



ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C

TECHNICAL DATA

Output:	max. 600 m ³ /h
Delivery head:	max. 90 m
Speed:	max. 3600 rpm
Temperature:	max. 207 °C
Casing pressure:	PN 25
Shaft sealing:	balanced standard mechanical seal, uncooled
Flange connections:	DIN EN 1092-2 PN 40
Direction of rotation:	clockwise, when looking at the pump from the drive end



APPLICATION

The volute pumps of the series ZDND are part of the overall programme heat transfer and circulation pumps. They are primarily used for circulation of **hot water** in closed pipe and vessel systems.

Therefore their fields of application are

- the energy production
- heat transport and
- the industry

and here mainly in systems where hot water as heat carrier is given preference, despite is high system pressure, over oil as heat carrier.

DESIGN

Horizontal, single-stage volute casing pumps with the dimensions and nominal ratings to **DIN EN 22858** in back pull out design, with uncooled balanced mechanical seal.

The series **ZDND** has especially been designed for the trouble free handling of hot water up to 207°C and is distinguished by:

- A *double heat barrier* that causes an optimal energy consumption by the pump and reduces the temperature level in the mechanical seal chamber to less than 90 °C without external cooling circuit (see temperature curve on page 3). The service life of the mechanical seal increases considerably.
- A special design that automatically leads accumulation of gas to exhaust. Consequently the dry operation of the mechanical seal can be excluded.
- A programme that comprehends 22 construction sizes and thus guarantees an optimal solution for every operating point.
- The back pull out design, which permits the removal of the complete, bearing unit towards the drive side without removing the pump casing from the pipe work. If a spacer coupling is installed it is also unnecessary to disconnect the motor.

CONSTRUCTION

Casing pressure

Max. 25 bar from 0 °C up to 207 °C

Please note:

Technical rules and safety regulations.

Casing pressure = inlet pressure + zero head
max. test pressure = 33 bar

Flanges location:

Axial suction flange, discharge flange radially upwards.

Flanges:

The flanges comply with DIN EN 1092-2 resp. PN 40.
Flange design to ANSI 300 is possible.

Hydraulics:

Designation of this construction type: A

Bearing:

One grease lubricated antifriction ball bearing to DIN 625 and one internal liquid flushed sleeve bearing.
Designation of this construction type: A

Direction of rotation:

Clockwise when looking at the pump from the drive end.

Shaft sealing:

Code AF3: Balanced standard mechanical seal
Seal face materials SiC/Carbon, Elastomer EPDM



ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C

Material Design:

Item	Components	Material						Execution 1B							
		EN material- number	EN material-denomination	DIN material- number	DIN material-denomination	US denomination									
						ASTM Standard	AISI								
10.20 15.20 16.10 33.00	Volute casing Intermediate flange Casing cover Bearing bracket	EN-JS 1025	EN-GJS-400-18-LT	0.7043	GGG 40.3	A 395		X							
21.00	Shaft								1.4021	X 20 Cr 13	1.4021	X 20 Cr 13	A 276 Type 420	420	X
23.00 44.10	Impeller Casing for mechanical seal								EN-JL 1040	EN-GJL 250	0.6025	GG 25	A 278 Class 30		X
43.30	Shaft seal														
52.90 54.00	Sleeve bearing	SIC / SIC						X							

Casing gasket:

The casing is sealed by a flat gasket of graphite. Designation of this construction type: 2

Motor power:

Using commercial electric motors, type of construction IM B3.

To determine the drive power we recommend the following safety margin:

up to 4 kW: 25%

4 up to 7,5 kW: 20%

above 7,5 kW: 15%

The following max. speeds are to be observed:

Max. speed rpm	Size	Max. speed rpm	Size	Max. speed rpm	Size
3600	032160	3000	032250	1800	040315
	040160		040250		050315
	050160		050250		
	065160		065250		
	080160		080250		
	100160		100250		
	125200		125250		125250

The max. speeds results from the admissible peripheral speed of impellers or from the shaft load admissible at higher temperatures, respectively.

Bearing bracket / pump size:

Bracket 25	032160 032200 040160 040200 050160 050200
Bracket 35	032250 040250 040315 050250 050315 065160 065200 065250 080160 080200 080250 100160 100200
Bracket 45	100250 125200 125250

General remarks:

For equipping hot media systems a complete programme is available for a flow range between 1-1000 m³/h consisting of the range:

ZTN	volute pumps to EN 733 design with base plate, t _{max} 350 °C PN 16. Heat transfer oil.
ZTK	volute pumps to EN 733 close coupled design, t _{max} 350 °C PN 16. Heat transfer oil.
ZTI	volute pumps to EN 733 as INLINE construction, t _{max} 350 °C PN 16. Heat transfer oil.
ZEN	volute pumps to DIN EN 22858, t _{max} 230 °C PN 40. Hot water design.
ZHN	volute pumps to EN 733, t _{max} 180 °C PN 16. Hot water design.
ZLI	volute pumps to EN 733 as INLINE construction, t _{max} 150 °C PN 25. Hot water design.

Technical documentation on these programmes will readily be supplied on request.

