

Layne Bowler

Single Stage Norm Centrifugal Pumps

SNT

ISO 9001



motralec

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Handled Liquids :

SNT Type pump 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 m ³ /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 and irrigation
- Water treatment
- Air conditioning
- Cooling plants
- Food and beverage processing
- Paper and cellulose industries
- Chemical and petrochemical industries
- Fire - fighting
- Power plants

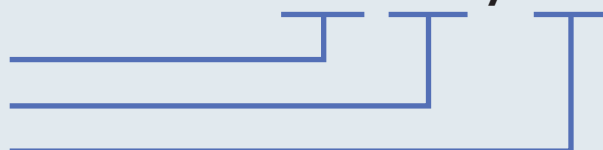
Design Feature

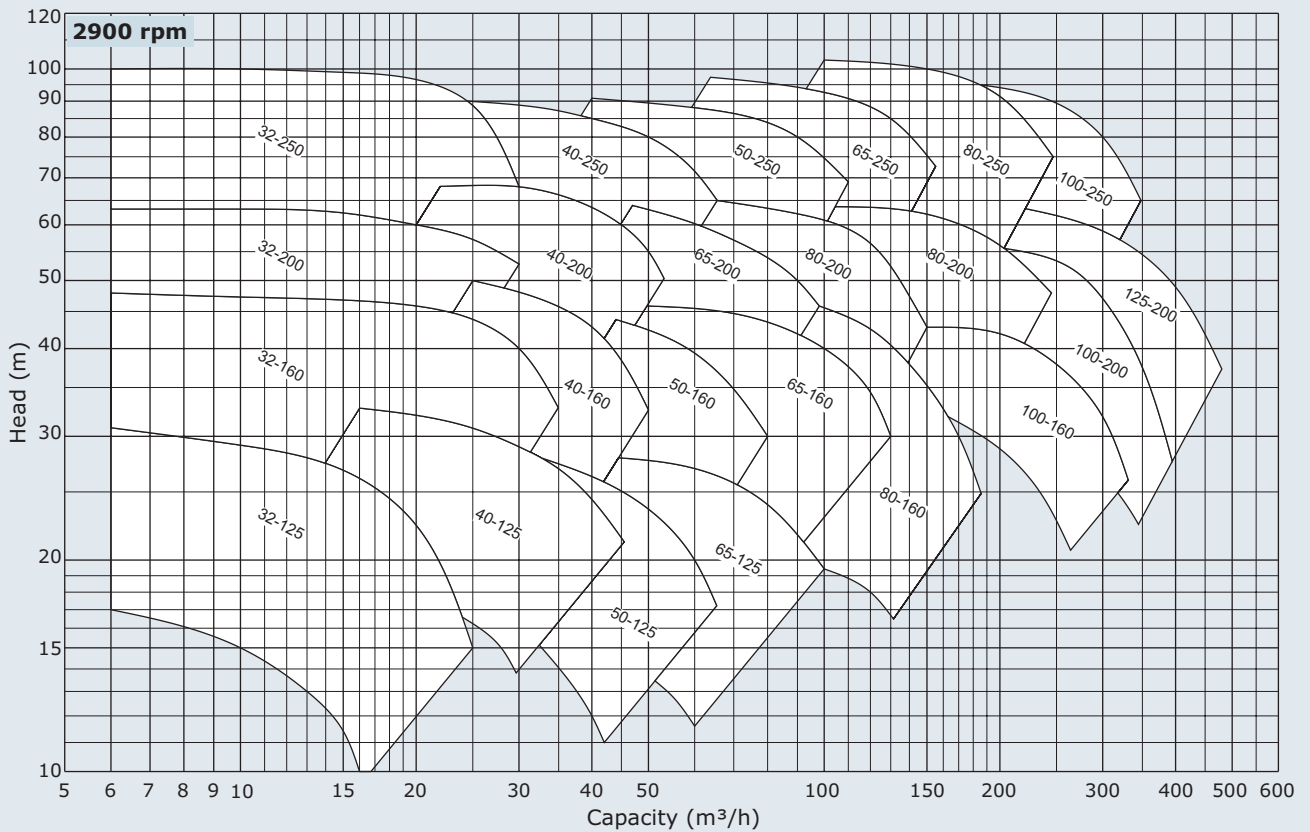
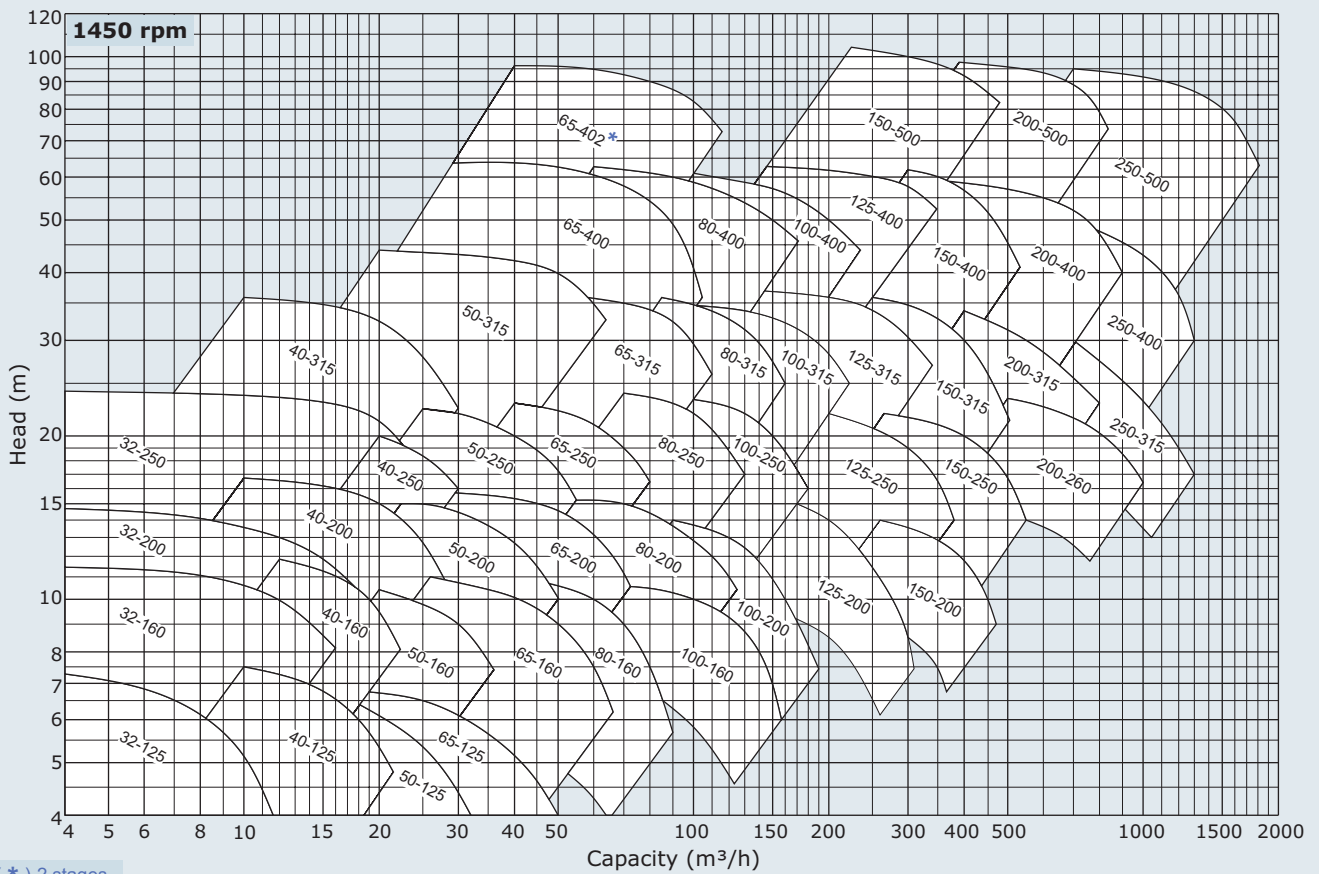
- Horizontal , radially split volute casing type , single stage , end suction centrifugal pump with enclosed impeller.
- Dimensionally complies with DIN 24255 / EN 733.
- In addition to 29 basic sizes conforming with DIN 24255 / EN 733 , there are 20 additional sizes. Dimensions of additional sizes can differ from other suppliers.
- The suction and discharge flanges are conforming to DIN 2533 , PN 16.
- Due to the back-pull-out design the complete bearing assembly including impeller and shaft seal can be dismantled without removing the volute casing from the pipe system.
- All impellers are dynamically balanced according to ISO 1940 class 6.3 .
- Oil lubricated or life time grease-lubricated heavy duty rolling bearings depending on construction and request.
- Axial thrust is balanced by back wear ring / balancing holes system.

