

# LayneBowler

## Single Stage Norm Centrifugal Pumps



**SNT**

**Handled Liquids :**

**SNT Type pump are suitable for clean or slightly contaminated liquids with low viscosity.**

**Technical Data**

<b>Discharge Nozzle Range</b>	DN 32 up to 250 mm
<b>Capacities</b>	up to 1700 m <sup>3</sup> /h
<b>Heads</b>	up to 100 m
<b>Speed</b>	1450 - 2900 rpm
<b>Operating Temperature</b>	-10 °C up to 140 °C
<b>Casing Pressure (Pmax)</b>	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

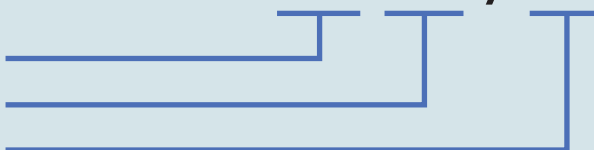
**Design Feature**

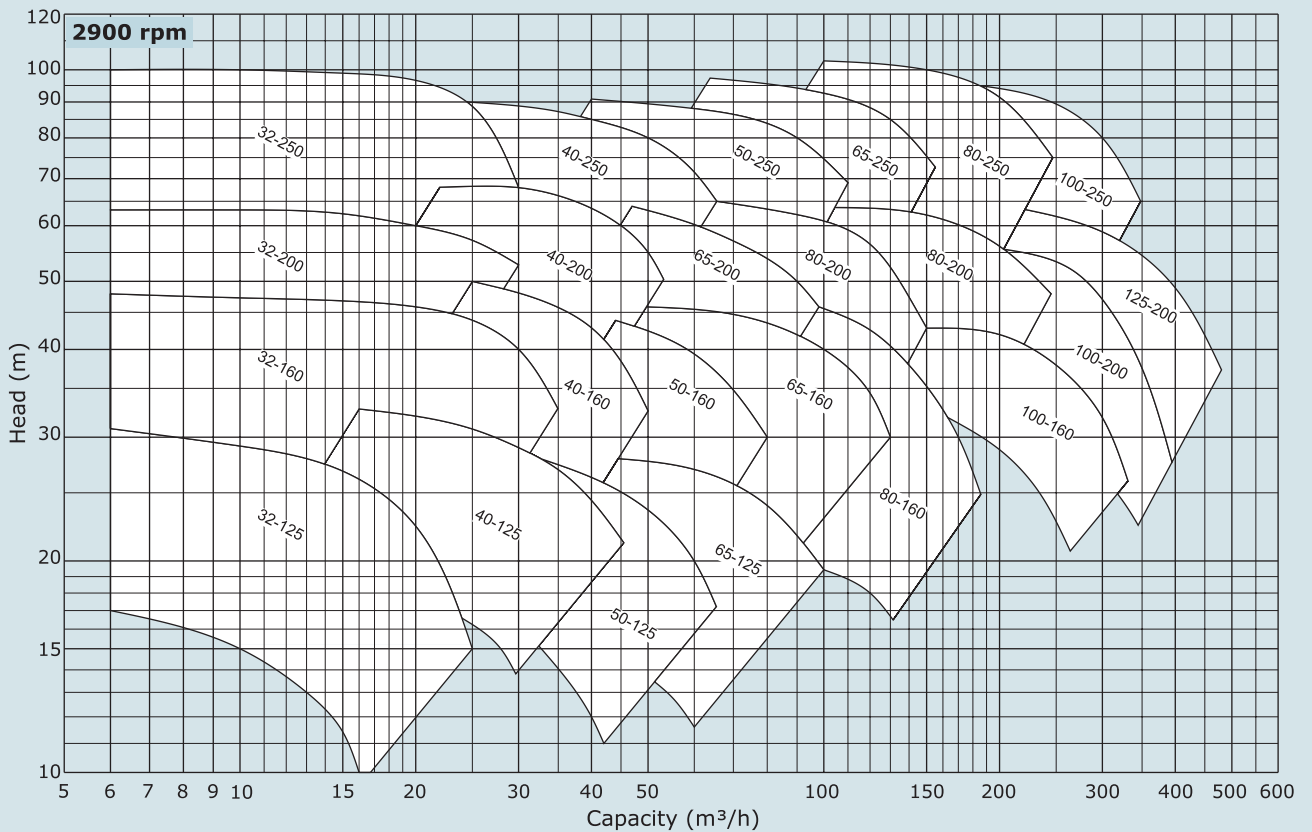
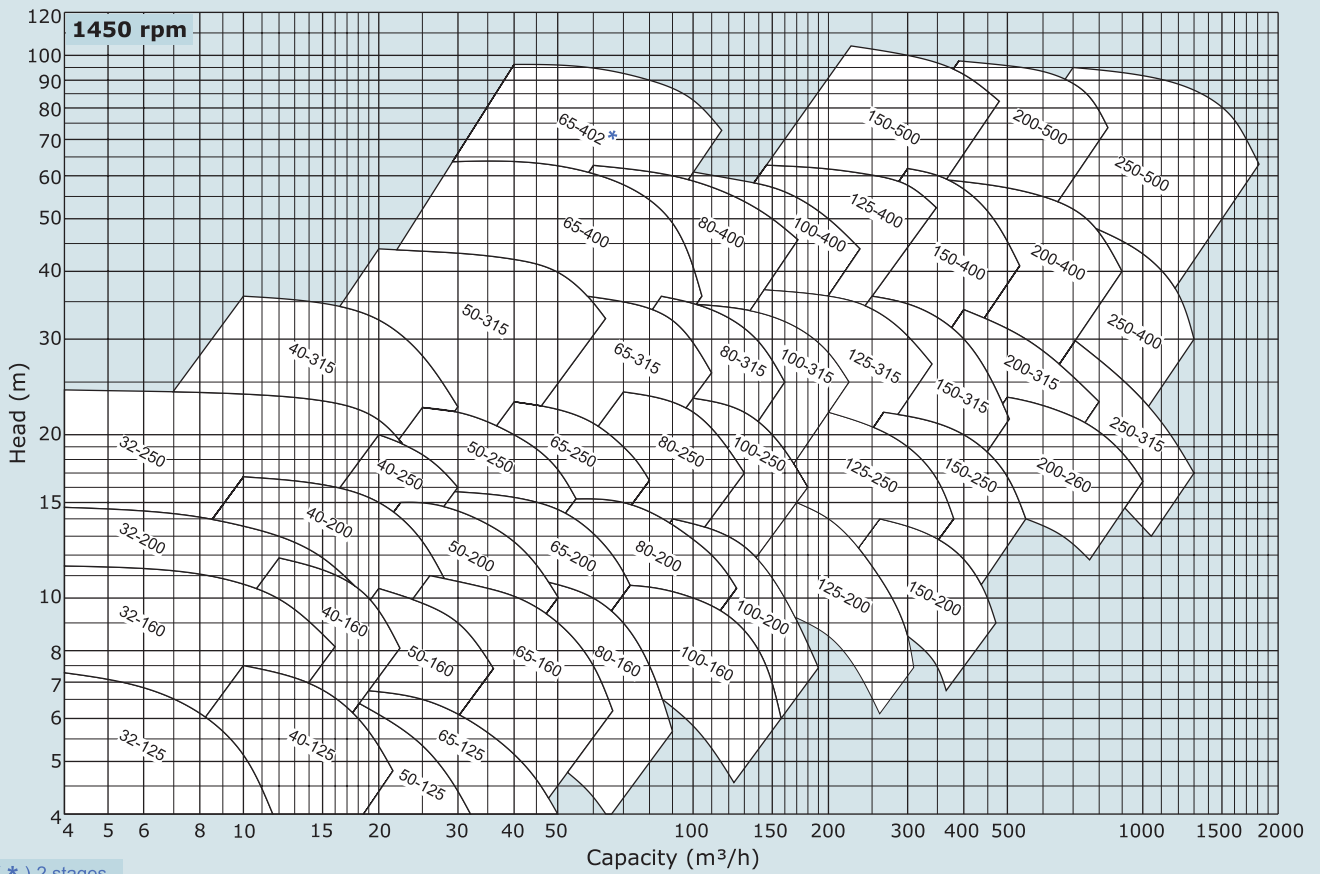
- Horizontal , radially split volute casing type , single stage , end suction centrifugal pump with enclosed impeller.
- Dimensionally complies with DIN 24255 / EN 733.
- In addition to 29 basic sizes conforming with DIN 24255 / EN 733 , there are 20 additional sizes. Dimensions of additional sizes can 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**