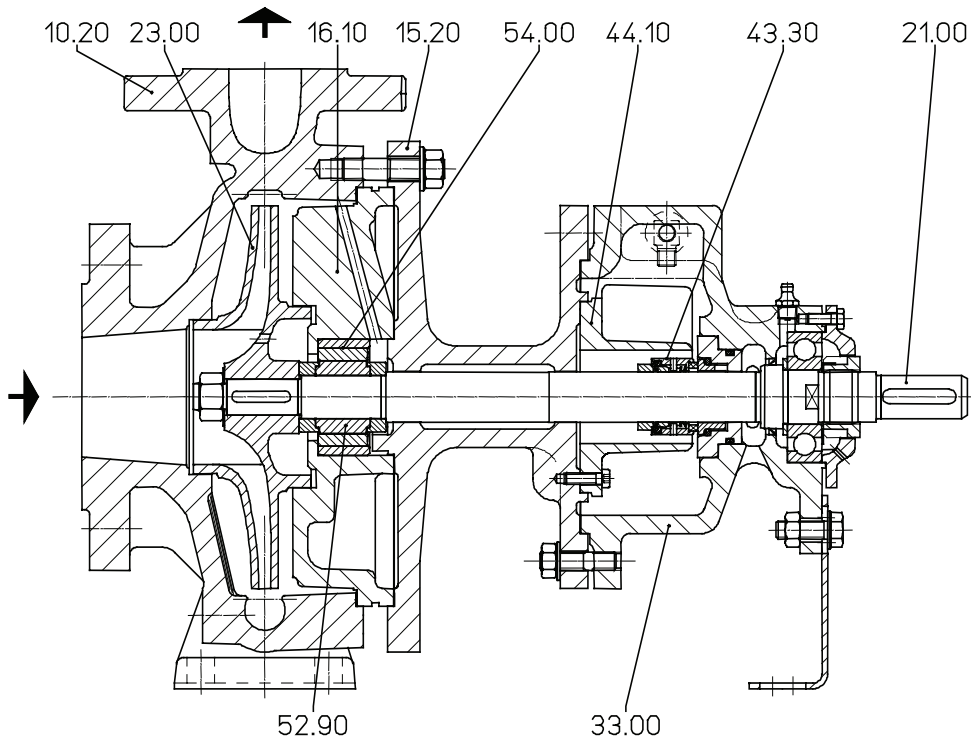


ZDND Series

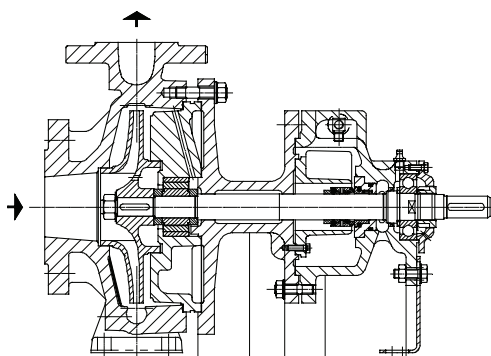
Volute End Suction Pumps

For heat carrier oils up to 207°C

Sectional drawing and nomenclature



- | | | |
|---------------------------|-----------------------|----------------------------------|
| 10.20 volute casing | 23.00 impeller | 44.10 casing for mechanical seal |
| 15.20 intermediate flange | 33.00 bearing bracket | 52.90, 54.00 sleeve bearing |
| 16.10 casing cover | 43.30 shaft seal | |
| 21.00 shaft | | |

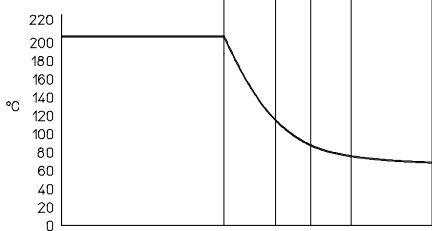


Heat barrier / shaft seal / bearing / feet arrangement

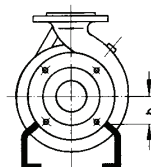
Heat transfer installations have achieved a high level of technical development. Consequently the requirements on the pumps handling heat carriers have increased regarding operating safety, environmental protection, maintenance and operating costs. On the basis of many years' experience and latest technical know-how the ZDND fully complies with these requirements. Special attention was paid to the above technical details.

A favourable reduction in temperature is obtained towards the drive side by fitting a double acting heat barrier between the casing cover and the shaft seal housing. See illustration. Product-side heat losses are effectively prevented (energy saving). The temperature reduction makes it possible to use safely an **uncooled** mechanical seal up to a pumping medium temperature of **207 °C**.

By special constructional shaping of the pump feed, displacements caused by thermal expansion are prevented to a great extent. For the vertical displacement only the measure h is decisive, since the rest of the foot remains cold. The horizontal expansion is taken up by the elastic foot bracings.



