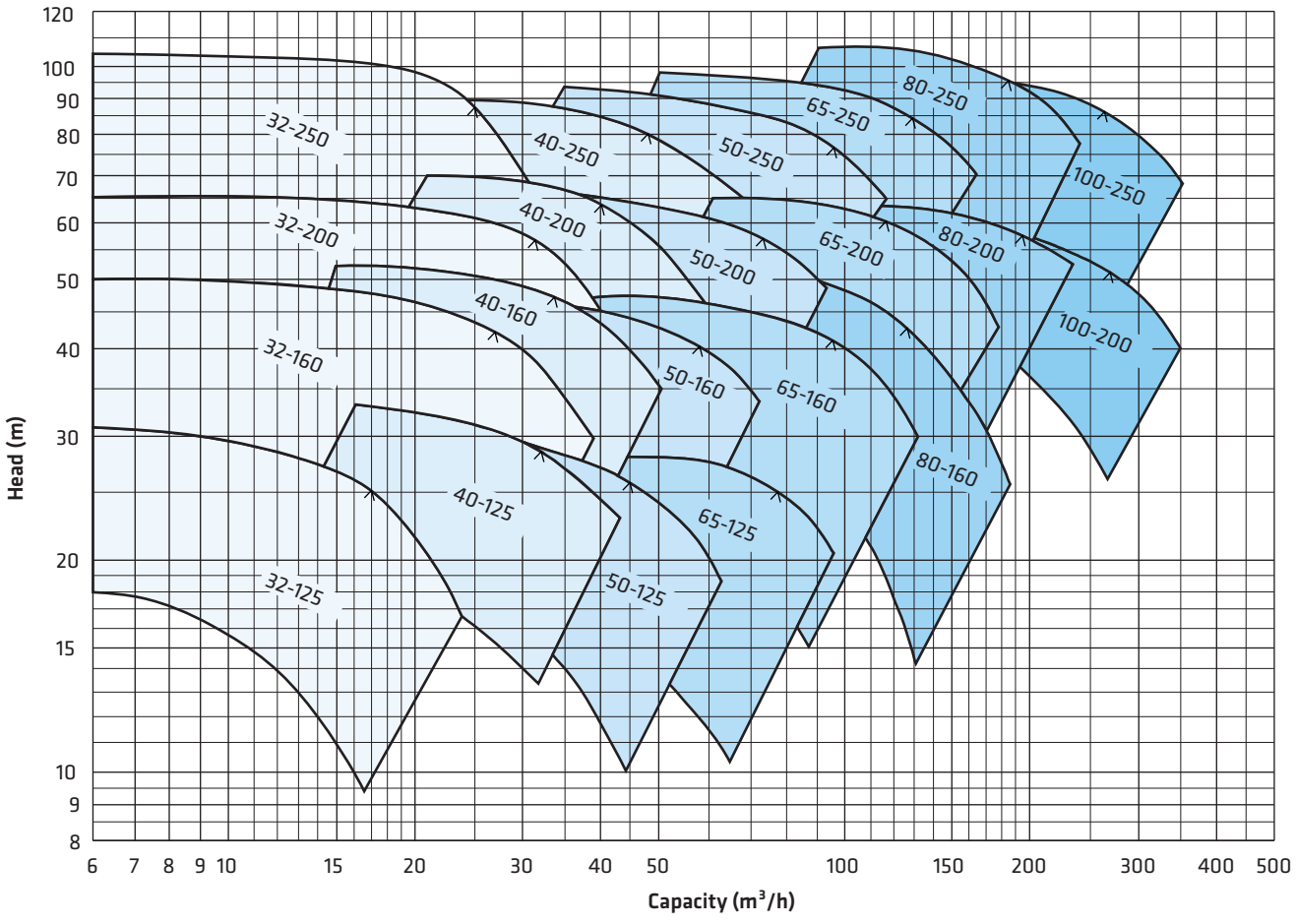
09.2015 / Rev. 1

Field Chart

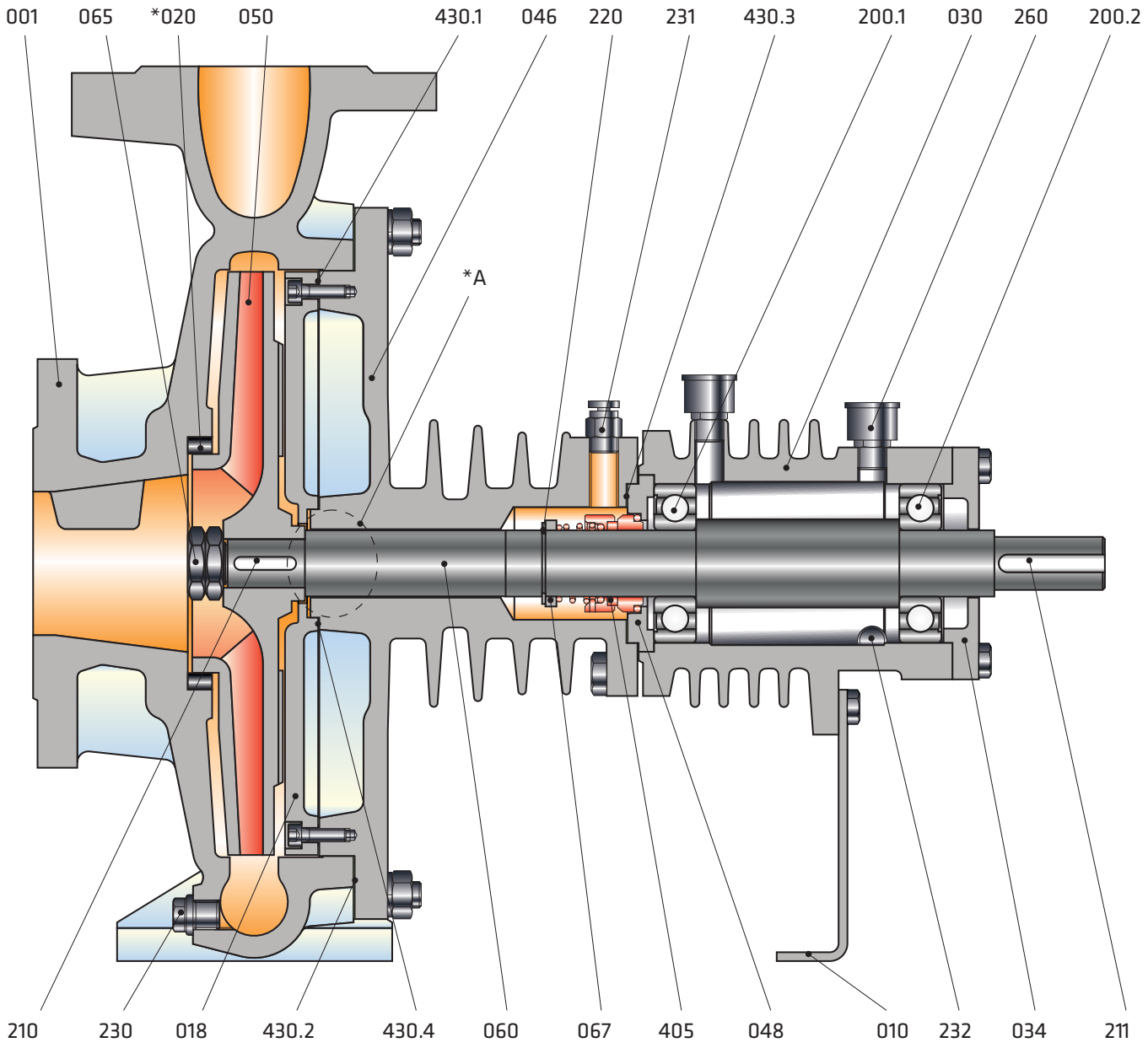
1450 rpm



2900 rpm

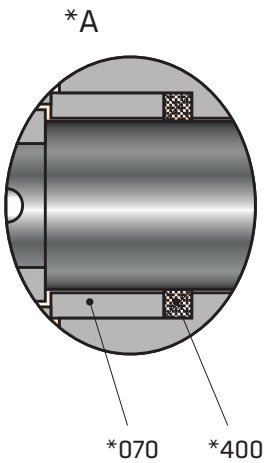


Sectional Drawings



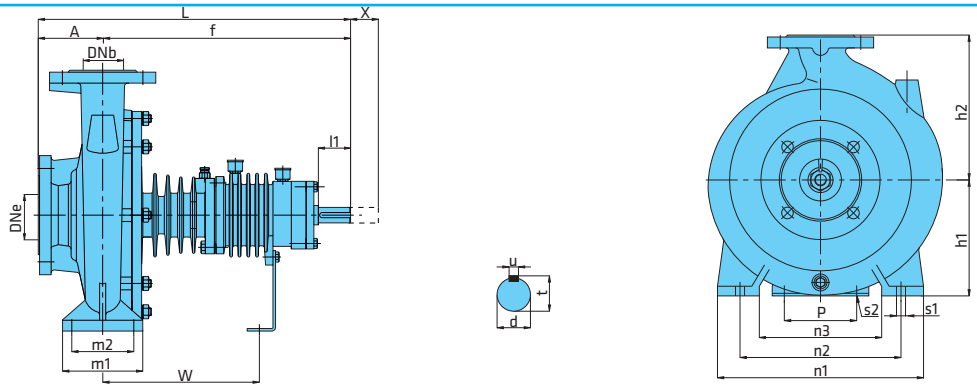
Part List

001	Volute Casing	210	Impeller Key
010	Support Foot	211	Coupling Key
018	Wear Plate	220	Circlip
*020	Wear Ring	230	Draing Plug
030	Bearing Housing	231	Air Venting Plug
034	Bearing Cover	232	Grease Drain Plug
046	Casing Cover	260	Grease Nipple
048	Mechanical Seal Cover	*400	Soft Packing (type 6050)
050	Impeller	405	Mechanical Seal
060	Shaft	430.1	Gasket (wear plate)
065	Impeller Nut	430.2	Gasket (casing)
067	Spacer Sleeve (mechanical seal)	430.3	Gasket (mech. seal cover)
*070	Spacer Sleeve (soft packing)	430.4	Gasket (wear plate)
200	Ball Bearing		



* Optional

Technical Data



Pump Type	Overall Dimensions (mm)							Support & Foot Dimensions(mm)									Shaft (mm)				Spacer (mm)
	DNe	DNb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u	x*
32-125	50	32	80	385	465	112	140	100	70	190	140	90	14	110	14	240	24	50	27	8	100
40-125	65	40	80	385	465	112	140	100	70	210	160	90	14	110	14	240	24	50	27	8	100
50-125	65	50	100	385	485	132	160	100	70	240	190	145	14	110	14	240	24	50	27	8	100
65-125	80	65	100	385	485	160	180	125	95	280	212	150	14	110	14	240	24	50	27	8	100
32-160	50	32	80	385	465	132	160	100	70	240	190	145	14	110	14	240	24	50	27	8	100
40-160	65	40	80	385	465	132	160	100	70	240	190	145	14	110	14	240	24	50	27	8	100
50-160	65	50	100	385	485	160	180	100	70	265	212	145	14	110	14	240	24	50	27	8	100
65-160	80	65	100	385	485	160	200	125	95	280	212	150	14	110	14	240	24	50	27	8	100
80-160	100	80	125	395	520	180	225	125	95	320	250	190	14	110	14	250	24	50	27	8	140
32-200	50	32	80	385	465	160	180	100	70	240	190	140	14	110	14	240	24	50	27	8	100
40-200	65	40	100	385	485	160	180	100	70	265	212	166	14	110	14	240	24	50	27	8	100
50-200	65	50	100	385	485	160	200	100	70	265	212	166	14	110	14	240	24	50	27	8	100
65-200	80	65	100	385	485	180	225	125	95	320	250	190	14	110	14	240	24	50	27	8	140
80-200	100	80	125	500	625	180	250	125	95	345	280	215	18	110	14	310	32	80	35	10	140
100-200	125	100	125	505	630	200	280	160	120	360	280	200	18	110	14	310	32	80	35	10	140
125-200	150	125	140	505	645	250	315	165	120	400	315	230	18	110	14	310	32	80	35	10	140
32-250	50	32	100	385	485	180	225	125	95	320	250	190	14	110	14	240	24	50	27	8	100
40-250	65	40	100	385	485	180	225	125	95	320	250	190	14	110	14	240	24	50	27	8	100
50-250	65	50	100	385	485	180	225	125	95	320	250	190	14	110	14	240	24	50	27	8	100
65-250	80	65	100	495	595	200	250	160	120	360	280	200	18	110	14	305	32	80	35	10	140
80-250	100	80	125	495	620	200	280	160	120	400	315	240	18	110	14	305	32	80	35	10	140
100-250	125	100	140	500	640	225	280	160	110	400	315	240	18	110	14	310	32	80	35	10	140

* Gap necessary for the withdrawal of the pump rotor from the driven end without the need for disconnecting the motor and pipework (spacer coupling application)

Material Options

PART LIST	0.6025	0.7040	1.4408	1.4021	1.4401
Volute Casing		●			
Casing Cover		●			
Impeller	●	○	○		
Shaft				●	○
Bearing Housing	●	○			
Wear Ring (casing)	○	○			
Wear Plate		●			
Mechanical Seal	EN 12756/DIN 24960				

Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Chrome Nickel Moly. Cast Steel	1.4408	G-X5 Cr Ni Mo 19-11-2	A 351/743/744 Gr. CF8M
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Moly. Steel	1.4401	X5 Cr Ni 18-10	A 276 Type 316

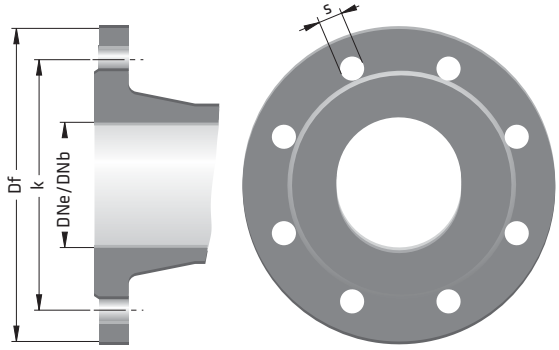
● Standart manufacturing
○ Optional

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

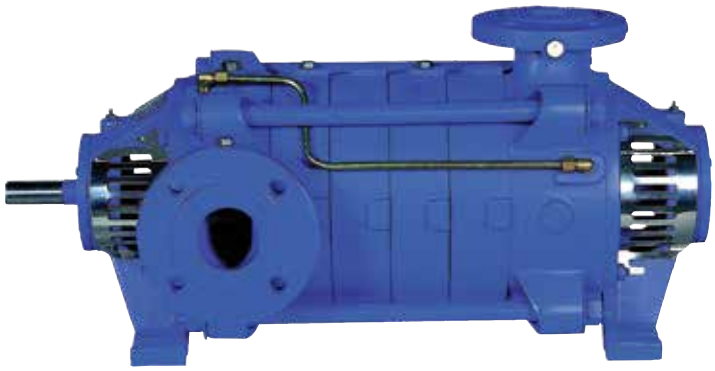
" n " number of holes



Standart
yaşamı koru! save life!

SKM

MULTISTAGE CENTRIFUGAL PUMPS



Handled Liquids

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

Technical Data

Discharge Flange_____DN 32.....DN 250 mm

Capacity_____up to 1000 m^3/h

Head_____up to 550 m

Speed_____up to 2900 rpm

Operating Temperature_____10°C up to +140 °C*

Casing Pressure (Pmax)_____25 bar (63 bar)*

Design Type _____BB4

(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 ring section, multistage, centrifugal pumps with closed impeller and diffuser.

•10 Models from DN 32 up to 250 discharge flange diameter.

•Suction nozzle flanges conform to EN 1092 - 2 / PN 16 and discharge nozzle flanges conform to EN 1092 - 2 / PN 40 (PN 63) (For steel or stainless steel casing pumps, flanges comform to related pressure class ratings defined in EN 1092 - 1)

•In standard production, suction flange is placed on the right side and close to the coupling while discharge flange is at the other end and radially upwards (R 3/0). If other flange orien is required, it should be indicated in the order.

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of SKM type pumps are always grease lubricated.

Shaft Sealing

•In standard production soft packing application is applied up to 110 °C. Between 110 °C and 140 °C soft packing may also applied together with the stuffing box cooling.

•Pumps with mechanical seal can also be manufactured upon request.

Pump Designation

SKM - K 100 / 6

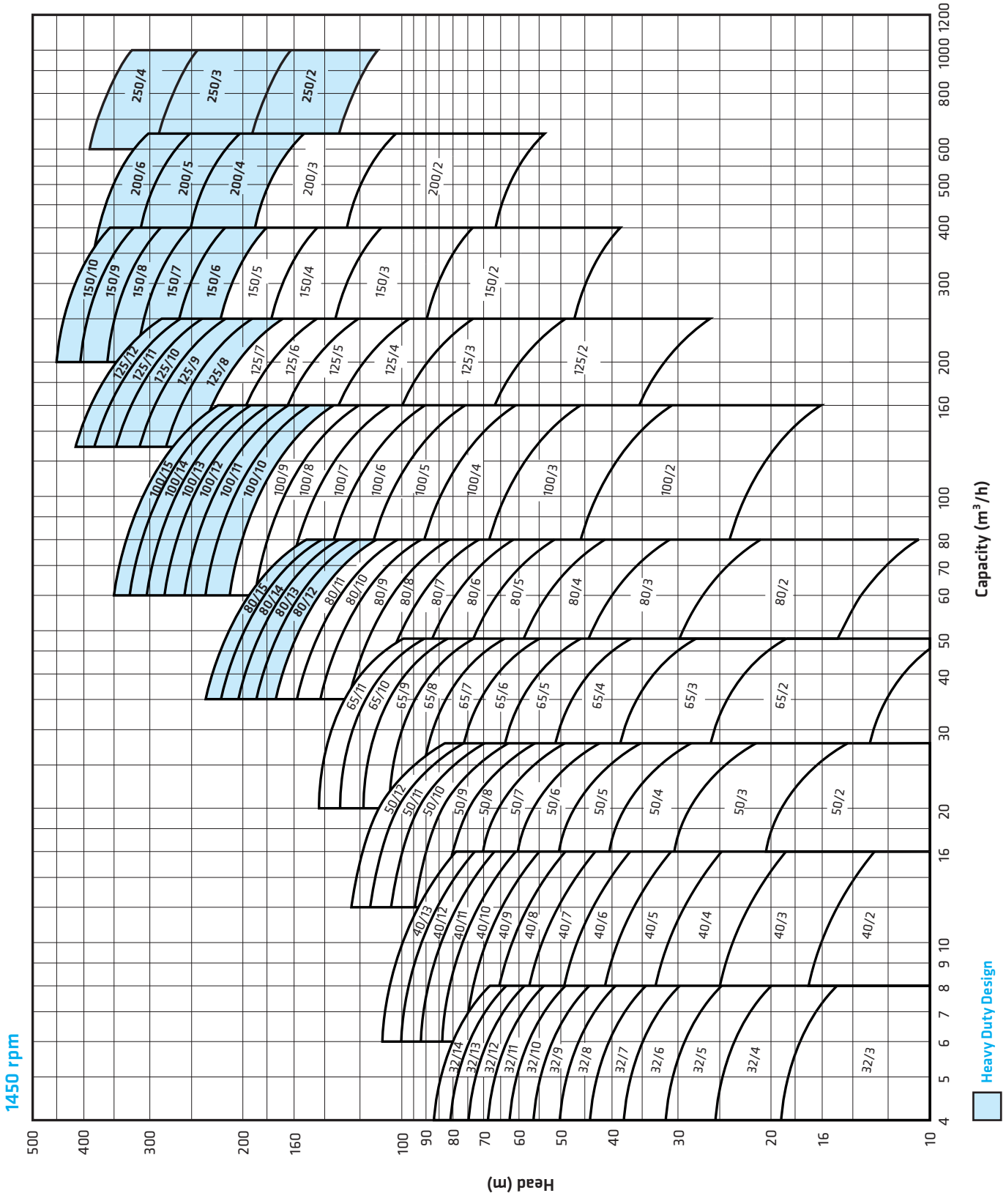
Pump Type

Heavy Duty Design

Discharge Nozzle (DN-mm)

Number of Stages

09.2015 / Rev. 5


1450 rpm
Head (m)
Capacity (m³/h)
Heavy Duty Design
500
400
300
200
160
100
90
80
70
60
50
40
30
20
16
10
4
5
6
7
8
9
10
16
20
30
40
50
60
70
80
100
160
200
300
400
500
600
800
1000
1200
250/4
250/3
250/2
200/6
200/5
200/4
200/3
200/2
150/10
150/9
150/8
150/7
150/6
150/5
150/4
150/3
150/2
125/12
125/11
125/10
125/9
125/8
125/7
125/6
125/5
125/4
125/3
125/2
100/15
100/14
100/13
100/12
100/11
100/10
100/9
100/8
100/7
100/6
100/5
100/4
100/3
100/2
80/15
80/14
80/13
80/12
80/11
80/10
80/9
80/8
80/7
80/6
80/5
80/4
80/3
80/2
65/11
65/10
65/9
65/8
65/7
65/6
65/5
65/4
65/3
65/2
50/12
50/11
50/10
50/9
50/8
50/7
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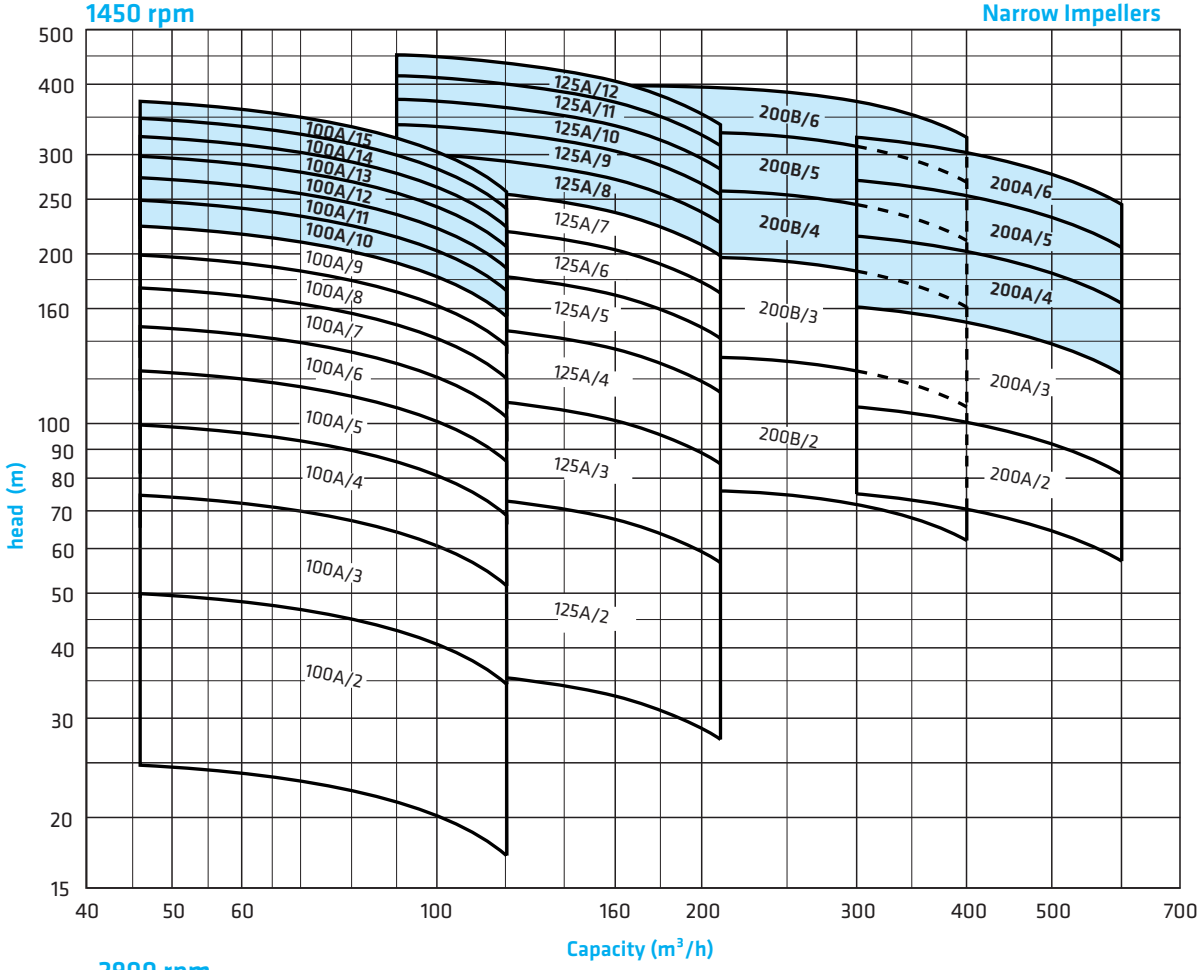
50/4
50/3
50/2
40/13
40/12
40/11
40/10
40/9
40/8
40/7
40/6
40/5
40/4
40/3
40/2
32/14
32/13
32/12
32/11
32/10
32/9
32/8
32/7
32/6
32/5
32/4
32/3