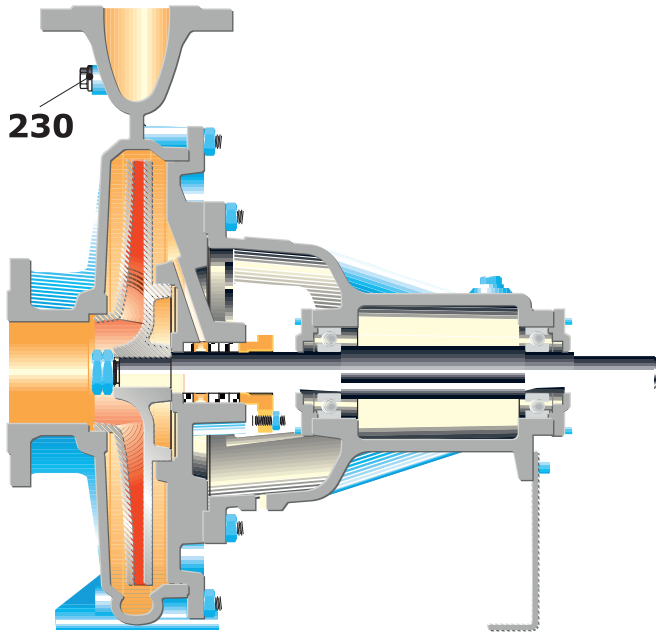
**SNT 100 / 250**

Pump type  
 Discharge nozzle (DN)  
 Nominal impeller diameter