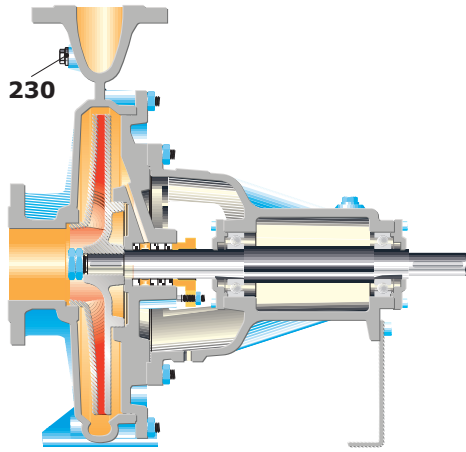
Pump Designation

SNT 100 / 250

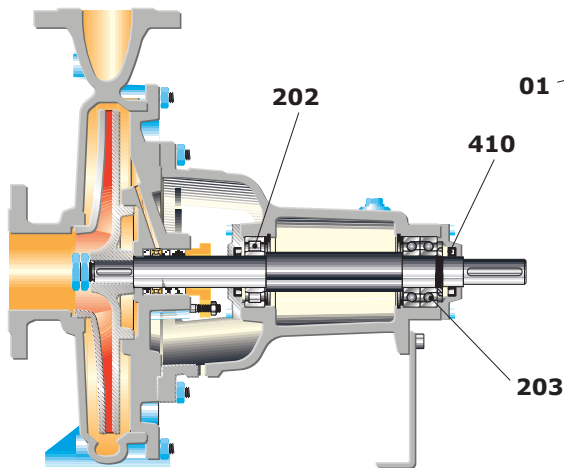
Pump type
 Discharge nozzle (DN)
 Nominal impeller diameter



