



"Pool Technology"

GEMAS GNM CAST IRON PUMPS



Handled Liquids

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

Technical Data

<u>Discharge Flange</u>	<u>DN32.....DN150 mm</u>
<u>Capacity</u>	<u>up to 500 m³/h</u>
<u>Head</u>	<u>up to 100 m</u>
<u>Speed</u>	<u>up to 2900 rpm</u>
<u>Motor Rating</u>	<u>up to 55 kW</u>
<u>Operating Temperature</u>	<u>-10 °C to +140 °C*</u>
<u>Casing pressure (Pmax)</u>	<u>10 bar (16 bar)*</u>
<u>Prefilter</u>	<u>SS 316</u>
<u>Impeller</u>	<u>Bronze</u>

(Pmax : Suction pressure + Shut off Head)

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

Desing Features

- Horizontal, radially split volute casing type, single stage, end suction centrifugal pump with closed impeller.
- Main dimensions of volute casing complies with EN733.

Pump Designation

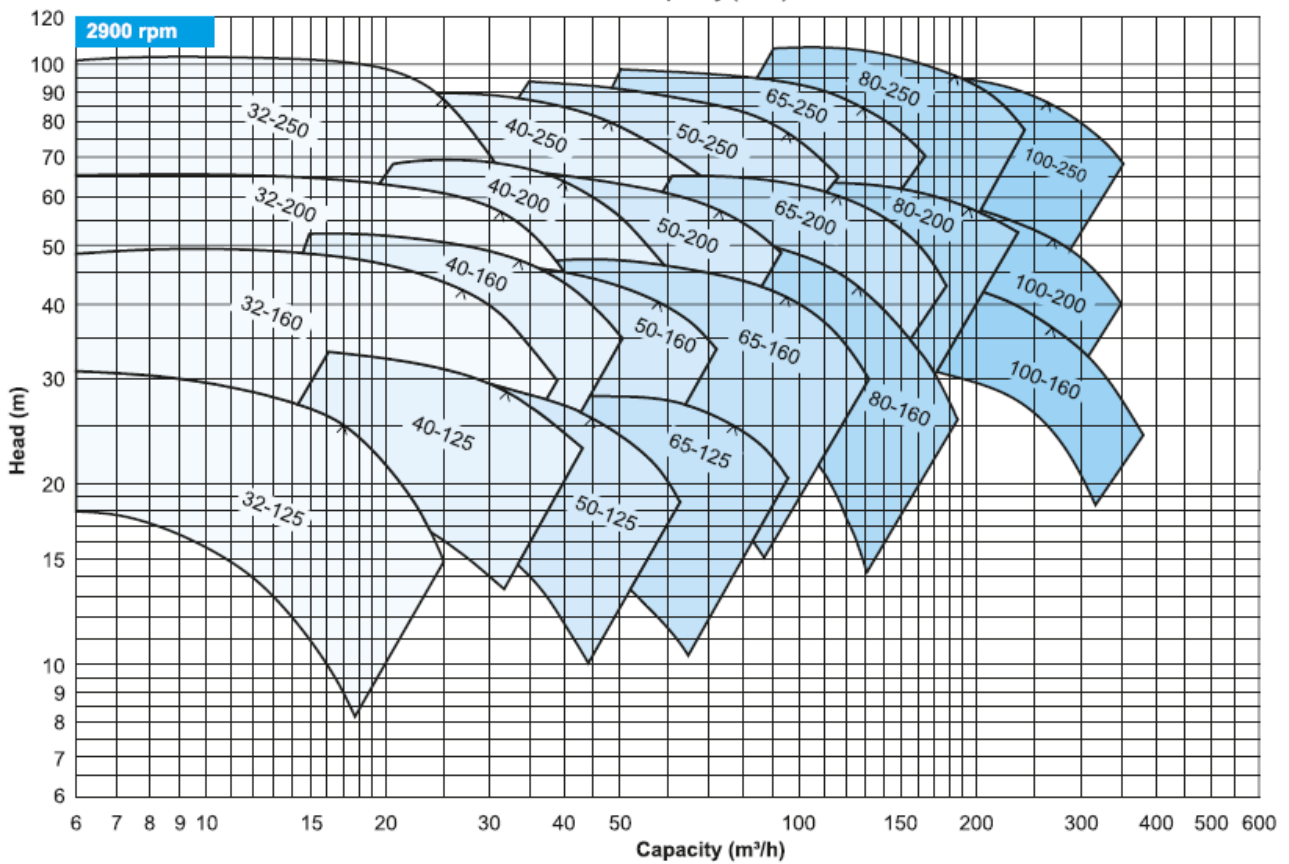
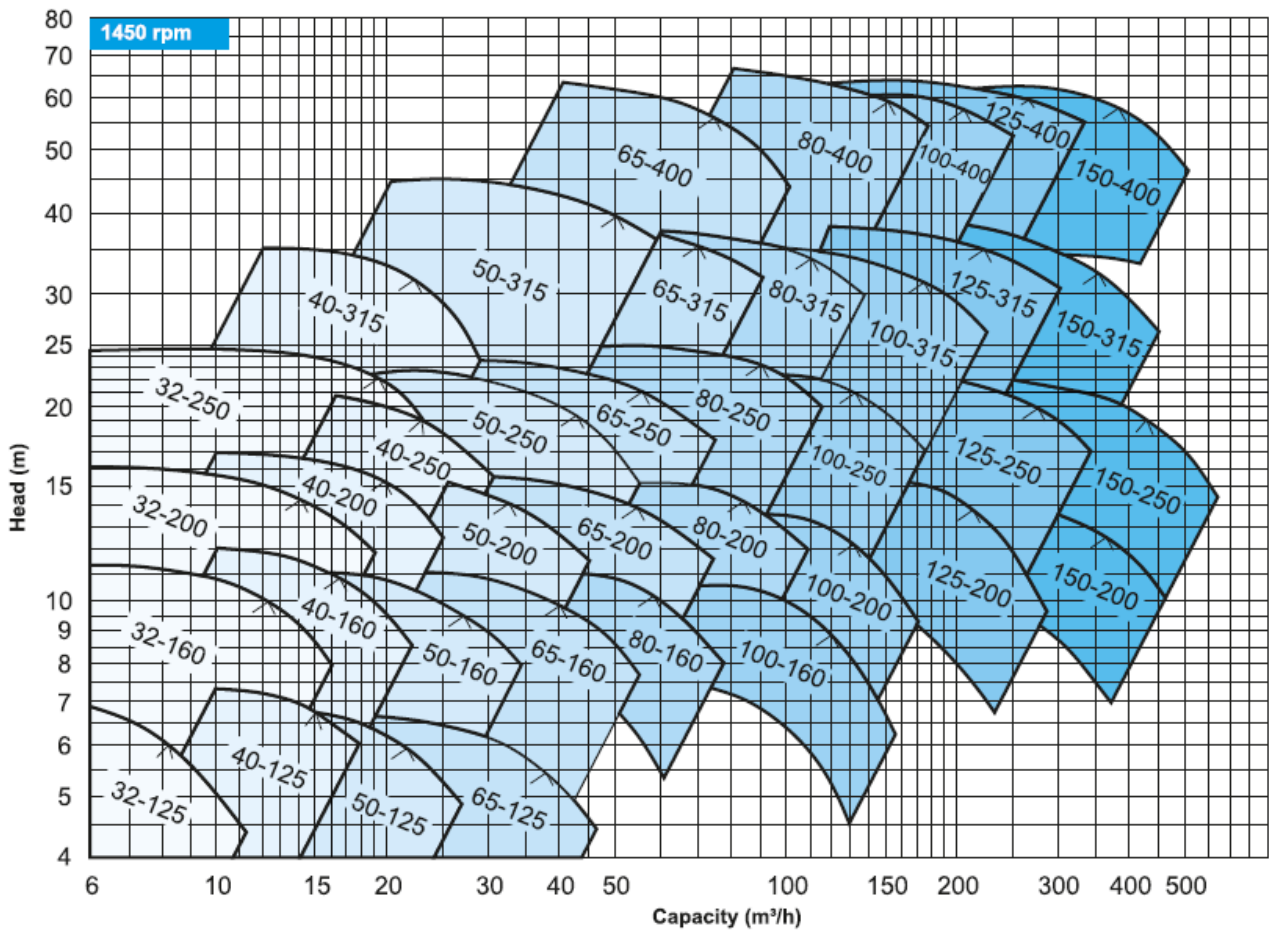
- Suction and discharge flanges conform to EN 1092-2 / PN 16
- GNM pumps are direct coupled with electric motors of IEC frame sizes with IE2 efficiency class. (if requested IE3)
- All impellers are balanced according to dynamically according to ISO 1940 class 6.3
- Pump shats is supported with motor bearings.
- Axial thrust is balanced by impeller balancing holes system.
- GNM type close – coupled pumps are lighter and smaller comparing to the norm centrifugal pumps of same hydraulic specifications.
- Direction of rotation is clockwise wieved from driver.