Curve of temperature decrease



ZDND Series

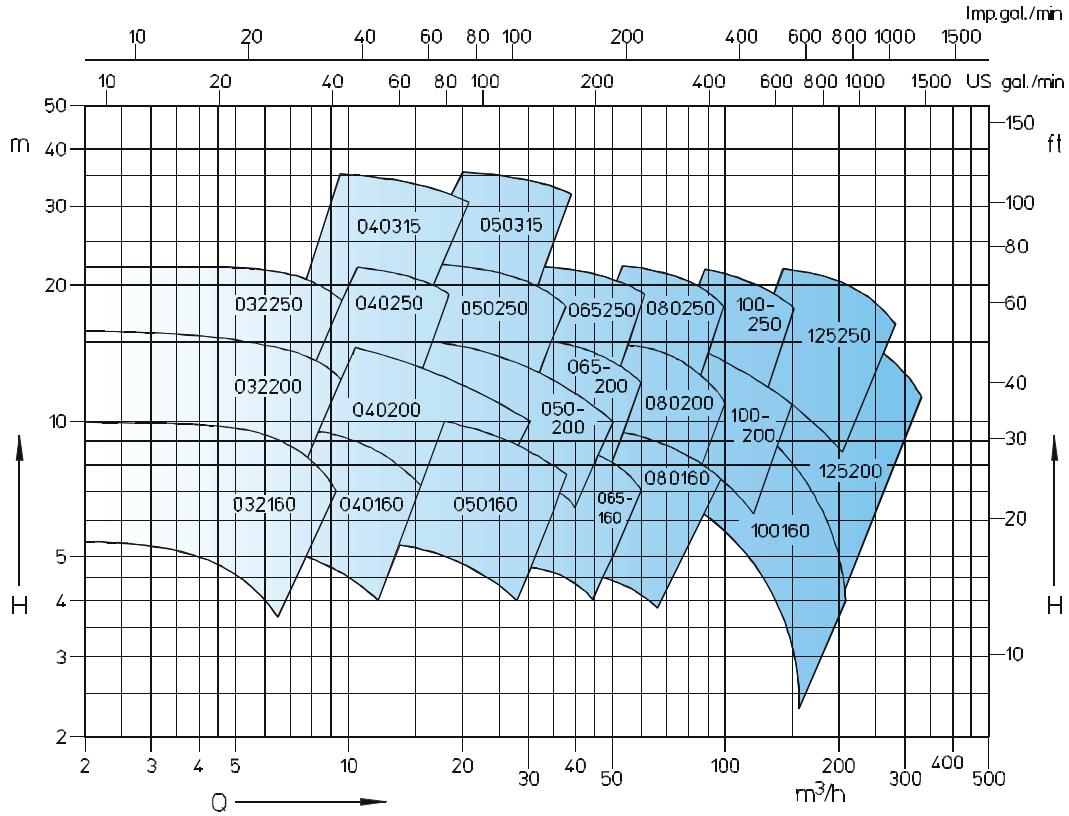
Volute End Suction Pumps

For heat carrier oils up to 207°C

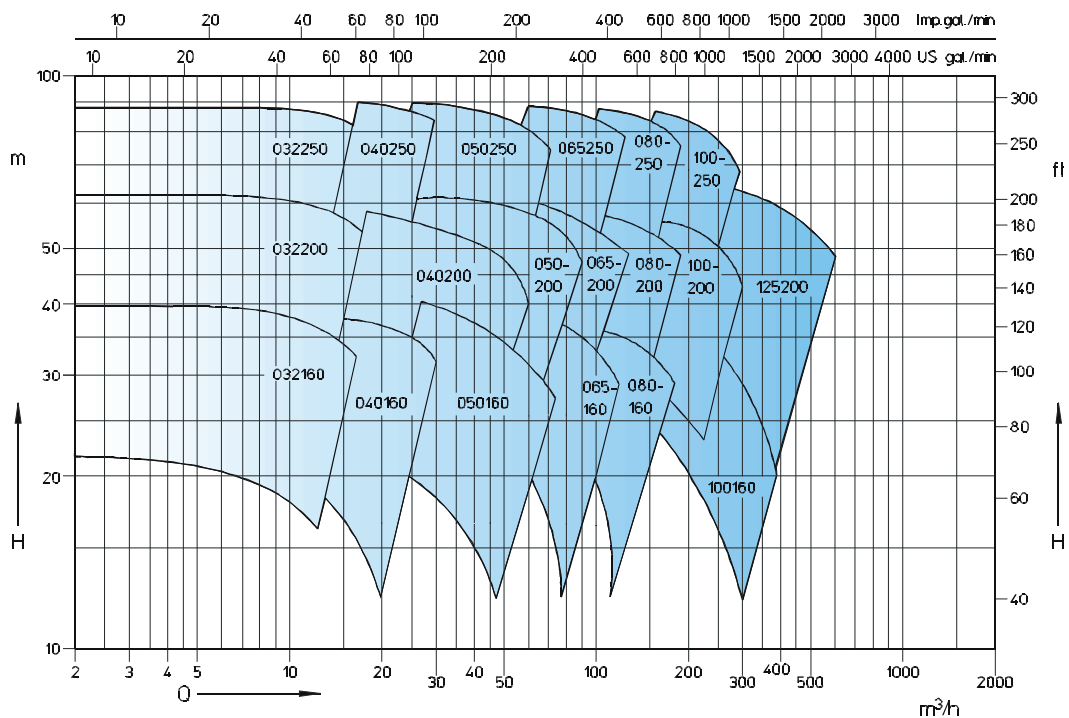


Performance graph

50 Hz
n = 1450 rpm



n = 2900 rpm



ZDND Series

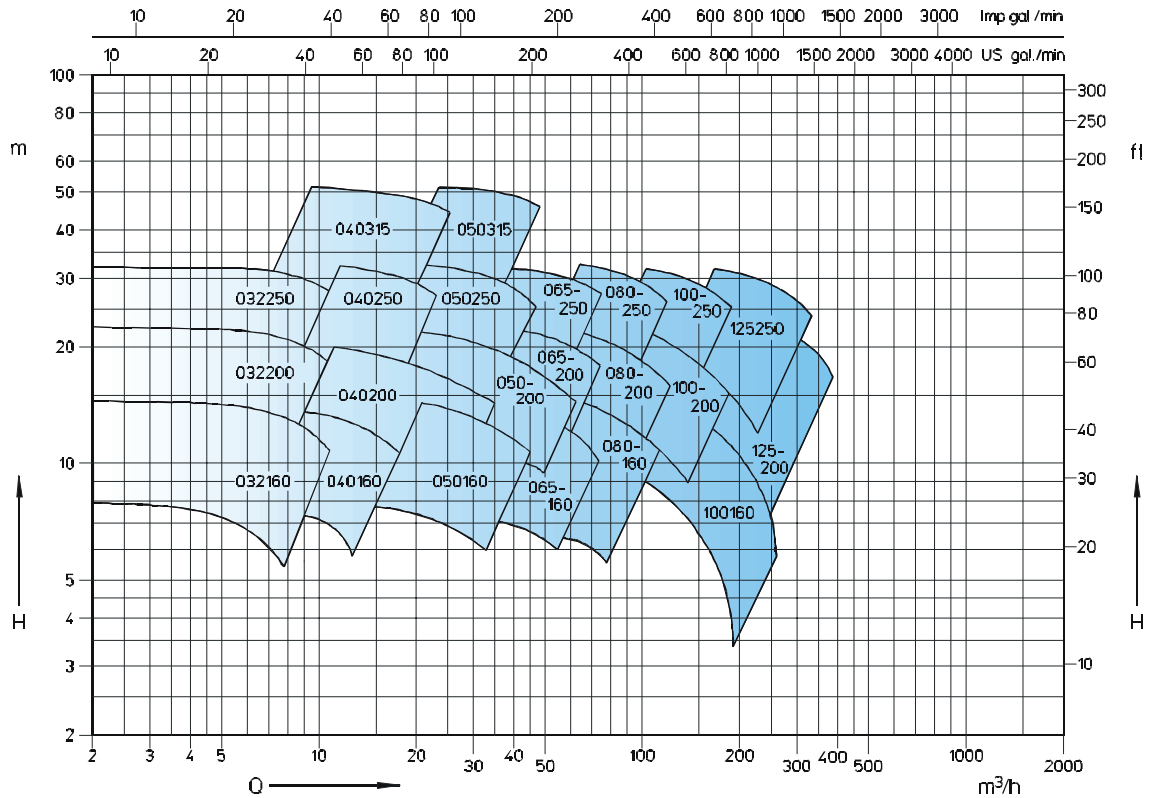
Volute End Suction Pumps