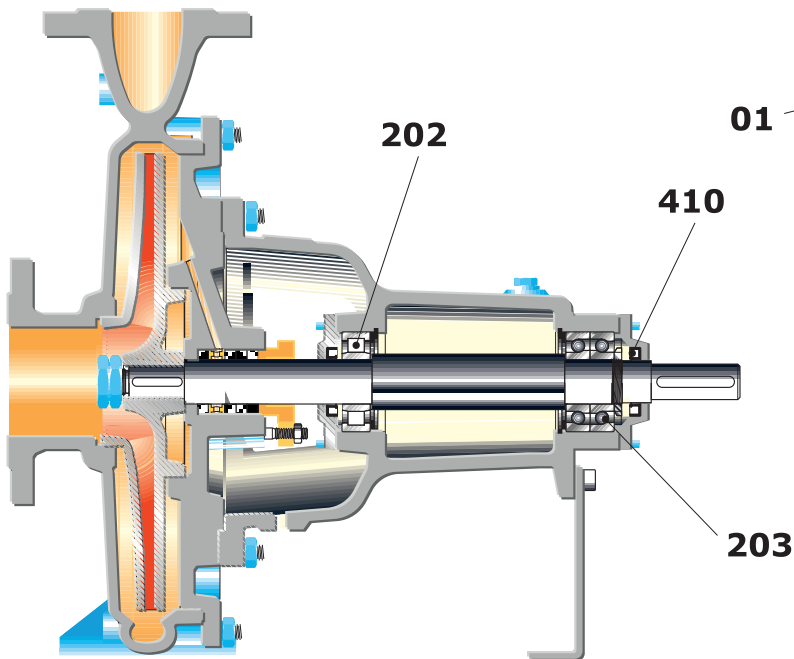




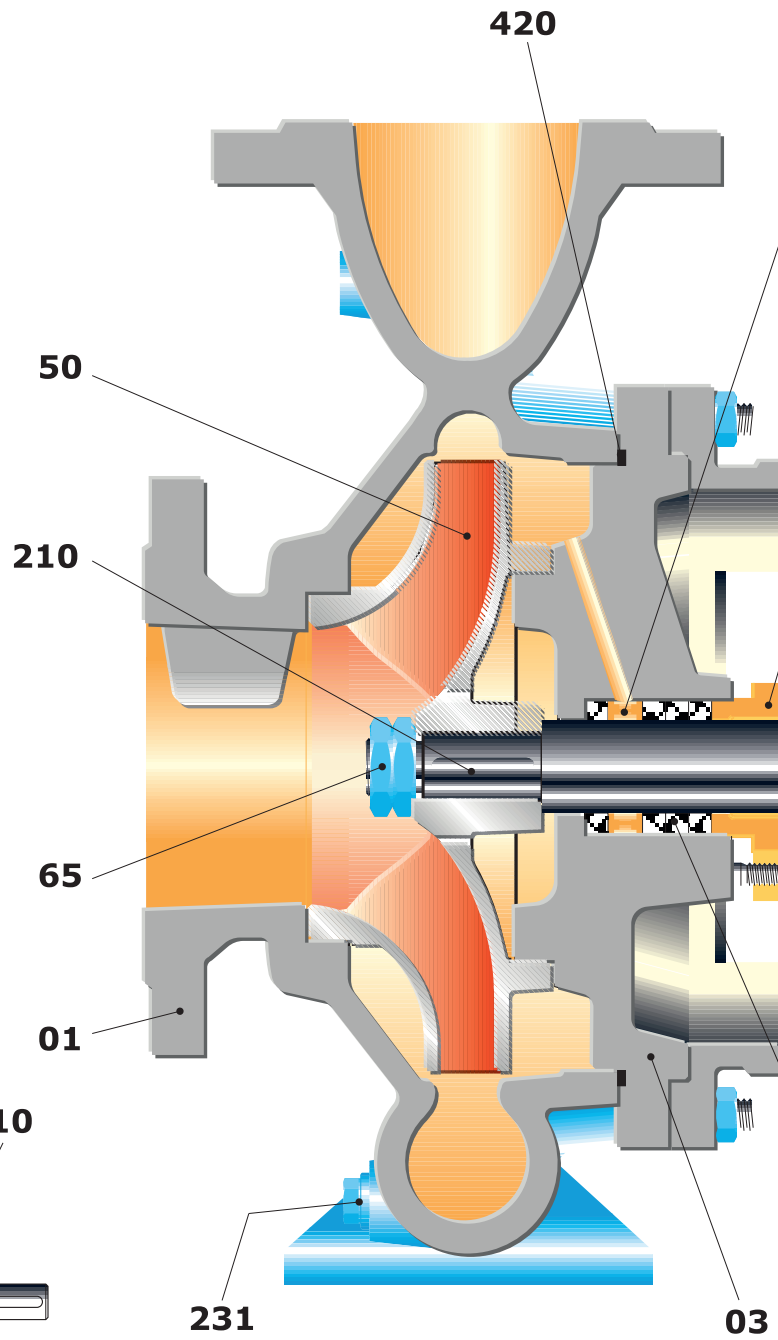
Sectional drawings

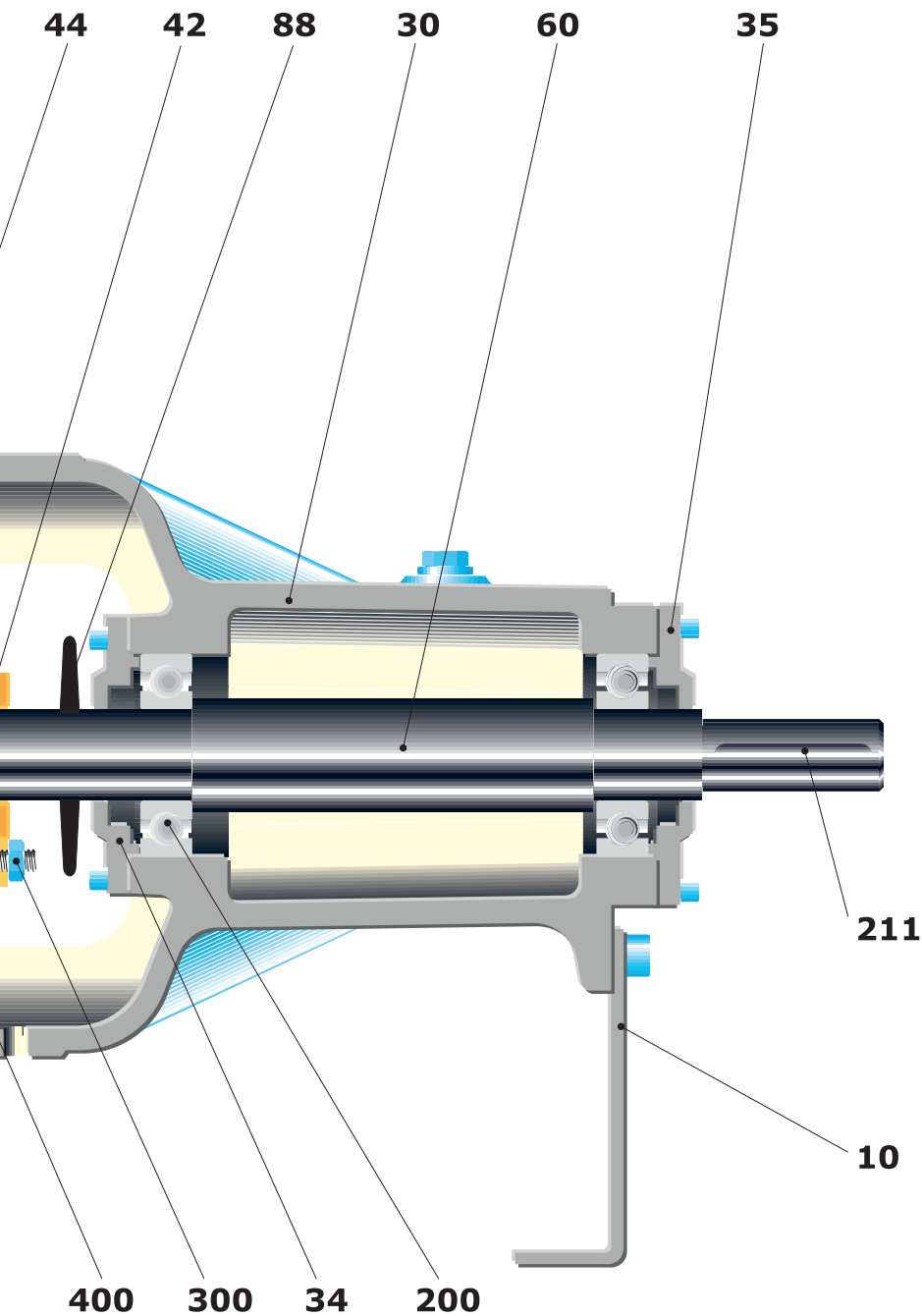