Shaft Sealing

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



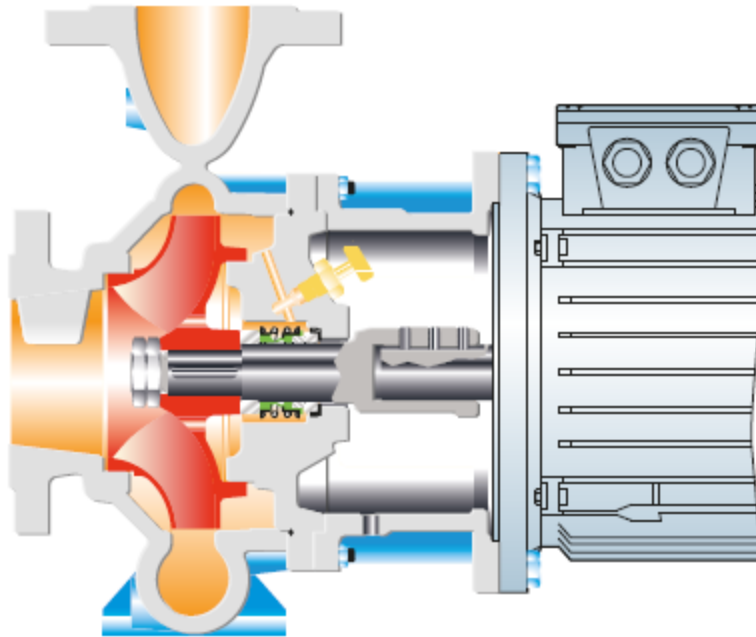
Field Chart



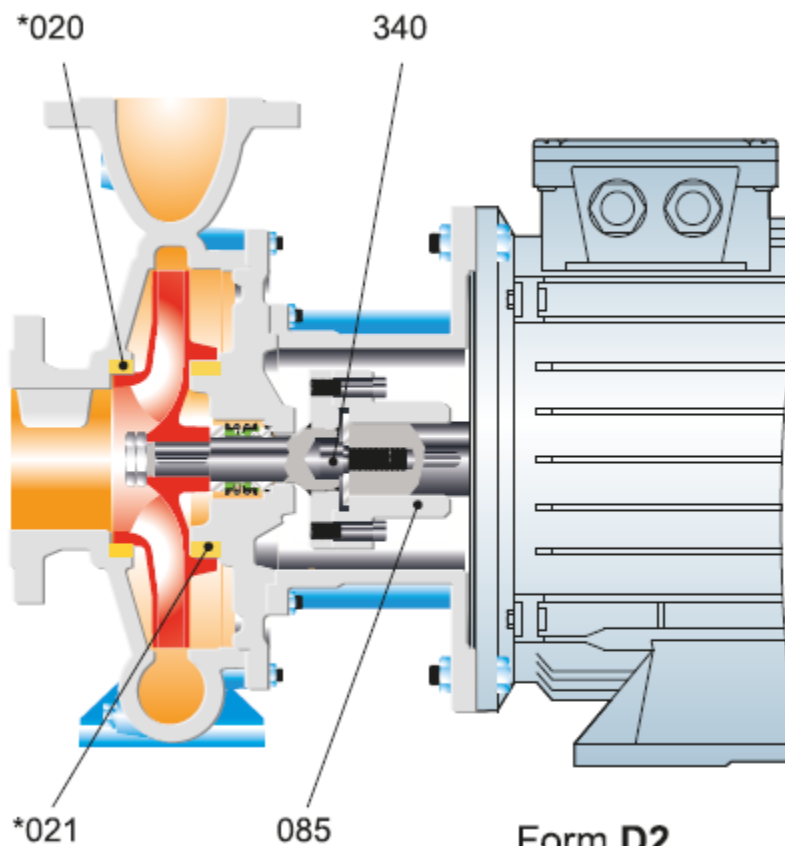
Sectional Drawings
Horizontal Installation