For heat carrier oils up to 207°C

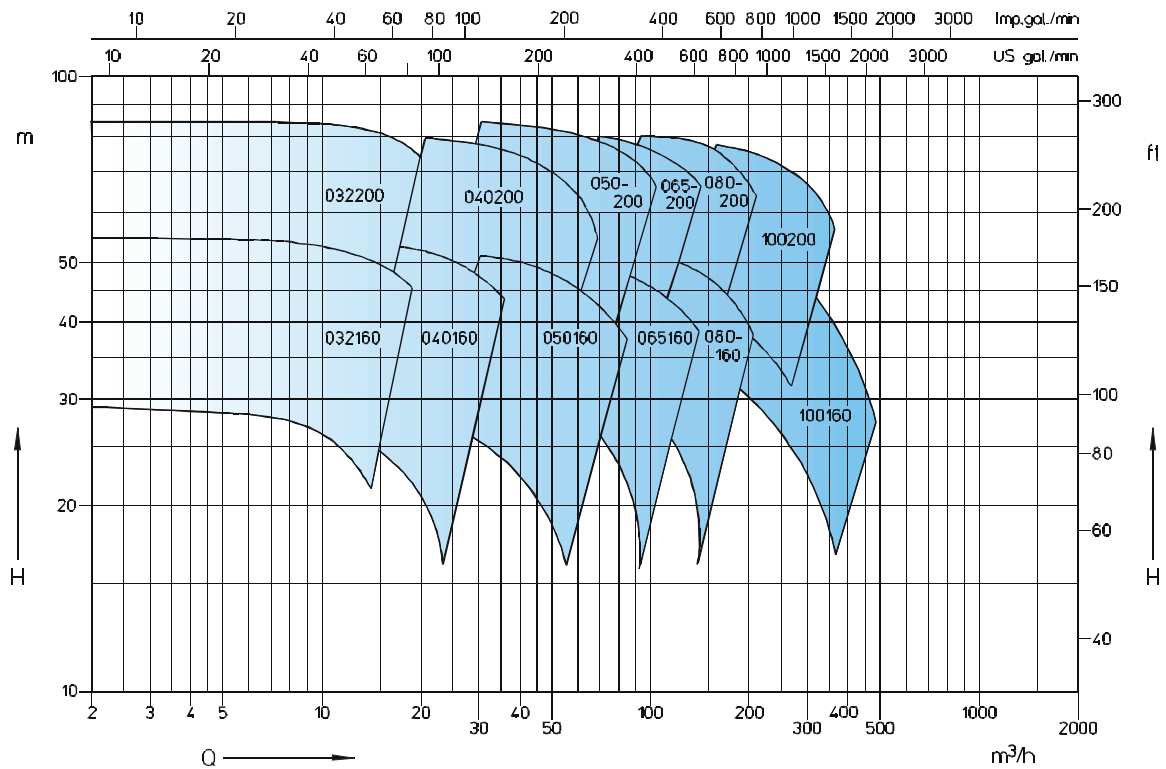


Performance graph

60 Hz
n = 1750 rpm



n = 3500 rpm



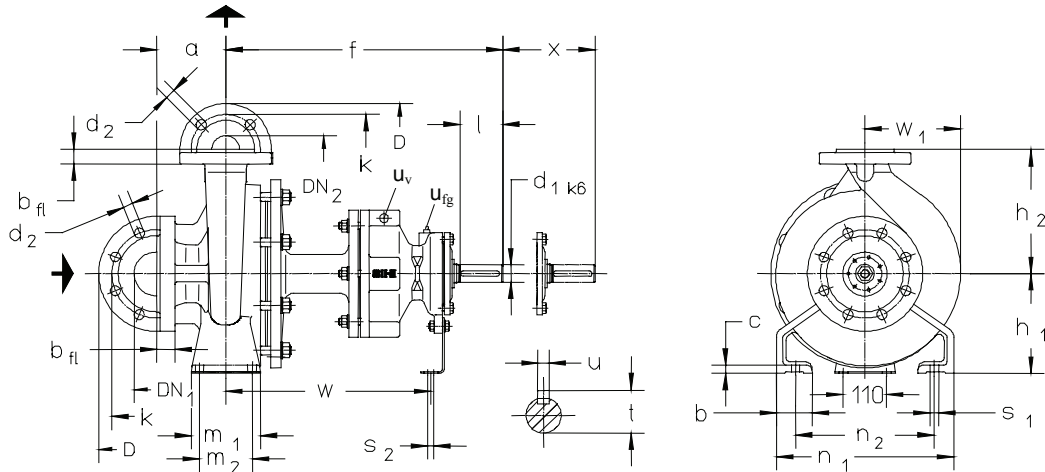


ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C

Dimension table



u_v = vent connection (G1/8)

u_{fg} = grease filling connection (G1/8)