Form **D2**



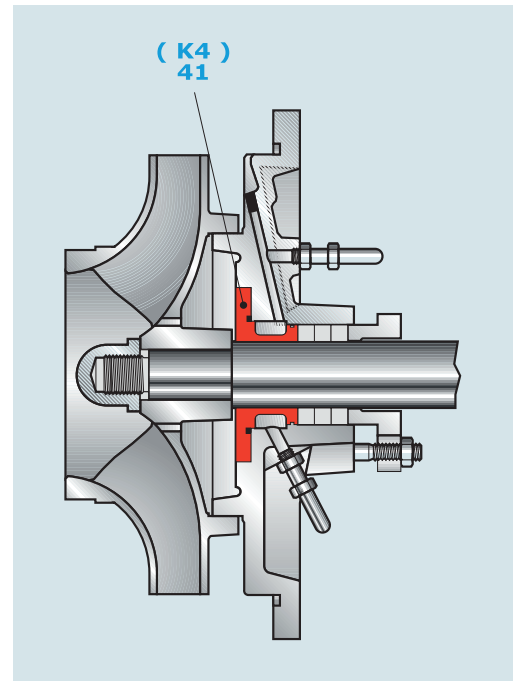
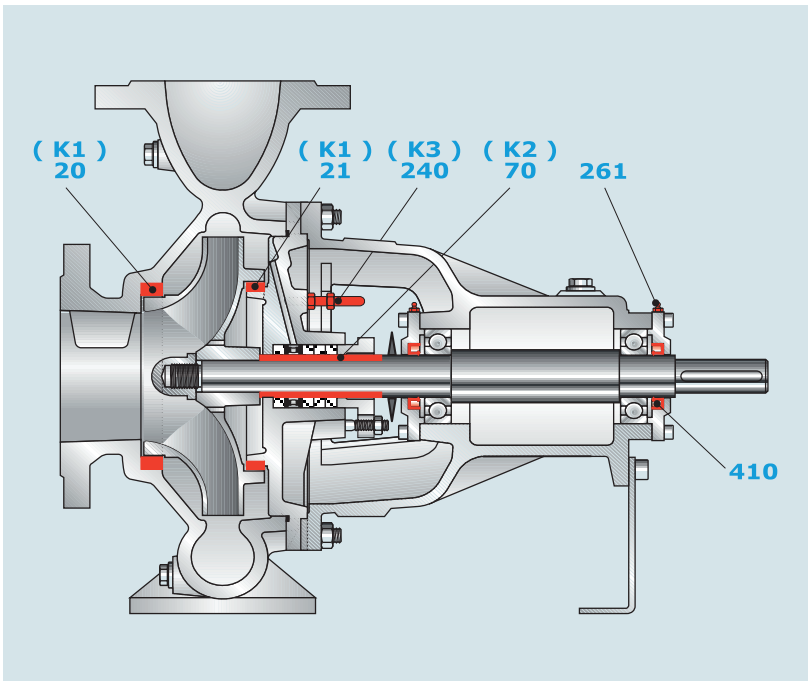
Form **D3**