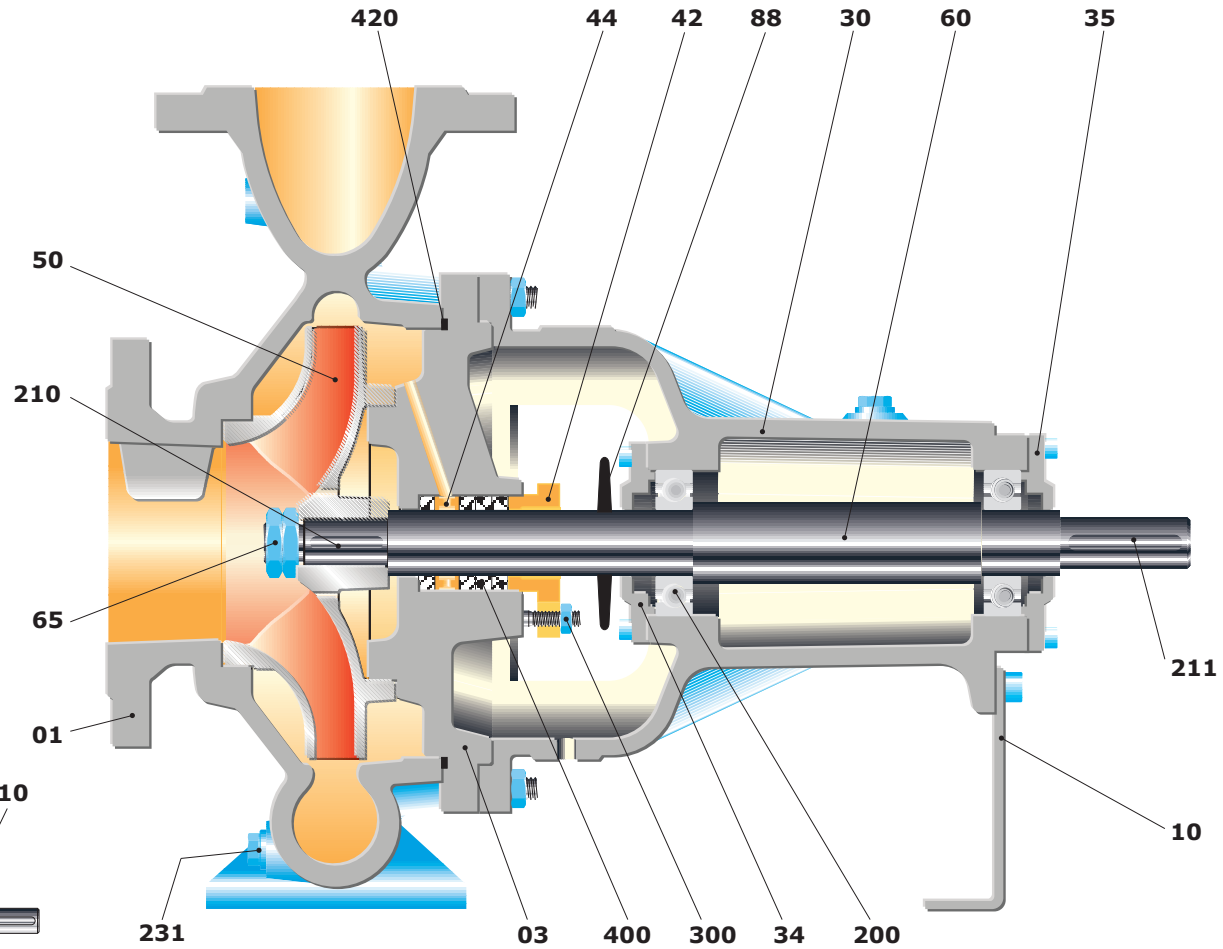




Form D2



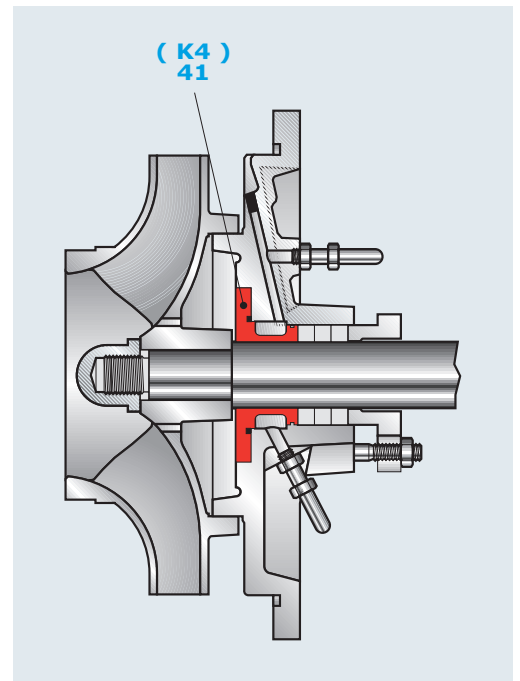
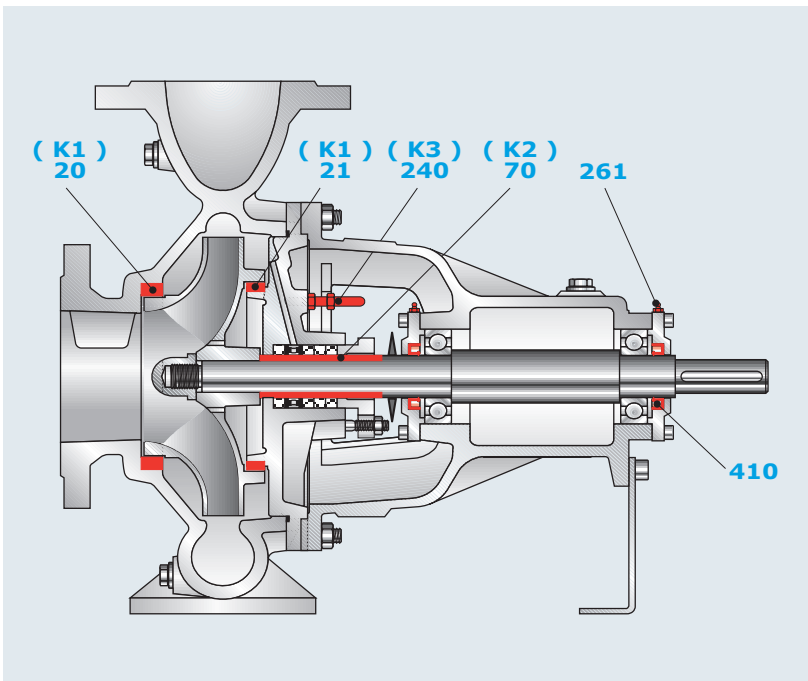
Form D3