size	DN ₂	DN ₁	a	b	c	f	h ₁	h ₂	m ₁	m ₂	n ₁	n ₂	s ₁ [*]	s ₂	w	w ₁	x	d ₁	l	t	u											
032160	32	50	80	50	17	385	132	160	100	70	240	190	M12	M12	285	120	100	24	50	27	8											
032200			160	180			140																									
032250			100	65			370	170								32						80	35	10								
040160	40	65	80	50	20	500	132	160	100	70	240	190			M12	M12		285	125	100	24	50	27	8								
040200			160	180			150																									
040250			100	65			370	170			32	80							35						10							
040315			125	200			250	125			95	320							250						345	280	205					
050160	50	80	100	50	17	385	160	180	100	70	265	212			M12	M12		285	135	100	24	50	27	8								
050200			200	175																												
050250			125	65			20	180			225	175							215													
050315			225	280			125	95			280	280																				
065160	65	100	100	65	17	500	160	200	125	95	280	212						M12	M12		155	175	140	32	80	35	10					
065200			180	225			320	250																								
065250			80	20			200	250			160	120	360	280			195															
080160			125	65			17	180			225	125	95	320			250											170				
080200	80	125	125	65	17	500	250	125	95	345	280	M12	M12	370			185				140	32		80	35	10						
080250							225			400	315						205															
100160 ¹⁾							140			200	280						360										280	210				
100200							125			80	20						225										160	120	400	315	215	
100250	100	125	80	20	530	225	160	120	160	120	400			315	M16	M16	245			240		140		42	110	45	12					
125200 ¹⁾																												250	315	400	315	245
125250																												355	240			

¹⁾Transnorm pump sizes, not included in DIN EN 22858.

*Slots suitable for bolts with dimensions indicated. Bolts are not included in the bare shaft pump standard scope of supply.

Flange connections to DIN EN 1092-2 PN 40								
DN ₂ /DN ₁	32	40	50	65	80	100	125	150
D	140	150	165	185	200	235	270	300
k	100	110	125	145	160	190	220	250
b _n	18	19	19	19	19	19	23,5	26
Tolerance	+4,0 -3,0							
d ₂ x number	19x4	19x4	19x4	19x8	19x8	23x8	28x8	28x8

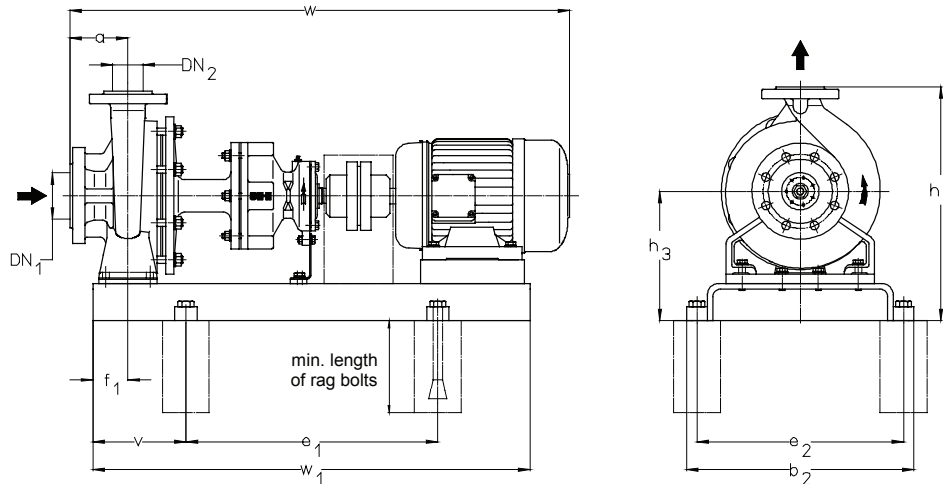


ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C

Foundation plan



Dimensions in mm

ZDND Size	Motor		Base plate Size	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	w*	w ₁	Rag bolt size													
	rpm	Size			Pump	Unit																										
	1450	2900																														
032160	0,37	-	71	S270	B68	54	32	50	80	360	540	320	140	60	197	357	701	650	M16x200													
	0,55	-	80														86															
	-	1,10	80														93															
	-	1,50	90S														94															
	032200	-	2,20	90L	S272	B80											56			32	50	80	360	540	320	140	60	225	405	737	820	M16x200
		-	3,00	100L																										96		
		-	4,00	112M																										99		
		-	5,00	132S																										105		
032250		-	7,50	132S	S303	B95	89	32	50	100	490	600	440	75	260	485	109	1140	M20x400													
		0,55	-	80													111															
		0,75	-	80													142															
		1,10	-	90S													144															
	040160	-	1,50	90L	S272	B68	55										40			65	80	360	540	320	140	60	197	357	146	650	M16x200	
		0,75	-	80																									144			
		1,10	-	90S																									144			
		-	2,20	90L																									146			
040200		-	3,00	100L	S303	B80	56	40	65	100	390	600	350	160	225	405		152	920										M16x200			
		-	4,00	112M														152														
		-	5,00	132S														152														
		-	7,50	132S														152														
	040250	-	11,00	160M	S303	B95	89										40	65		100	490	600	440	75	260	485	210	1140		M20x400		
		-	15,00	160M																							210					
		0,75	-	80																							254					
		1,10	-	90S																							254					
040315		-	1,50	90L	S385	B95	92	40	65	100	490	600	440	75	260	485			254								1140		M20x400			
		0,75	-	80															254													
		1,10	-	90S															254													
		-	2,20	90L															254													
	050160	-	3,00	100L	S344	B95	56										40	65	100	490	600	440	75	260	485	267		1140		M20x400		
		-	4,00	112M																						267						
		-	5,00	132S																						267						
		-	7,50	132S																						267						
040315		-	11,00	160M	S383	B80	89	40	65	100	490	600	440	75	260	485										267	1140		M20x400			
		-	15,00	160M																						267						
		2,20	-	100L																						267						
		3,00	-	100L																						267						
	050160	-	5,00	132S	S435	B95	131										50	80	100	540	740	490	200	280	530	267		1140		M16x200		
		2,20	-	100L																						267						
		3,00	-	100L																						267						
		4,00	-	112M																						267						
050160		-	5,00	132S	S435	B95	131	50	80	100	540	740	490	200	280	530										267	1140		M16x200			
		0,55	-	80																						267						
		0,75	-	80																						267						
		1,10	-	90S																						267						
	050160	-	1,50	90L	S435	B95	131										50	80	100	540	740	490	200	280	530	267		1140		M16x200		
		0,75	-	80																						267						
		1,10	-	90S																						267						
		1,50	2,20	90L																						267						

ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



ZDND Size	Motor			Base plate No.	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	w*	w ₁	Rag bolt
	rpm	2900	Size			Pump	Unit													
	KW																			
050160	-	3.00	100L	S303	B80	61		50	80	100	390	600	350	160		225	405	853	920	M16x200
	-	4.00	112M															877		
	-	5.50	132S	149																
	-	7.50	132S	151																
	-	11.00	160M	211																
050200	0.75	-	80	S301	B68	65		50	80	100	390	480	350	125	60	225	425	757	920	M16x200
	1.10	-	90S															784		
	1.50	-	90L	110																
	2.20	-	100L	115																
	-	4.00	112M	140																
	-	5.50	132S	155																
	-	7.50	132S	160																
	-	11.00	160M	215																
	-	15.00	160M	217																
	-	18.50	160L	232																
050250	1.50	-	90L	S383	B80	95		50	80	125	490	600	440	200	75	260	485	949	1140	M20x400
	2.20	-	100L															953		
	3.00	-	100L	162																
	4.00	-	112M	178																
	-	7.50	132S	215																
	-	11.00	160M	265																
	-	15.00	160M	267																
	-	18.50	160L	291																
	-	22.00	180M	318																
	-	30.00	200L	427																
050315	4.00	-	112M	S486	B80	135		50	80	125	610	840	550	205		325	605	1070	1250	M24x400
	5.50	-	132S															1072		
	7.50	-	132M															1110		
065160	0.75	-	80	S342	B80	81		65	100	100	450	660	400	180	75	240	440	872	1020	M20x400
	1.10	-	90S															900		
	1.50	-	90L	924																
	2.20	-	100L	147																
	-	4.00	112M	154																
	-	5.50	132S	179																
	-	7.50	132S	182																
	-	11.00	160M	250																
	-	15.00	160M	252																
	1.10	-	90S	148																
065200	1.50	-	90L	S344	B80	88		65	100	100	450	660	400	180	75	260	485	900	1140	M20x400
	2.20	-	100L															924		
	3.00	-	100L	157																
	4.00	-	112M	173																
	-	7.50	132S	208																
	-	11.00	160M	257																
	-	15.00	160M	259																
	-	18.50	160L	283																
	-	22.00	180M	311																
	-	30.00	200L	420																
065250	2.20	-	100L	S434	B80	113		65	100	125	540	660	490	170	90	280	530	993	1270	M24x400
	3.00	-	100L															993		
	4.00	-	112M	208																
	5.50	-	132S	228																
	-	15.00	160M	298																
	-	18.50	160L	313																
	-	22.00	180M	341																
	-	30.00	200L	445																
	-	37.00	200L	461																
	-	45.00	225M	504																
080160	0.75	-	80	S383	B80	89		65	100	125	490	600	440	200	75	260	485	897	1140	M20x400
	1.10	-	90S															924		
	1.50	-	90L	150																
	2.20	-	100L	153																
	3.00	-	100L	156																
	-	7.50	132S	209																
	-	11.00	160M	258																
	-	15.00	160M	260																
	-	18.50	160L	284																
	-	22.00	180M	312																
080200	1.50	-	90L	S383	B80	96		65	125	125	540	600	490	200	75	280	530	949	1270	M20x400
	2.20	-	100L															993		
	3.00	-	100L	163																
	4.00	-	112M	179																
	5.50	-	132S	220																
	-	11.00	160M	260																
	-	15.00	160M	267																
	-	18.50	160L	291																
	-	22.00	180M	319																
	-	30.00	200L	428																
080250	3.00	-	100L	S486	B80	120		65	125	125	610	840	550	205	90	325	605	993	1250	M24x400
	4.00	-	112M															1010		
	5.50	-	132S	265																
	7.50	-	132M	278																
	-	18.50	160L	342																
	-	22.00	180M	365																
	-	30.00	200L	461																
	-	37.00	200L	477																

ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



ZDND Size	Motor			Base plate No.	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	w*	w ₁	Rag bolt																			
	rpm	Size	Size			Pump	Unit																																
	1450	2900																		size																			
080250	-	45.00	225M	S487	B125	537															M24x400																		
	-	55.00	250M		B140	637																																	
100160	2.20	-	100L	S434	B80	197	100	125	140	610	940	550	240									M24x400																	
	3.00	-	100L		B80	200																																	
	4.00	-	112M	S434	B95	216																																	
	5.50	-	132S		B95	235																																	
	-	18.50	160L	S435	B110	320																																	
	-	22.00	180M	S435	B110	348																																	
	-	30.00	200L		B125	452																																	
	-	37.00	200L	S436	B125	468																																	
	100200	2.20	-	100L	S434	B80																	189	100	125	125	540	660	490	170									M20x400
		3.00	-	100L		B80																	192																
4.00		-	112M	S434	B95	207																																	
5.50		-	132S		B95	227																																	
7.50		-	132M	S435	B110	240																																	
-		18.50	160L		B110	312																																	
-		22.00	180M	S436	B125	340																																	
-		30.00	200L		B125	444																																	
-		37.00	200L	S436	B125	460																																	
-		45.00	225M			494																																	
100250	4.00	-	112M	S486	B95	259	125	150	140	610	940	550	240									M24x400																	
	5.50	-	132S		B95	277																																	
	7.50	-	132M	S486	B125	290																																	
	11.00	-	160M		B125	328																																	
	-	30.00	200L	S487	B140	473																																	
	-	37.00	200L		B160	499																																	
	-	45.00	225M	S487	B140	543																																	
	-	55.00	250M		B160	658																																	
	-	75.00	280S			858																																	
	125200	7.50	-	132M	S486	B95																	300	125	150	140	610	840	550	205									M24x400
11.00		-	160M	B95		338																																	
15.00		-	160L	S487	B110	361																																	
-		45.00	225M		B125	575																																	
-		55.00	250M	S487	B140	668																																	
-		75.00	280S		B160	868																																	
125250	7.50	-	132M	S486	B95	305	125	150	140	610	840	550	205									M24x400																	
	11.00	-	160M		B95	343																																	
	15.00	-	160L	S486	B110	366																																	
	18.50	-	180M		B110	391																																	

* Motor protection type IP 55, dimensions depend on the motor manufacturer.
Some sizes are not corresponding to the drawing in small details.
Foundation plan for 60Hz on request.

