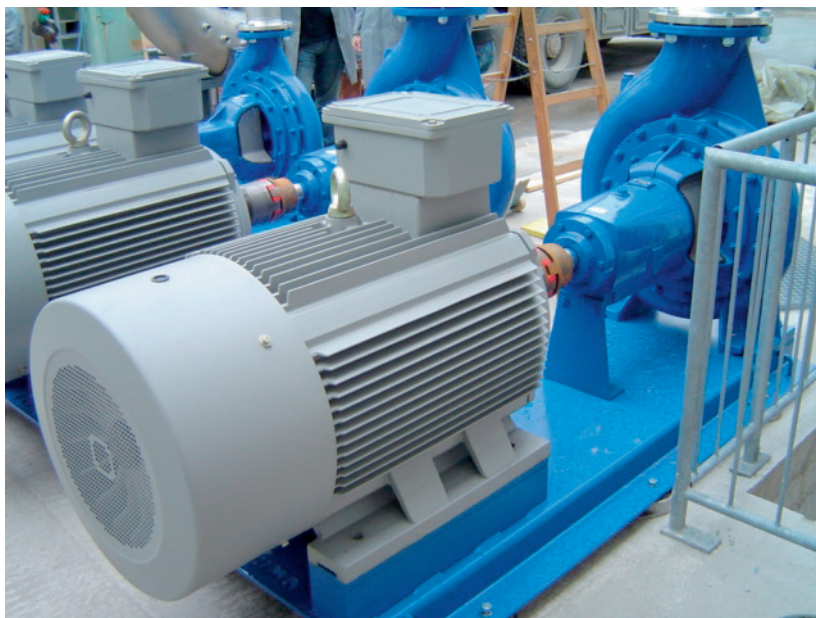


Single Stage Volute Casing Pumps

SN

EN ISO 9905

DIN 24 255 - EN 733



Handled Liquids :

SN Type pumps are suitable for clean or slightly contaminated liquids with low viscosity.

Technical Data

Discharge Nozzle Range DN 32 up to 250 mm

Capacities up to 1700 m³/h

Heads up to 100 m

Speed 1450 - 2900 rpm

Operating Temperature -10 °C up to 140 °C *

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

(Pmax : Suction Pressure + Shut off Head)

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

Applications

- Water supply, irrigation and sprinkler
- Water treatment
- Air conditioning
- Cooling plants
- Food and beverage processing
- Paper and cellulose industries
- Chemical and petrochemical industries
- Fire - fighting
- Power plants

Design Features

- Horizontal , radially split volute casing type , single stage , end suction centrifugal pump with closed impeller.
- Dimensionally complies with DIN 24255 / EN 733.

- In addition to 29 basic sizes conforming with DIN 24255 / EN 733 , there are 20 additional sizes. Dimensions of additional sizes may differ from other suppliers.
- The suction and discharge flanges are conforming to DIN 2533/PN 16 - ISO 7005-2/PN 16.
- Due to the back-pull-out design the complete bearing assembly including impeller and stuffing box cover can be dismantled without removing the volute casing from the pipe system.
- All impellers are balanced statically and dynamically according to ISO 1940 class 6.3.
- Axial thrust is balanced by wear ring/balancing holes system.

Bearings

- Bearings of SN type pumps are normally "life time grease lubricated" rolling bearings, except the pump SN 200/500 and SN 250/500 which are always oil lubricated for 1450 and 1800 rpm.
- Depending on customer requirement pumps whit oil lubricated or regreaseable bearing are available.

Shaft seal

- In standard production soft packed stuffing boxes are used.
- Depending on customer requirement mechanical seals are available. In this case, pump shaft is always stainless steel.