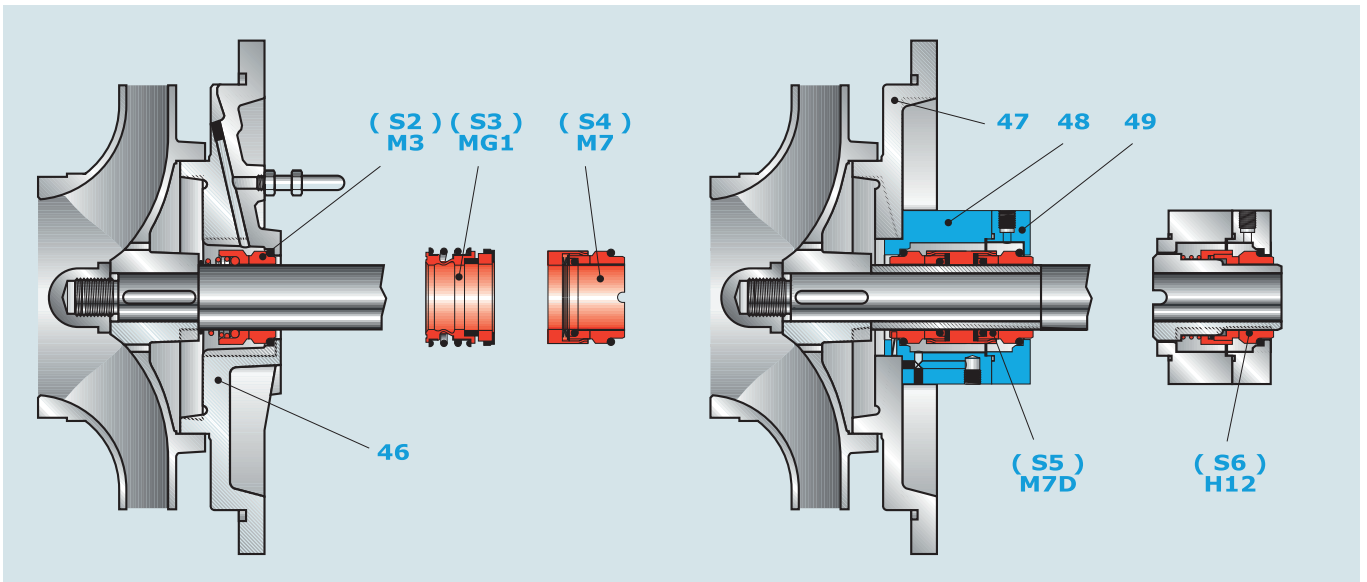
Form **D1**

## Parts List

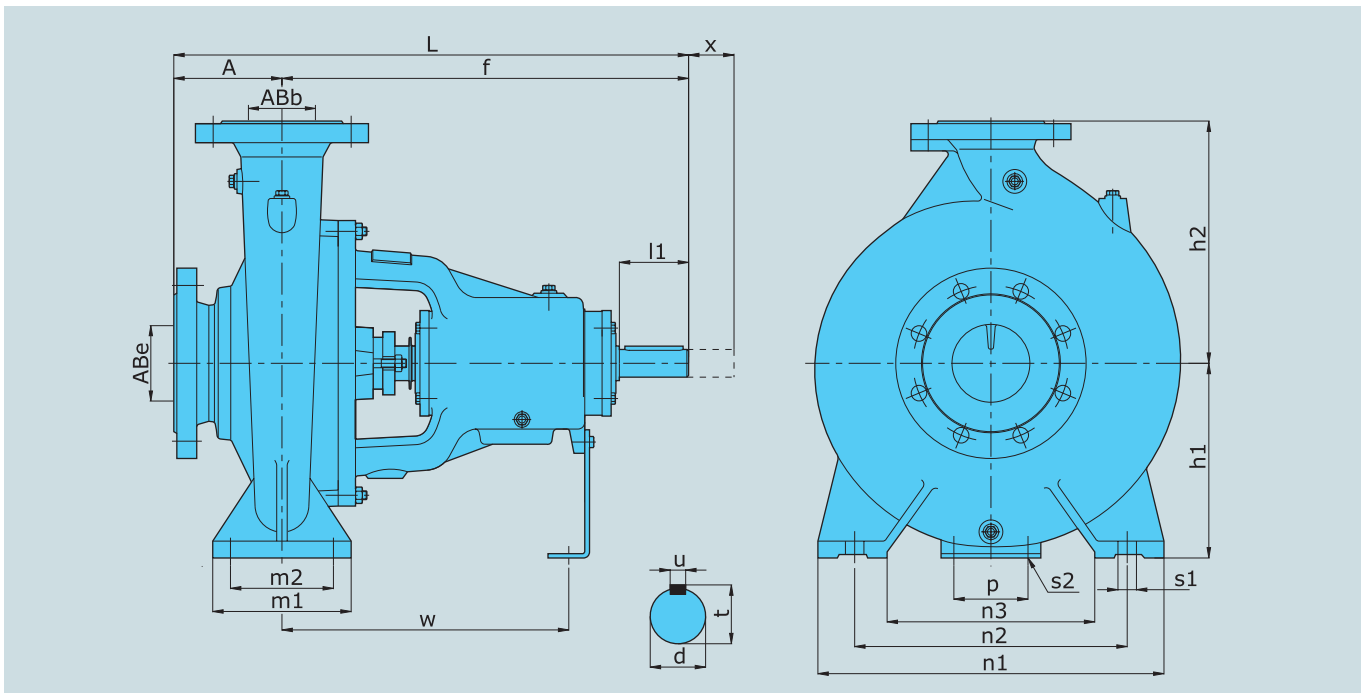
<b>01</b>	Volute casing
<b>03</b>	Stuffing box cover
<b>10</b>	Frame foot
<b>20</b>	Wear ring ( <i>casing</i> )
<b>21</b>	Wear ring ( <i>stuffing box cover</i> )
<b>30</b>	Bearing housing
<b>34</b>	Bearing cover
<b>35</b>	Bearing cover
<b>41</b>	Stuffing box with cooling jacket
<b>42</b>	Stuffing box gland
<b>44</b>	Lantern ring
<b>46</b>	Mechanical seal box ( <i>type 1</i> )
<b>47</b>	Mechanical seal box ( <i>type 2</i> )
<b>48</b>	Mechanical seal housing
<b>49</b>	Mechanical seal cover
<b>50</b>	Impeller
<b>60</b>	Pump shaft
<b>65</b>	Impeller nut
<b>70</b>	Shaft sleeve
<b>88</b>	Deflector
<b>200</b>	Ball bearing
<b>202</b>	Cylindrical roller bearing
<b>203</b>	Spindle bearings
<b>210</b>	Impeller key
<b>211</b>	Coupling key
<b>230</b>	Air plug
<b>231</b>	Drain plug
<b>240</b>	Seal tubing
<b>261</b>	Grease nipple
<b>300</b>	Gland stud and nut
<b>400</b>	Stuffing box packing
<b>410</b>	Oil seal
<b>420</b>	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														57																				
	32-250			100		460	180	225	125	95	320	250	190									41																				
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							180	225														125		95	265	212	165													45		
40-250							200	250														190			320	250	190														57	
	40-315																					100			460	180	225	125	95	345	280	190									67	
																										132	160			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	225														125		95	320	250	190													48		
50-200							200	250														190			345	280	190														57	