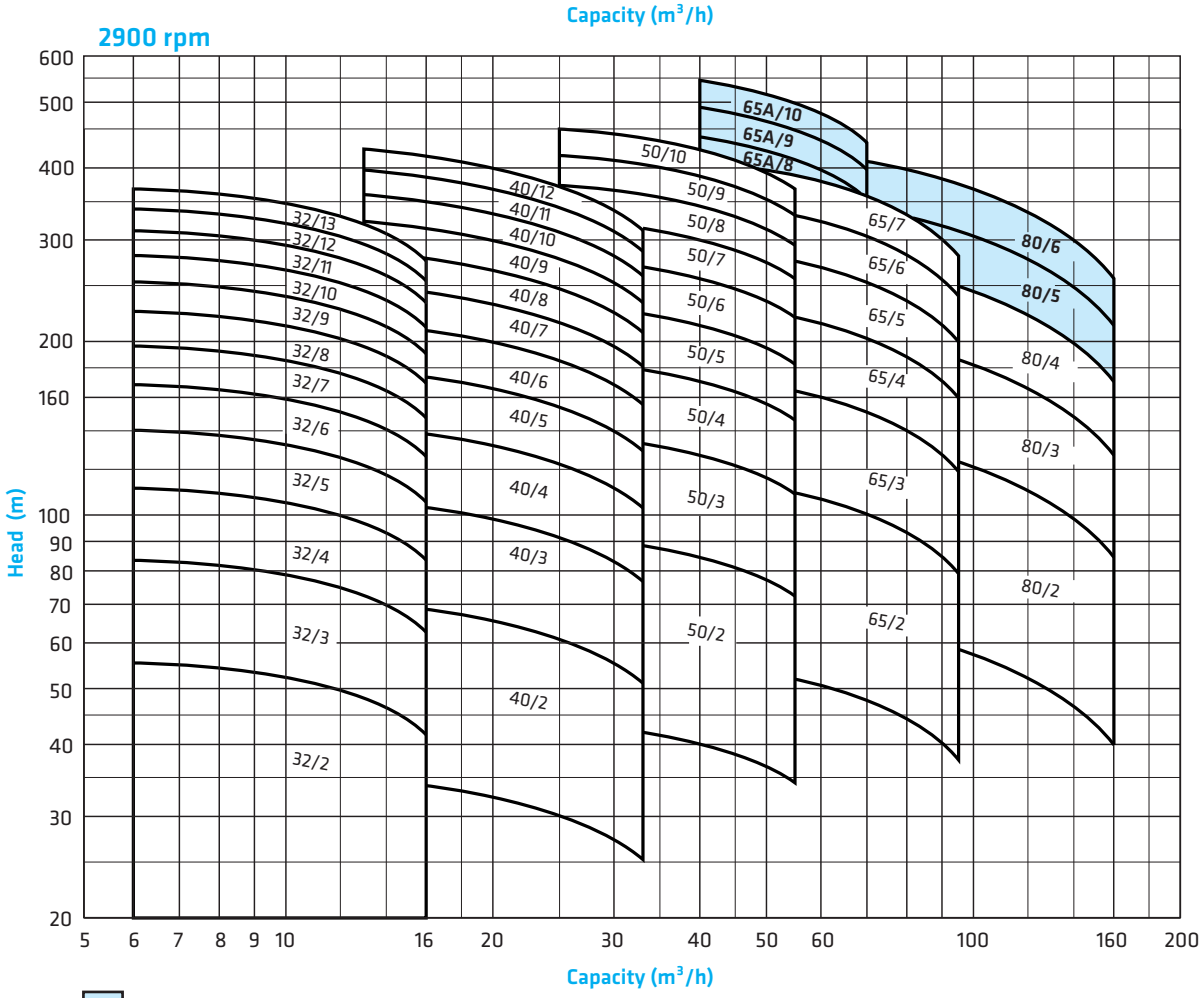
Field Chart

1450 rpm

Narrow Impellers



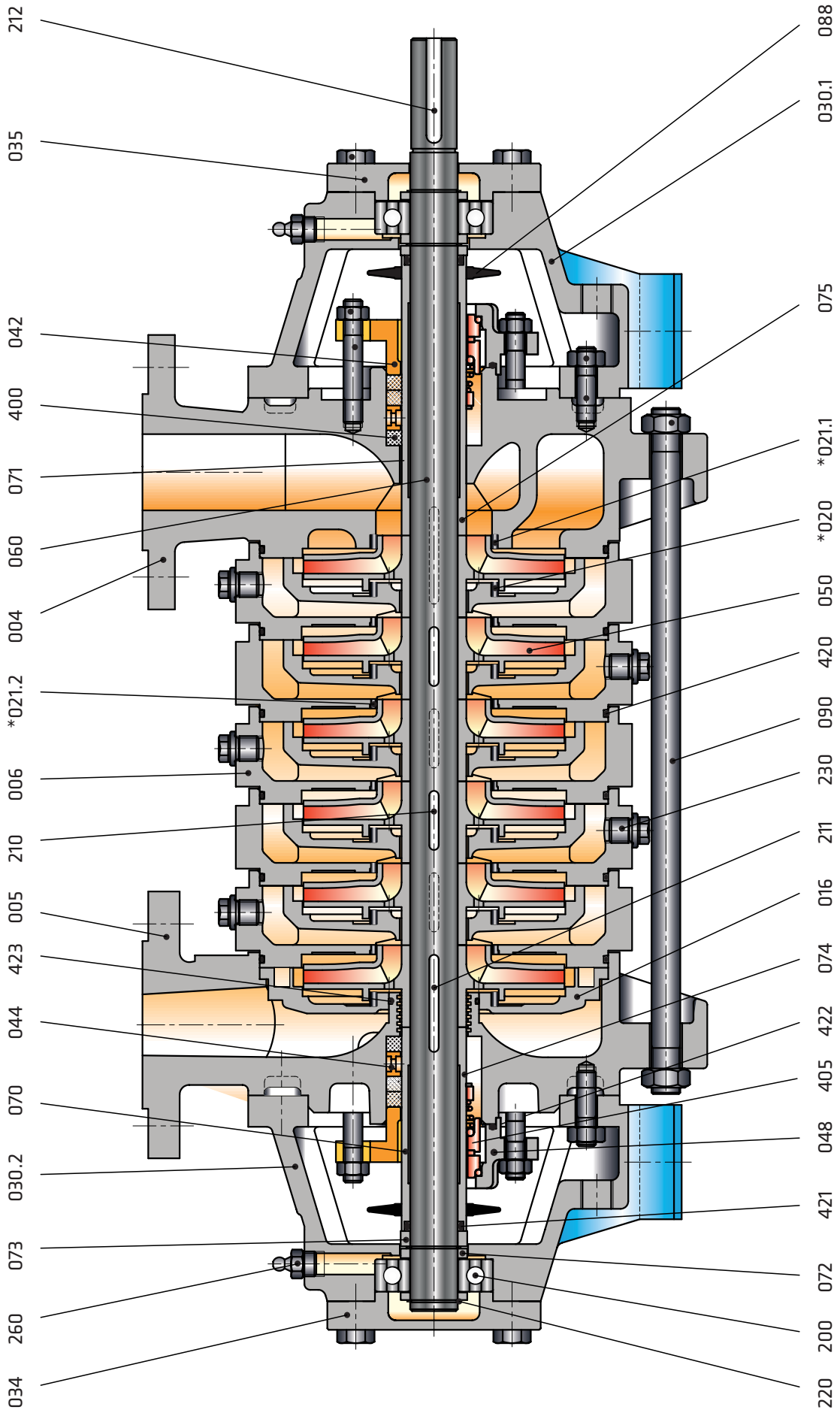
2900 rpm



Heavy Duty Design

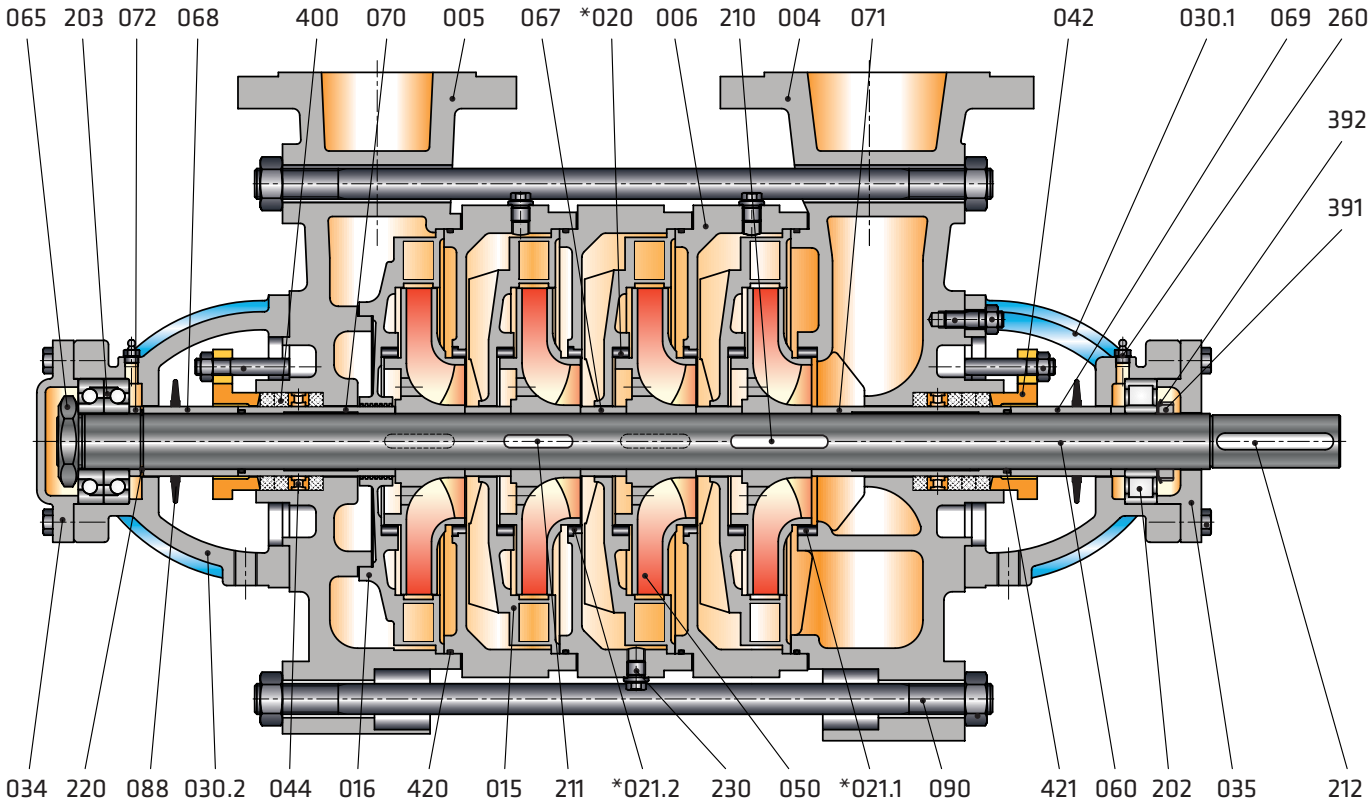
Sectional Drawings

SKM - 32 - 40 - 50 - 65 Series



Sectional Drawings

SKM - 80 - 100 - 125 - 150 - 200 - 250 Series



Part List

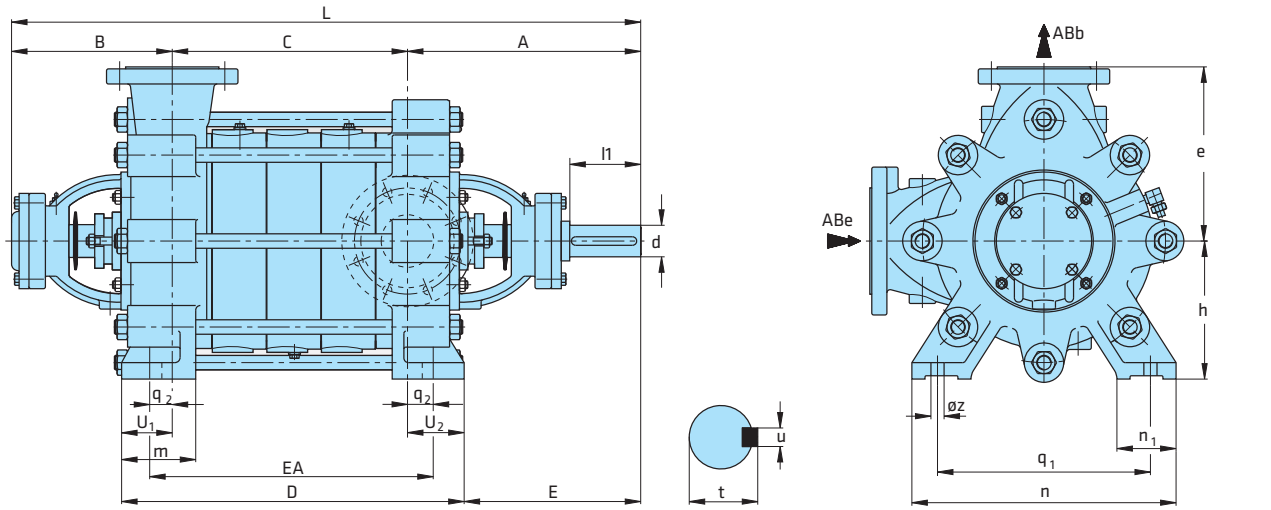
004	Suction Casing
005	Discharge Casing
006	Stage Casing
015	Diffuser
016	Final Stage Diffuser
*020	Wear Ring (stage casing)
*021.1	Wear Ring (suction casing)
*021.2	Wear Ring (stage casing)
030.1	Bearing Housing (suction casing)
030.2	Bearing Housing (discharge casing)
034	Bearing End Cover
035	Bearing Cover (coupling side)
042	Stuffing Box Gland
044	Lantern Ring
048	Mechanical Seal Cover
050	Impeller
060	Shaft
065	Shaft Nut
067	Interstage Sleeve
068	Spacer Sleeve (discharge side)
069	Spacer Sleeve (suction side)
070	Shaft Protecting Sleeve (discharge side)
071	Shaft Protecting Sleeve (suction side)

072	Spacer Sleeve (discharge side)
073	Spacer Sleeve
074	Mechanical Seal Sleeve (discharge)
075	Mechanical Seal Sleeve (suction)
088	Thrower
090	Casing Tiebolt
200	Ball Bearing
202	Cylindrical Roller Bearing
203	Angular Contact Ball Bearing
210	Impeller Key
211	Stage Key
212	Coupling Key
220	Retaining Ring
230	Drain Plug
260	Grease Nipple
391	Shaft Nut
392	Lock Washer
400	Stuffing Box Packing
*405	Mechanical Seal
420	O-Ring (stage casing)
421	O-Ring (shaft protecting sleeve)
422	O-Ring (mechanical seal cover)
423	O-Ring (discharge casing)

* Optional

Technical Data

SKM



"C" according to the number of stages (mm)

Pump Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
32	71	114	157	200	243	286	329	372	415	458	501	544	587	630	
40	78	133	188	243	298	353	408	463	518	573	628	683	738		
50	90	152	214	276	338	400	462	524	586	648	710	772			
65	107	178	249	320	391	462	533	604	675	746	817				
80	112	195	278	361	444	527	610	693	776	859	942	**1025**	**1108**	**1191**	**1274**
100	133	233	333	433	533	633	733	833	933	**1033**	**1133**	**1233**	**1333**	**1433**	**1533**
125	165	280	395	510	625	740	855	**970**	**1085**	**1200**	**1315**	**1430**			
150	218	363	508	653	798	**943**	**1088**	**1233**	**1378**	**1523**					
200	267	437	607	**777**	**947**	**1117**									
250		**520**	**722**	**924**											

Pump Type	Dimensions (mm)																	
	ABe	ABb	A	B	EA	D	L	E	e	h	m	n	n1	q1	q2	øz	u1	u2
32	40	32	241	165	C+178	C+200	C+406	145	152	132	60	192	55	136	85	15	104	96
40	50	40	238	165	C+191	C+208	C+403	134	175	160	60	232	55	175	90	15	104	104
50	65	50	254	175	C+203	C+222	C+429	145	190	160	60	256	60	200	95	15	113	109
65	80	65	271	195	C+239	C+241	C+466	150	215	180	60	294	60	240	105	15	124	121
80	100	80	321	250	C+93	C+124	C+571	259	265	210	85	410	90	340	42	15	62	62
100	125	100	389	285	C+104	C+140	C+674	319	300	250	90	450	90	370	48	15	70	70
125	150	125	412	300	C+130	C+160	C+712	332	375	300	105	560	105	450	55	20	80	80
150	200	150	486	360	C+152	C+208	C+846	381	425	350	130	655	110	550	65	26	103	105
200	250	200	515	385	C+138	C+210	C+900	410	500	400	130	675	120	550	65	27	105	105
250	300	250	708	444	C+148	C+260	C+1152	577	627	472	155	775	150	625	74	32	130	129

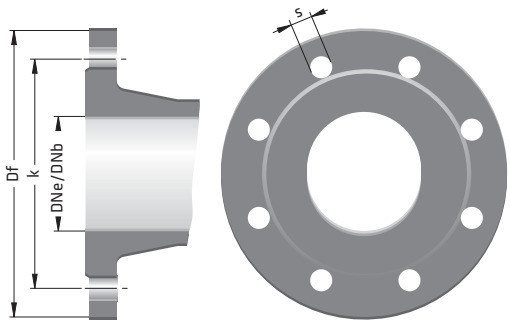
Heavy Duty Design

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 16)				Suction & Discharge (PN 40)			
	Df	k	s	n	Df	k	s	n
32	140	100	19	4	140	100	19	4
40	150	110	19	4	150	110	19	4
50	165	125	19	4	165	125	19	4
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	375	320	31	12
250	405	355	28	12	450	385	34	12
300	460	410	28	12	515	450	34	16

" n " number of holes



Technical Data

Standard Application

Pump Type	Shaft End				Weight (kg)	
	d1	l1	v	u	G1	g
32	24	60	27	8	44	6
40	24	60	27	8	58	9,5
50	28	65	31	8	89	13
65	32	65	35	10	92	20
80	38	80	41	10	128	26
100	42	110	45	12	177	42
125	48	110	51,5	14	330	75
150	55	110	59	16	580	120
200	70	140	74,5	20	920	200

Pump weight = G1 + (s x g) (s : number of stage)

Maximum number of stages according to shaft material

Pump Type	1.4462 / 1.4021		1.4301 / 1.4401	
	1450 rpm (1750 rpm)	2900 rpm (3500 rpm)	1450 rpm (1750 rpm)	2900 rpm (3500 rpm)
32	14(14)	13(9)	14(14)	13(8)
40	13(13)	12(8)	13(13)	7(3)
50	12(12)	10(6)	12(10)	7(2)
65	11(11)	7(4)	11(8)	5(2)
80	11(11)	4(2)	11(8)	3(N/A)
100	9(7)	-	6(4)	-
125	7(5)	-	4(2)	-
150	5(3)	-	3(N/A)	-
200	3(2)	-	3(N/A)	-

Heavy Duty Design

Pump Type	Shaft End				Weight (kg)	
	d1	l1	v	u	G1	g
65A	38	65	41	10	105	20
80	42	80	45	12	146	26
100	48	110	51,5	14	205	42
125	55	110	59	16	370	75
150	65	110	69	18	630	120
200	70	140	74,5	20	945	200
250	100	220	106	28	1250	320

Pump weight = G1 + (s x g) (s : number of stage)

Maximum number of stages according to shaft material

Pump Type	1.4462 / 1.4021		1.4301 / 1.4401	
	1450 rpm (1750) rpm	2900 rpm (3500) rpm	1450 rpm (1750) rpm)	2900 rpm (3500) rpm
65A	-	10(7)	-	N/A
80	15(15)	6(3)	15(N/A)	N/A
100	15(11)	-	N/A(N/A)	-
125	12(8)	-	8(N/A)	-
150	10(6)	-	7(N/A)	-
200	6(4)	-	5(N/A)	-
250	4(3)	-	4(N/A)	-

Bearing Type

Standard Application

1450 rpm (1750 rpm)

Pump Type	Number of Stages	Bearing Type	
		Suciton	Discharge
32	2....14(14)	6305	6305
40	2....13(13)	6305	6305
50	2....12(12)	6306	6306
65	2....11(11)	6307	6307
80	2....11(11)	NU 308	3308
100	2.....9(7)	NU 309	3309
125	2.....7(5)	NU 310	3310
150	2.....5(3)	NU 312	3312
200	2.....3(2)	NU 315	2x7315

2900 rpm (3500 rpm)

Pump Type	Number of Stages	Bearing Type		Number of Stages	Bearing Type	
		Suciton	Discharge		Suction	Discharge
32	2....9(6)	6305	6305	10(7)...13(9)	NU 305	6405
40	2....6(4)	6305	6305	7(5)....12(8)	NU 305	6405
50	2....5(3)	6306	6306	6(4)....10(6)	NU 306	6406
65	2....4(2)	6307	6307	5(3).....7(4)	NU 307	6407
80	-	-	-	2(2).....4(2)	NU 308	3308

Heavy Duty Design

1450 rpm (1750 rpm)

Pump Type	Number of Stages	Bearing Type	
		Suction	Discharge
80	11(11)....15(15)	NU 309	2 x 7309
100	9(9).....15(11)	NU 310	2 x 7310
125	7(7).....12(8)	NU 312	2 x 7312
150	5(5).....10(6)	NU 314	2 x 7314
200	3(3).....6(4)	NU 316	2 x 7316
250	2(2).....4(3)	NU 321	2 x 7321

2900 rpm (3500 rpm)

Pump Type	Number of Stages	Bearing Type	
		Suction	Discharge
65A	8(N/A)....10(N/A)	NU 308	2 x 7308
80	5(N/A).....6(N/A)	NU 309	2 x 7309

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	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462
Suction Casing	●	○		○	○	○	○	○	○	○	○	○								
Discharge Casing	●	○		○	○	○	○	○	○	○	○	○								
Stage Casing	●	○		○	○	○	○	○	○	○	○	○								
Diffuser	●	○	○	○	○	○	○	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○							
Shaft															●	○	○	○	○	○
Bearing Housing	●	○																		
Wear Ring (casing)	○	○	○	○	○	○	○	○	○	○	○	○								
Spacer Sleeve												○		●	○	○	○	○	○	○
Shaft Protecting Sleeve												○		●	○	○	○	○	○	○
Interstage Sleeve												○		●	○	○	○	○	○	○
Mechanical Seal (*)	EN 12756 / DIN 24960																			

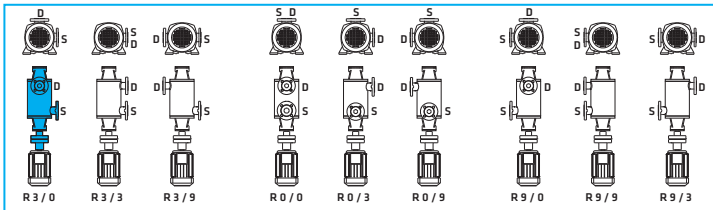
(*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing
○ Optional

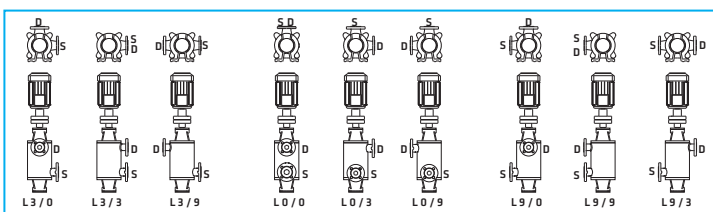
Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	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-X2 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	G-X4 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
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Positions



Clockwise rotation viewed from driver (Suction flange is on the motor side)



Counter clockwise rotation viewed from driver (Discharge flange is on the motorr side)

R 3/0

- Discharge Flange Position (D)
- Suction Flange Position (S)
- Direction of Rotation (R/L)

Direction of rotation viewed from driver end
R : Right
L : Left

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SKM-E

MULTISTAGE PUMPS (END SUCTION)

Handled Liquids

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

Technical Data

Discharge Flange_____DN 40....DN 150 mm

Capacity_____up to 400 m^3/h

Head_____up to 450 m

Speed_____up to 2900 rpm

Operating Temperature_____-10°C up to +140 °C*

Casing Pressure (Pmax)_____25 bar (63 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 ring section, multistage, centrifugal pumps with closed impellers and diffusers in end suction design.

•7 Models from DN 40 up to DN 150 discharge flange diameter.

•Suction nozzle flanges conform to EN 1092 - 2 / PN 16 and discharge nozzle flanges conform to EN 1092 - 2 / PN 40 (PN 63) (For steel or stainless steel casing pumps, flanges comform to related pressure class ratings defined in EN 1092 - 1)

•Discharge flange is on top for standard production, upon request different discharge flange positions can be

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is always counter clockwise viewed from drive end. That's why these pumps can not be accouppled directly with diesel engines.

•Bearings of SKM-E type pumps are grease lubricated. Sleeve bearing used in the suction side is lubricated by the pumping liquid.

Shaft Sealing

•In standard production soft packing application is applied up to 110 °C. Between 110 °C and 140 °C soft packing may also applied together with the stuffing box cooling.

•Pumps with mechanical seal can also be manufactured upon request.

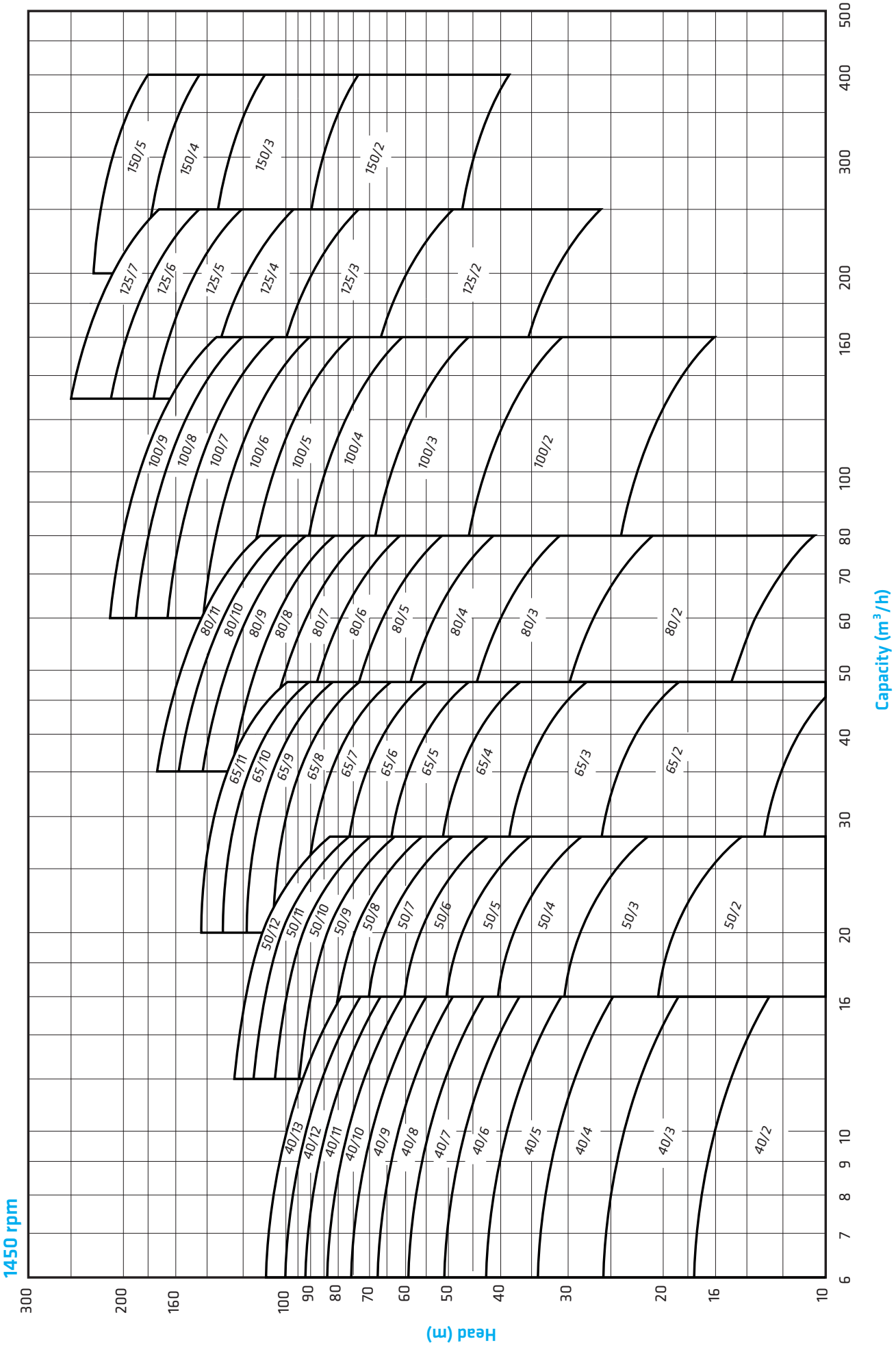
Pump Designation

SKM-E 100 / 6

Pump Type

Discharge Nozzle (DN-mm)

Number of Stages


1450 rpm
Head (m)
Capacity (m³/h)
300
200
160
100
90
80
70
60
50
40
30
20
16
10
6
7
8
9
10
16
20
30
40
50
60
70
80
100
160
200
300
400
500
150/5
150/4
150/3
150/2
125/7
125/6
125/5
125/4
125/3
125/2
100/9
100/8
100/7
100/6
100/5
100/4
100/3
100/2
80/11
80/10
80/9
80/8
80/7
80/6
80/5
80/4
80/3
80/2
65/11
65/10
65/9
65/8
65/7
65/6
65/5
65/4
65/3
65/2
50/12
50/11
50/10
50/9
50/8
50/7
50/6
50/5
50/4
50/3
50/2
40/13
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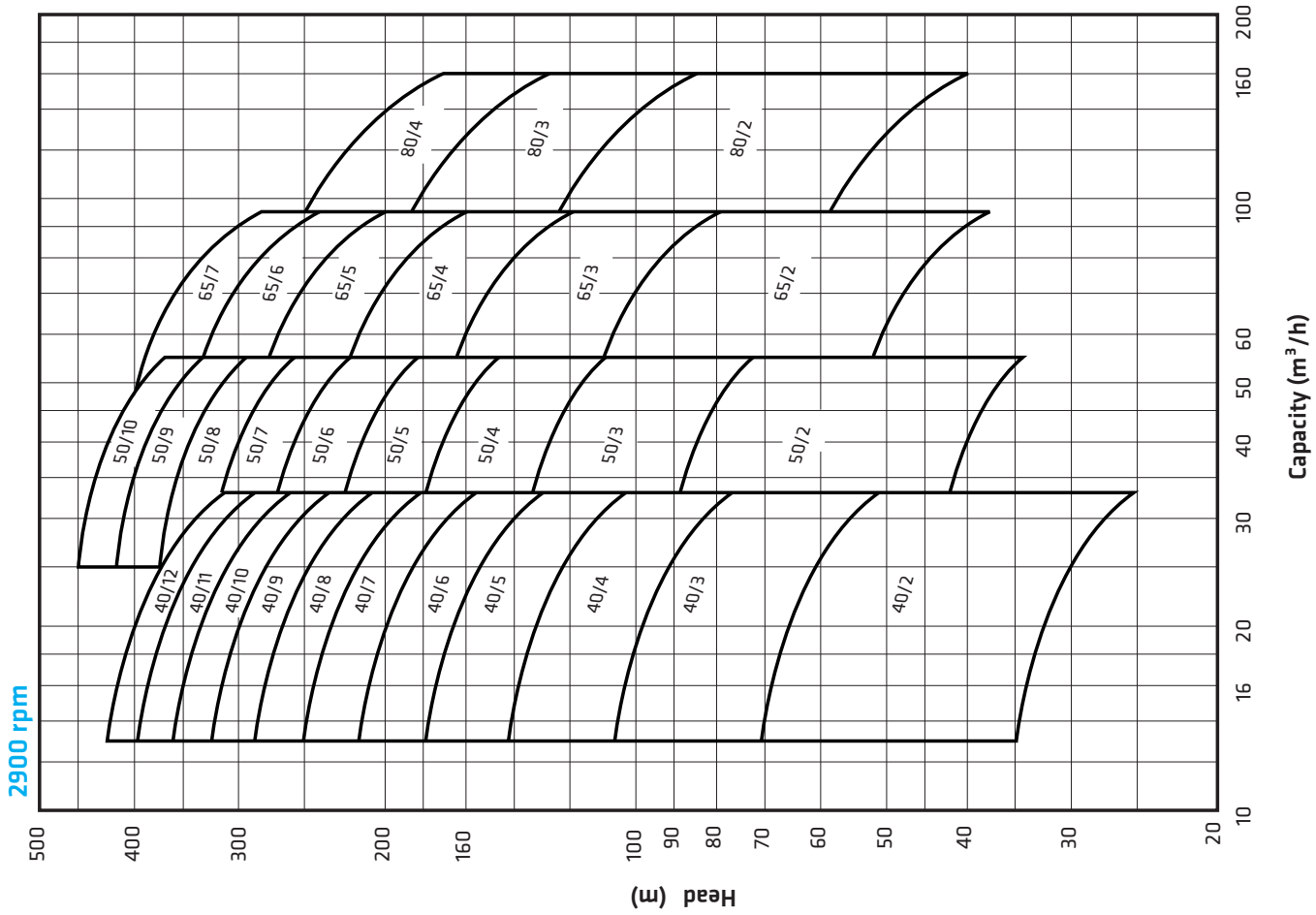
40/7
40/6
40/5
40/4
40/3
40/2