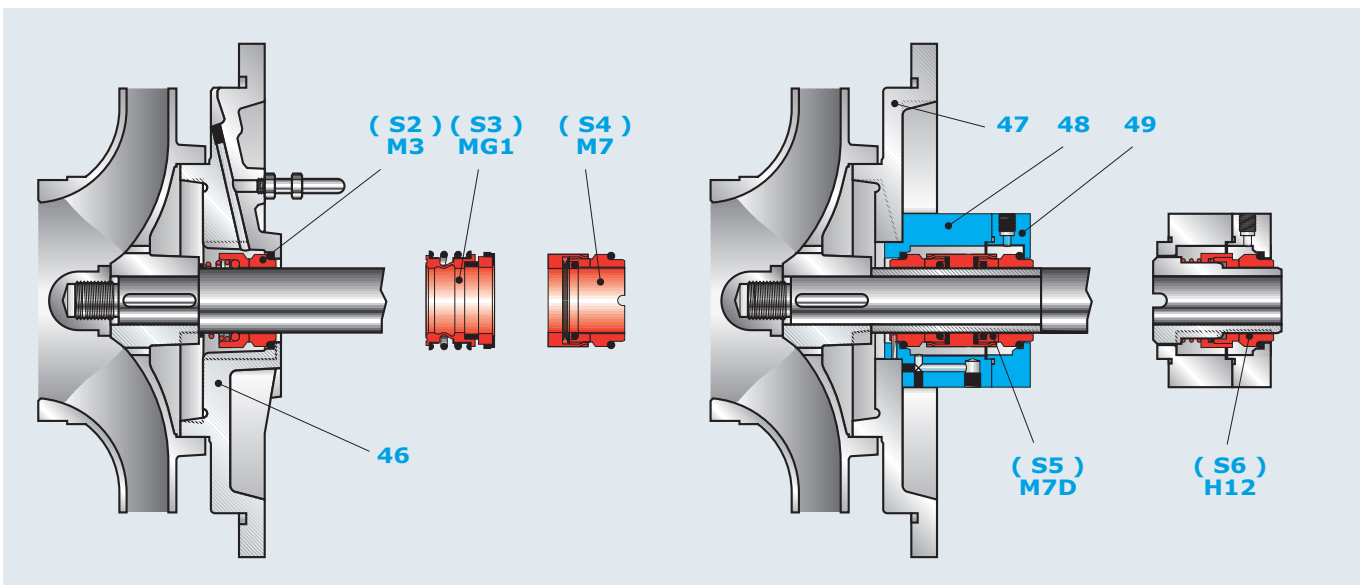
Form D1

Parts List

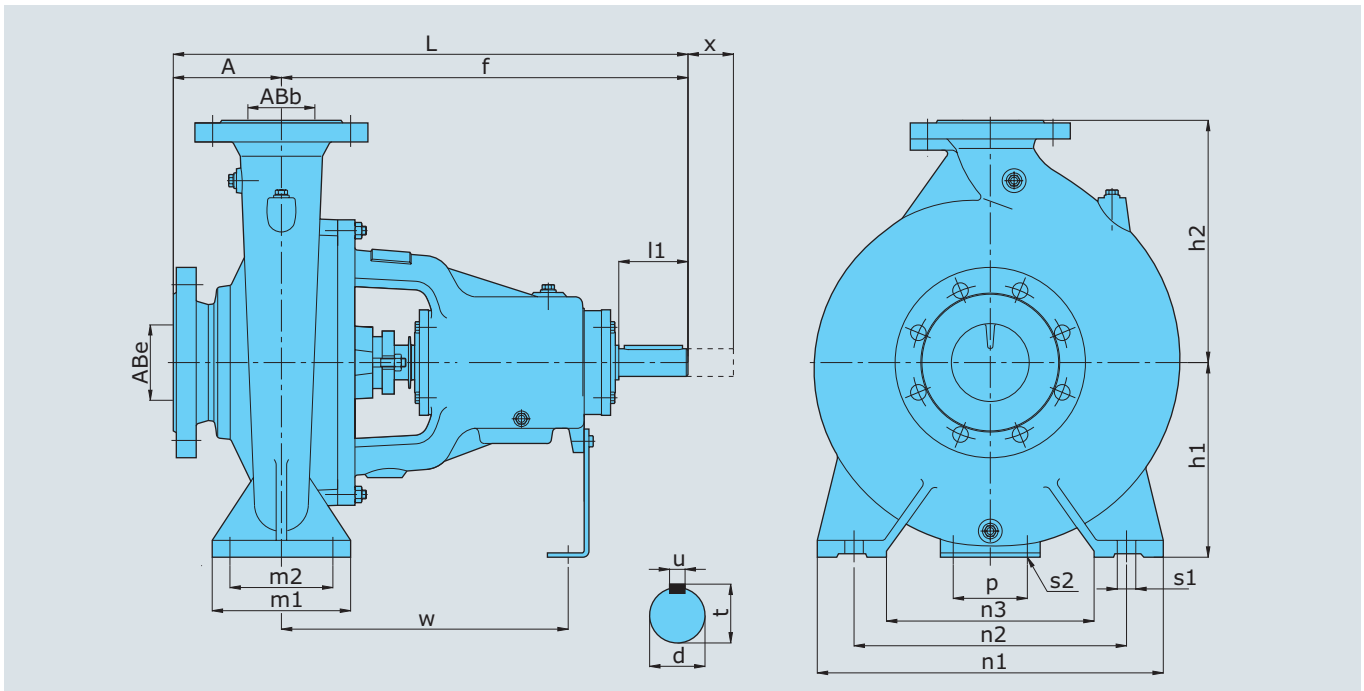
- 01 Volute casing
- 03 Stuffing box cover
- 10 Frame foot
- 20 Wear ring (casing)
- 21 Wear ring (stuffing box cover)
- 30 Bearing housing
- 34 Bearing cover
- 35 Bearing cover
- 41 Stuffing box with cooling jacket
- 42 Stuffing box gland
- 44 Lantern ring
- 46 Mechanical seal box (type 1)
- 47 Mechanical seal box (type 2)
- 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