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Form D1

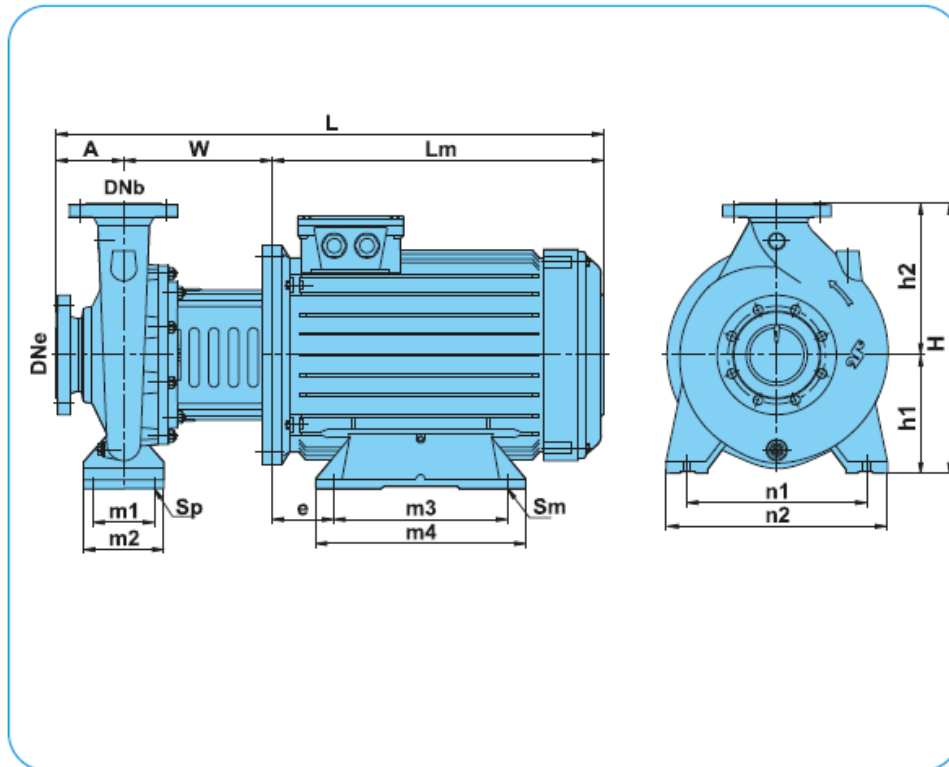


Form D2

Part List

001	Volute Casing	050	Impeller	*250	Air Vent Screw
003	Casing Cover	060	Shaft	340	Allen 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



2900 rpm (2 Pole Motor)