2900 rpm
Head (m)
Capacity (m³/h)
500
400
300
200
160
100
90
80
70
60
50
40
30
20
10
16
20
30
40
50
60
100
160
200
80/4
80/3
80/2
65/7
65/6
65/5
65/4
65/3
65/2
50/10
50/9
50/8
50/7
50/6
50/5
50/4
50/3
50/2
40/12
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40/10
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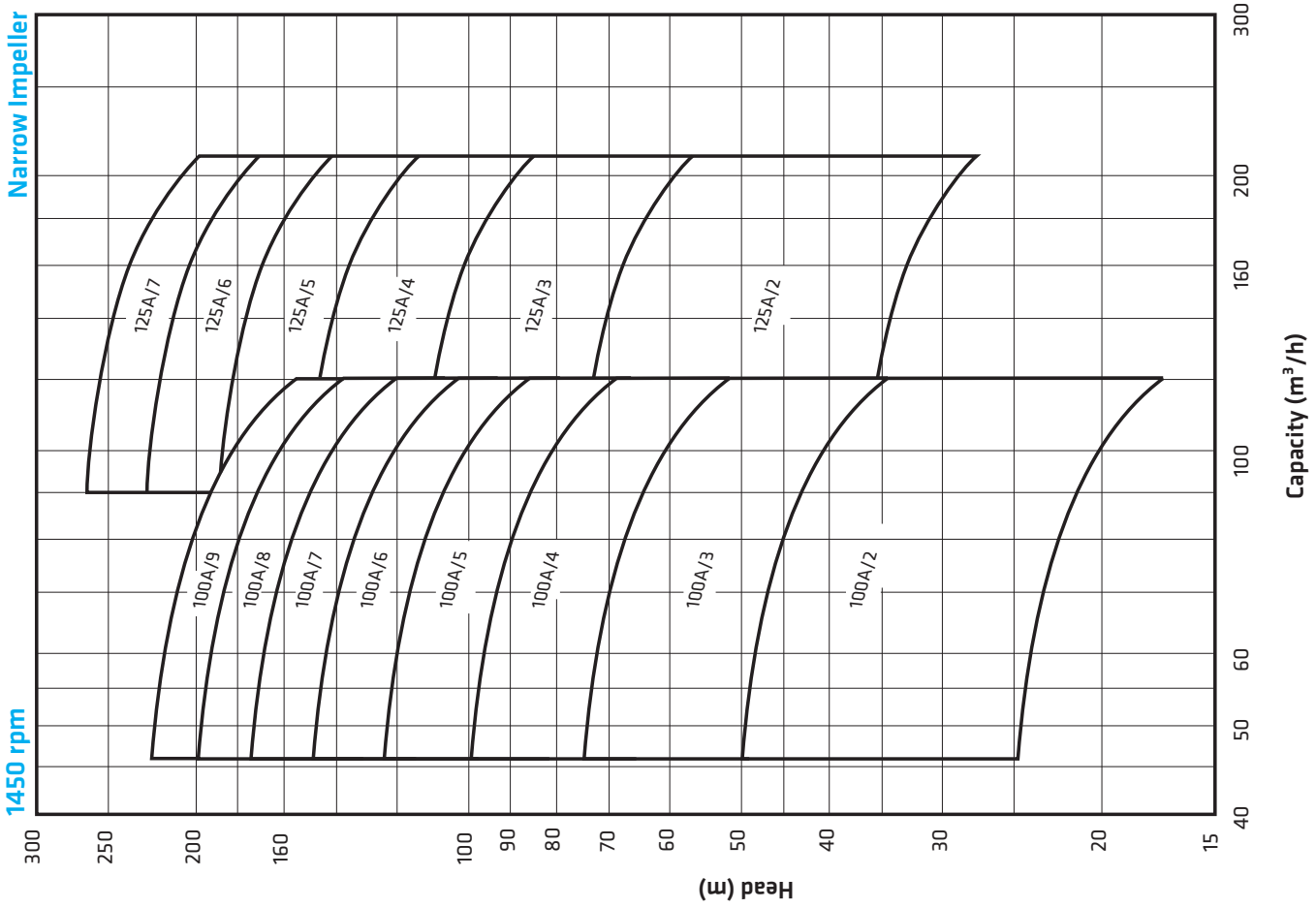
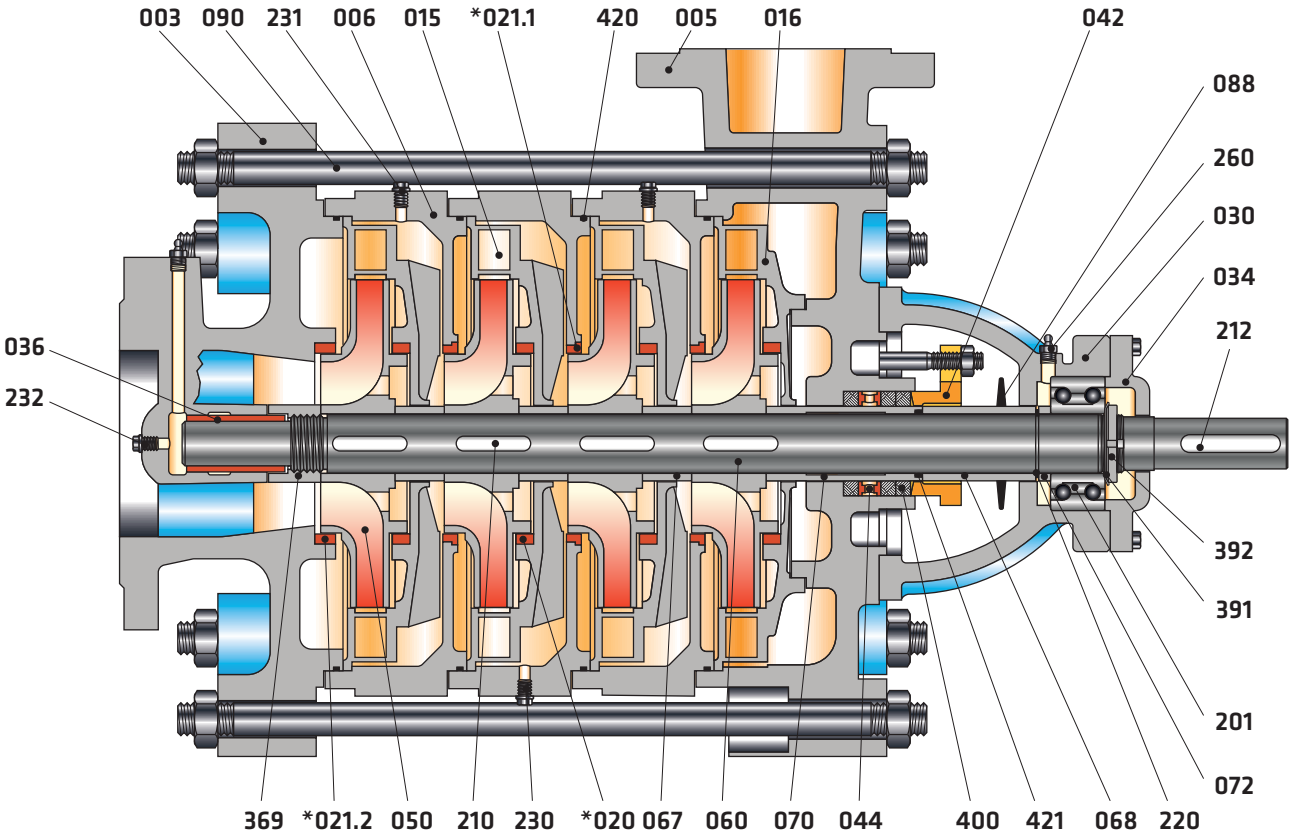
40/8
40/7
40/6
40/5
40/4
40/3
40/2

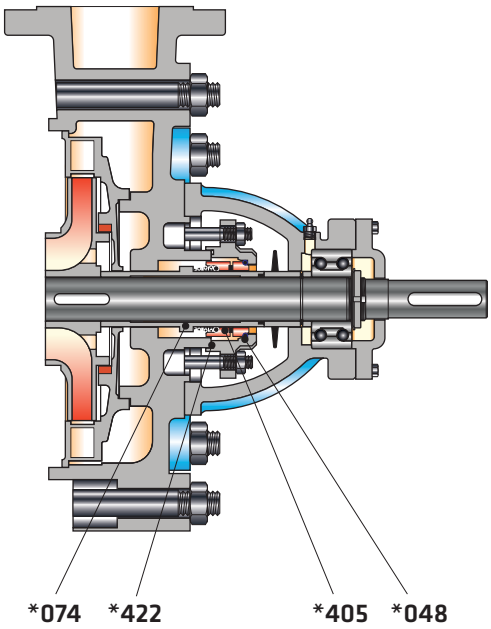

1450 rpm
Narrow Impeller
Head (m)
Capacity (m³/h)
300
250
200
160
100
90
80
70
60
50
40
30
20
15
40
50
60
100
160
200
300
125A/7
125A/6
125A/5
125A/4
125A/3
125A/2
100A/9
100A/8
100A/7
100A/6
100A/5
100A/4
100A/3
100A/2

Field Chart



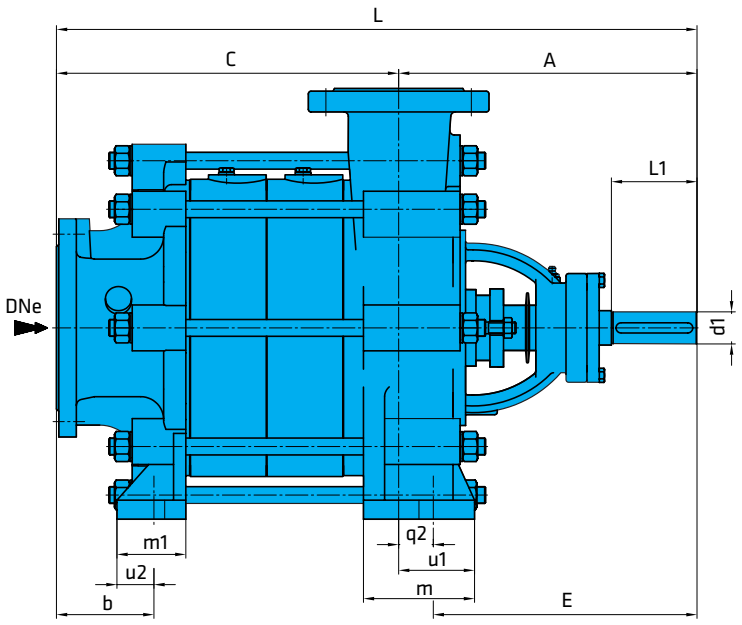
Part List

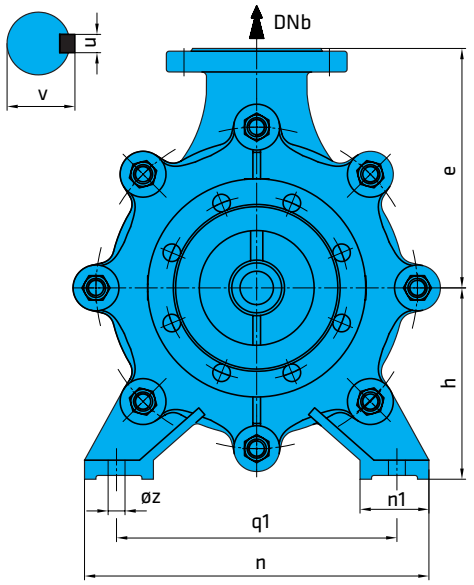
003	Suction Casing
005	Discharge Casing
006	Stage Casing
015	Diffuser
016	Last Stage Diffuser
*020	Wear Ring (diffuser)
*021.1	Wear Ring (stage casing)
*021.2	Wear Ring (suction casing)
030	Bearing Housing
034	Bearing Cover
036	Sleeve Bearing
042	Stuffing Box Gland
044	Lantern Ring
*048	Mechanical Seal Cover
050	Impeller
060	Shaft
067	Interstage Sleeve
068	Spacer Sleeve (discharge side)
070	Shaft Sleeve (soft packing)
072	Spacer Sleeve (bearing)
*074	Shaft Sleeve (mechanical seal)
088	Thrower
090	Tiebolt
201	Double Row Ball Bearing
210	Impeller Key
212	Coupling Key
220	Retaining Ring
230	Drain Plug
231	Filling Plug
232	Plug
260	Grease Nipple
369	Shaft Nut
391	Lock Washer
392	Shaft Nut
400	Soft Packing
*405	Mechanical Seal
420	O-Ring
421	O-Ring
*422	O-Ring



* Optional

Technical Data





"C" according to the number of stages (mm)

Pump Type	2	3	4	5	6	7	8	9	10	11	12	13
40	187	242	297	352	407	462	517	572	627	682	737	792
50	212	274	336	398	460	522	584	646	708	770	832	
65	247	318	389	460	531	602	673	744	815	886		
80	280	363	446	529	612	695	778	861	944	1027		
100	347	447	547	647	474	847	947	1047				
125	364	479	594	709	824	939						
150	437	582	727	872								

Maximum number of stages according to shaft material

Pump Type	1.4462 / 1.4021		1.4301 / 1.4401	
	1450 rpm 1750 rpm	2900 rpm 3500 rpm	1450 rpm 1750 rpm	2900 rpm 3500 rpm
40	13(13)	12(8)	13(13)	7(3)
50	12(12)	10(6)	12(10)	7(2)
65	11(11)	7(4)	11(8)	5(2)
80	11(11)	4(2)	11(8)	3(N/A)
100	9(7)	-	6(4)	-
125	7(5)	-	4(2)	-
150	5(3)	-	3(N/A)	-

Bearing Type

Pump Type	Bearing Type
40	6305
50	6306
65	6307
80	3308
100	3309
125	3310
150	3312

Pump Type	Dimensions (mm)																	Shaft				Weight (kg)	
	DNe	DNb	A	b	L	E	e	h	m	m1	n	n1	q1	q2	øz	u1	u2	d1	l1	v	u	G	g
40	65	40	237	23	C+237	147	175	160	60	75	232	55	175	90	15	109	20	24	60	27	8	54	9,5
50	80	50	258	23	C+259	160	190	160	60	85	256	60	200	98	15	115	20	28	65	31	8	82	13
65	100	65	275	38	C+275	170	215	180	60	85	294	60	240	121	15	125	25	32	65	35	10	85	20
80	125	80	331	75	C+331	289	265	210	85	85	410	90	340	42	15	62	25	38	80	41	10	113	26
100	150	100	397	105	C+397	349	300	250	90	90	450	90	370	48	15	70	30	42	110	45	12	150	42
125	200	125	410	70	C+410	355	375	300	110	112	572	105	450	55	23	80	30	48	110	51,5	14	264	75
150	200	150	475	60	C+475	410	425	350	130	135	655	110	550	65	23	103	30	55	110	59	16	455	120

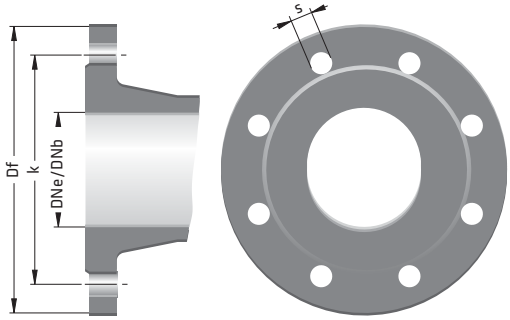
Pump weight= G + (s x g) (s: number of stage)

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 16)				Suction & Discharge (PN 40)			
	Df	k	s	n	Df	k	s	n
40	150	110	19	4	150	110	19	4
50	165	125	19	4	165	125	19	4
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	375	320	31	12

" n " number of holes



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	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462	Tungsten Carbide
Suction Casing	●	○		○	○	○	○	○	○	○	○	○									
Discharge Casing	●	○		○	○	○	○	○	○	○	○	○									
Stage Casing	●	○		○	○	○	○	○	○	○	○	○									
Diffuser	●	○	○	○	○	○	○	○	○	○	○	○	○								
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○								
Shaft															●	○	○	○	○	○	
Bearing Housing	●	○																			
Wear Ring	○	○	○	○	○	○	○	○	○	○	○	○									
Spacer Sleeve												○		●	○	○	○	○	○	○	
Shaft Sleeve												○		●	○	○	○	○	○	○	
Interstage Sleeve												○		●	○	○	○	○	○	○	
Sleeve Bearing												●									○
Mechanical Seal (*)	EN 12756 / DIN 24960																				

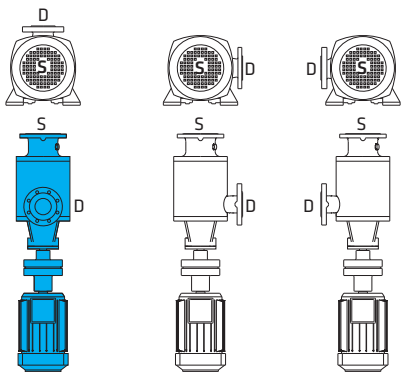
(*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing
○ Optional

Material Equivalent

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	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-X2 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	G-X4 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
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Positions



Direction of rotation is counter clockwise viewed from driver end.
(Discharge flange is on motor side)

Explanation :

L 3

Discharge Flange (D)
Direction of Rotation (L)

Viewed from drive end.
L: Left

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SKMV-H

MULTISTAGE PUMPS (VERTICAL)

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 400 m^3/h

Head_____up to 450 m

Speed_____up to 2900 rpm

Operating Temperature_____-10°C up to +140 °C*

Casing Pressure (Pmax)_____25 bar (63 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

•Vertical ring section, multistage, centrifugal pumps with closed impellers and diffusers.

•8 models from DN 32 up to DN 150 discharge flange diameter.

•Suction nozzle flanges conform to EN 1092 - 2 / PN 16 and discharge nozzle flanges conform to EN 1092 - 2 / PN 40 (PN 63) (For steel or stainless steel casing pumps, flanges comform to related pressure class ratings defined in EN 1092 - 1)

•SKMV-H pumps are short coupled with electric motors of IEC frame sizes with high efficiency class.

•Pump and motor shafts are connected to each other with flexible coupling.

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is always counter clockwise viewed from drive end.

•Bearings of SKMV-H type pumps are grease lubricated. Sleeve bearings used in the suction side is lubricated by the pumping liquid.

Shaft Sealing

•Depending on request or requirment, pumps with soft packing or mechanical seals can be supplied.

Pump Designation

SKMV-H 100 / 6

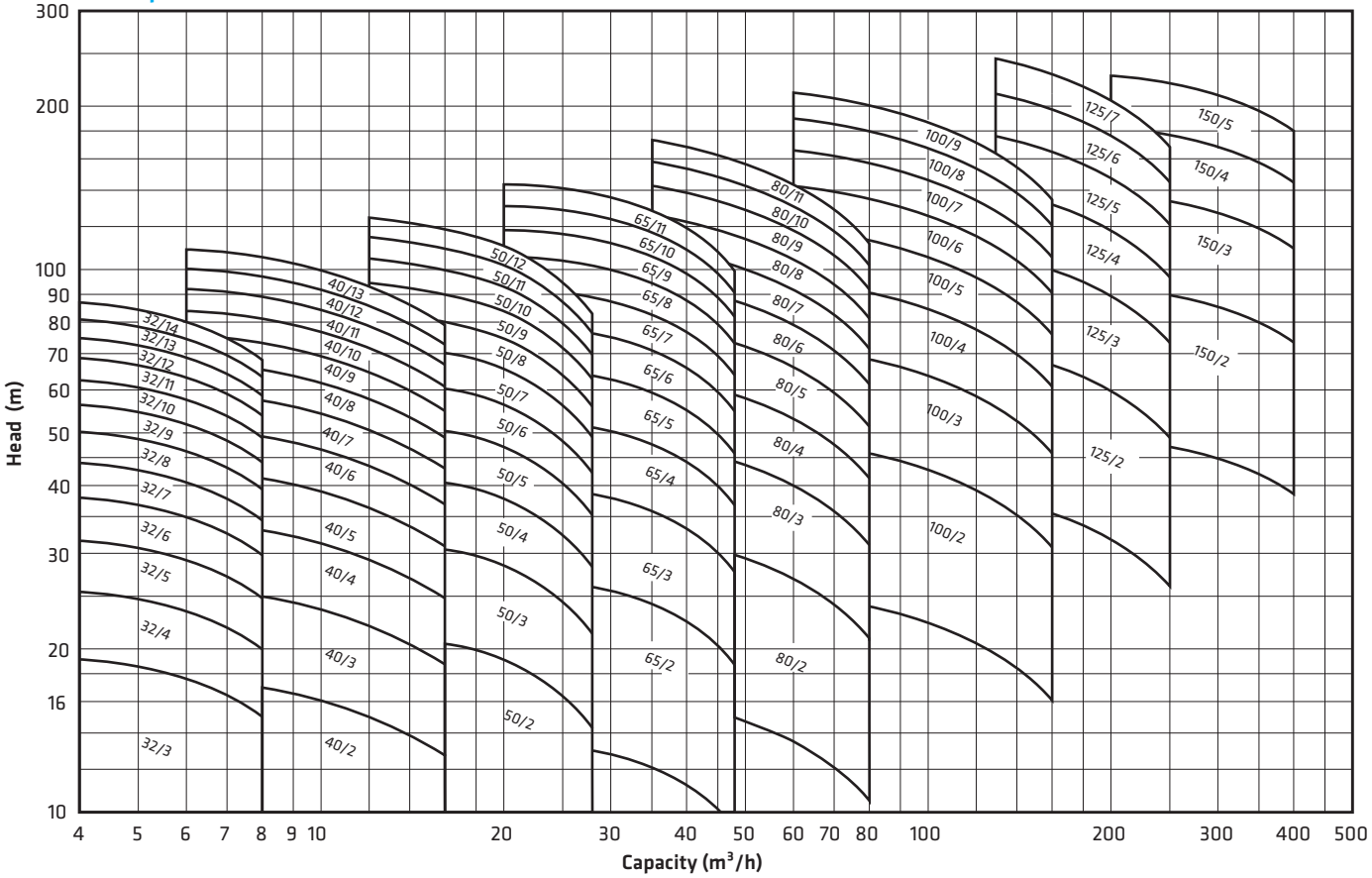
Pump Type

Discharge Nozzle (DN-mm)

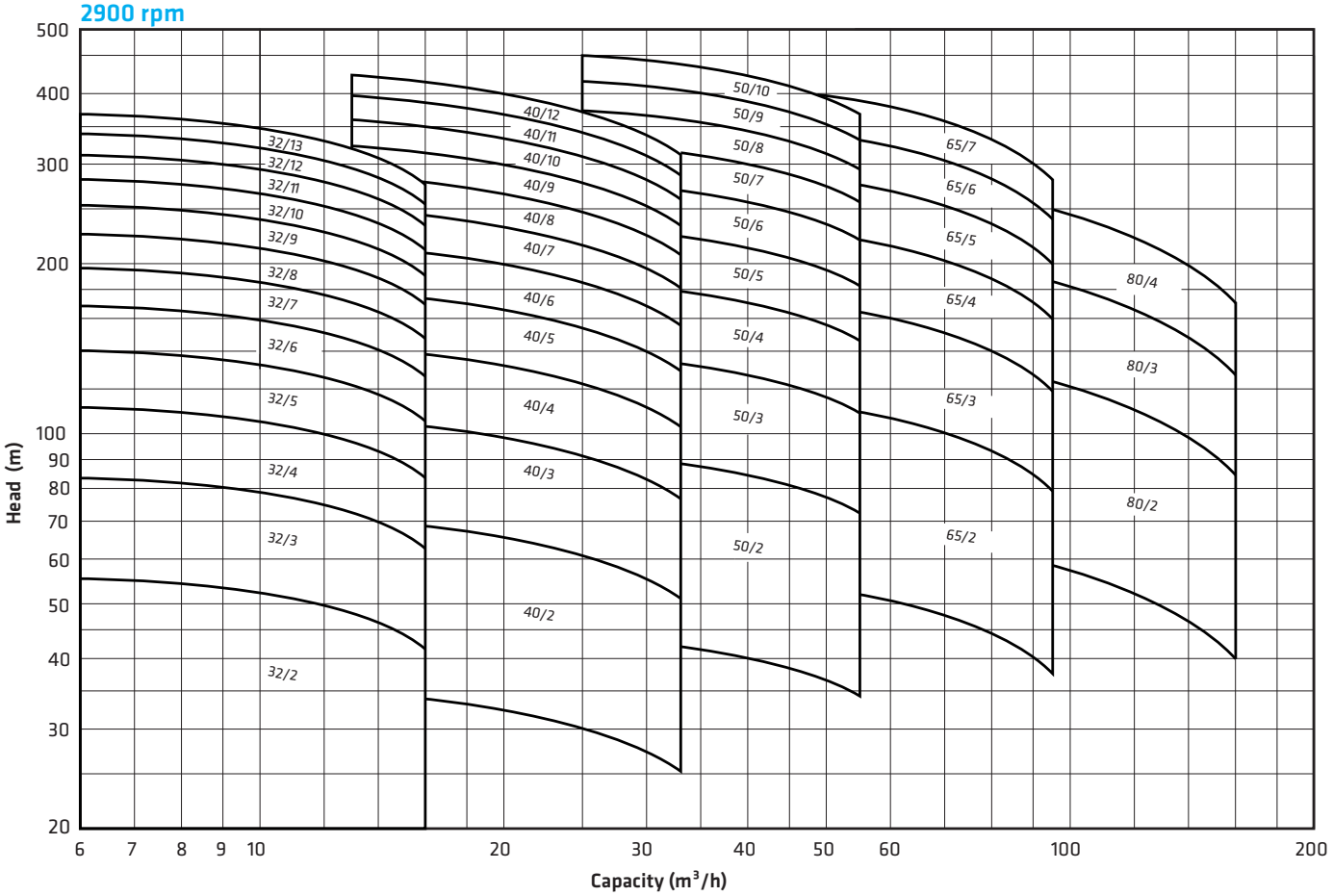
Number of Stage

09.2015 / Rev. 1

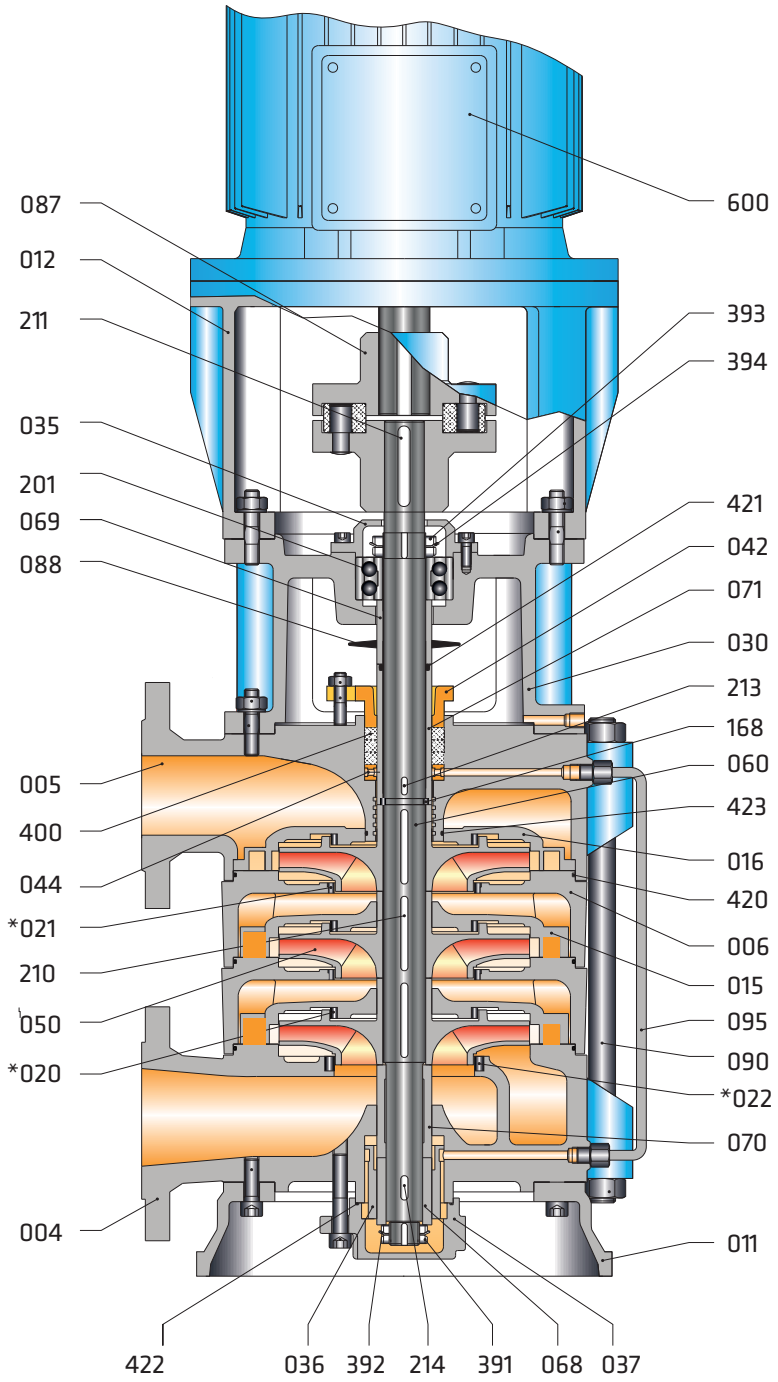
1450 rpm



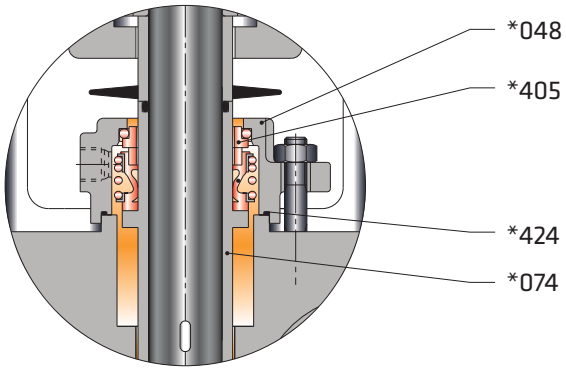
2900 rpm



Secitonal Drawings



Mechanical Seal Application

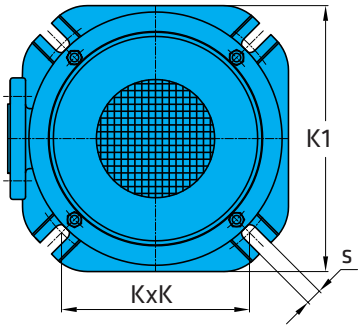


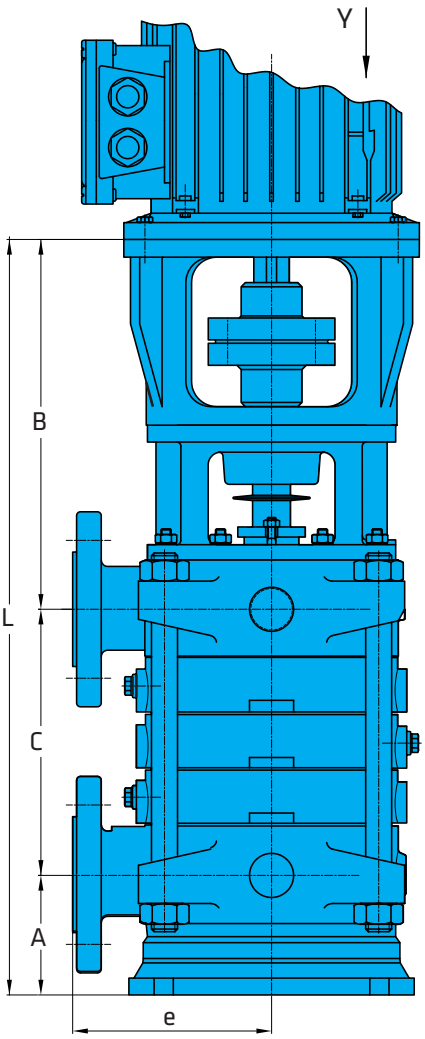
Part List

004	Suction Casing
005	Discharge Casing
006	Stage Casing
011	Pump Foot
012	Motor Pedestal
015	Diffuser
016	Last Stage Diffuser
*020	Wear Ring (diffuser)
*021	Wear Ring (stage casing)
*022	Wear Ring (suction casing)
030	Bearing Housing
035	Bearing Cover
036	Sleeve Bearing
037	Sleeve Bearing Cover
042	Gland
044	Lantern Ring
*048	Mechanical Seal Cover
050	Impeller
060	Pump Shaft
068	Shaft Sleeve (sleeve bearing)
069	Spacer Sleeve (bearing)
070	Shaft Sleeve (suction casing)
071	Shaft Protecting Sleeve (soft packing)
*074	Shaft Protecting Sleeve (mechanical seal)
087	Flexible Coupling
088	Thrower
090	Tiebolt
095	Sleeve Bearing Flushing Pipe
168	Split Ring
201	Double Row Ball Bearing
210	Key (impeller)
211	Key (coupling)
213	Key (shaft protecting sleeve)
214	Key (sleeve bearing)
391	Shaft End Nut
392	Lock Washer
393	Shaft End Nut
394	Lock Washer
400	Soft Packing
*405	Mechanical Seal
420	O-Ring
421	O-Ring
422	O-Ring
423	O-Ring
*424	O-Ring
600	Electric Motor