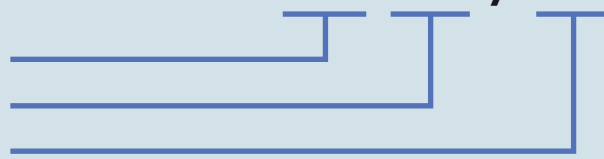
Rotation

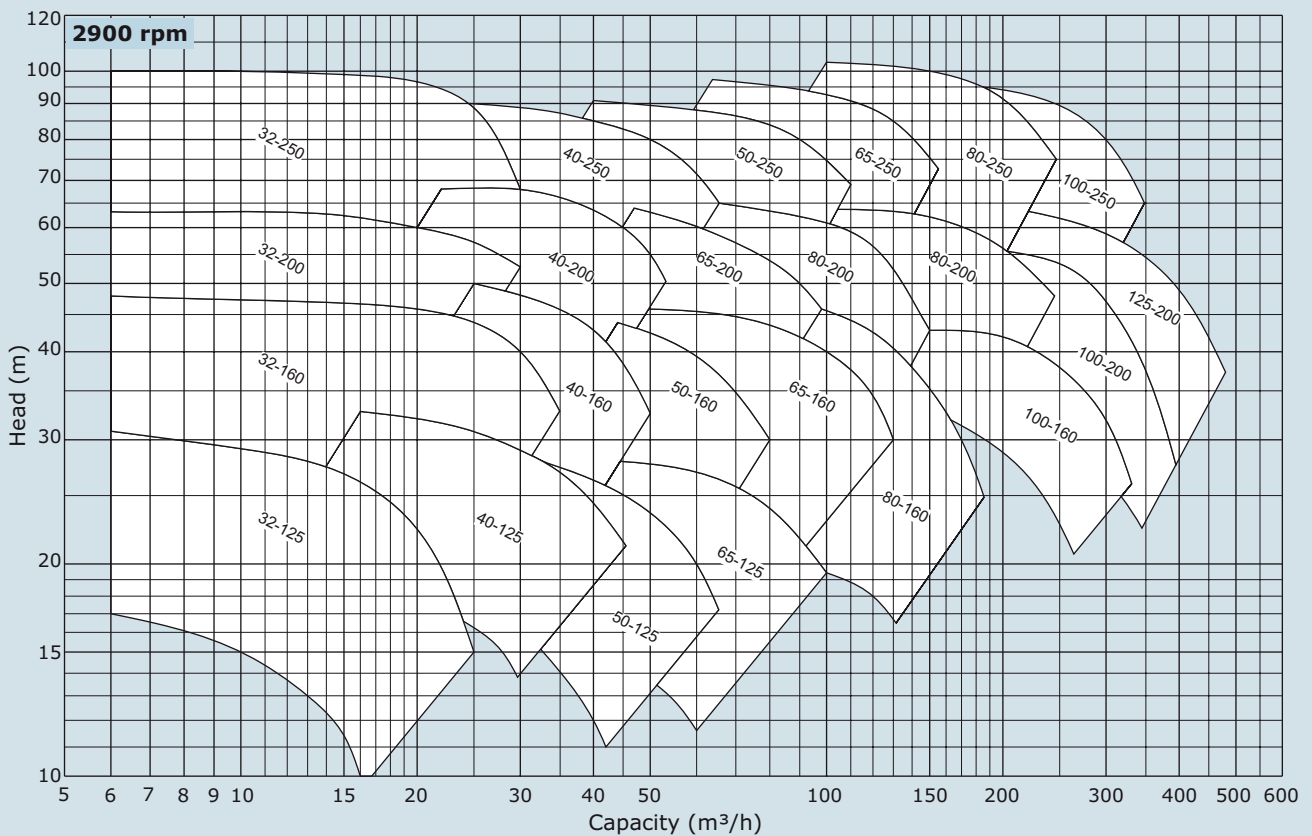
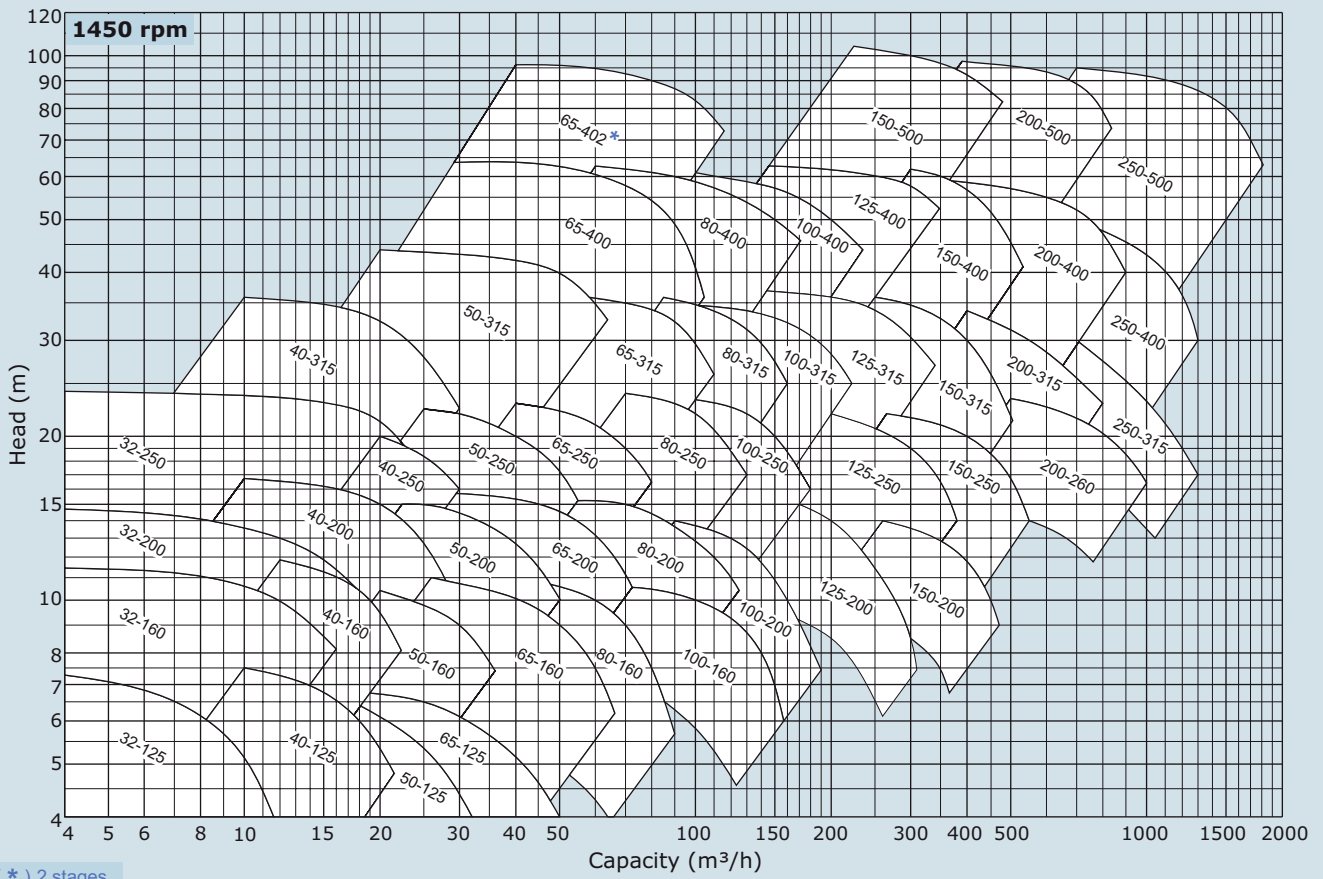
- Direction of rotation is clockwise viewed from driver end.