50-250							225	280														125		95	345	280	190														67	
	50-315			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														125		95	320	250	190													46		
65-200							200	250														190			360	280	200														51	
65-250							225	280														125		95	400	315	240														90	
65-315							250	355														160		120	435	355	275														105	
	65-400																					125			470	595	225	280	125	95	345	280	190	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	470	595	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	49	100																			
80-200							200	280														125		95	345	280	215													63		
80-250							225	315														160		120	400	315	240														95	
80-315							250	315														160		120	400	315	240	19													125	
	80-400			125	530	655	280	355	160	120	435	355	275				360	42	110	45	12	175	140																			
	100-160			125	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	80																				
100-200		125	100	140	530	670	225	315	200	150	500	400	300	23	110	14	360	42	110	45	12	87	140																			
100-250							250	315														200		150	500	400	300	23	110	14	360	42	110	45	12	180						
100-315							280	355														160		120	400	315	240	19												97		
100-400							315	400														200		150	500	400	300	23	110	14	360	42	110	45	12	200						
	125-200			140	470	610	250	355	160	120	400	315	240	19			340	32	80	35	10	110																				
125-250		150	125	140	530	670	280	355	200	150	500	400	300	23	110	14	360	42	110	45	12	180	140																			
125-315							315	400														200		150	500	400	300	23	110	14	360	42	110	45	12	200						