* Optional

Y View



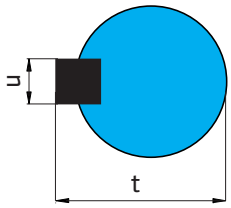


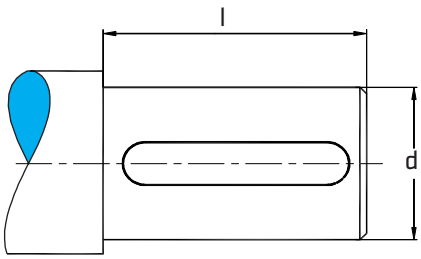
Bearing Type

Pump Type	Bearing Type
32	3305
40	3305
50	3306
65	3307
80	3308
100	3309
125	3310
150	3312

Shaft End Dimensions

Pump Type	d	l	t	u
32	22	50	25	6
40	22	50	25	6
50	28	65	31	8
65	32	65	35	10
80	38	80	41	10
100	42	110	45	12
125	48	110	51,5	14
150	55	110	59	16



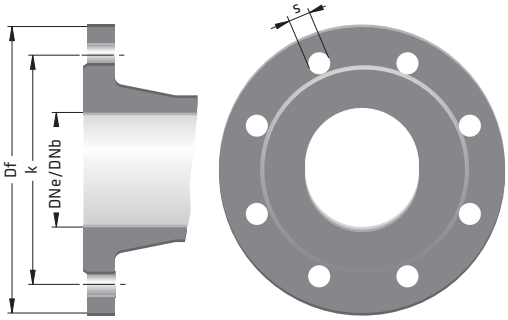


Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 16)				Suction & Discharge (PN 40)			
	Df	k	s	n	Df	k	s	n
32	140	100	19	4	140	100	19	4
40	150	110	19	4	150	110	19	4
50	165	125	19	4	165	125	19	4
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	375	320	31	12

“ n “ number of holes



1450 rpm

Pump Type	Motor No IEC	Dimensions (mm)									C (mm) Number of Stages													
		DNe	DNb	L	A	B	e	KxK	K1	s	1	2	3	4	5	6	7	8	9	10	11	12	13	14
32	80	40	32	399+C	105	298	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	587	630
32	90	40	32	399+C	105	298	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	587	630
32	100	40	32	409+C	105	308	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	587	630
40	90	50	40	405+C	103	302	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	738	-
40	100	50	40	415+C	103	312	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	738	-
40	112	50	40	415+C	103	312	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	738	-
40	132	50	40	435+C	103	332	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	738	-
50	100	65	50	453+C	114	340	190	247	350	18	90	152	214	276	338	400	462	524	586	648	710	772	-	-
50	112	65	50	453+C	114	340	190	247	350	18	90	152	214	276	338	400	462	524	586	648	710	772	-	-
50	132	65	50	473+C	114	360	190	247	350	18	90	152	214	276	338	400	462	524	586	648	710	772	-	-
50	160	65	50	503+C	114	390	190	247	350	18	90	152	214	276	338	400	462	524	586	648	710	772	-	-
65	100	80	65	505+C	135	368	215	247	350	18	107	178	249	320	391	462	533	604	675	746	817	-	-	-
65	112	80	65	505+C	135	368	215	247	350	18	107	178	249	320	391	462	533	604	675	746	817	-	-	-
65	132	80	65	525+C	135	388	215	247	350	18	107	178	249	320	391	462	533	604	675	746	817	-	-	-
65	160	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	604	675	746	817	-	-	-
65	180	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	604	675	746	817	-	-	-
80	132	100	80	568+C	145	423	265	247	350	23	112	195	278	361	444	527	610	693	776	859	942	-	-	-
80	160	100	80	598+C	145	453	265	247	350	23	112	195	278	361	444	527	610	693	776	859	942	-	-	-
80	180	100	80	598+C	145	453	265	247	350	23	112	195	278	361	444	527	610	693	776	859	942	-	-	-
80	200	100	80	598+C	145	453	265	247	350	23	112	195	278	361	444	527	610	693	776	859	942	-	-	-
80	225	100	80	628+C	145	483	265	247	350	23	112	195	278	361	444	527	610	693	776	859	942	-	-	-
100	160	125	100	675+C	170	504	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
100	180	125	100	675+C	170	504	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
100	200	125	100	675+C	170	504	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
100	225	125	100	705+C	170	534	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
100	250	125	100	705+C	170	534	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
100	280	125	100	705+C	170	534	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	-	-
125	200	150	125	717+C	178	538	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	-	-
125	225	150	125	747+C	178	568	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	-	-
125	250	150	125	747+C	178	568	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	-	-
125	280	150	125	747+C	178	568	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	-	-
125	315	150	125	777+C	178	598	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	-	-
150	250	200	150	888+C	265	623	425	424	600	27	218	363	508	653	798	-	-	-	-	-	-	-	-	-
150	280	200	150	888+C	265	623	425	424	600	27	218	363	508	653	798	-	-	-	-	-	-	-	-	-
150	315	200	150	918+C	265	653	425	424	600	27	218	363	508	653	798	-	-	-	-	-	-	-	-	-

2900 rpm

Pump Type	Motor No IEC	Dimensions (mm)									C (mm) Number of Stage												
		DNe	DNb	L	A	B	e	KxK	K1	s	1	2	3	4	5	6	7	8	9	10	11	12	13
32	112	40	32	409+C	105	306	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	544
32	132	40	32	429+C	105	326	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	544
32	160	40	32	459+C	105	356	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	544
40	132	50	40	435+C	103	332	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	-
40	160	50	40	465+C	103	362	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	-
40	180	50	40	465+C	103	362	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	-
40	200	50	40	465+C	103	362	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	-
40	225	50	40	495+C	103	392	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	-
50	160	65	50	503+C	114	389	190	247	350	18	90	152	214	276	338	400	462	524	586	648	-	-	-
50	180	65	50	503+C	114	389	190	247	350	18	90	152	214	276	338	400	462	524	586	648	-	-	-
50	200	65	50	503+C	114	389	190	247	350	18	90	152	214	276	338	400	462	524	586	648	-	-	-
50	225	65	50	503+C	114	389	190	247	350	18	90	152	214	276	338	400	462	524	586	648	-	-	-
50	250	65	50	533+C	114	419	190	247	350	18	90	152	214	276	338	400	462	524	586	648	-	-	-
65	160	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
65	180	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
65	200	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
65	225	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
65	250	80	65	615+C	135	480	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
65	280	80	65	615+C	135	480	215	247	350	18	107	178	249	320	391	462	533	-	-	-	-	-	-
80	200	100	80	598+C	145	453	265	247	350	23	112	195	278	361	-	-	-	-	-	-	-	-	-
80	225	100	80	598+C	145	453	265	247	350	23	112	195	278	361	-	-	-	-	-	-	-	-	-
80	250	100	80	628+C	145	483	265	247	350	23	112	195	278	361	-	-	-	-	-	-	-	-	-
80	280	100	80	628+C	145	483	265	247	350	23	112	195	278	361	-	-	-	-	-	-	-	-	-

Technical Data

Material Option

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	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462	Tungsten Carbide
Suction Casing	●	○		○	○	○	○	○	○	○	○	○									
Discharge Casing	●	○		○	○	○	○	○	○	○	○	○									
Stage Casing	●	○		○	○	○	○	○	○	○	○	○									
Diffuser	●	○	○	○	○	○	○	○	○	○	○	○	○								
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○								
Shaft															●	○	○	○	○	○	
Bearing Housing	●	○																			
Wear Ring (Casing)	○	○	○	○	○	○	○	○	○	○	○	○									
Shaft Sleeve												○		●	○	○	○	○	○	○	
Shaft Pro. Sleeve												○		●	○	○	○	○	○	○	
Spacer Sleeve												○		●	○	○	○	○	○	○	
Sleeve Bearing												●									○
Mechanical Seal (*)	EN 12756 / DIN 24960																				

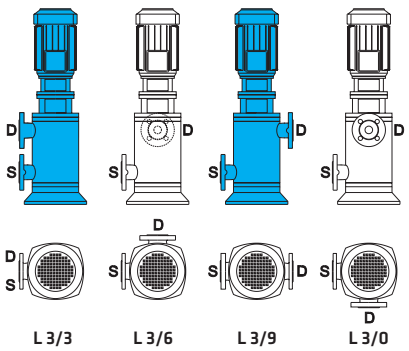
(*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing
○ Optional

Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	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-X2 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	G-X4 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
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Positions



Explanation :

L 3 / 0

- Discharge Flange Position (D)
- Suction Flange Position (S)
- Direction of Rotation (L)

Direction of rotation viewed from drive end
L : Left

Attention : In the absence of specific request, pumps are supplied with the following nozzle arrangement:
. L 3/9 : up to 2 stages
. L 3/3 : 3 or more stages

Standart
yaşamı koru! save life!

C

SUBMERSIBLE SEWAGE PUMPS

Handled Liquids

Domestic and industrial waste water, raw sewage, liquids with fibrous and solid substances.

Technical Data

Discharge Flange_____DN 50.....DN 300 mm

Capacity_____up to 1600 m^3/h

Head_____up to 95 m

Speed_____up to 2900 rpm

Operating Temperature_____up to +40 °C

Casing Pressure (Pmax)_____10 bar

Design Type _____OH8B

Design Features

•Vertical, wide volute casing, single stage, end suction submersible type centrifugal pump with enclosed, semi-open or vortex types impeller.

•20 basic sizes covering wide range of operational area.

•Electric motor isolation class is IP 68.

•Discharge flanges conform to EN 1092-2 / PN 10. (EN 1092-1 / PN 10 for steel or stainless steel casing)

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

•Axial thrust is balanced by impeller back ribs.

•In case of request motor cooling jacket is also applicable (for pumps bigger than 12 HP)

•Bearings of C type pumps are “life time grease lubricated” ball bearings.

Shaft Sealing

•For pumps bigger than 12 HP, always double mechanical seal is applied while for pumps up to 12 HP, single mechanical seal is applied as standard.

•In case of request, double mechanical seal can also be applied for pumps up to 12HP.

Pump Designation

C 100 - 240 B

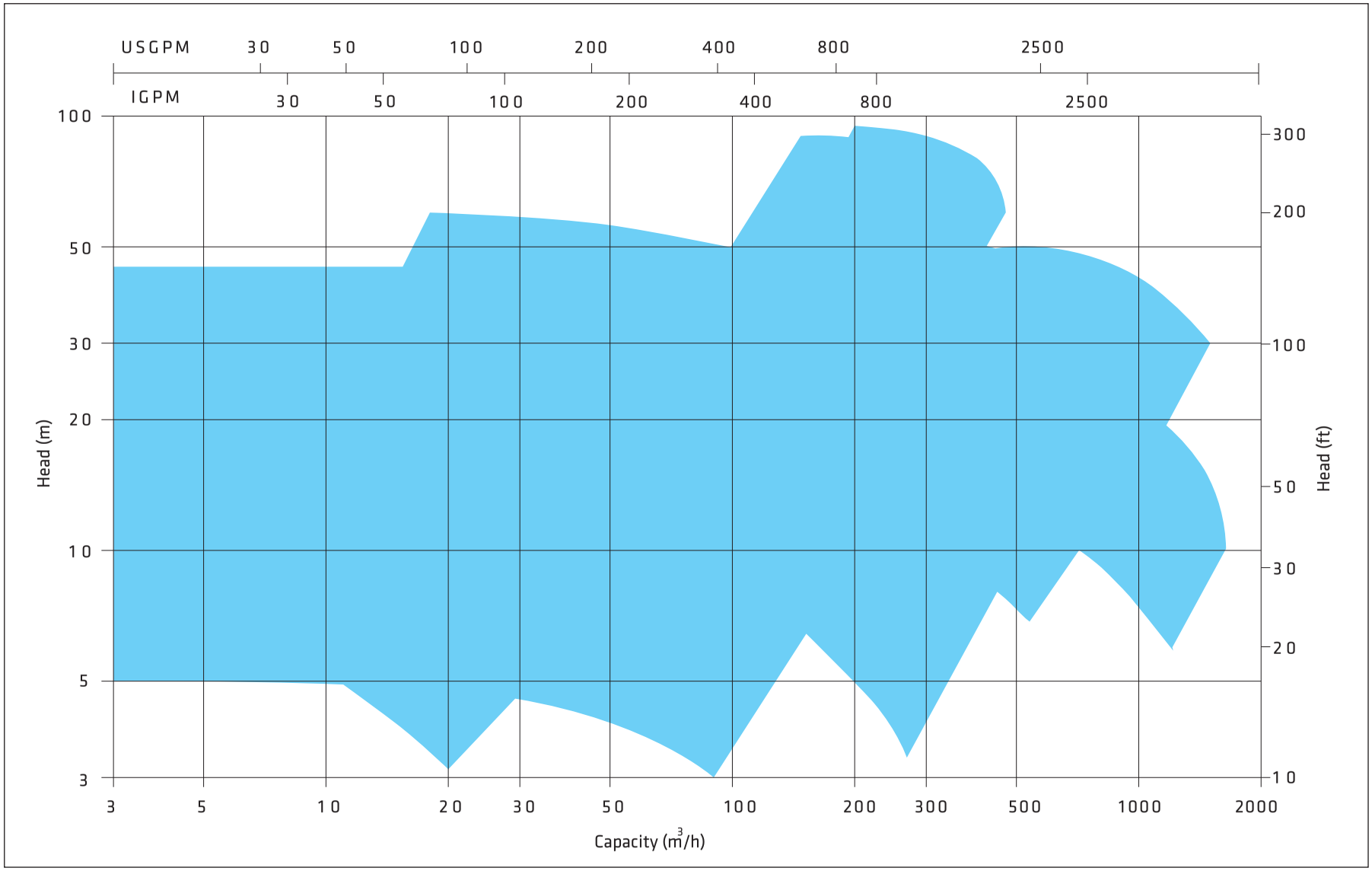
Pump Type

Discharge Nozzle (DN-mm)

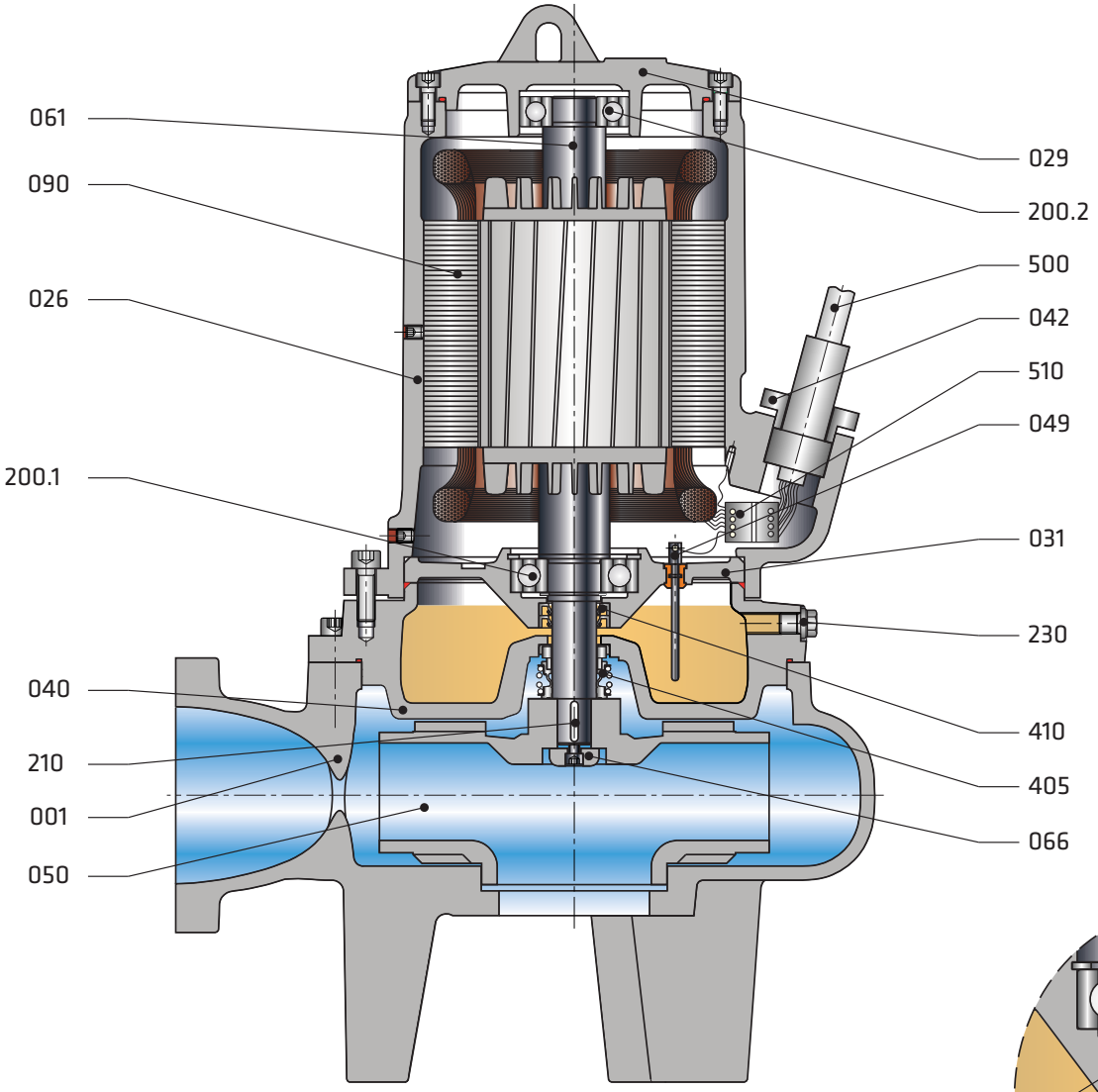
Impeller Nominal Diameter (mm)

Impeller Type

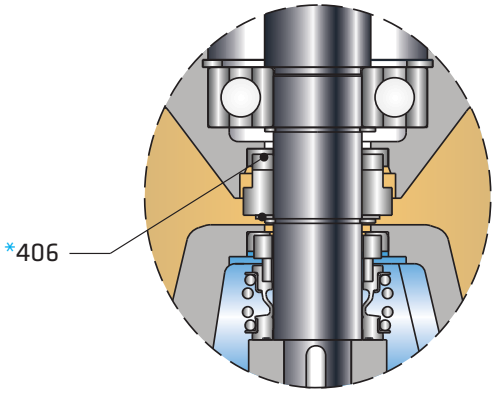
09.2015 / Rev. 1


USGPM
30
50
100
200
400
800
2500
IGPM
30
50
100
200
400
800
2500
100
50
30
20
10
5
3
Head (m)
300
200
100
50
30
20
10
Head (ft)
3
5
10
20
30
50
100
200
300
500
1000
2000
Capacity (m³/h)

Sectional Drawing (up to 12 HP)



Double Mechanical Seal Application

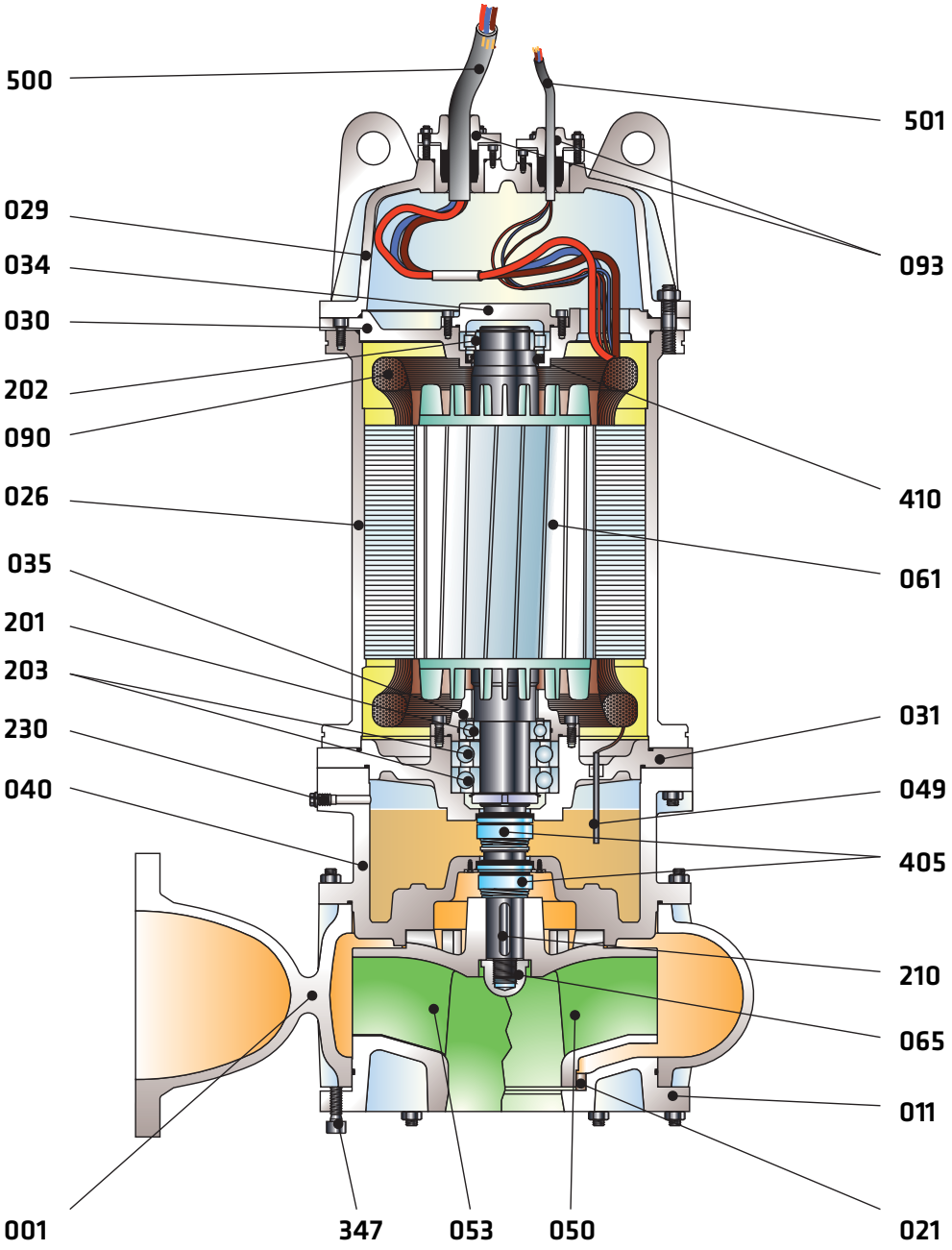


Part List

001	Volute Casing	090	Stator
026	Motor Casing	200.1	Bottom Bearing
029	Top Cover	200.2	Top Bearing
031	Bearing Housing	210	Impeller Key
040	Oil Chamber	230	Oil Plug
042	Gland	405	Mechanical Seal
049	Water Leakage Electrod	*406	Mechanical Seal
050	Impeller	410	Oil Seal
061	Rotor Shaft	500	Energy and Control Cable with Plug
066	Impeller Nut	510	Socket

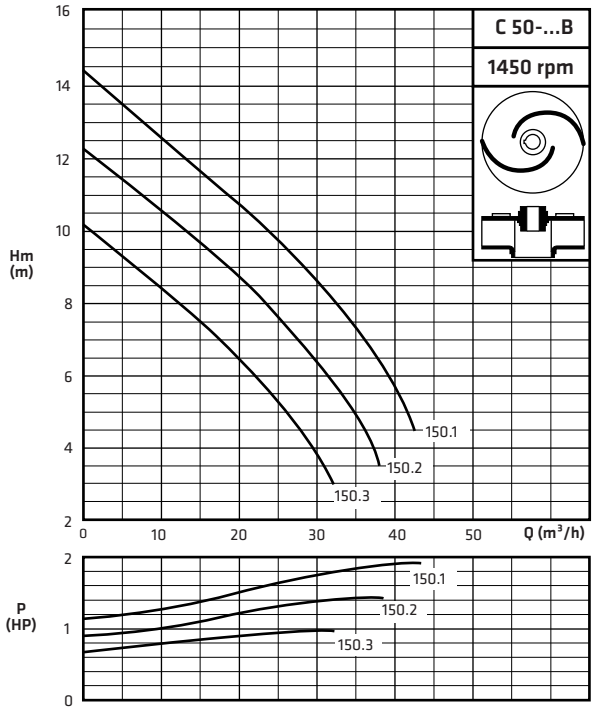
* Optional

Sectional Drawing (bigger than 12 HP)

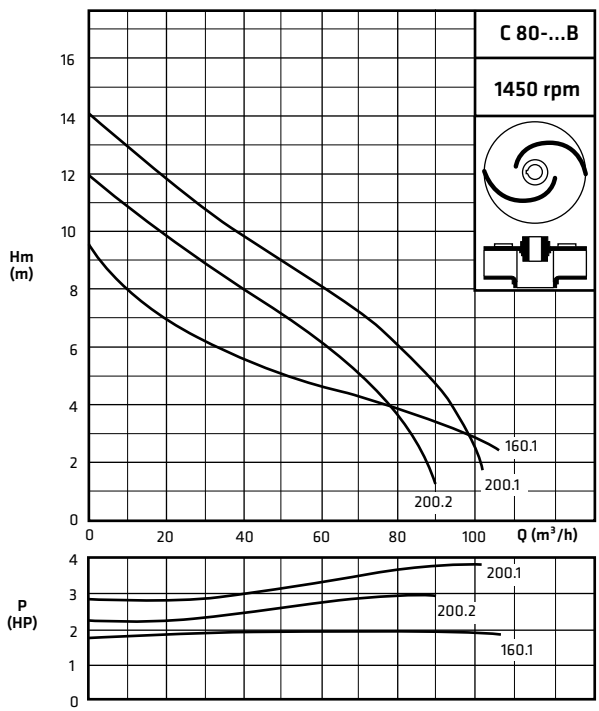


Part List

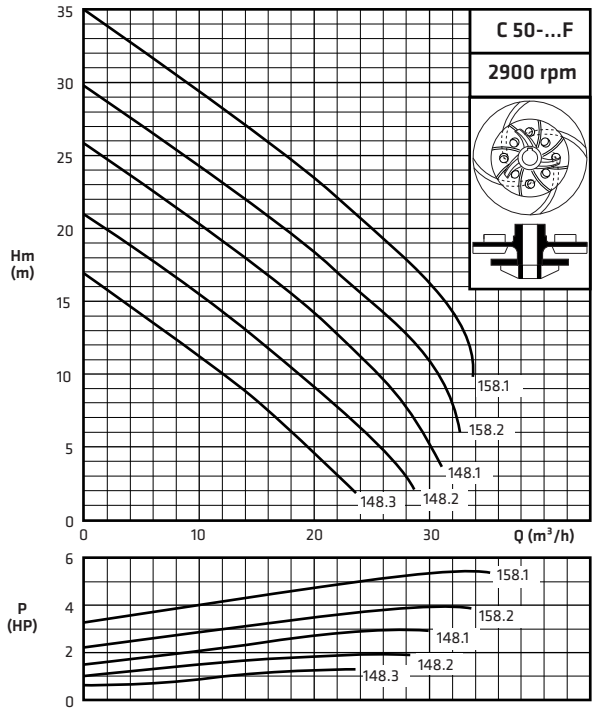
001	Volute Casing	040	Oil Chamber	202	Bottom Bearing
011	Bottom Cover	049	Water Leakage Electrode	203	Angular Contact Ball Bearing
021	Wear Ring	050	Closed Impeller	210	Impeller Key
026	Motor Casing	053	Semi-open Impeller	230	Oil Plug
029	Top Cover	061	Rotor Shaft	347	Adjusment Bolt
030	Top Bearing Housing	065	Impeller Nut	405	Mechanical Seal
031	Bottom Bearing Housing	090	Stator	410	Oil Seal
034	Top Bearing Cover	093	Gasket Compress Cover	500	Energy Cable
035	Bottom Bearing Cover	201	Bottom Bearing	501	Control Cable