FORM	PUMP TYPE	MOTOR		GNM HORIZONTAL INSTALLATION DIMENSIONS (mm)																		Weight (kg)										
		kW	IEC	Dne	DNb	A	W	Lm	L	H	h1	h2	e	m1	m2	m3	m4	n1	n2	Sp	Sm											
D1	32-125	1,1	80M	50	32	80	165	244	489	252	112	140	-	70	100	-	-	140	190	14	-	-	43									
		1,5	90S					266	511															46								
		2,2	90L					292	537															48								
		3	100L					292	537															55								
	32-160	3	100L	50	32	80	165	292	537	292	132	160	-	70	100	-	-	190	240	14	-	-	59									
		4	112M					336	581															67								
		5,5	132S					195	358															633	69							
		7,5	132S					195	358															633	74							
	32-200	5,5	132S	50	32	80	195	361	636	340	160	180	-	70	100	-	-	190	240	14	-	-	76									
		7,5	132S																					108	-	-	210	304	254	312	15	125
		11	160M																					108	-	-	210	304	254	312	15	125
	32-250	7,5	132S	50	32	100	195	361	656	405	160	225	-	95	125	-	-	250	320	14	-	-	91									
		11	160M																					108	-	-	210	304	254	312	15	135
		15	160M																					108	-	-	210	304	254	312	15	142
	40-125	2,2	90L	65	40	80	165	266	511	252	112	140	-	70	100	-	-	160	210	14	-	-	53									
		3	100L					292	537															60								
		4	112M					336	581															68								
		5,5	132S					195	358															633	70							
	40-160	4	112M	65	40	80	165	336	581	292	132	160	-	70	100	-	-	190	240	14	-	-	69									
		5,5	132S																					195	361	636	71					
		7,5	132S																					239	476	795	76					
		11	160M																					108	-	-	210	304	254	312	15	120
	40-200	7,5	132S	65	40	100	195	361	656	340	160	180	-	60	100	-	-	212	265	14	-	-	84									
		11	160M																					108	-	-	210	304	254	312	15	128
15		160M	108																					-	-	210	304	254	312	15	135	
40-250	11	160M	65	40	100	240	476	816	405	180	225	-	95	125	-	-	250	320	15	-	-	141										
	15	160M																					121	-	-	241	343	279	354	15	148	
	18,5	160L																					133	-	-	305	365	318	400	19	163	
	22	180M																					519	859	425	200	133	-	-	305	365	318
50-125	3	100L	65	50	100	165	292	557	292	132	160	-	70	100	-	-	190	240	14	-	-	61										
	4	112M					336	601															69									
	5,5	132S					195	361															656	71								
	7,5	132S					195	361															656	76								

Technical Data



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FORM	PUMP TYPE	MOTOR		GNM HORIZONTAL INSTALLATION DIMENSIONS (mm)																Weight (kg)											
		kW	IEC	Dne	Dnb	A	W	Lm	L	H	h1	h2	e	m1	m2	m3	m4	n1	n2		Sp	Sm									
D1	50-160	5,5	132S	65	50	100	195	361	656	340	160	180	-	70	100	-	-	212	265	14	-	74									
		7,5	132S				239	476	815				108	-	-	210	304	254	312	-	15	79									
		11	160M																										123		
	50-200	11	160M	65	50	100	239	476	815	360	160	200	108	-	-	210	304	254	312	-	15	131									
		15	160M					519	858	380	180	121	-	-	241	343	279	354	-	153											
		18,5	160L					476	815	380	180	-	95	125	-	-	250	320	14	-	176										
	50-250	22	180M	65	50	100	239	519	858	405	200	225	121	-	-	241	343	279	354	-	15	189									
		18,5	160L					555	894	133			-	-	305	365	318	400	-	19	226										
		22	180M					555	894	133			-	-	305	365	318	400	-	19	226										
	65-125	30	200M	80	65	100	239	555	894	405	180	200	121	-	-	241	343	279	354	-	15	226									
		37	200M					283	644				1027	500	250	168	-	-	349	421	356	436	-	24	245						
		4	112M					165	336				601																		76
	65-160	5,5	132S	80	65	100	195	396	691	340	160	180	-	95	125	-	-	212	280	14	-	78									
		7,5	132S																												83
		11	C132M																												
	65-200	11	160M	80	65	100	239	476	815	360	160	200	108	-	-	210	304	212	280	-	15	134									
		15	160M					476	815	360	160	180	-	95	125	-	-	250	320	14	-	159									
		18,5	160L					519	858	405	180	225	121	-	-	241	343	279	354	-	182										
	65-250	22	180M	80	65	100	239	519	858	405	200	225	121	-	-	241	343	279	354	-	19	219									
		30	200L					555	894	200			133	-	-	305	365	318	400	-	19	219									
		37	200L					247	519	866			450	200	250	133	-	-	305	365	318	400	-	19	201						
	80-160	45	225M	100	80	125	253	555	908	450	200	250	133	-	-	305	365	318	400	-	19	257									
		55	250M					625	978	475			225	149	-	-	311	383	356	436	-	24	299								
		11	160M					283	644	1027			500	250	168	-	-	349	421	356	436	-	24	333							
	80-200	15	160M	100	80	125	239	476	840	405	180	225	-	95	125	-	-	250	320	14	-	134									
		18,5	160L					519	883	430	180	250	121	-	-	241	343	279	354	-	15	179									
		22	180M					247	519	891	430	200	250	133	-	-	305	365	280	345	-	19	235								
	80-250	30	200L	100	80	125	253	555	933	430	200	250	133	-	-	305	365	318	350	-	19	268									
		37	200L					625	1003	505			225	280	149	-	-	311	383	356	436	-	24	344							
		45	225M					625	1003	505			225	280	149	-	-	311	383	356	436	-	24	344							
	100-160	55	250M	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	260									
		30	200L					625	1003	505	225	280	149	-	-	311	383	356	436	-	19	302									
		37	200L					625	1003	505	225	280	149	-	-	311	383	356	436	-	19	302									
	100-200	45	225M	125	100	125	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	268									
		55	250M					625	1003	505	225	280	149	-	-	311	383	383	442	-	24	344									
		30	200L					283	644	1052	530	250	168	-	-	349	421	406	484	-	24	344									
100-250	30	200L	125	100	140	253	555	933	480	200	280	133	-	-	305	365	318	350	-	19	241										
	37	200L					625	1003	505	225	280	149	-	-	311	383	383	442	-	24	344										
	45	225M					625	1003	505	225	280	149	-	-	311	383	383	442	-	24	344										
D2	55	250M	125	100	140	283	644	1018	505	225	280	149	-	-	311	383	356	436	-	19	319										
D1	45	225M					644	1067	505			250	168	-	-	349	421	406	484	-	24	353									
D2	55	250M					644	1067	505			250	168	-	-	349	421	406	484	-	24	353									