Pump Designation

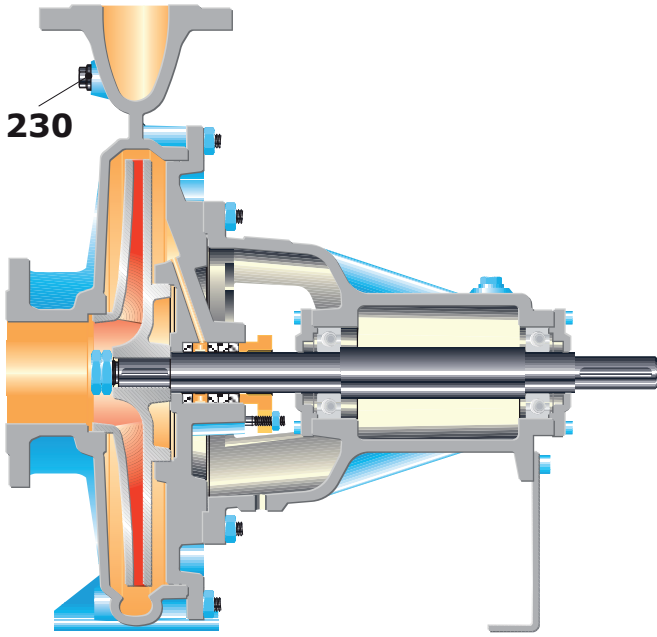
Pump type
 Discharge nozzle (DN)
 Nominal impeller diameter