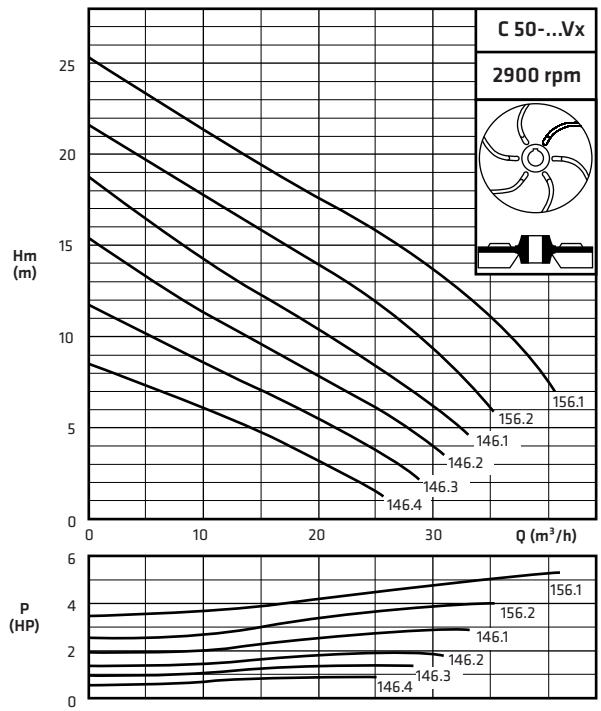
Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
150.1	C 50-200B	2	25	2
150.2	C 50-200B	2	25	1.5
150.3	C 50-200B	2	25	1



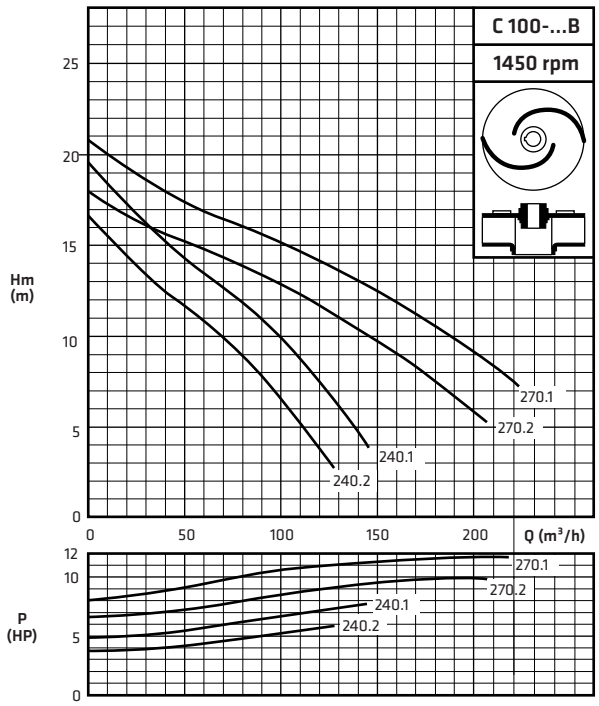
Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
200.1	C 80-200B	2	55	4
200.2	C 80-200B	2	55	3
160.1	C 80-160B	1	72	2



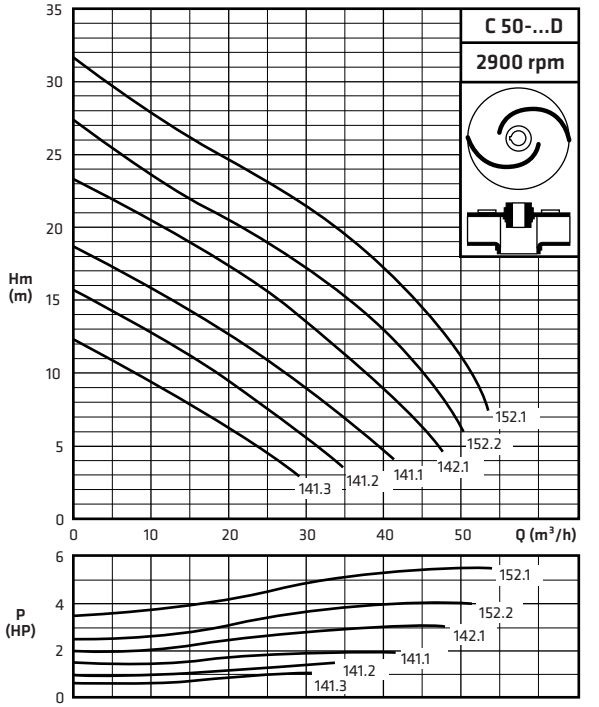
Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
158.1	C 50-200F	5	5	5.5
158.2	C 50-200F	5	5	4
148.1	C 50-160F	4	5	3
148.2	C 50-160F	4	5	2
148.3	C 50-160F	4	5	1.5



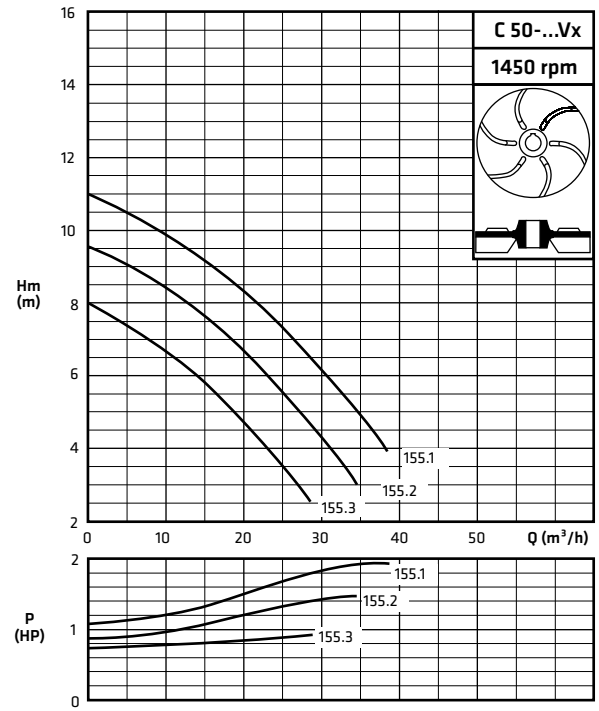
Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
156.1	C 50-200Vx	6	35	5.5
156.2	C 50-200Vx	6	35	4
146.1	C 50-160Vx	4	35	3
146.2	C 50-160Vx	4	35	2
146.3	C 50-160Vx	4	35	1.5
146.4	C 50-160Vx	4	35	1



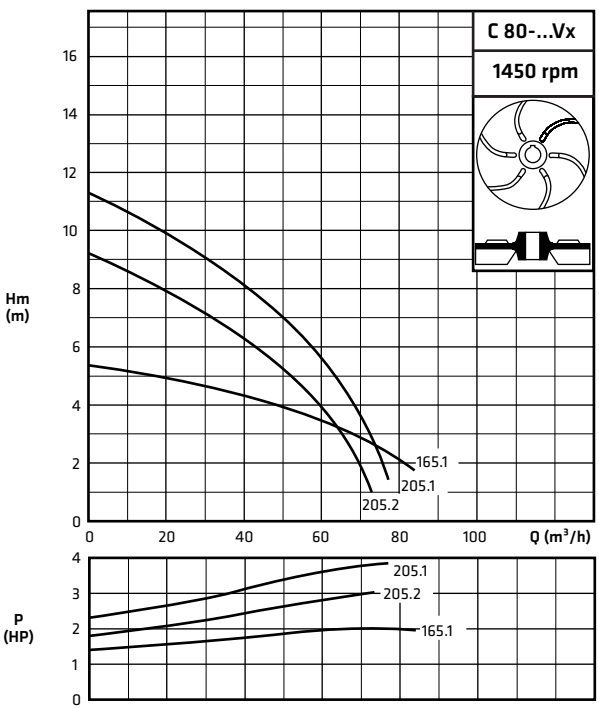
Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
270.1	C 100-270B	2	76	12
270.2	C 100-270B	2	76	10
240.1	C 100-240B	2	55	7.5
240.2	C 100-240B	2	55	5.5



Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
152.1	C 50-200D	2	25	5.5
152.2	C 50-200D	2	25	4
142.1	C 50-160D	2	25	3
141.1	C 50-160D	2	25	2
141.2	C 50-160D	2	25	1.5
141.3	C 50-160D	2	25	1

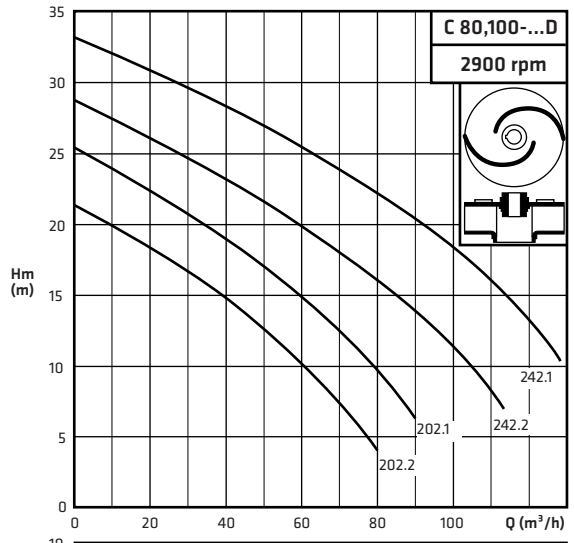


Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
155.1	C 50-200Vx	6	40	2
155.2	C 50-200Vx	6	40	1.5
155.3	C 50-200Vx	6	40	1

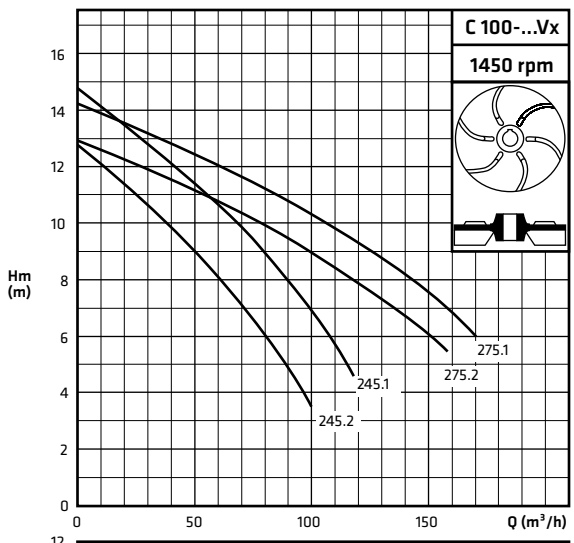


Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
205.1	C 80-200Vx	8	60	4
205.2	C 80-200Vx	8	60	3
165.1	C 80-160Vx	6	76	2

Çalışma Alanları



Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
242.1	C 100-240D	2	38	10
242.2	C 100-240D	2	38	7.5
202.1	C 80-200D	2	35	5.5
202.2	C 80-200D	2	35	4



Impeller No	Pump Type	Impeller Qty.	Solid mm	Motor HP
275.1	C 100-270Vx	6	76	12
275.2	C 100-270Vx	6	76	10
245.1	C 100-240Vx	6	60	7.5
245.2	C 100-240Vx	6	60	5.5

Material Options

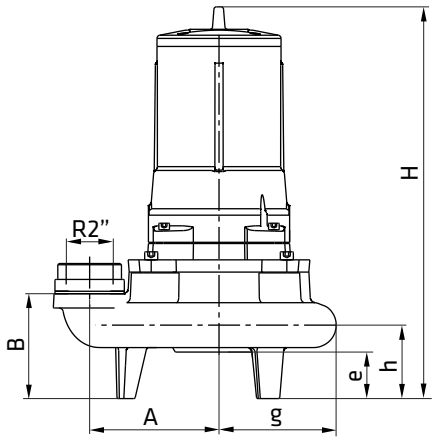
PART LIST	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4517	1.4317	2.1050.01	2.0975.01	1.4021
Volute Casing	●	○	○	○	○	○	○	○	○	○		
Motor Casing	●	○		○		○						
Impeller	●	○	○	○	○	○	○	○	○	○	○	
Rotor Shaft												●
Oil Chamber	●	○										
Mechanical Seal	EN 12756 / DIN 24960											

● Standard manufacturing
○ Optional

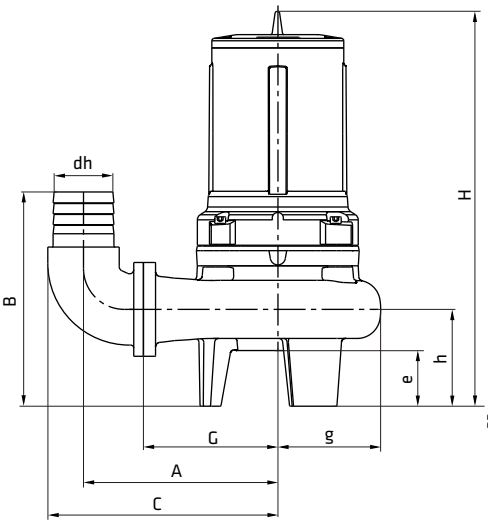
Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	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-ferritic Cast Steel (duplex)	1.4517	G-X2 Cr Ni Mo Cu N 25-6-3-3	A 890 Gr. 1B (CD4MCuN)
Martenzitic Stainless Cast Steel	1.4317	G-X4 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

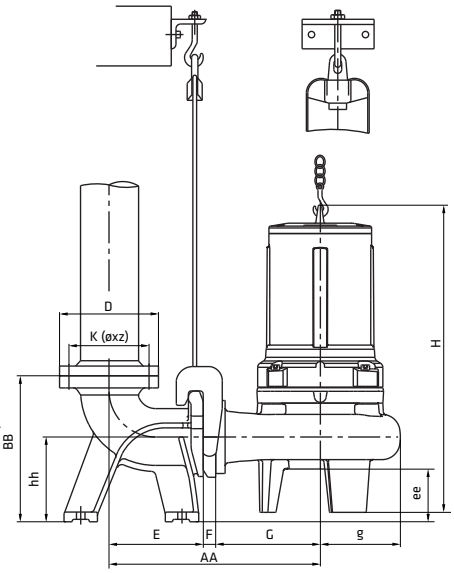
Technical Data (up to 12 HP) According to TS 12599

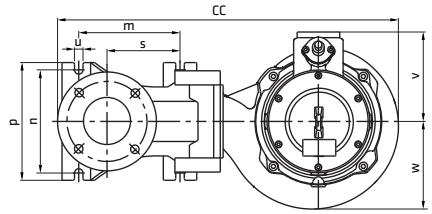


C 50 Hose Connection



C 80-100 Hose Connection



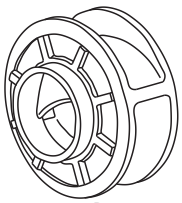


C 50-80-100 Auto Coupling Connection

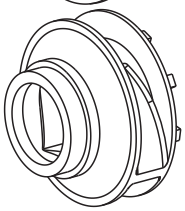
Pump Type	Impeller Type	MOTOR Power - HP 1450	2900	IEC No	DISCHARGE DN d	R"	PUMP DIMENSIONS (mm) A	B	C	e	h	H	G	g	v	w	Oil (ml)	Weight (kg)
50-160	Vx	-	1	80	50	2"	139	131	-	55	90	430	185	114	130	125	750	29
50-160	Vx	-	1,5	80	50	2"	139	131	-	55	90	430	185	114	130	125	750	34
50-160	Vx	-	2	90	50	2"	139	131	-	55	90	475	185	114	138	125	750	38
50-160	Vx	-	3	90	50	2"	139	131	-	55	90	475	185	114	138	125	750	41
50-160	D	-	1	80	50	2"	139	131	-	55	90	430	185	114	130	125	750	32
50-160	D	-	1,5	80	50	2"	139	131	-	55	90	430	185	114	130	125	750	34
50-160	D	-	2	90	50	2"	139	131	-	55	90	475	185	114	138	125	750	39
50-160	D	-	3	90	50	2"	139	131	-	55	90	475	185	114	138	125	750	41
50-160	F	-	1,5	80	50	2"	139	131	-	55	90	412	185	114	130	125	750	33
50-160	F	-	2	90	50	2"	139	131	-	55	90	457	185	114	138	125	750	38
50-160	F	-	3	90	50	2"	139	131	-	55	90	457	185	114	138	125	750	40
50-200	Vx	1	-	80	50	2"	160	129	-	57	90	438	205	144	130	152	750	41
50-200	Vx	1,5	-	90	50	2"	160	129	-	57	90	483	205	144	138	152	750	45
50-200	Vx	2	-	90	50	2"	160	129	-	57	90	483	205	144	138	152	750	47
50-200	Vx	-	4	100	50	2"	160	129	-	57	90	524	205	144	148	152	1000	54
50-200	Vx	-	5,5	112	50	2"	160	129	-	57	90	529	205	144	158	152	1000	59
50-200	B	1	-	80	50	2"	160	129	-	57	90	438	205	144	130	152	750	41
50-200	B	1,5	-	90	50	2"	160	129	-	57	90	483	205	144	138	152	750	46
50-200	B	2	-	90	50	2"	160	129	-	57	90	483	205	144	138	152	750	48
50-200	D	-	4	100	50	2"	160	129	-	57	90	524	205	144	148	152	1000	54
50-200	D	-	5,5	112	50	2"	160	129	-	57	90	529	205	144	158	152	1000	60
50-200	F	-	4	100	50	2"	160	129	-	57	90	496	205	144	138	152	1000	52
50-200	F	-	5,5	112	50	2"	160	129	-	57	90	501	205	144	135	152	1000	58
80-160	Vx	2	-	90	80	-	262	287	304	62	133	540	180	130	138	146	1000	58
80-160	B	2	-	90	80	-	262	287	304	62	133	540	180	130	138	146	1000	58
80-200	Vx	4	-	100	80	-	282	286	324	70	132	573	200	150	148	168	1000	62
80-200	Vx	3	-	100	80	-	282	286	324	70	132	573	200	150	148	168	1000	58
80-200	B	4	-	100	80	-	282	286	324	70	132	573	200	150	148	168	1000	64
80-200	B	3	-	100	80	-	282	286	324	70	132	573	200	150	148	168	1000	60
80-200	D	-	4	100	80	-	282	286	324	70	132	573	200	150	148	168	1000	59
80-200	D	-	5,5	112	80	-	282	286	324	70	132	578	200	150	158	168	1000	65
100-240	Vx	5,5	-	112	100	-	324	356	383	94	162	608	225	170	158	186	1000	80
100-240	Vx	7,5	-	132	100	-	324	356	383	94	162	657	225	170	190	186	2000	101
100-240	B	5,5	-	112	100	-	324	356	383	94	162	608	225	170	158	186	1000	82
100-240	B	7,5	-	132	100	-	324	356	383	94	162	657	225	170	190	186	2000	104
100-240	D	-	7,5	132	100	-	324	356	383	94	162	657	225	170	190	186	2000	94
100-240	D	-	10	132	100	-	324	356	383	94	162	657	225	170	190	186	2000	103
100-270	Vx	10	-	132	100	-	359	364	418	88	170	678	260	211	198	228	2000	123
100-270	Vx	12	-	132	100	-	359	364	418	88	170	678	260	211	198	228	2500	123
100-270	B	10	-	132	100	-	359	364	418	88	170	678	260	211	198	228	2500	126
100-270	B	12	-	132	100	-	359	364	418	88	170	678	260	211	198	228	2500	126

Impeller Type

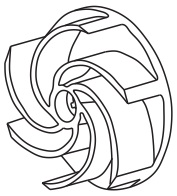
B Type Impeller: Enclosed type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is mainly used for 4 pole motors.



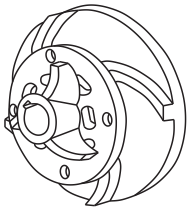
D Type Impeller: It is also enclosed type like B type but suitable for high speed motors (2 pole). It is convenient for high pressure, small capacity and smaller size solid particles.



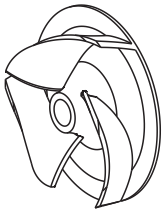
VX Type Impeller: Semi-open free vortex type impeller is placed on top of the volute. It creates a forced vortex motion in the casing. It is mostly suitable for fibrous materials. The increased clearances limit the head that can be generated and reduce the attainable efficiency. Recessed type impellers are also possible for some models. Please ask for more information.



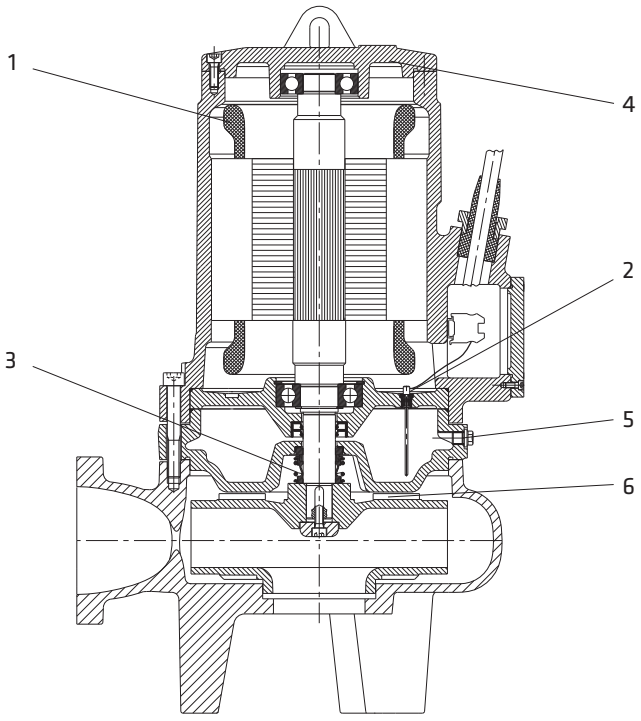
F Type Impeller: Semi-open type impeller with cutter. The cutting system is placed in front of the impeller and it breaks up the solid particles into smaller sizes that makes passing possible through the smaller pipes without stucking. F type impeller is suitable for small capacity, high pressure, but the pump efficiency is also low.



AB Type Impeller: Semi-open type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is more suitable for 4 pole motors. Designed for aggressive applications. Impeller works against a wear plate. Clearance between the wear plate and impeller blades is between 0.25 - 0.40 mm.



1 – Temperature SENSOR (130˚C) in F class winding head protection for overheating.
2 – Signaling ELECTRODE in case of leakage into the motor or into the oil chamber.
3 – Mechanical seal running in pumping liquid.
4 – Demountable TOP COVER for easy motor winding.
5 – Oil filling and inspection PLUG.
6 – BACK VANES for reducing axial load and sealing pressure.



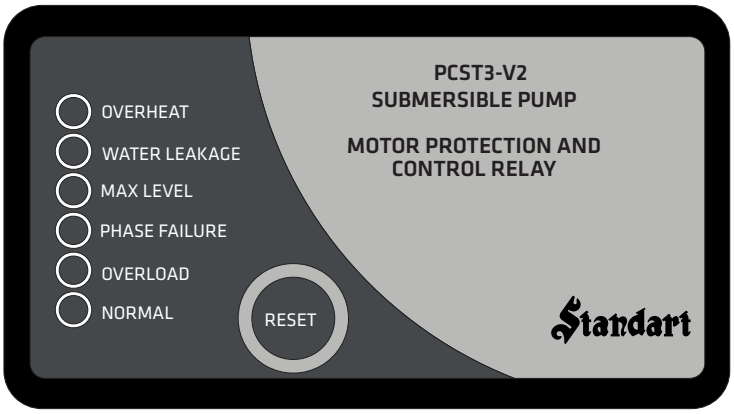
PCST3-V2 MOTOR PROTECTION AND CONTROL RELAY

C

Standart PCST3-V2 Motor Protection and Control Relay is an indispensable part of Standart C type pumps. It is supplied with the pump and it shall be used to secure smooth operation of motor and the pump.

FUNCTION:

When the device is switched on, all indicator lights blinks in order and the control unit makes a self-check. If there is not any failure, NORMAL indicator light switches on in green indicating it is ready to run the motor.



OVER HEAT

In case of overheating of motor windings, in which the temperature exceeds 130°C, the red indicator light switches on and the relay shuts down the motor. Indicator light blinks in short periods at alarming position. When motor has cooled down, relay restarts the motor while alarming goes on until the RESET button is pressed. Pressing the RESET button disables the alarm relay and indicator light stops blinking.

WATER LEAKAGE

In case of water leakage into the motor casing or oil chamber, red indicator light switches on and the relay shuts down the motor. Alarm relay becomes activated and until the RESET button is pressed, alarming goes on by blinking of red indicator light in short periods. When this failure occurs, the pump needs to be overhauled.

MAX LEVEL

When water level reaches the maximum level, which is set by the user, float switch sends on alarm signal and yellow indicator light starts blinking. This alarm does not affect the current state (run or stop) of the pump. Pressing the RESET button disables the alarm relay and indicator light stops blinking.

PHASE FAILURE

An external phase protection relay, mounted in the control panel, is connected to PCST3-V2 for checking phase sequence and phase failures. When there is a failure in mains voltage or in phase sequence, the motor is shut down by the relay and red indicator light starts blinking. By the time the failure is fixed, the motor restarts automatically while alarming goes on until the RESET button is pressed.

OVERLOAD

The relay shuts down the motor, if the current overload limit is exceeded. Meanwhile, alarm relay becomes activated and red indicator light starts blinking. As the failure is fixed, pressing the RESET button will disable the overload and the alarm relay, so the system turns back to normal conditions.

NORMAL

By the time all red indicator lights on PCST3-V2 switch off, green indicator light switches on, meaning that it is ready to run the motor. In case of failure, green indicator light switches off and the relay shuts down the motor.

PCST3-V2 is an indispensable part of Standart C type pumps. If it is damaged, do not try to operate the motor without it.

Standart
yaşamı koru! save life!

PC / PC-VM

WASTE WATER AND PROCESS PUMPS

Handled Liquids

Domestic and industrial waste water, raw sewage, viscous and corrosive liquids, liquids with fibrous and solid substances.

Technical Data

Discharge Flange_____DN 40....DN 300 mm

Capacity_____up to 1600 m^3/h

Head_____up to 95 m

Speed_____up to 2900 rpm

Operating Temperature_____-10 °C up to +110 °C

Casing Pressure (Pmax)_____10 bar (16 bar)*

Design Type (PC)_____OH1

Design Type (PC-VM)_____OH3A

(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.

Desing Features

•Horizontal / Vertical, wide volute casing, single stage, end suction, centrifugal pumps with enclosed, semi-open or vortex type impeller.

•18 basic sizes covering wide range of operational area.

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

•Discharge flanges conform to EN 1092-2 / PN 10. (EN 1092-1 / PN 10 for steel or stainless steel casing)

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

•Axial thrust is balanced by impeller back ribs.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of PC type pumps are “life time grease lubricated” ball bearing up to 150-315 size. For bigger sizes oil lubricated bearings are used. In vertical design (PC-VM) always grease lubricated bearings are used.

Shaft Sealing

•In standard production soft packed stuffing boxes are used.

•Depending on customer request, mechanical seals are avaible. In this case, pump shaft is always stainless steel.

•Only mechanical seal is applied for vertical type installation.