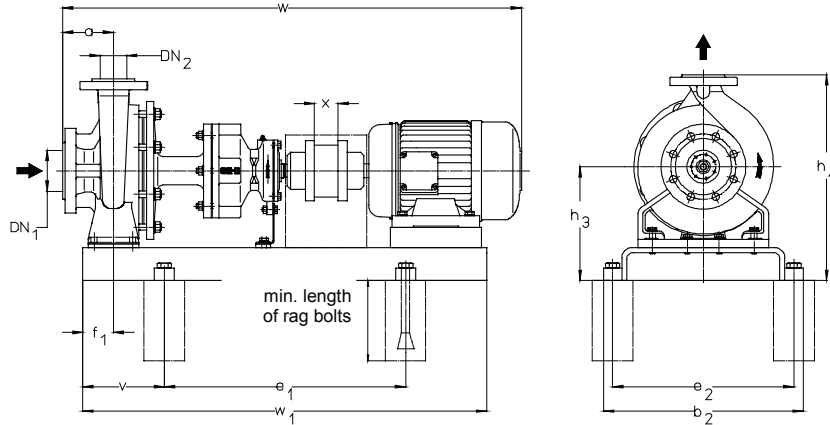
ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



Foundation plan for units with spacer coupling



Dimensions in mm

ZDND Size	Motor		Base plate No.	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	x	w*	w ₁	Rag bolt size		
	rpm	Size			pump	unit																
	1450	2900																				
032160	0.37	-	71	S272	54	94	32	50	80	360	540	320	140	60	197	357			801	820	M16x200	
	0.55	-	80			95																837
	-	1.10	80			96																837
	-	1.50	90S			99																864
	-	2.20	90L			102																889
	-	3.00	100L			112																933
	-	4.00	112M			117																950
032200	0.55	-	80	S272	56	97	32	50	80	360	540	320	140	60	225	405			837	820	M16x200	
	0.75	-	80			99																837
	1.10	-	90S			101																864
	-	3.00	100L			114																933
	-	4.00	112M			119																950
	-	5.50	132S			145																1012
	-	7.50	132S			152																1012
032250	0.75	-	80	S383	89	147	32	50	100	490	740	440	200	75	260	485			972	1140	M20x400	
	1.10	-	90S			168																1000
	1.50	-	90L			170																1024
	2.20	-	100L			174																1068
	-	7.50	132S			213																1147
	-	11.00	160M			270																1288
	-	15.00	160M			282																1288
040160	0.37	-	71	S272	55	94	32	50	80	360	540	320	140	60	197	357			800	820	M16x200	
	0.55	-	80			97																837
	0.75	-	80			99																837
	1.10	1.50	90S			102																864
	-	2.20	90L			105																889
	-	3.00	100L			114																933
	-	4.00	112M			133																950
-	5.50	132S	146	1012																		
040200	0.75	-	80	S303	56	104	32	50	100	390	600	350	160	60	225	405			857	920	M16x200	
	1.10	-	90S			107																884
	1.50	-	90L			110																909
	2.20	-	100L			115																970
	-	4.00	112M			135																977
	-	5.50	132S			147																1032
	-	7.50	132S			150																1032
040250	1.10	-	90S	S385	92	172	32	50	100	450	660	400	180	75	240	420			1173	1020	M20x400	
	1.50	-	90L			175																1173
	2.20	-	100L			180																1000
	3.00	-	100L			183																1024
	-	5.50	132S			214																1068
	-	7.50	132S			217																1068
	-	11.00	160M			264																1147
040315	2.20	-	100L	S385	131	216	32	50	125	490	740	440	200	75	280	530			1106	1140	M20x400	
	3.00	-	100L			220																1106
	4.00	-	112M			227																1125
	5.50	-	132S			255																1185
	0.55	-	80			107																857
	0.75	-	80			109																884
	1.10	-	90S			112																884
050160	1.50	2.20	90L	S303	61	116	32	50	80	390	600	350	160	60	225	405			857	920	M16x200	
	0.55	-	80			107																857
	0.75	-	80			109																884

ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



ZDND Size	Motor			Base plate No.	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	x	w*	w ₁	Rag bolt size	
	rpm	Size	KW			pump	unit															
	1450	2900																				
050160	-	3.00	100L	S303	H80	61	120	50	80	100	390	600	350	160	60	225	405	100	953	920	M20x400	
	-	4.00	112M																		139	
	-	5.50	132S		153																	
	-	7.50	132S		155																	
050200	-	11.00	160M	S344	H95	65	110	50	80	100	390	600	350	160	60	225	425	100	857	920	M16x200	
	-	1.10	90S																			113
	-	1.50	90L	114																		
	-	2.20	100L	124																		
	-	4.00	112M	143																		
	-	5.50	132S	156																		
	-	7.50	132S	159																		
	-	11.00	160M	218																		
	-	15.00	160M	220																		
	-	18.50	160L	235																		
050250	-	1.50	90L	S385	H80	95	125	50	80	125	490	740	440	200	260	485	100	1049	1140	M20x400		
	-	2.20	100L																		183	
	-	3.00	100L																		186	
	-	4.00	112M																		202	
	-	7.50	132S	239																		
	-	11.00	160M	280																		
	-	15.00	160M	282																		
	-	18.50	160L	306																		
	-	22.00	180M	335																		
	-	30.00	200L	432																		
050315	-	4.00	112M	S486	H80	135	135	50	80	100	610	550	205	205	325	605	100	1125	1250	M24x400		
	-	5.50	132S																		281	
	-	7.50	132M																		292	
065160	-	0.75	80	S344	H80	81	100	65	100	100	450	660	400	180	75	240	440	100	857	1020	M20x400	
	-	1.10	90S																			142
	-	1.50	90L																			145
	-	2.20	100L																			150
	-	4.00	112M	176																		
	-	5.50	132S	201																		
	-	7.50	132S	204																		
	-	11.00	160M	266																		
	-	15.00	160M	268																		
	065200	-	1.10	90S	S344																	H80
-		1.50	90L	152																		
-		2.20	100L	157																		
-		3.00	100L	160																		
-		4.00	112M	176																		
-		7.50	132S	224																		
-		11.00	160M	273																		
-		15.00	160M	279																		
-		18.50	160L	299																		
-		22.00	180M	328																		
-	30.00	200L	455																			
065250	-	2.20	100L	S435	H80	113	125	50	80	125	540	740	490	200	90	280	530	100	1133	1140	M20x400	
	-	3.00	100L																			209
	-	4.00	112M																			225
	-	5.50	132S																			238
	-	15.00	160M	309																		
	-	18.50	160L	324																		
	-	22.00	180M	353																		
	-	30.00	200L	480																		
	-	37.00	200L	495																		
	-	45.00	225M	531																		
080160	-	0.75	80	S344	H80	89	125	80	125	100	450	660	400	180	75	260	485	140	1037	1020	M20x400	
	-	1.10	90S																			150
	-	1.50	90L																			153
	-	2.20	100L																			158
	-	3.00	100L	161																		
	-	7.50	132S	212																		
	-	11.00	160M	274																		
	-	15.00	160M	276																		
	-	18.50	160L	300																		
	-	22.00	180M	329																		
080200	-	1.50	90L	S385	H80	96	125	80	125	100	490	740	440	200	75	300	550	100	1089	1140	M20x400	
	-	2.20	100L																			184
	-	3.00	100L																			187
	-	4.00	112M																			203
	-	5.50	132S	215																		
	-	11.00	160M	276																		
	-	15.00	160M	283																		
	-	18.50	160L	307																		
	-	22.00	180M	336																		
	-	30.00	200L	463																		
-	37.00	200L	472																			
080250	-	3.00	100L	S486	H80	120	125	80	125	100	610	840	550	205	90	325	605	100	1133	1250	M24x400	
	-	4.00	112M																			249
	-	5.50	132S	262																		
	-	7.50	132M	264																		
	-	18.50	160L	367																		
-	22.00	180M	390																			

ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



ZDND Size	Motor			Base plate	Cplg.	Weight (kg)		DN ₂	DN ₁	a	b ₂	e ₁	e ₂	v	f ₁	h ₃	h ₄	x	w*	w ₁	Rag bolt size												
	rpm	Size	No.			pump	unit																										
	1450																					2900	KW										
080250	-	30,00	200L	S487	H125	487	496	80		125	610	940	550	240		325	605		1508	1420	M24x400												
	-	37,00	200L																1508														
	-	45,00	225M	1565																													
	-	55,00	250M	1633																													
100160	-	-	100L	S435	H80	213	216	100		140	540	740	490	200		280	560		1148	1140	M20x400												
	3,00	-	100L																1148														
	4,00	-	112M	1165																													
	5,50	-	132S	1227																													
	-	18,50	160L	S436	H95	332	358												245	215													
	-	22,00	180M																														1412
	-	30,00	200L	S487	H125	487	497												245	240	300	580											
	-	37,00	200L																														
	100200	2,20	-	100L	S435	H80	205												208	100		125	540	740	490	200		280	560		1133	1140	M20x400
		3,00	-	100L																											1133		
4,00		-	112M	1150																													
5,50		-	132S	1212																													
7,50		-	132M	S436	H95	239	324	215																									
-		18,50	160L																														1250
-		22,00	180M	S487	H110	352	489	215	240	300	580																						
-		30,00	200L																														1397
-		37,00	200L	S487	H125	489	528	240																									
-		45,00	225M																														1420
100250	4,00	-	112M	S486	H95	262	274	100		140	610	840	550	205		325	605		1195	1250	M24x400												
	5,50	-	132S																1257														
	7,50	-	132M	1295																													
	11,00	-	160M	1398																													
	-	30,00	200L	S487	H125	515	509												240														
	-	37,00	200L																														1553
	-	45,00	225M	S538	H140	553	679												280														
	-	55,00	250M																														1585
	-	75,00	280S	S538	H160	880																											
	-	75,00	280S																														1678
125200	7,50	-	132M	S486	H95	286	339	125	150	140	610	840	550	205		350	665		1295	1250	M24x400												
	11,00	-	160M																1398														
	15,00	-	160L	S487	H110	362	613												240														
	-	45,00	225M																														
	-	55,00	250M	S538	H140	706	890												280														
	-	75,00	280S																													1675	
	-	75,00	280S	S487	H160	890																											
	-	75,00	280S																													1678	
125250	7,50	-	132M	S486	H95	291	344	125	150	140	610	840	550	205		350	705		1295	1250	M24x400												
	11,00	-	160M																1398														
	15,00	-	160L	S487	H110	367	392												240														
	-	160L	1442																														
-	18,50	180M	1520																														

* Motor protection type IP 55, dimensions depend on the motor manufacturer.
Some sizes are not corresponding to the drawing in small details.
Foundation plan for 60Hz on request.

ZDND Series

Volute End Suction Pumps

For heat carrier oils up to 207°C



Data regarding pump size

Type + Pump size	Hydraulic + Bearing	Shaft sealing	Material	Casing gasket
	A: Hydraulic 1 ·A One grease lubricated antifriction ball bearing and one internal liquid flushed sleeve bearing	AF3: Balanced standard mechanical seal SiC/Carbon/EPDM	1B: Pressure loaded parts in ductile iron GGG-40.3	2: Confined flat gasket of graphite with A4 insertion
ZDND	AA	AF3	1B	2
032160				
032200				
032250				
040160				
040200				
040250				
040315				
050160				
050200				
050250				
050315				
065160				
065200				
065250				
080160				
080200				
080250				
100160				
100200				
100250				
125200				
125250				

Available in New Zealand from:

Prime Fluid Management

Head Office: 10 Chesterfield St

Greymouth, West Coast

0800 482 747

primefluid.co.nz