SN 100 / 250

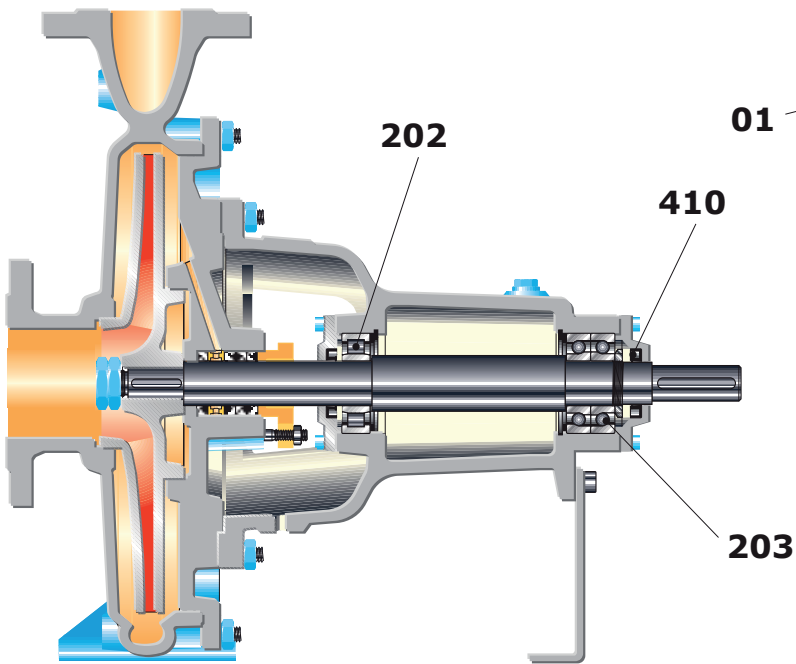




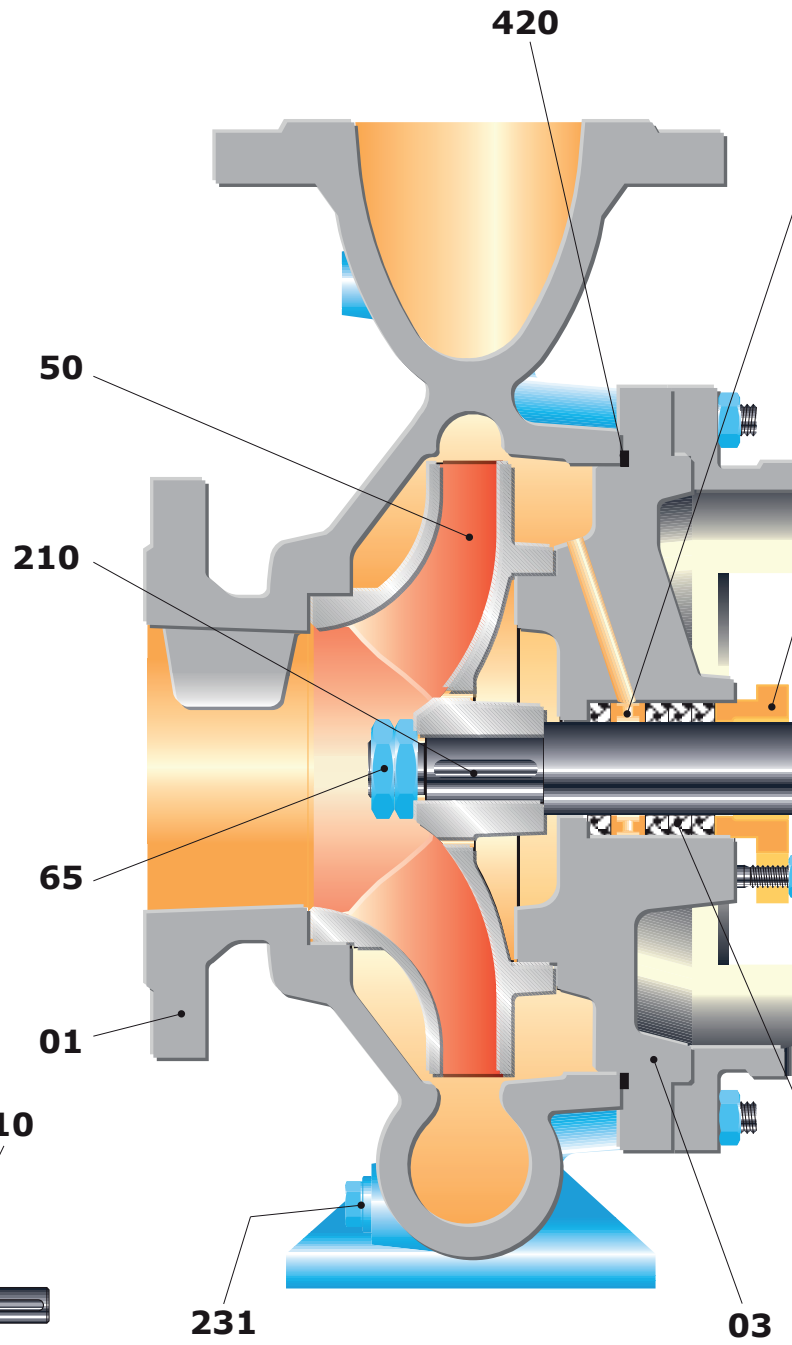
Sectional drawings

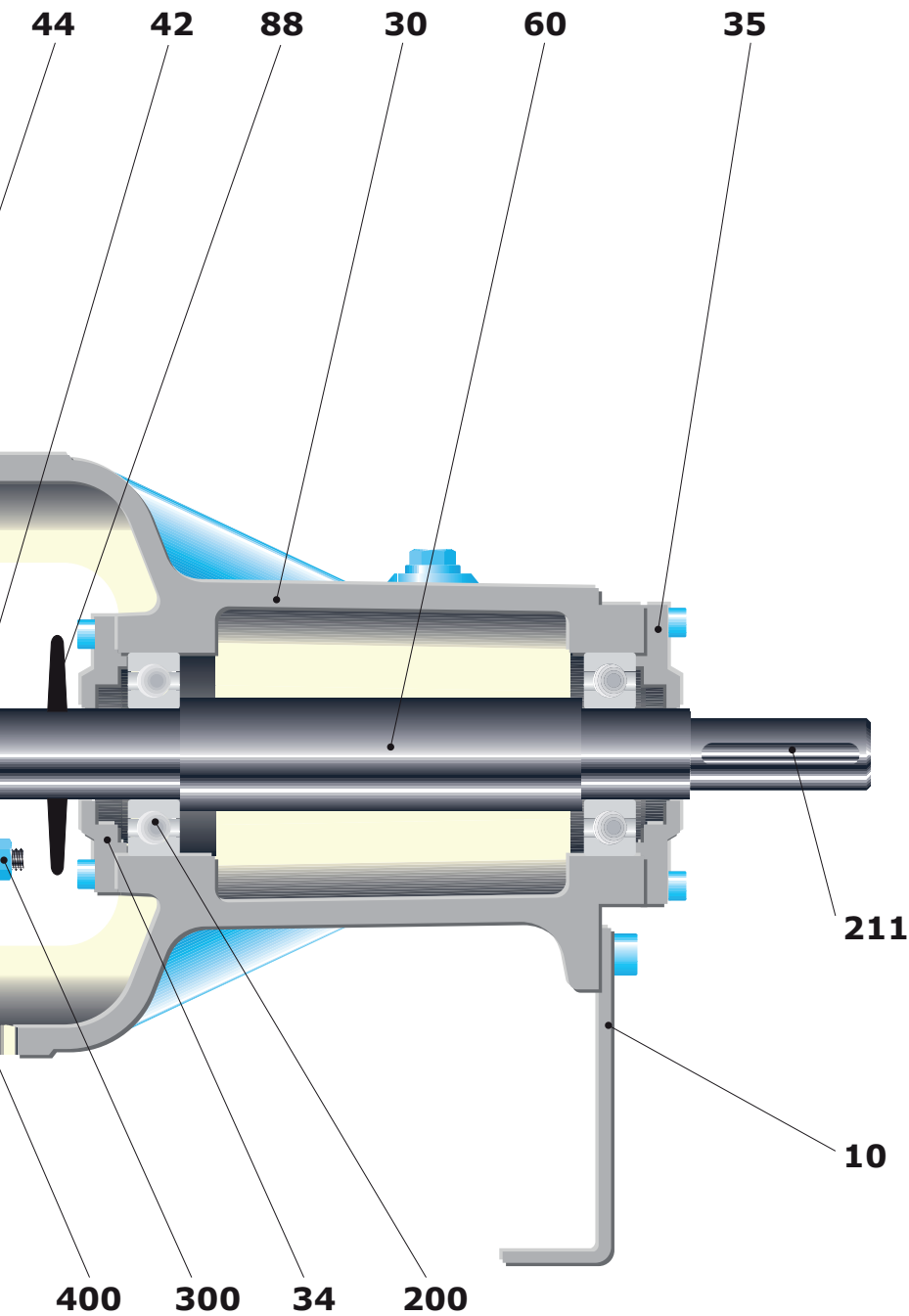


Form D2



Form D3

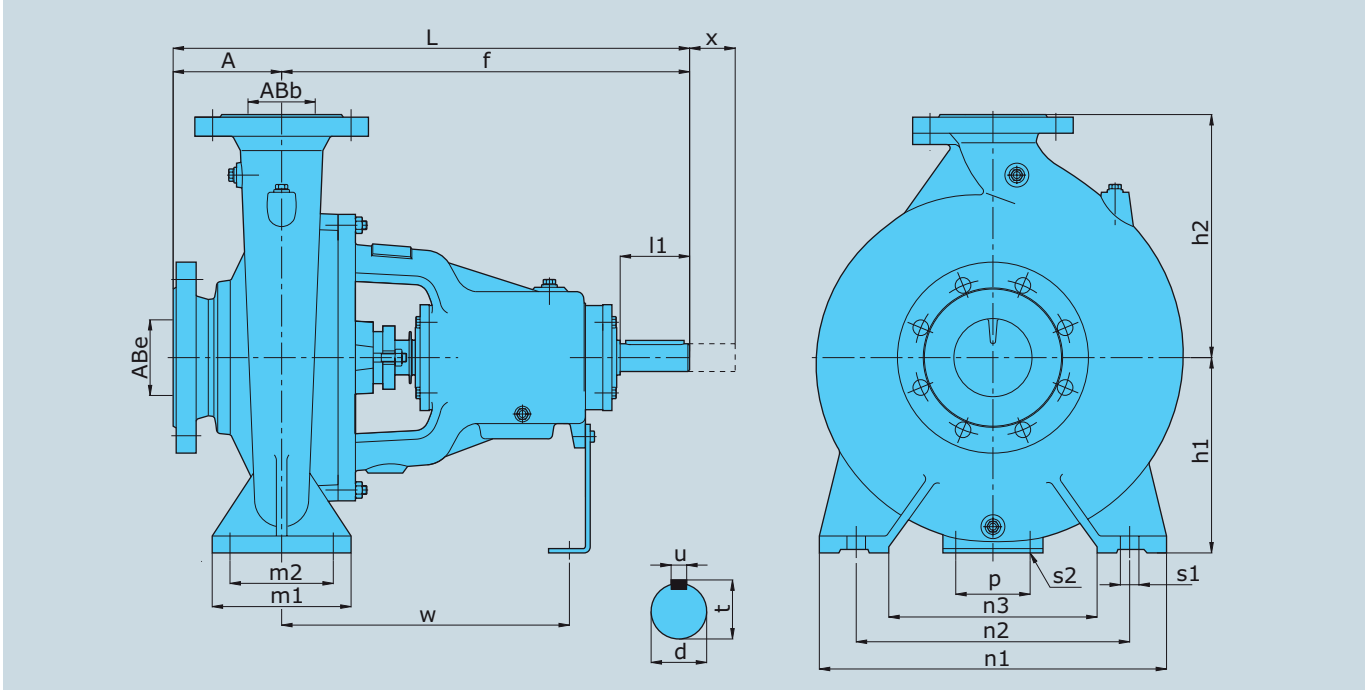




Form D1

Parts List

01	Volute casing
03	Stuffing box cover
10	Frame foot
20	Wear ring (<i>casing</i>)