Pump Designation

PC -VM 250-315 AB

Pump Type

Vertical Installation

Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

Impeller Type

09.2015 / Rev. 1

Impeller Type

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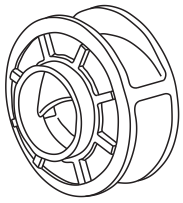

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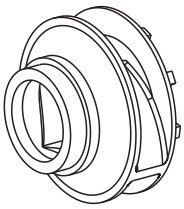

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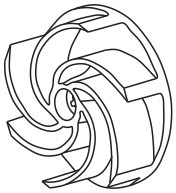

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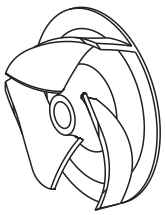
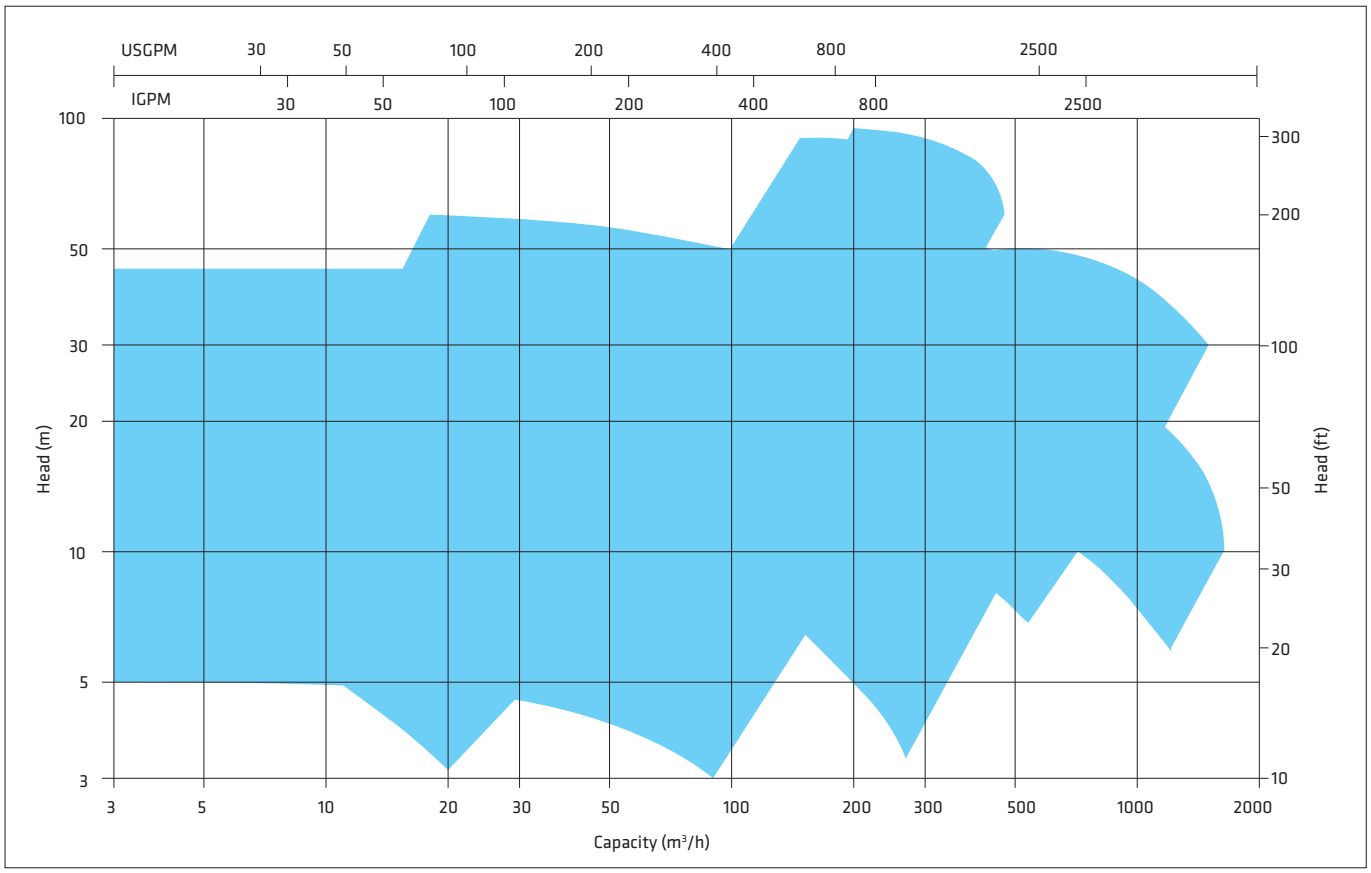
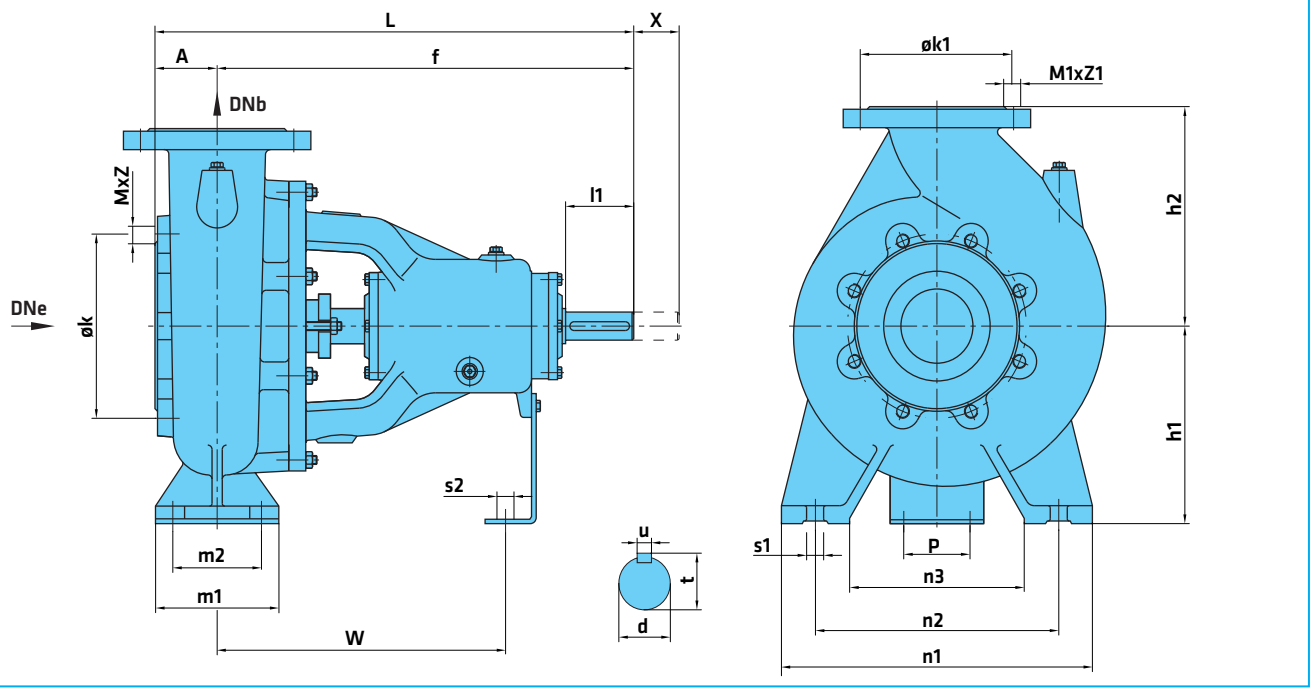


Field Chart

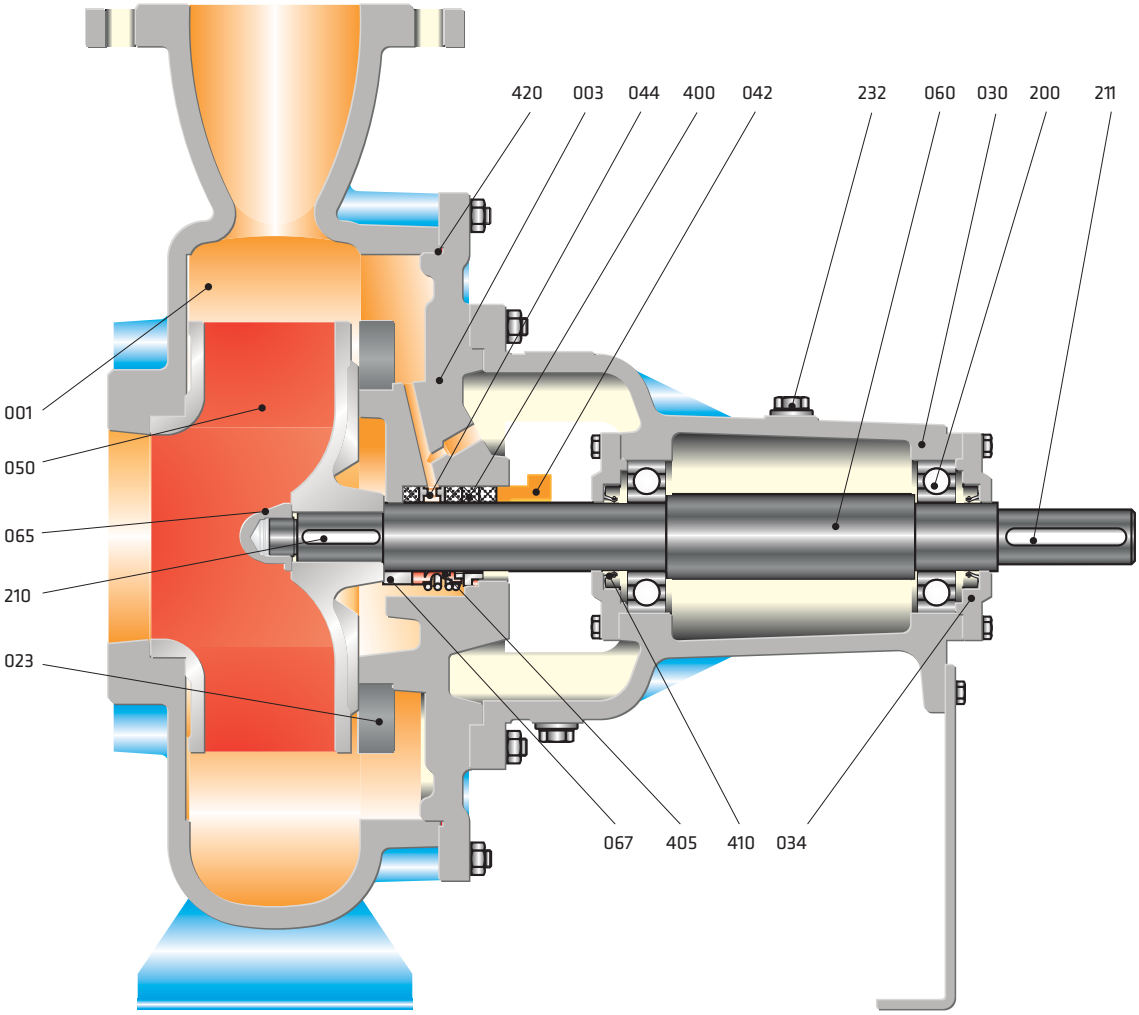




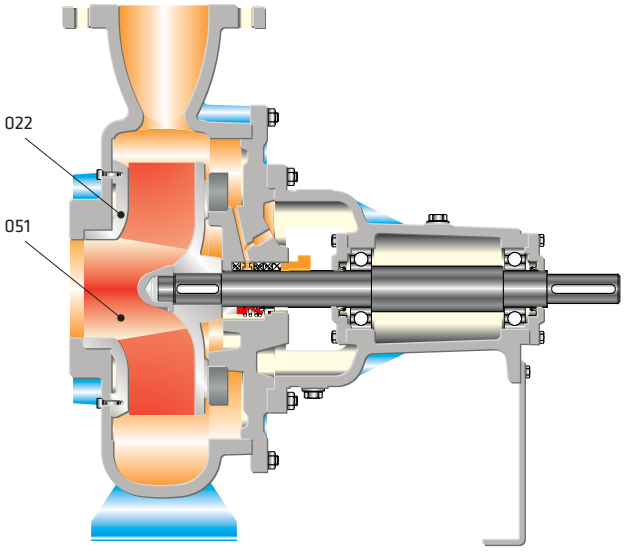
Pump Type			Overall Dimensions (mm)					Support & Foot Dimensions (mm)								Shaft (mm)						Flange Dimensions Suction		Flange Dimensions Discharge		Weight (*)
	DNe	DNb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	P	s2	W	d	l1	t	u	x**	k	MxZ	k1	M1xZ1	(kg)
40-160	50	40	82	348	430	160	180	100	70	240	190	140	14	110	14	247	24	50	27	8	140	125	M16x4	110	18x4	50
50-160	65	50	100	350	450	160	180	100	70	270	212	160	14	110	14	270	24	50	27	8	140	145	M16x4	125	18x4	50
50-200	65	50	105	370	475	160	200	100	95	270	210	160	14	110	14	270	24	50	27	8	140	145	M16x4	125	18x4	60
65-200	80	65	108	372	480	180	225	125	95	330	255	190	14	110	14	260	24	50	27	8	140	160	M16x8	145	18x4	65
80-160	100	80	83	384	467	180	180	120	85	310	250	190	14	110	14	288	24	50	27	8	140	180	M16x8	160	18x8	60
80-200	100	80	83	488	571	180	220	125	90	350	280	215	18	110	14	358	32	80	35	10	140	180	M16x8	160	18x8	70
80-315	100	80	55	480	535	250	310	125	95	400	315	240	18	110	14	350	32	80	35	10	140	180	M16x8	160	18x8	75
100-240	125	100	82	492	574	225	250	160	110	370	280	205	20	110	14	357	32	80	35	10	140	210	M16x8	180	18x8	100
100-270	125	100	97	500	597	275	310	160	110	430	345	270	20	110	14	371	32	80	35	10	140	210	M16x8	180	18x8	110
100-315	125	100	97	500	597	275	310	160	110	430	345	270	20	110	14	371	32	80	35	10	140	210	M16x8	180	18x8	120
150-315	150	150	119	638	757	280	355	200	150	500	400	300	23	110	14	445	42	110	45	12	200	240	M20x8	240	23x8	170
150-500	150	150	126	782	908	425	600	250	200	720	600	435	28	140	20	562	55	110	59	16	200	240	M20x8	240	23x8	580
200-315	200	200	165	707	872	355	450	250	200	600	500	360	24	110	14	543	48	110	51	12	250	295	M20x8	295	23x8	315
200-400	200	200	142	757	899	380	530	250	200	600	500	360	24	140	20	536	55	110	59	16	250	295	M20x8	295	23x8	370
200-500	150	200	126	968	1094	425	600	300	240	720	580	435	28	140	20	700	70	140	74,5	20	170	240	M20x8	295	23x8	600
250-315	200	250	145	1003	1148	335	475	300	230	680	540	400	27	140	20	730	70	140	74,5	20	265	295	M20x12	350	23x12	430
300-400	300	300	201	974	1175	400	560	300	240	720	600	435	27	140	20	730	75	140	79,5	20	285	400	M20x12	400	23x12	675
300-500	300	300	201	974	1175	450	600	300	230	800	660	520	27	140	20	700	75	140	79,5	20	300	400	M20x12	400	23x12	750

(*) Dimensions may differ according to bearing housing type (normal, heavy duty etc). We have rights to make change with the dimensions.
(**) Gap necessary for the withdrawal of the pump rotor from the driven end without the need for disconnecting the motor and pipework (spacer coupling application).

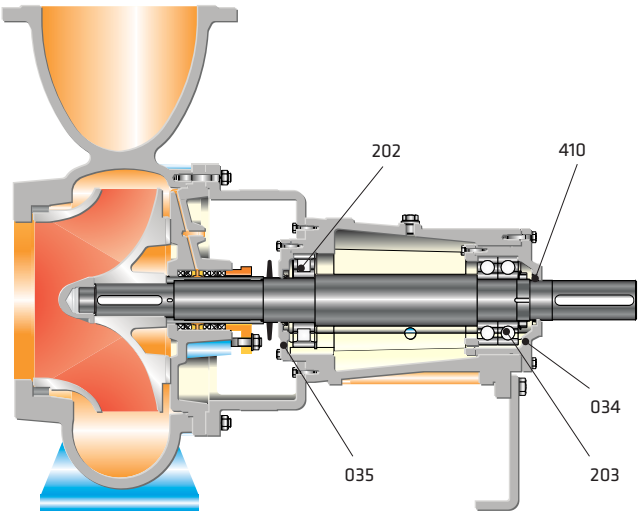
Horizontal Installation (PC)



Semi-Open Impeller Application

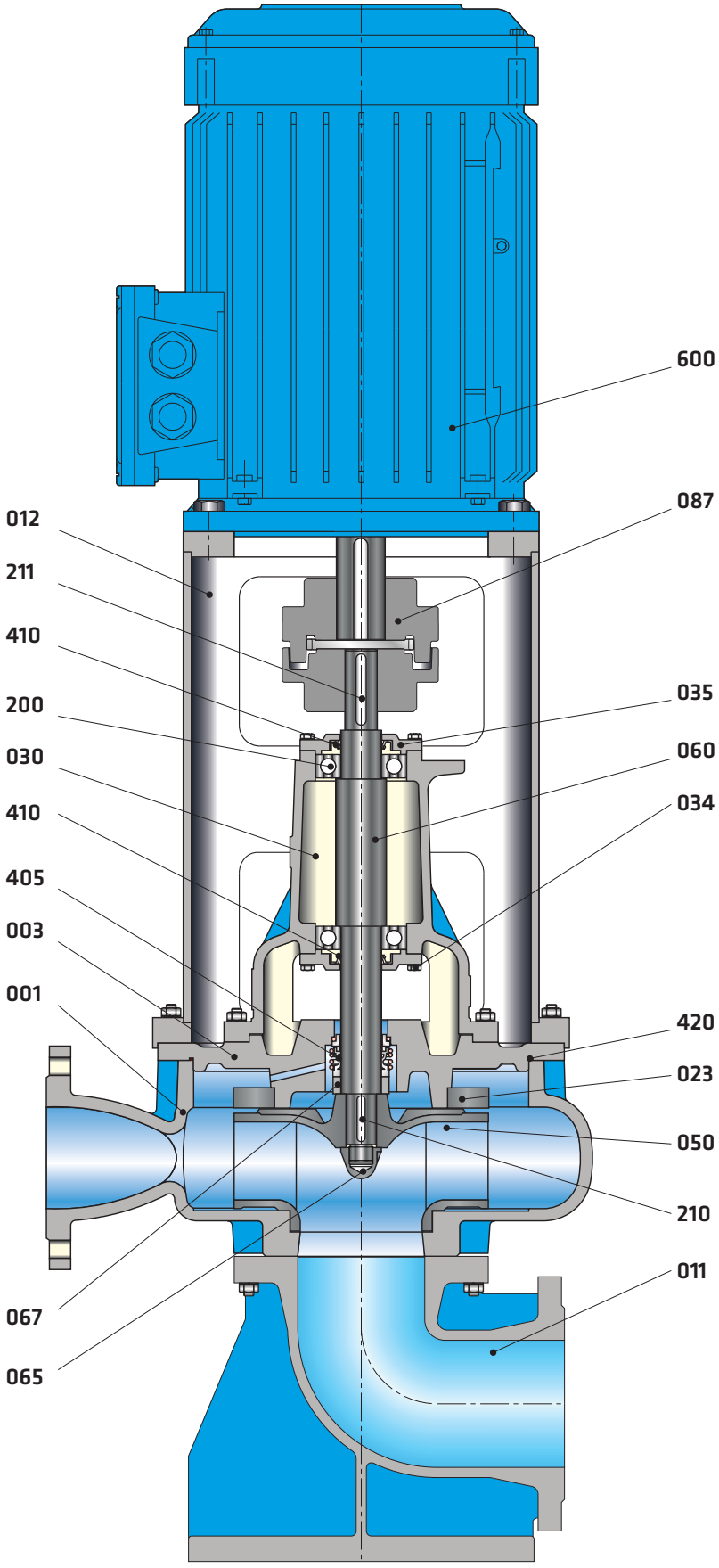


Heavy Duty Type Bearing Application



Sectional Drawings

Vertical Installation (PC-VM)



Part List

001	Volute Casing
003	Casing Cover
011	Elbow Foot
012	Motor Pedestal
022	Wear Plate
023	Back Wear Plate
030	Bearing Housing
034	Bearing Cover
035	Bearing Cover
042	Gland
044	Lantern Ring
050	Impeller
051	Semi-open Impeller
060	Pump Shaft
065	Impeller Nut
067	Spacer Sleeve
087	Flexible Coupling
200	Ball Bearing
202	Roller Bearing
203	Angular Contact Ball Bearing
210	Impeller Key
211	Coupling Key
232	Oil Filling Plug
400	Soft Packing
405	Mechanical Seal
410	Lip Seal
420	O-Ring
600	Electric Motor

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	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○							
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○							
Shaft														●	○	○	○	○	○	○
Bearing Housing	●																			
Front Wear Plate	○	○	○	○	○	○	○	○	○	○	○	○	○							
Back Wear Plate	●	○	○	○	○	○	○	○	○	○	○	○	○							
Spacer Sleeve														●	○	○	○	○	○	○
Mechanical Seal (*)	EN 12756 / DIN 24960																			

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

● Standard manufacturing
○ Optional

Material Equivalents

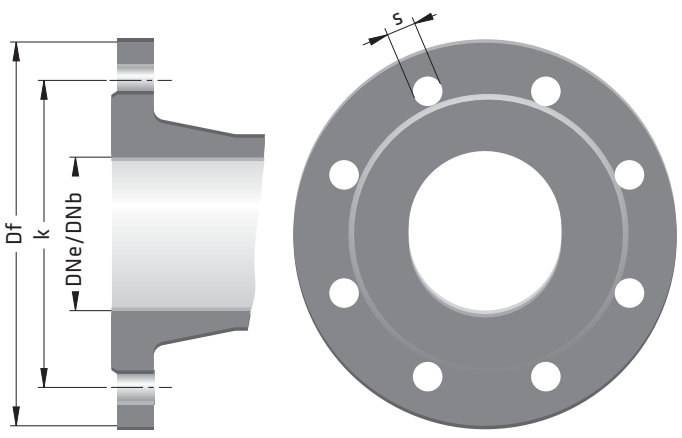
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 10)			
	Df	k	s	n
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	8
250	395	350	23	12
300	445	400	23	12

" n " number of holes



Standart
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PC - V

WASTE WATER AND PROCESS PUMPS (SUMP DESIGN)

Handled Liquids

Domestic and industrial waste water, raw sewage, viscous and corrosive liquids, liquids with fibrous and solid substances.

Technical Data

Discharge Flange_____DN 40....DN 300 mm

Capacity_____up to 1600 m^3/h

Head_____up to 95 m

Speed_____up to 2900 rpm

Operating Temperature_____up to +95 °C

Casing Pressure (Pmax)_____10 bar

Design Features

•Vertical, wide volute casing, single stage, end suction, centrifugal pumps with enclosed, semi-open or vortex type impeller.

•Up to 4 m. column length.

•Discharge pipe is extended up to base plate for easy installation.

•Closed, semi-open or free vortex type impeller design.

•Discharge flanges conform to EN 1092-2 / PN 10. (EN 1092-1 / PN 10 for steel or stainless steel casing)

•All impellers are dynamically balanced according to ISO 1940 Class 6.3.

•Axial thrust is balanced by impeller back ribs.

•Direction of rotation is clockwise viewed from drive end.

•Bearings of PC-V type pumps are grease lubricated. Bottom and internal sleeve bearings are lubricated by the pumping liquid. (different lubrication systems can be applied for the sleeve bearings in case of request or requirement. Contact for detailed information)

Shaft Sealing

•No sealing is required.

Pump Designation

PC-V 250 - 315 AB

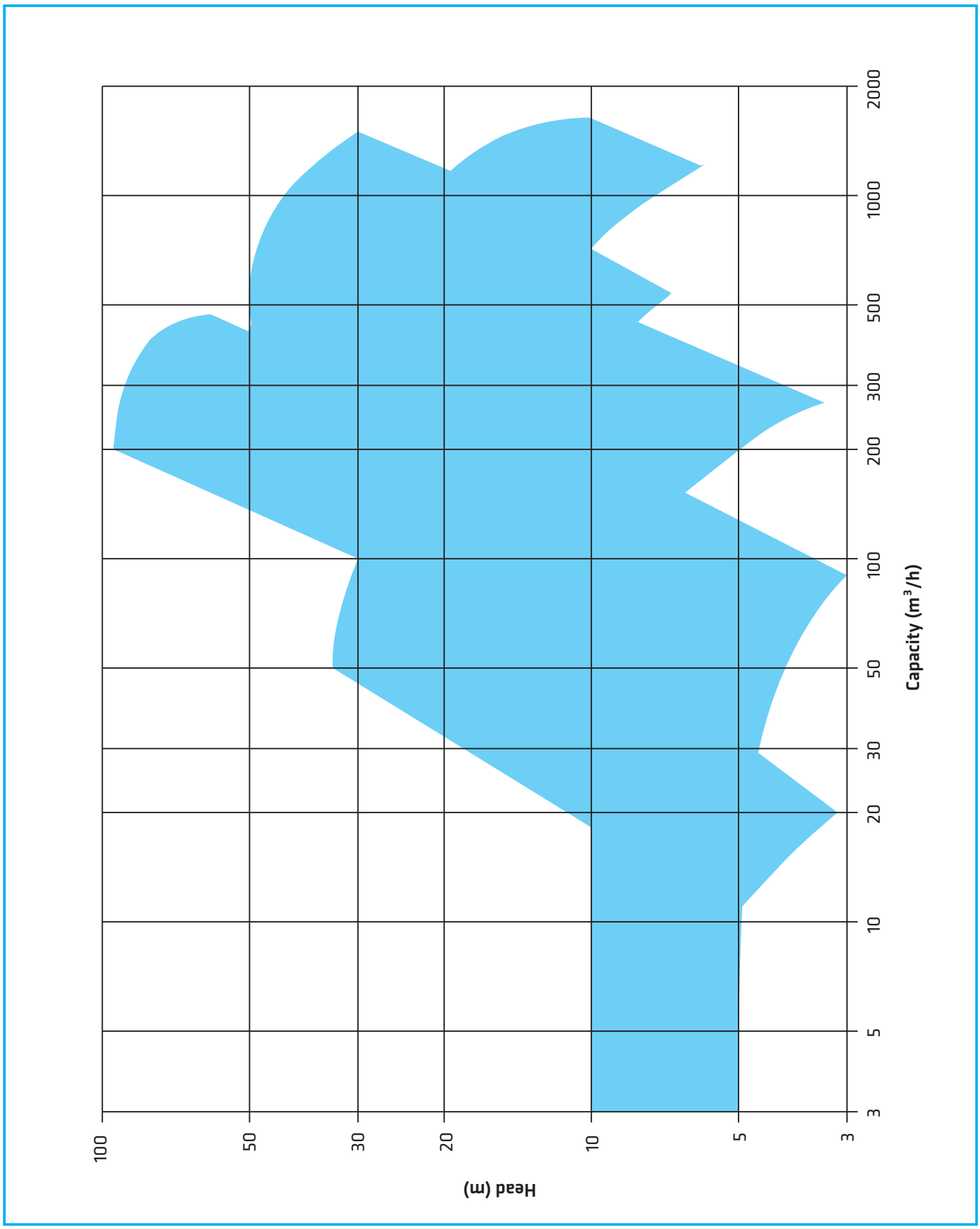
Pump Type

Discharge Nozzle (DN-mm)

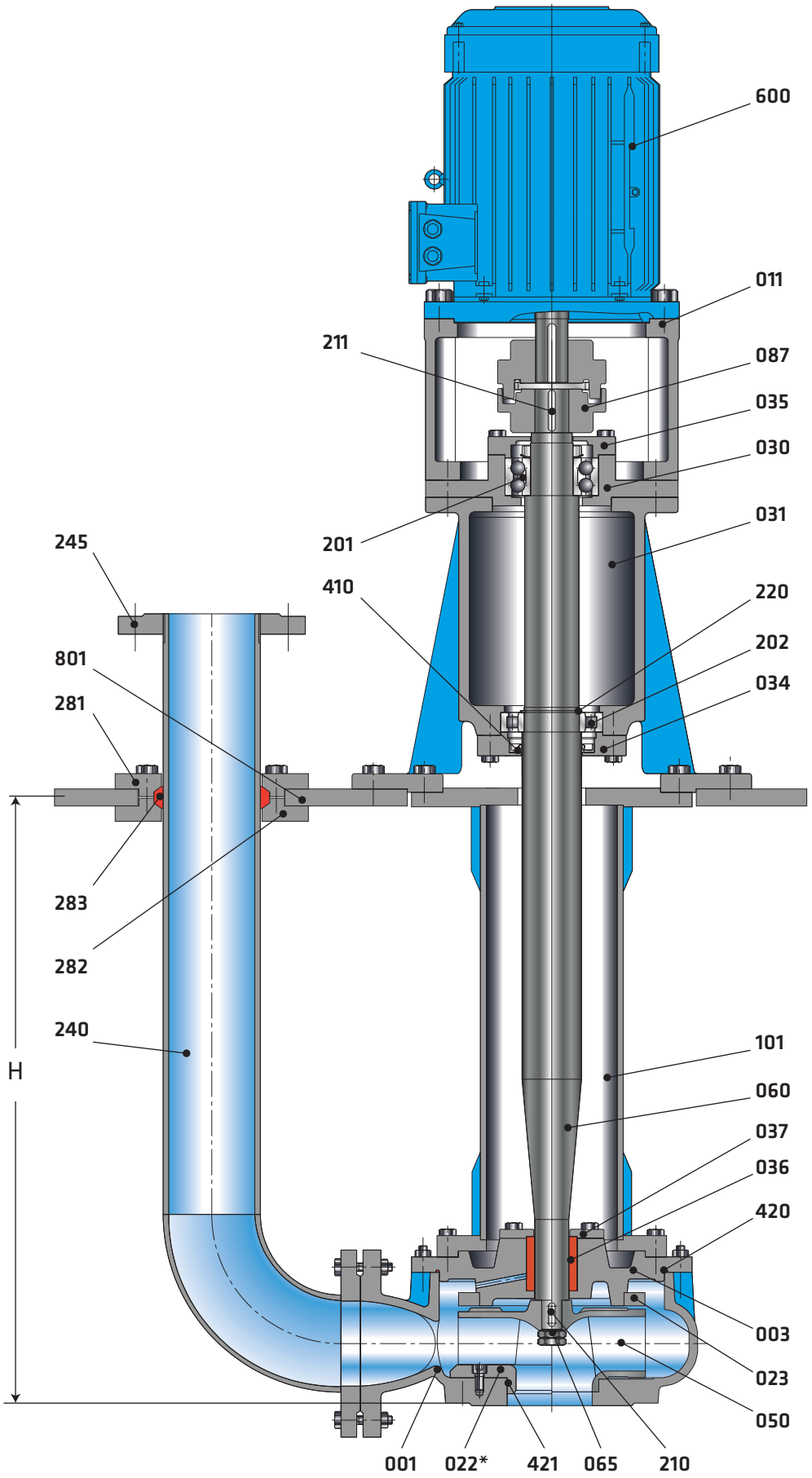
Nominal Impeller Diameter (mm)

Impeller Type

09.2015 / Rev. 1


Head (m)
100
50
30
20
10
5
3
Capacity (m³/h)
3
5
10
20
30
50
100
200
300
500
1000
2000

Sectional Drawings (up to “H” 1.5 m column lenght)



Part List

001	Volute Casing
003	Casing Cover
011	Motor Pedestal
023	Back Wear Plate
*022	Wear Ring (front)
030	Bearing Housing (top)
031	Bearing Housing (bottom)
034	Bearing Cover (bottom)
035	Bearing Cover (top)
036	Sleeve Bearing
037	Sleeve Bearing Cover
050	Impeller
060	Shaft
065	Impeller Nut
087	Flexible Coupling
101	Column Pipe
201	Double Row Ball Bearing
202	Cylindrical Roller Bearing
210	Impeller Key
211	Coupling Key
220	Circlip
240	Discharge Pipe
245	Discharge Flange
281	Top Fixing Flange
282	Bottom Fixing Flange
283	Rubber Gasket
410	Oil Seal
420	O-Ring
421	O-Ring
600	Electric Motor
801	Base Plate

(*) Optional

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	1.0037	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462	Tungsten Carbide
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○									
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○									
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○									
Shaft															●	○	○	○	○	○	○	
Bearing Housing	●	○																				
Column Pipe														●			○	○	○	○	○	
Front Wear Plate	○	○	○	○	○	○	○	○	○	○	○	○	○									
Back Wear Plate	●	○	○	○	○	○	○	○	○	○	○	○	○									
Sleeve Bearing												●										○

● Standard manufacturing
○ Optional

Material Equivalents

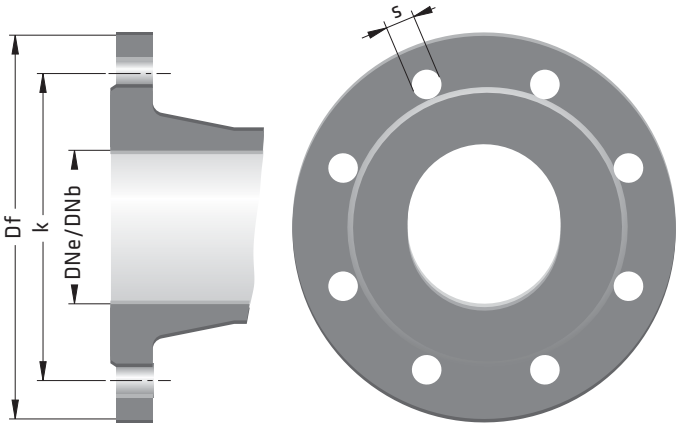
Desciption	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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
Steel	1.0037	St 37	A 29 1015
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

Flange Dimensions

EN 1092 - 2

DNe/DNb	Suction & Discharge (PN 10)			
	Df	k	s	n
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	8
250	395	350	23	12
300	445	400	23	12

" n " number of holes



Standart
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SNV-B

PROCESS PUMPS (SUMP DESIGN)

Handled Liquids

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

Technical Data

Discharge Flange_____DN 32....DN 200 mm

Capacity_____up to 800 m^3/h

Head_____up to 35 m

Speed_____up to 1450 rpm

Operating Temperature_____up to +95 °C

Casing Pressure (Pmax)_____10 bar

Design Features

•Vertical, volute casing, single stage, end suction centrifugal sump pumps with enclosed type impeller.