1450 rpm (4 Pole motor)

FORM	PUMP TYPE	MOTOR		GNM HORIZONTAL INSTALLATION DIMENSIONS (mm)																Weight (kg)
		kW	IEC	Dne	Dnb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp			
D1	32-125	0,25	71M	50	32	80	165	223	468	254	114	140	70	100	140	190	14	39		
		0,37	71M					223	468									44		
	32-160	0,37	71M	50	32	80	165	223	468	292	132	160	70	100	190	240	14	44		
		0,55	80M					243	488									46		
	32-200	0,75	80M	50	32	80	165	244	489	340	160	180	70	100	190	240	14	53		
		1,1	90S					246	491									54		
	32-250	1,1	90S	50	32	100	165	266	531	405	180	225	95	125	250	320	14	66		
		1,5	90L					292	557									68		
		2,2	100L					292	557									76		
	40-125	3	100L	65	40	80	165	292	557	252	112	140	70	100	160	210	14	79		
		0,25	71M					223	468									44		
		0,37	71M					223	468									45		
	40-160	0,55	80M	65	40	80	165	244	489	292	132	160	70	100	190	240	14	47		
		0,55	80M					244	489									48		
		0,75	80M					244	489									49		
	40-200	1,1	90S	65	40	100	165	246	491	340	160	180	60	100	212	265	14	51		
		0,75	80M					244	509									57		
		1,1	90S					246	511									59		
	40-200	1,5	90L	65	40	100	165	246	511	340	160	180	60	100	212	265	14	61		
		2,2	100L					292	557									69		

Technical Data

1450 rpm (4 Pole motor)



"Pool Technology"