21	Wear ring (<i>stuffing box cover</i>)
30	Bearing housing
34	Bearing cover
35	Bearing cover
41	Stuffing box with cooling jacket
42	Stuffing box gland
44	Lantern ring
46	Mechanical seal box (<i>type 1</i>)
47	Mechanical seal box (<i>type 2</i>)
48	Mechanical seal housing
49	Mechanical seal cover
50	Impeller
60	Pump shaft
65	Impeller nut
70	Shaft sleeve
88	Deflector
200	Ball bearing
202	Cylindrical roller bearing
203	Spindle bearings
210	Impeller key
211	Coupling key
230	Air plug
231	Drain plug
240	Seal tubing
261	Grease nipple
300	Gland stud and nut
400	Stuffing box packing
410	Oil seal
420	O-Ring

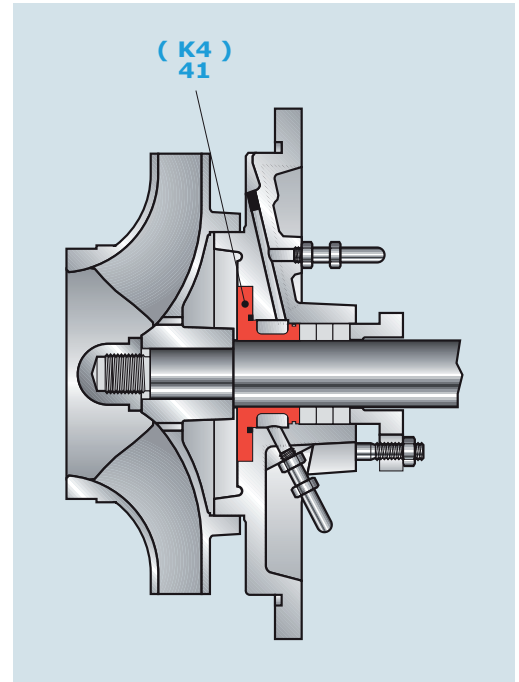
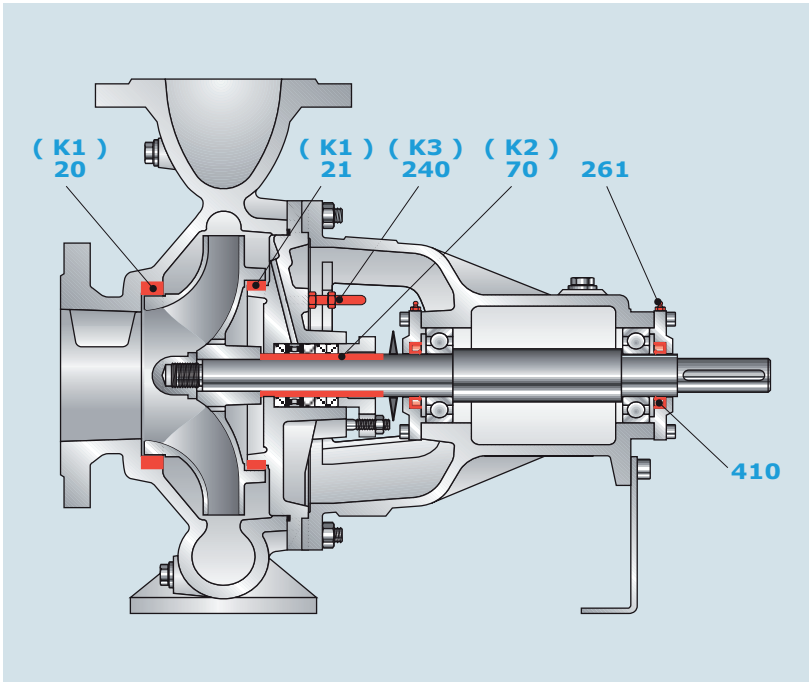