- (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



Pump Size		Form	DIMENSIONS (mm)																	Weight (kg)	Space x**							
DIN 24255	Additional		Overall Dimensions					Support & Feet Dimensions							Shaft End													
		ABe	ABb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u							
32-125		50	32	80	360	440	112	140	100	70	190	140	90	14	110	14	260	24	50	27	8	32	80					
32-160							132	160														160		180	53			
32-200							160	180														53						
	32-250			100	460	180	225	125	95	320	250	190										53						
40-125		65	40	80	360	440	112	140	100	70	240	190	140	14	110	14	260	24	50	27	8	33	80					
40-160							132	160														160		180	40			
40-200							160	180														40						
40-250							180	225														125		95	320	250	190	57
							200	250														190		67				
	40-315			100	460	132	160	125	95	240	190	140										34						
50-125		65	50	100	360	460	160	180	100	70	265	212	165	14	110	14	260	24	50	27	8	42	80					
50-160							180	200														48						
50-200							180	225														57						
50-250				125	470	595	225	280	125	95	320	250	190									57						
	50-315			80	125	470	595	225	280	125	95	345	280	190	19		340	32	80	35	10	90	100					
65-125		80	65	100	360	460	160	180	125	95	280	212	150	14	110	14	260	24	50	27	8	40	80					
65-160							180	225														46						
65-200							200	250														51						
65-250							225	280														90						
65-315							250	355														105						
	65-400			125	570	695	250	355	160	120	400	315	240	19		340	32	80	35	10	130	140						
	65-402*			100	570	695	250	355	160	120	435	355	275			430	42	110	45	12	150							
80-160		100	80	125	360	485	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	49	100					
80-200							200	250														63						
80-250							250	315														95						
80-315							280	355														125						
							315	355														125						
	80-400			100	530	655	280	355	160	120	435	355	275			360	42	110	45	12	175	140						
	100-160			125	530	655	280	355	160	120	435	355	275			360	42	110	45	12	175	140						
100-200		125	100	140	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	80	140					
100-250							225	280														87						
100-315							250	315														100						
100-400				140	530	670	280	355	200	150	500	400	300	23		360	42	110	45	12	180							
	125-200			125	530	670	280	315	200	150	500	400	300	23		360	42	110	45	12	180							
125-250		150	125	140	470	610	250	355	160	120	400	315	240	19	110	14	340	32	80	35	10	97	140					
125-315							280	355														110						
125-400							315	400														180						
							355	400														200						
							400	450														200						
	150-200			150	470	610	280	355	200	150	500	400	300	23		340	32	80	35	10	150							
	150-250			200	470	610	280	375	200	150	550	450	350			340	32	80	35	10	160							
150-315		200	150	160	530	670	315	450	200	150	550	450	350	23	110	14	360	42	110	45	12	190	140					
150-400							400	450														230						
							450	450														230						
	150-500			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	200-260			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	200-315			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	200-400			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	200-500.1			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	200-500			250	530	670	315	450	250	200	720	600	435	27	140	20	495	55			59	16	480					
	250-315			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	390						
	250-400			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	460						
	250-500.1			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
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	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						
	250-500			300	730	930	400	525	300	240	720	600	435	27	140	20	515	55	110	59	16	660						

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							○	○		○	○		○	○

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

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

Mechanical seal (*) **DIN 24960 / EN 12756**

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