125-400							355	400														200		150	500	400	300	23	110	14	360	42	110	45	12	200						
	150-200																					160		470	610	280	375	200	150	500	400	300	23	110	14	340	32	80	35	10	150	
	150-250			160	530	670	315	450	200	150	550	450	350				360	42	110	45	12	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														200		150	550	450	350	23	110	14	360	42	110	45	12	230						
	150-500																					200		730	930	400	525	250	200	720	600	435	27	140	20	495	55			480		
	200-260																					200		610	810	355	450	250	200	600	500	360	23	140	20	410	42	110	45	12	280	200
	200-315			200	180	725	905	500	250	200	600	500	360	23	140	20	490	55	110	59	16	300																				
	200-400			200	210	750	960	400	300	240	720	600	435	27			515					360																				
	200-500.1			210	925	1135	525	525	300	240	720	600	435	27			640	70	140	74.5	20	640																				
	250-315			230	730	960	400	525	300	240	720	600	435	27			515	55	110	59	16	390																				
	250-400			230	750	980	400	525	300	240	720	600	435	27	140	20	530					460																				
	250-500.1			225	765	990	450	630	300	240	720	600	435	27	140	20	670	70	140	74.5	20	660																				
	250-500			225	940	1165	450	630	300	240	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.

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 (*)	<b>DIN 24960 / EN 12756</b>													

- **Standard manufacturing**
- **Optional**

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

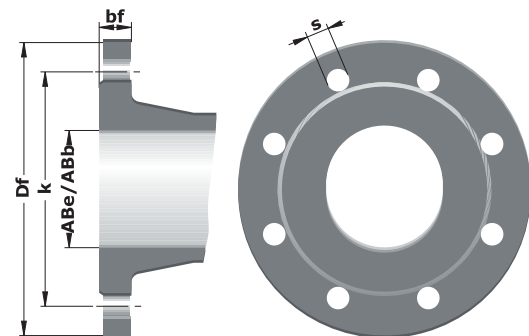
Material Equivalents

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



# LayneBowler

TASTE THE ENGINEERING

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