Pump Size		Form	DIMENSIONS (mm)																		Weight (kg)	Space x **			
DIN 24255	Additional		Overall Dimensions						Support & Feet Dimensions						Shaft End										
A	ABb	ABe	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u					
32-125		D1	50	32	80	360	440	112	140	190	140	90	14	110	14	260	24	50	27	8		32	80		
32-160		D1								240	190	140										39			
32-200		D1								240	190	140										41			
	32-250	D2			100		460	180	225	125	95	320	250	190								53	80		
40-125		D1	65	40	80		440	112	140	100	70	210	160	110								33			
40-160		D1						132	160			240	190	140								40			
40-200		D1						160	180			265	212	165	14	110	14	260	24	50	27	8	45	80	
40-250		D2			100		460	180	225	125	95	320	250	190								57			
	40-315	D2						200	250			345	280									67			
50-125		D1	65	50	100	360	460	132	160	100	70	240	190	140								34	80		
50-160		D1						160	180			265	212	165	14	110	14	260	24	50	27	8		42	80
50-200		D1						180	200			265	212	165	14	110	14	260	24	50	27	8		48	
50-250		D2						180	225	125	95	320	250	190								57	100		
	50-315	D2			125	470	595	225	280	125	95	345	280	190	19		340	32	80	35	10	90			
		D2						180	200			280	212	150								40		80	
65-125		D1	80	65	100	360	460	160	200	125	95	280	212	150								46			
65-160		D1						180	225			320	250	190								51	100		
65-200		D1						200	250			360	280	200								90			
65-250		D2			125	470	595	225	280	160	120	400	315	240	19		340	32	80	35	10	105	140		
65-315	65-400	D2						250	315			435	355	275								130			
	65-402*	D2			100	570	695	250	355			435	355	275			430	42	110	45	12	150			
80-160		D1	100	80	125	470	595	180	225	125	95	320	250	190	14		260	24	50	27	8	49	100		
80-200		D1						200	250			345	280	215								63			
80-250		D2						200	280			400	315	240								95		100	
80-315		D2						250	315	160	120	400	315	240	19		340	32	80	35	10	125			
	80-400	D1				530	655	280	355			435	355	275			360	42	110	45	12	175	140		
	100-160	D1			125	470	595	200	280	160	120	360	280	200	19							80			
100-200		D2			125	470	595	225	315	160	120	400	315	240	19		340	32	80	35	10	87	140		
100-250		D2						250	315			400	315	240								100			
100-315		D1			140	530	670	280	355	200	150	500	400	300	23		360	42	110	45	12	130			
100-400		D1				530	670	280	355	200	150	500	400	300	23		360	42	110	45	12	180	140		
	125-200	D1			150	470	610	250	315	160	120	400	315	240	19		340	32	80	35	10	97			
125-250		D1						280	355	200	150	500	400	300	23		360	42	110	45	12	110			
125-315		D1			140	530	670	280	355	200	150	500	400	300	23		360	42	110	45	12	180	140		
125-400		D1						315	400			400	315	240								200			
	150-200	D1			200	470	610	280	375	200	150	500	400	300	23		340	32	80	35	10	150			
	150-250	D2						315	450			550	450	350			360	42	110	45	12	160	140		
150-315		D1			200	530	670	315	450			550	450	350			360	42	110	45	12	190			
150-400		D1						315	450			550	450	350			360	42	110	45	12	230			
	150-500	D2			200	730	930	400	525	250	200	720	600	435	27	140	20	495	55		59	16	480	200	
	200-260	D1			200	610	810	355	450	250	200	600	500	360	23		410	42			45	12	280		
	200-315	D1			200	610	810	355	450	250	200	600	500	360	23		410	42			45	12	300		
	200-400	D2			200	725	905	400	500			600	500	360	23		490	55			59	16	360	160	
	200-500.1	D2			210	750	960	400	525	300	240	720	600	435	27		515	55			59	16	640		
	200-500	D3				925	1135	400	525	300	240	720	600	435	27		640	70	140	74.5	20	640			
	250-315	D1			300	730	960	400	525			720	600	435	27		515	55	110	59	16	390	200		
	250-400	D1			230	750	980	400	525	300	240	720	600	435	27	140	20	530	55		16	460			
	250-500.1	D2			225	765	990	450	630			720	600	435	27	140	20	530	55	110	16	660			
	250-500	D3				940	1165	450	630			720	600	435	27	140	20	670	70	140	74.5	20	660		