•Up to 4 m. column length.

•Discharge pipe is extended up to base plate for easy installation.

•Suciton and discharge flanges conform to EN 1092-2 / PN 16. (EN 1092-1 / PN 16 for steel or stainless steel casing)

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

•Axial thrust is balanced by impeller balancing holes system.

•Direction of rotation is clockwise viewed from driver.

•Bearings of SNV-B type pumps are grease lubricated. Bottom and internal sleeve bearings are lubricated by the pumping liquid. (different lubrication systems can be applied for the sleeve bearings in case of request or requirement. Contact for detailed information)

Shaft Sealing

•No sealing is required.

Pump Designation

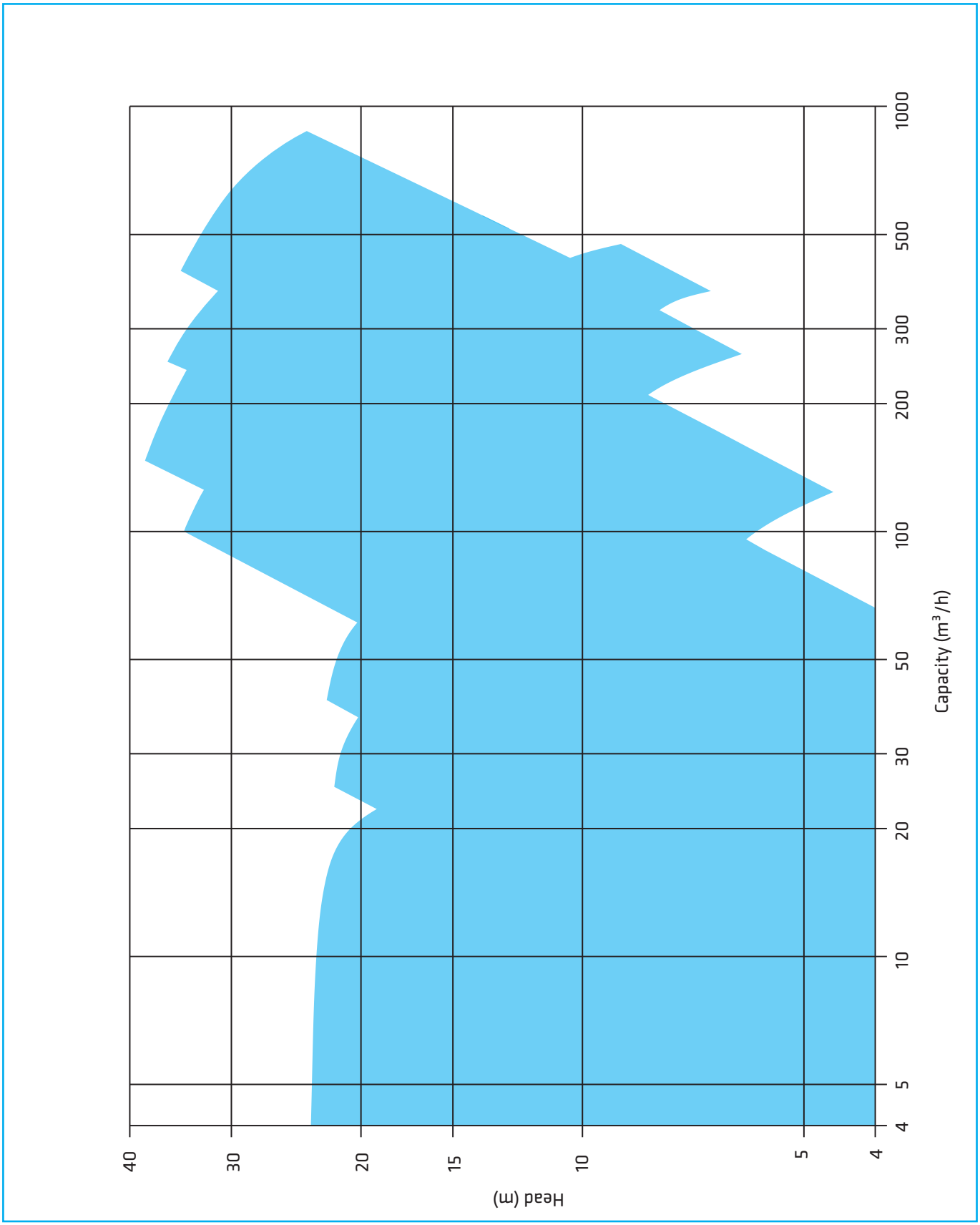
SNV-B 100 - 250

Pump Type

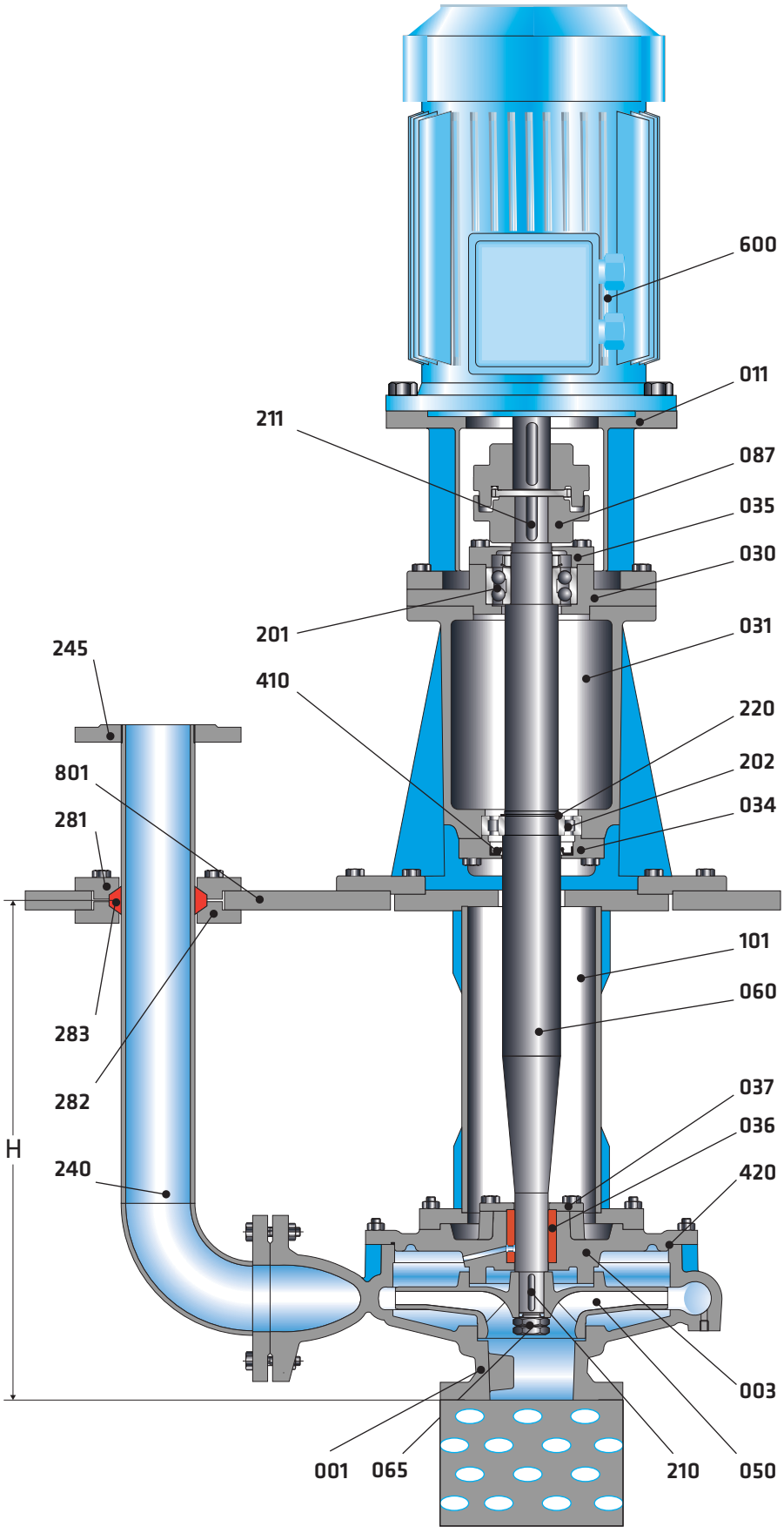
Discharge Nozzle (DN-mm)

Nominal Impeller Diameter (mm)

09.2015 / Rev. 1


Head (m)
40
30
20
15
10
5
4
4
5
10
20
30
50
100
200
300
500
1000
Capacity (m³/h)

Sectional Drawings (up to "H" 1.5 m column lenght)



Part List

001	Volute Casing
003	Casing Cover
011	Motor Pedestal
030	Bearing Housing (top)
031	Bearing Housing (bottom)
034	Bearing Cover (bottom)
035	Bearing Cover (top)
036	Sleeve Bearing
037	Sleeve Bearing Cover
050	Impeller
060	Shaft
065	Impeller Nut
087	Flexible Coupling
101	Column Pipe
201	Double Row Ball Bearing
202	Cylindrical Roller Bearing
210	Impeller Key
211	Coupling Key
220	Circlip
240	Discharge Pipe
245	Discharge Flange
281	Top Fixing Flange
282	Bottom Fixing Flange
283	Rubber Gasket
410	Lip Seal
420	O-Ring
600	Electric Motor
801	Base Plate

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	1.0037	1.0503	1.4021	1.4301	1.4306	1.4401	1.4404	1.4462	Tungsten Carbide
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○									
Casing Cover	●	○	○	○	○	○	○	○	○	○	○	○	○									
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○									
Shaft															●	○	○	○	○	○	○	
Bearing Housing	●	○																				
Column Pipe														●			○	○	○	○	○	
Wear Ring (Casing)	○	○	○	○	○	○	○	○	○	○	○	○	○									
Sleeve Bearing												●										○

● Standard manufacturing
○ Optional

Material Equivalents

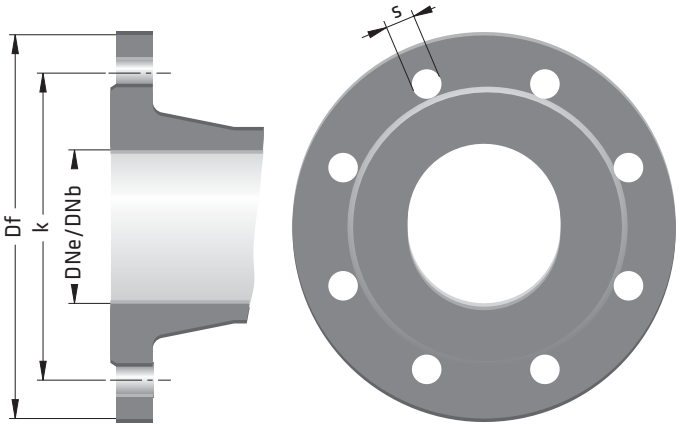
Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast Steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome Nickel Cast Steel	1.4308	G-X5 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome Nickel Cast Steel (low carbon)	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-X2 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	G-X4 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
Steel	1.0037	St 37	A 29 1015
Carbon Steel	1.0503	C 45	A 29/108/576 1045
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 316L
Duplex (austenitic-ferritic) Steel	1.4462	X2 Cr Ni Mo N 22-5-3	A 276 S 31803

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



LISTED

FM APPROVED

NFPA® MEMBER 2197916

Standart

FIRE PUMPS

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FIRE PUMPS

CONFORM TO NFPA 20

NFPA
MEMBER
2197916

NFPA 20 standard defines the installation requirements of the fixed pumps for fire protection. This standard is the most common and the most detailed standard in the world used for fire protection services.

The scope of NFPA 20 document include the selection of fire pumps, installation, acceptance tests and operation.

Standart Pompa, being a member of NFPA, follows all studies and publications related within the fire protection area.

Most of the consultant companies related with fire protection system design are making their designes according to NFPA standards. Besides, insurance companies are not taking risk and reducing the policy costs, if the fire system is not designed according to NFPA standards and the fire pumps are not selected according to NFPA 20.

STANDART Fire Fighting Pump Features

STANDART fire pumps are used to pressurize and keep the pressure of fire fighting systems such as;
•Sprinkler •Fire Cabinets •Hydrants

Different type of pumps may be used in fire fighting systems;

•End suction pumps
•Vertical in-line pumps
•Double suction split-case pumps
•Multistage pumps

STANDART Fire pumps an groups fully conform the requirements of NFPA 20

•Seperate controller for each pump.
•Max. flow velocity in suction pipe is below 3 m/s at rated capacity
•Pressure at zero flow is less than 1.4 times rated pressure
•Pressure at 1.5 x rated capacity is not less than 0.65 x rated pressure
•Service factor shall not exceed 1.15
•Materials;

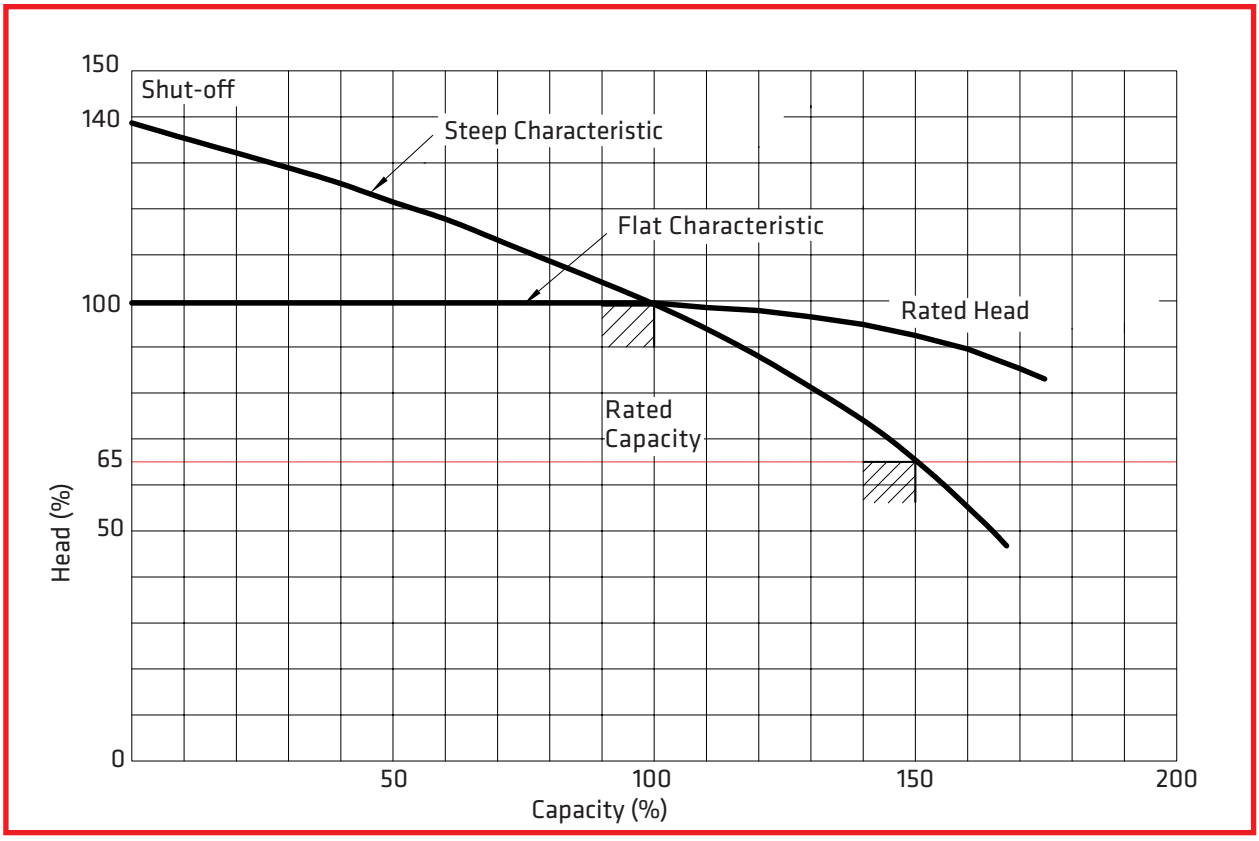
Casing	: Cast iron
Impeller	: Bronze
Shaft	: Stainless steel

•Shaft sealing: Soft packing or mechanical seal
•Bearings: L-10 rating of not less than 5000 hours at maximum load.
•Flanges according to EN 1092-2 PN 16.

Suggested accesories on the pump

•Automatic air release valve
•Circulation relief valve
•Increaser and reducer piping elements
•Pressure gauges at suction and discharge
•Flexible coupling

Fire Pump Performance Characteristics Conform to NFPA 20



Fire Pump Capacities Conform to NFPA 20

Rated capacities as per NFPA 20 [2016]

(GPM)	(l/min)	(m^3/h)
25	95	5,7
50	189	11,4
100	379	22,7
150	568	34,1
200	757	45,4
250	946	56,8
300	1136	68,1
400	1514	91
450	1703	102
500	1892	114
750	2893	170
1000	3785	227
1250	4731	284
1500	5677	341
2000	7570	454
2500	9462	568
3000	11355	681
3500	13247	795
4000	15140	908
4500	17032	1022
5000	18925	1136

STANDART Fire Pump Types

SNT End Suction

Horizontal, radially split volute casing type , single stage, end suction centrifugal pump with closed impeller.

rated capacities (GPM)			rated pressures (m)
25	400	2000	40
50	450	2500	50
100	500	3000	60
150	750	3500	70
200	1000	4000	80
250	1250	4500	90
300	1500	5000	100

SDS Double Suction

Horizontal, single stage, axially split volute casing pumps with double suction radial impellers.

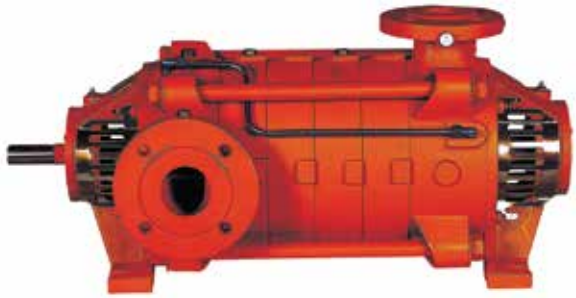
rated capacities (GPM)		rated pressures (m)
400	2000	50
450	2500	60
500	3000	70
750	3500	80
1000	4000	90
1250	4500	100
1500	5000	110
		120
		140

SNL In-line

In-line volute casing, single stage, close-coupled, centrifugal pumps with closed impeller.

rated capacities (GPM)		rated pressures (m)
25	400	30
50	450	40
100	500	50
150	750	60
200	1000	70
250	1250	80
300		90

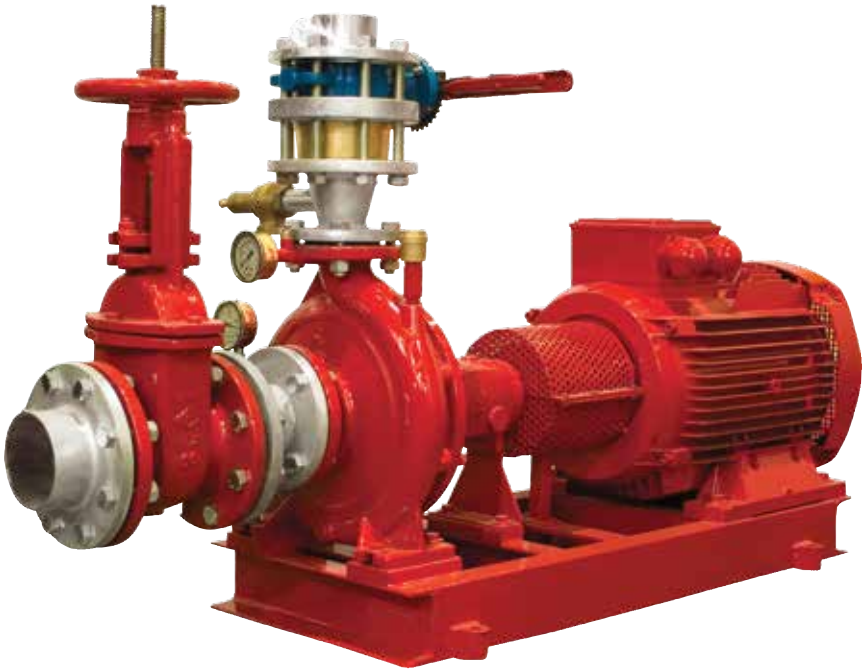
SKM Multistage



Horizontal ring section multistage centrifugal pumps with closed impellers and diffusers.

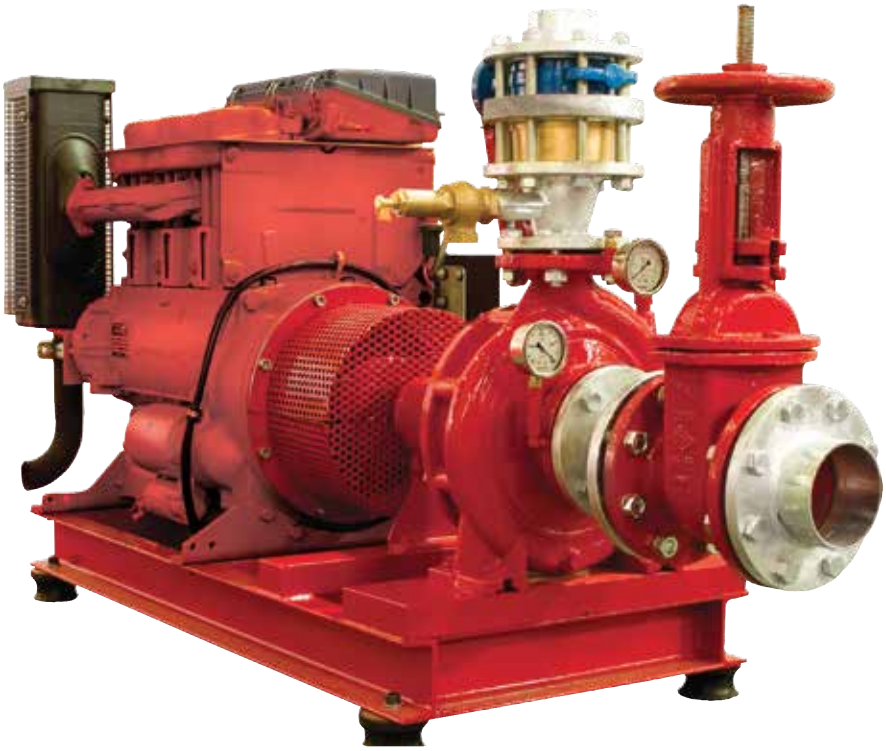
rated capacities (GPM)			rated pressures (m)	
25	300	1000	60	120
50	400	1250	70	130
100	450	1500	80	140
150	500	2000	90	150
200	750	2500	100	160
250			110	170

Fire Pump with Electric Motor



Fire Pump with Diesel Engine

Generally 100 % redundancy is obtained by diesel engine-driven pumps. The requirements of diesel engine-driven pumps are defined in NFPA 20.

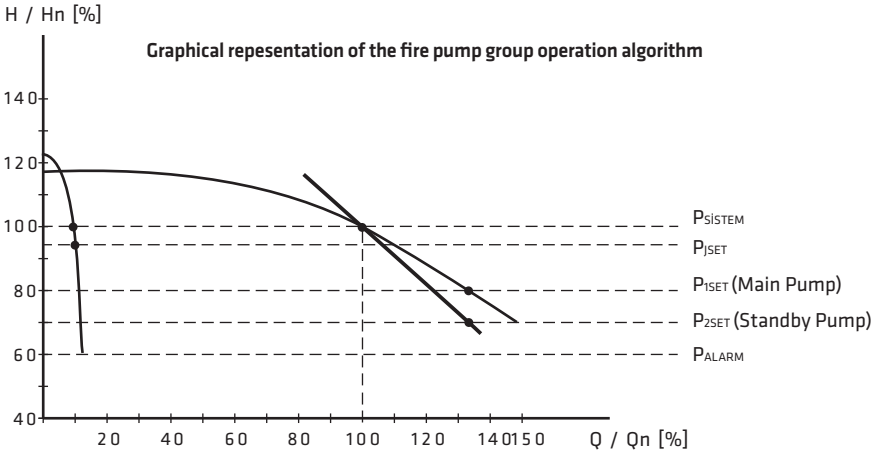


Jockey Pump

Jockey pumps should be selected at a capacity at which to increase the system pressure to the required value in 10 minutes after sensing the leakage in fire fighting system.

Generally a pump with % 3 of rated capacity (min 1 GPM), % 110 of rated pressure.

Fire Pump Group Operation Algorithm



Manual Electric Control

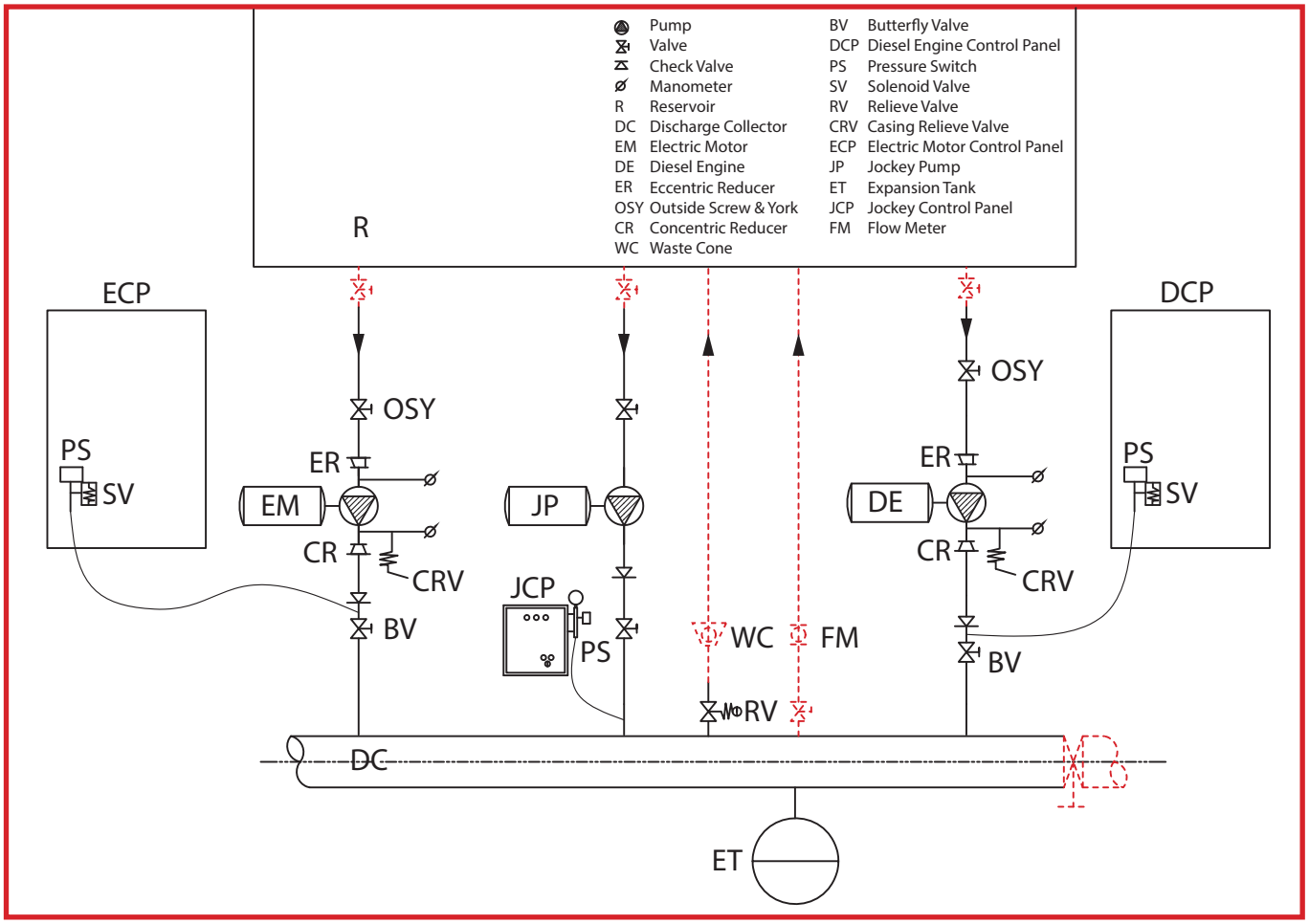
The manually operated switch (push button) can be used to run the motor manually. In this case operation can not be affected by the pressure-actuated switch.