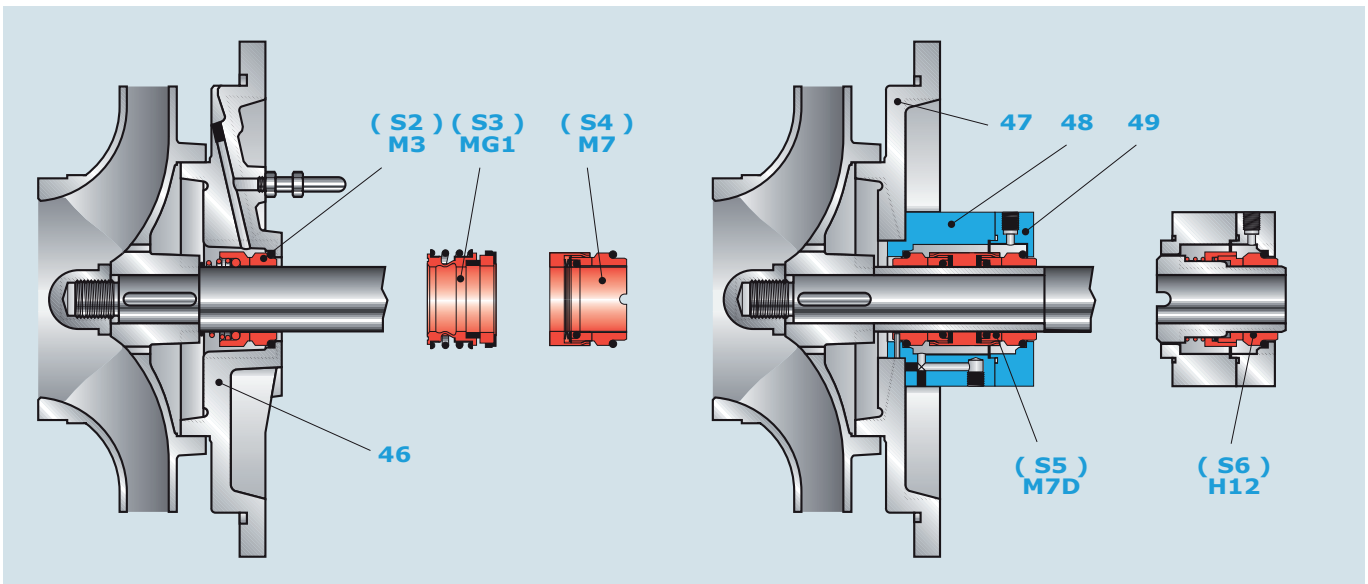
(*) 2 stages

(**) 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).

NOTE : Right reserved to change without notice.



- (K1)** Casing wear rings (front - back)
- (K2)** Shaft sleeve
- (K3)** Sealing fluid from outside source (*for pumping of contaminated and/or malodorous liquids*)
- (K4)** Stuffing box cooling (*105 C° up to 140 C°*)



- (S1)** Different soft packing types (*up to 105 C°*)
- (S2)** M3 Mechanical seal (*up to 10 bar - 140 C°*)
- (S3)** MG1 Mechanical seal (*up to 12 bar - 140C°*)
- (S4)** M7 Mechanical seal (*up to 16 bar - 140C°*)
- (S5)** Double mechanical seal
- (S6)** Balanced mechanical seal

Material Options

Parts List	0.6025	0.7040	1.0619	1.4308	1.4408	1.4404	2.1050.01	1.0501	1.4021	1.4301	1.4401	1.4404	1.4138	2.1090.01
Volute casing	●	○	○	○	○	○	○							
Stuffing box cover	●	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○							
Shaft								●	○	○	○	○		
Bearing housing	●	○	○	○	○	○	○							
Wear ring (Casing)	○	○											○	○
Shaft protecting sleeve							○	○		○	○		○	○
Mechanical seal (*)	DIN 24960 / EN 12756													

● **Standard manufacturing**
○ **Optional**

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

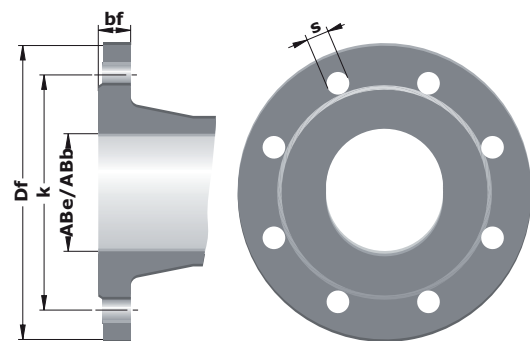
Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast iron	0.6025	GJL-250 (GG 25)	A 48 Class 40-B
Nodular cast iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome nickel cast steel	1.4308	G-X6 Cr Ni 18.9	A 351-75 Grade CF8
Chrome nickel molybdenum cast steel	1.4408	G-X6 Cr Ni Mo 18.10	A 351-75 Grade CF8M
Chrome nickel molybdenum cast steel (low carbon)	1.4404	G-X2 Cr Ni Mo 18.10	A 167-74 Type 316 L
Chrome molybdenum cast steel	1.4138	G-X120 Cr Mo 29.2	-
Cast bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Cast bronze	2.1090.01	G-Cu Sn 7 Zn Pb	B 584 C 93200
Chrome steel	1.0501	C 35	576-74 Grade 1035
Chrome steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome nickel steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome nickel molybdenum steel	1.4401	X5 Cr Ni Mo 18.10	A 276 Type 316
Chrome nickel molybdenum steel (Low carbon)	1.4404	X2 Cr Ni Mo 18.10	A 167-74 Type 316 L

Flange dimensions

Pump Type	Suction (PN 16)						Discharge (PN 16)					
	ABe	Df	k	s	n	bf	ABb	Df	k	s	n	bf
32	40	150	110	18	4	18	32	140	100	18	4	18
40	50	165	125	18	4	20	40	150	110	18	4	18
50	65	185	145	18	4	20	50	165	125	18	4	20
65	80	200	160	18	8	22	65	185	145	18	4	20
80	100	220	180	18	8	24	80	200	160	18	8	22
100	125	250	210	18	8	26	100	220	180	18	8	24
125	150	285	240	23	8	26	125	250	210	18	8	26
150	200	340	295	23	12	30	150	285	240	23	8	26
200	250	405	355	27	12	32	200	340	295	23	12	30
250	300	460	410	27	12	32	250	405	355	27	12	32

" n " number of holes



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