Mechanical Control

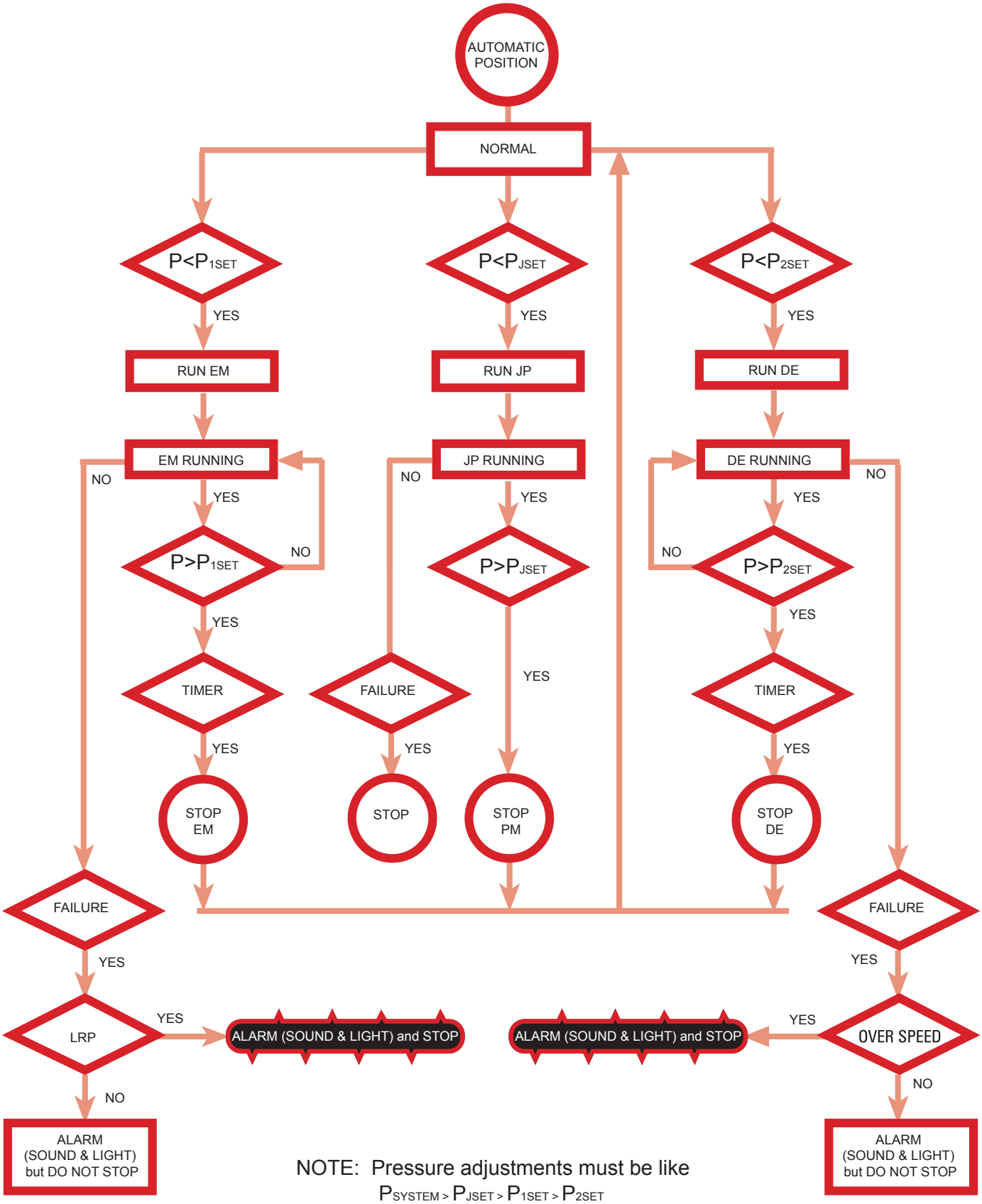
Emergency run handle on the controller can be used to operate pumps by mechanically closing the motor-circuit switching mechanism.

If the pressure drops below the set value (PJSET), jockey pump starts running with the signal coming from the pressure switch and continues to run for 10 minutes until the system pressure reaches the set value (PSYSTEM). If the pressure continues to drop, (P1SET) first the main pump starts to run. If the system pressure (PSYSTEM) can not supplied and pressure continues the drop

P&I Diagram for Fire Fighting Groups Conform to NFPA20



Automatic Operation Algorithm In Case Of Fire



NOTE: Pressure adjustments must be like

$P_{SYSTEM} > P_{JSET} > P_{1SET} > P_{2SET}$

Control Panel

Control Panels According to NFPA 20

For Electric Motor

For Diesel Engine

The pictures used are representative.

Fire Pump Group Control System

- Individual control panels are used for electric pump, diesel pump and jockey pump
- Lock mechanism are used on panels
- Continuous grounding
- Pumps can run by manual control and emergency-run mechanical control on controller
- By the help of Locked Rotor Protection (LRP), in case of locking rotor main switch is automatically shut down.
- No thermic protection on controller (except jockey pump controller)
- Alarm signals on electric pump controller (except jockey pump)

1. pump running
2. pump failure
3. minimum water level(if required)
4. phase reversal
5. loss of phase
6. power suitable
7. lamp test (if required)
8. audible(can be switched off) and visible(can not be switched off) alarms
9. LRP

- Two 12 V batteries for diesel engine
- Battery chargers
- Additive alarm signals for diesel driven pumps

1. high motor temperature
2. low oil pressure
3. over speed
4. control is in automatic mode
5. charger lamp
6. failure of 1st battery
7. failure of 2nd battery
8. starting failure
9. failure of battery charger
10. engine running
11. lamp test button (optional)
12. audible(can be switched off) and visible(can not be switched off) alarms

STANDART fire pump groups can communicate with building automation systems. But to operate and stop fire pump groups from the control room is not suggested because of safety reasons.

Pressure switches are very important, because they generate “run command”. There shall be at least one pressure switch for each pump and at least two for the system.

After the adjustments pressure switches should be locked at the factory. They should be in control panel and not effected from vibrations. Min and max set levels sould be adjusted individually.

Fire pumps should operate automatically by pressure switches and also should operate manually by pressing an electric push button or pressing a mechanical handle.

Periodic Tests During Operation

Weekly Automatic Test

The timer which is preset at a certain time of the week, opens the selonoid valve. System pressure decreases due to discharge water and selonoid valve is closed after motor starts running. Pump runs for a period which is already programmed and then stops.

During weekly tests the fire security person is supposed to be at the test area (It is not easy to recognise mechanical failures during automatic test).

Minimum run time is 10 minutes for electric motor driven pumps and 30 minutes for diesel engine driven pumps. Diesel engine controller should generate an alarm signal in case of failure which is 15 seconds of cranking and 15 seconds of rest, in six consecutive cycles.

Weekly Manual Test

After completion of automatic weekly tests, manual-electrical (by pressing a button on controller) and manual-mechanical (by pressing a handle on controller) tests are done for a short period of time.

Mountly and Annual Test

These tests are for the purpose of protective maintanence and defined in NFPA -25

Standart Pompa technical team is ready to help on this matter if required.

Factory Test

Each fire pump is hydrostatically tested 1.5 times of shut off pressure (not less than 17 bars) for a minimum 5 minutes period.

Each fire pump is factory tested as per NFPA-20 requirement.

Fire pump groups and fire booster sets are functionally tested at factory.

Optional Accessories of Fire Pump Group (*)

Standart fire pump groups include all the required elements per NFPA-20.

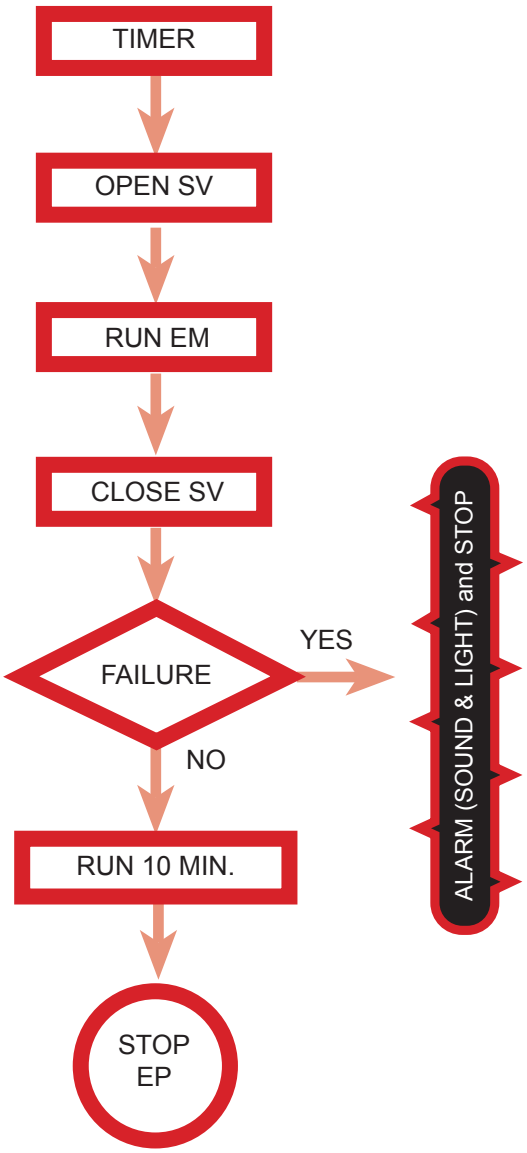
Optional elements are shown below :

- suction valve position monitoring switch
- suction valve lock
- waste cone
- discharge valve position monitoring switch
- discharge valve lock
- flowmeter at the flow rate 1.75 times of rated flow

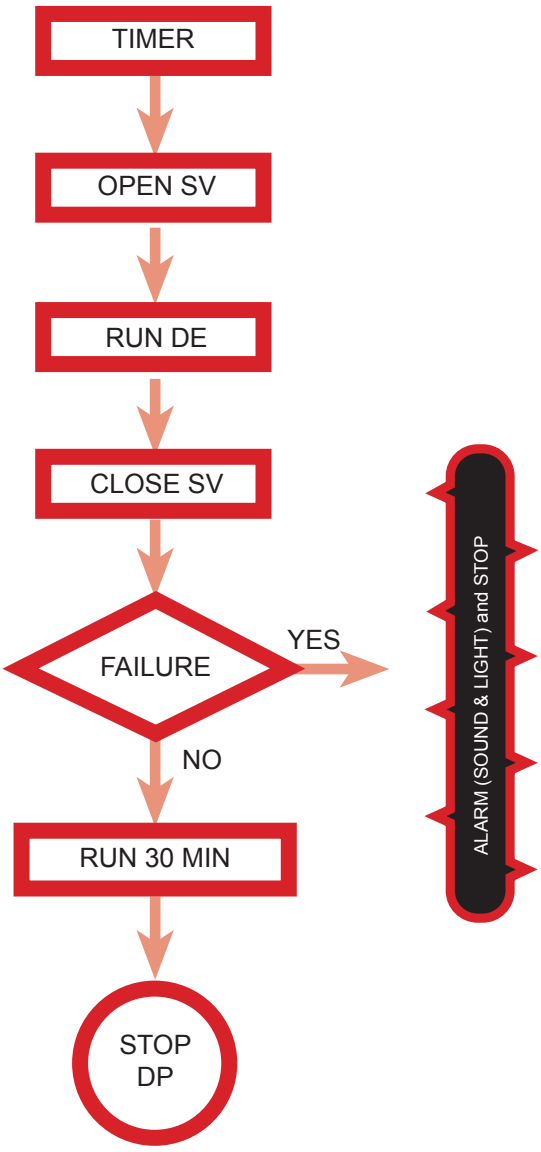
(*) Fire Pump Group : Main pump, stand-by pump, jockey pump, electric control panels, collectors, valves etc. all on common base plate.

Automatic Weekly Test Algorithm

For Electric Pump



For Diesel Pump




Standart

Standart
yaşamı koru! save life!

SDS / SNK

FIRE PUMPS

UL LISTED FM APPROVED

Who UL is and What UL Does

•UL (Underwriters Laboratories Inc.) is a global independent safety science company offering expertise across five key strategic businesses: Product Safety, Environment, Life & Health, University and Verification Services. Since the year UL founded in 1894, nearly 70,000 manufacturers in 100 countries have produced 20.000 different types of totally 20 billion UL Marked products.

•UL engineers scientifically investigate and test thousands of types of products, materials, constructions and systems to evaluate the electrical, fire and injury risks; the burglary or fire resistance; or the ability to detect, control or limit fires.

•UL has developed 1,200 Standards for Safety, which serve as the bedrock of compliance in over 200 industries.

•There is an "Online Certifications Directory" in UL's website and all the products listed by UL can be found here.

UL Safety Standard: UL 448

•The requirements of this standard cover design and test features of centrifugal fire pumps intended for use in water-supply systems for fire-protection service.

•The pumps covered by these requirements are intended for installation and use in accordance with the Standard for the Installation of Stationary Pumps for Fire Protection, NFPA 20.

Who FM is and What FM Does

•FM (Factory Mutual) Global is one of the world's largest business property insurers who also serves engineering solutions to be protected against basicly fire, natural disaster or other types of property risk.

•FM Approvals is a unit of FM Global who certifies industrial and commercial products and services for companies. When a product or service meets the standards of FM Approvals, it is issued the "FM APPROVED" mark to signify it will perform as expected.

•Currently there are 45.000 certified products and services and these are listed in "FM Approval Guide" which can be found in FM website.

FM Approvals Standard: 1311 / 1319

•FM Class 1311 states approval criteria for horizontal or vertical split case centrifugal fire pumps while FM Class 1319 states about horizontal end suction centrifugal fire pumps that supply water to fire protection systems.

•The requirements in these standards are mainly based on ANSI Hydraulics Institute (HI) and NFPA 20 standards.

General Information

Design Features According to UL & FM

•Only the specified capacities in the below table are allowed for rated capacity. For capacities higher than 5000 GPM, 500 GPM increments are allowed.

GPM	m³/h	GPM	m³/h	GPM	m³/h
25	5.68	400	90.8	2000	454
50	11.3	450	102.2	2500	568
100	22.7	500	113.5	3000	681
150	34.0	750	170	3500	795
200	45.4	1000	227	4000	909
250	56.8	1250	284	4500	1022
300	68.1	1500	341	5000	1136

•All interior bolt or screw that are exposed to pumped liquid shall be of rolled bronze or corrosion resistant material

•The pump shall be provided with automatic air-release valve, circulation relief valve and pressure gauges

•Bearings shall have an L-10 rating of not less than 5000 hours at maximum load.

•The pumps shall be provided with at least four packing rings plus a lantern ring. The lantern ring may be permitted to replace one ring of packing.

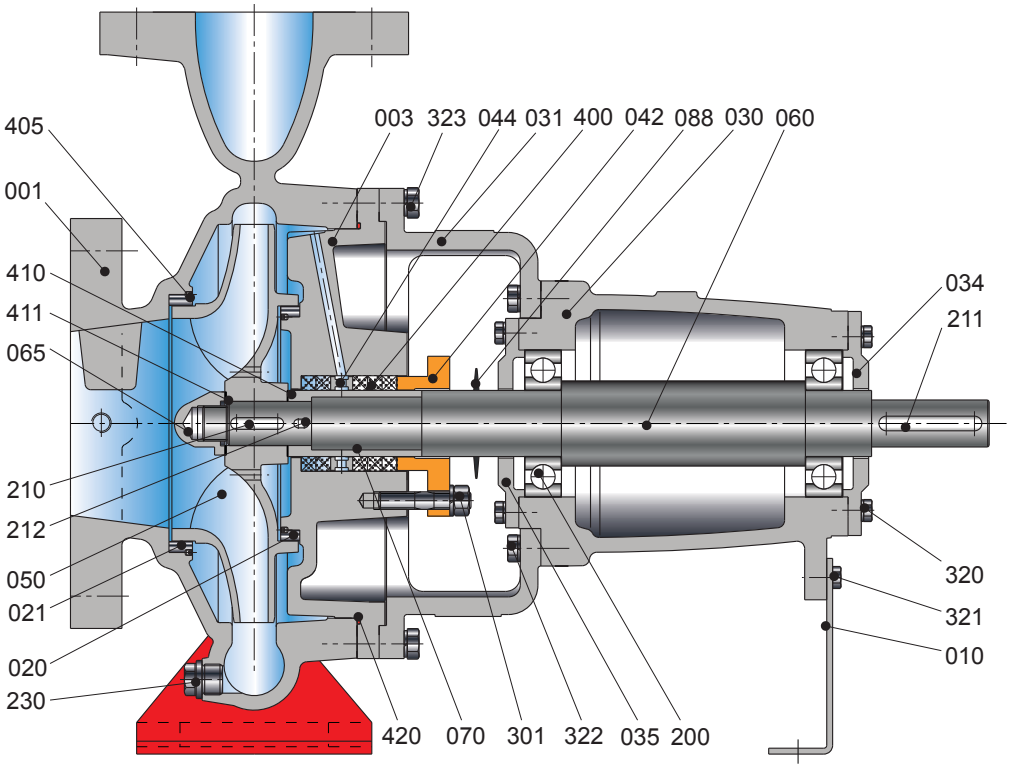
•Impellers, wear rings, shafts, lantern rings, glands shall be made of corrosion resistant material.

•Following material specifications are applied to STANDART UL/FM fire pumps:

Part List	Definition	DIN 17007	EN-DIN	ASTM
Casing	Nodular Cast Iron	0.7040	GGG 40 (GJS-400-15)	A 536 Gr. 60-40-18
Impeller	Cast Bronze	2.1050.01	G-CuSn 10	B 584 C 90700
Shaft	Stainless Steel	1.4021	X20 Cr 13	A 276 Type 420
Shaft Seal	Stainless Steel	1.4401	X5 Cr Ni Mo 17-12-2	A 276 Type 316
Wear Ring	Cast Bronze	2.1050.01	G-CuSn 10	B 584 C 90700
Bolt & Screw	Stainless Steel	1.4301	X5 Cr Ni 18-10	A276 Type 304

Sectional Drawings

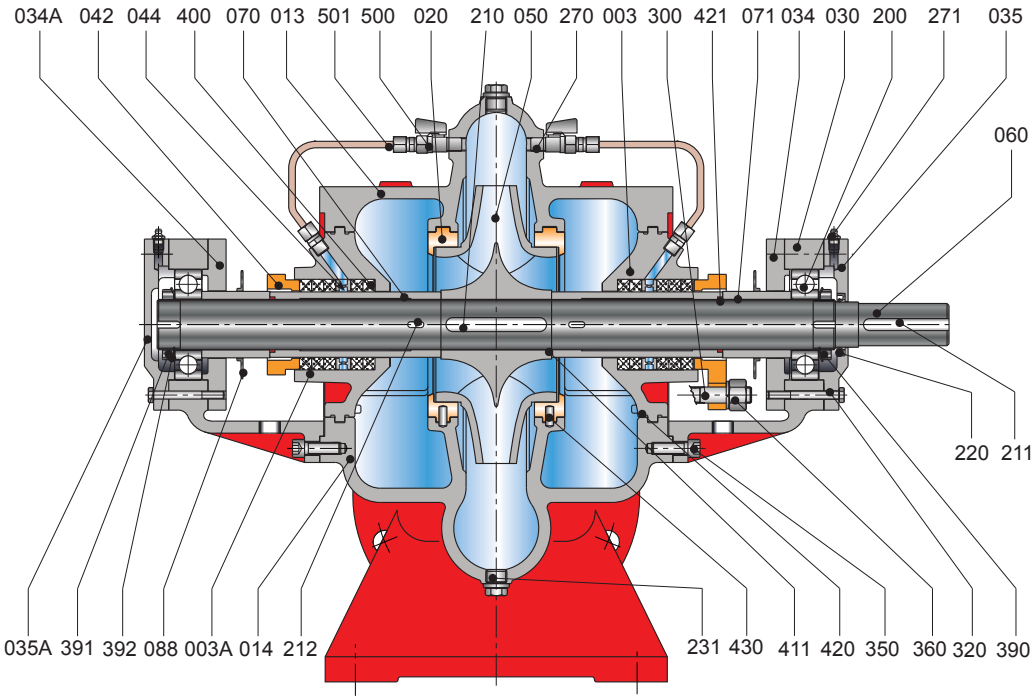
SNK 50-250 , SNK 65-250 , SNK 80-250



Part List

001	Volute Casing
003	Stuffing Box
010	Support Foot
020	Wear Ring (back)
021	Wear Ring (front)
030	Bearing Housing
031	Bearing Bracket Lantern
034	Bearing Cover (outboard)
035	Bearing Cover (inboard)
042	Stuffing Box Gland
044	Lantern Ring
050	Impeller
060	Shaft
065	Impeller Nut
070	Shaft Protecting Sleeve
088	Thrower
200	Ball Bearing
210	Impeller Key
211	Coupling Key
212	Sleeve Key
230	Drain Plug
301	Stud+Nut+Washer
320	Hex. Head Bolt
321	Hex. Head Bolt
322	Hex. Head Bolt
323	Hex. Head Bolt
400	Stuffing Box Packing
405	Set Screw
410	Gasket
411	Gasket
420	O-Ring

SNK 100-250 , SNK 125-315



Part List

003	Stuffing Box (right side)
003A	Stuffing Box (left side)
013	Volute Casing (top)
014	Volute Casing (bottom)
020	Wear Ring
030	Bearing Housing
034	Bearing Cover (inboard)
034A	Bearing Cover (inboard)
035	Bearing Cover (outboard)
035A	Bearing Cover (outboard)
042	Stuffing Box Gland
044	Lantern Ring
050	Impeller
060	Shaft
070	Shaft Protecting Sleeve
071	Sleeve (spacer)
088	Thrower
200	Ball Bearing
210	Impeller Key
211	Coupling Key
212	Key
220	Oil Seal
231	Drain Plug
270	Nipple
271	Grease Nipple
300	Stud
320	Hex.Head Bolt
350	Allen Screw
360	Nut
390	Locknut (non drive end)
391	Locknut (drive end)
392	Lock Washer
400	Stuffing Box Packing
411	Gasket
420	O-Ring
421	O-Ring
430	Pin
500	Valve
501	Flushing Pipe

UL Listed & FM Approved Fire Pumps for 3000 rpm

Pump Type	Capacity (GPM / m3/h)	Pressure (bar/psi)	Power (%100) (kW)	Power (%150) (kW)	Diesel Engine CLARKE Model Cooling Type		Diesel Engine Rated Power kW / HP (*)		Electric Motor Rated Power (kW)	
					Heat exch.	Radiator	Heat exch.	Radiator	Listed	Non-Listed
SNK 50-250	200 / 45,4	6,4 / 93	13,5	16,6	JU4H-UF14	JU4R-UF13	53/71	50/66,5	15	18,5
		7 / 101,5	15	18,4					18,5	18,5
		8 / 116	17,6	21,6					22	22
		9 / 130,5	20,4	24,9					22	30
		10,34 / 150	24,1	29,3					30	30
	250 / 56,8	6,27 / 91	15,3	19,1	JU4H-UF14	JU4R-UF13	53/71	50/66,5	18,5	18,5
		7 / 101,5	17,1	21,3					22	22
		8 / 116	19,8	24,2					22	30
		9 / 130,5	22,7	28,4					30	30
		10,34 / 150	26,7	33					30	37
	300 / 68,1	6,06 / 88	16,6	21,1	JU4H-UF14	JU4R-UF13	53/71	50/66,5	18,5	22
		7 / 101,5	19,1	24,2					22	30
		8 / 116	22	28,1					30	30
		9 / 130,5	25,1	32,1					30	30
		10,2 / 148	29,1	37,2					37	37
SNK 65-250	300 / 68,1	6,34 / 92	19,6	23,6	JU4H-UF14	JU4R-UF13	53/71	50/66,5	22	22
		7 / 101,5	21,7	26,4					30	30
		8 / 116	25,1	30,9					30	30
		9 / 130,5	28,8	35,6					37	37
		9,8 / 142	32	39,7					37	37
	400 / 90,8	6,06 / 88	22,4	26,8	JU4H-UF14	JU4R-UF13	53/71	50/66,5	30	30
		7 / 101,5	25,9	31,4					30	30
		8 / 116	29,7	36,6					37	37
		9 / 130,5	33,9	42,2					37	45
		9,78 / 142	37,2	46,7					45	45
	450 / 102,2	5,79 / 84	23,6	27,7	JU4H-UF14	JU4R-UF13	53/71	50/66,5	30	30
		7 / 101,5	28,2	33,9					30	37
		8 / 116	32,3	39,4					37	37
		9 / 130,5	36,6	45,4					45	45
		9,71 / 141	39,7	49,7					45	55
SNK 80-250	450 / 102,2	6 / 87	25,9	29,8	JU4H-UF14	JU4R-UF13	53/71	50/66,5	30	30
		7 / 101,5	30	35,4					37	37
		8 / 116	34,5	40,7					37	45
		9 / 130,5	39,1	47,5					45	45
		10,2 / 148	45,1	53		JU4R-UF23		58/78	56	55
	500 / 113,5	5,79 / 84	26,5	30,6	JU4H-UF14	JU4R-UF13	53/71	50/66,5	30	30
		7 / 101,5	31,8	37,7					37	37
		8 / 116	36,5	44					45	45
		9 / 130,5	41,4	50					45	55
		10,2 / 148	47,5	57,8	JU4H-UF24	JU4R-UF23	62/83	58/78	56	55

UL LISTED

FM APPROVED

UL Listed & FM Approved Fire Pumps for 3000 rpm

Pump Type	Capacity (GPM / m3/h)	Pressure (bar/psi)	Power (%100) (kW)	Power (%150) (kW)	Diesel Engine CLARKE Model Cooling Type		Diesel Engine Rated Power kW /HP (*)		Electric Motor Rated Power (kW)	
					Heat exch.	Radiator	Heat exch.	Radiator	Listed	Non-Listed
SDS 100-250	750 / 170	6,13 / 89	46,6	53	JU4H-UF14	JU4R-UF23	53/71	58/78	56	55
		7 / 101,5	51,2	61,8	JU4H-UF24	-	62/83	-	56	75
		8 / 116	56,8	70,9	JU4H-UF34	JU4R-UF53	86/115	99/133	75	75
		9 / 130,5	62,6	78,8					75	75
		10 / 145	70,3	90,8	JU4H-UF54		108/145		93	90
		11 / 159,5	79,7	102		-		-	93	110
		11,85 / 172	90,8	115,5	JU6H-UF34	-	131/175	-	112	132
	1000 / 227	5,86 / 85	52,1	60,9	JU4H-UF24	-	62/83	-	56	75
		7 / 101,5	60,5	74,9	JU4H-UF34	JU4R-UF53	86/115	99/133	75	75
		8 / 116	68,3	87,7	JU4H-UF54		108/145		93	90
		9 / 130,5	76,5	101		-		-	93	110
		10 / 145	85,9	113	JU6H-UF34	-	131/175	-	112	110
		11 / 159,5	96	126		-		-	112	132
		11,8 / 171	107	138,6	JU6H-UF54	-	161/216	-	130	160
SDS 125-315	1250 / 284	8,06 / 117	93,1	108	JU4H-UF54	-	108/145	-	112	110
		9 / 130,5	104	124	JU6H-UF34	-	131/175	-	112	132
		10 / 145	117	142	JU6H-UF54	-	161/216	-	130	160
		11 / 159,5	130	160		-		-	150	160
		12 / 174	146	179	JU6H-UF84	-	205/275	-	168	185
		13 / 188,5	164	200		-		-	187	200
		13,72 / 199	178	216	-	-	-	-	200	250
	1500 / 340	7,72 / 112	98,6	115,5	JU6H-UF34	-	131/175	-	112	132
		9 / 130,5	115	145	JU6H-UF54	-	161/216	-	130	160
		10 / 145	129	159		-		-	150	160
		11 / 159,5	144	178	JU6H-UF84	-	205/275	-	168	185
		12 / 174	161	200		-		-	187	200
		13 / 188,5	179	223	-	-	-	-	200	250
		13,65 / 198	193	239	-	-	-	-	225	250

(*) NOTE :

• Engines are rated at standard SAE conditions of 29.61 in. (752 mm) Hg barometer and 77°F (25°C) inlet air temperature [approximates 300 ft. (91.4 m) above sea level] by the testing laboratory (see SAE Standard J 1349).

• A deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1000 ft. (305 m) altitude above 300 ft. (91.4 m)