FORM	PUMP TYPE	MOTOR		GNM HORIZONTAL INSTALLATION DIMENSIONS (mm)														Weight (kg)
		kW	IEC	Dne	Dnb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp	
D1	40-250	1,1	90S	65	40	100	165	266	531	405	180	225	95	125	250	320	14	72
		1,5	90L					74										
		2,2	100L					82										
		3	100L					85										
	40-315	2,2	100L	65	40	100	165	292	557	450	200	250	95	125	280	345	14	91
		3	100L					94										
		4	112M					101										
		5,5	132S					111										
	50-125	0,37	71M	65	50	100	165	223	488	292	132	160	70	100	190	240	14	46
		0,55	80M					48										
		0,75	80M					49										
	50-160	0,75	80M	65	50	100	165	243	508	340	160	180	70	100	212	265	14	52
		1,1	90S					54										
		1,5	90L					56										
	50-200	1,1	90S	65	50	100	165	246	511	360	160	200	70	100	212	265	14	62
		1,5	90L					64										
		2,2	100L					72										
		3	100L					75										
	50-250	2,2	100L	65	50	100	165	292	557	405	180	225	95	125	250	320	14	85
		3	100L					88										
		4	112M					95										
		5,5	132S					105										
	50-315	4	112M	80	50	125	203	188	336	505	225	280	95	125	280	345	19	119
		5,5	132S					129										
7,5		132M	150															
11		160M	175															
65-125	0,55	80M	80	65	100	165	244	509	340	160	180	95	125	212	280	14	55	
	0,75	80M					56											
	1,1	90S					58											
65-160	1,1	90S	80	65	100	165	246	511	360	160	200	95	125	212	280	14	58	
	1,5	90L					60											
	2,2	100L					68											
65-200	1,5	90L	80	65	100	165	246	511	405	180	225	95	125	250	320	14	70	
	2,2	100L					78											
	3	100L					81											
	4	112M					88											
65-250	3	100L	80	65	100	188	292	580	450	200	250	120	160	280	360	19	100	
	4	112M					107											
	5,5	132S					117											
	7,5	132M					138											
65-315	5,5	132S	80	65	125	218	361	704	505	225	280	120	160	315	400	19	117	
	7,5	132M					138											
	11	160M					163											
	15	160L					177											
65-400	11	160M	100	65	125	237	476	838	615	260	355	120	160	355	435	19	208	
	15	160L					222											
	18,5	180M					251											
	22	180L					259											
D2		30	200L				555	917									311	
D1	80-160	1,5	90L	100	80	125	165	266	556	405	180	225	95	125	250	320	14	67
		2,2	100L					75										
		3	100L					80										
	80-200	3	100L	100	80	125	188	292	605	430	180	250	95	125	280	345	14	97
		4	112M					104										
		5,5	132S					114										
	80-250	4	112M	100	80	125	188	335	648	480	200	280	120	160	315	400	19	118
		5,5	132S					128										
		7,5	132M					149										
		11	160M					174										
	80-315	7,5	132M	100	80	125	203	361	689	565	250	315	120	160	315	400	19	175
		11	160M					200										
15		160L	214															
18,5		180M	243															
80-400	18,5	180M	100	80	125	255	519	899	635	280	355	120	160	355	435	19	274	
	22	180L					282											
	30	200L					334											
	37	225S					384											
D2	100-160	3	100L	125	100	125	188	292	605	480	200	280	120	160	280	360	19	103
		4	112M					110										
		5,5	132M					120										

Technical Data

1450 rpm (4 Pole motor)

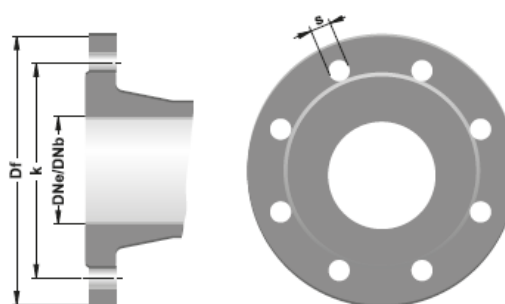
FORM	PUMP TYPE	MOTOR		GNM HORIZONTAL INSTALLATION DIMENSIONS (mm)														Weight (kg)	
		kW	IEC	Dne	Dnb	A	W	Lm	L	H	h1	h2	m1	m2	n1	n2	Sp		
D1	100-200	3	100L	125	100	125	188	292	605	480	200	280	120	160	280	360	19	111	
		4	112M					335	648									118	
		5,5	132S					203	358									686	128
		7,5	132M																149
	100-250	5,5	132S	125	100	140	203	360	703	505	225	280	120	160	315	400	19	137	
		7,5	132M					476	863									158	
		11	160M																183
		15	160L																197
	100-315	11	160M	125	100	140	247	476	863	565	250	315	120	160	315	400	19	207	
		15	160L					519	906									221	
		18,5	180M					253	555									948	250
		22	180L																258
D2	100-400	30	200L	125	100	140	255	519	914	635	280	355	150	200	400	500	19	306	
		30	200L					555	950									358	
		37	225S					310	625									1075	408
		45	225M					285	644									1069	445
D1	125-200	7,5	132M	150	125	140	203	361	704	565	250	315	120	160	315	400	19	157	
		11	160M					247	476									863	182
		15	160L																196
		11	160M																198
	125-250	15	160L	150	125	140	247	476	863	605	250	355	120	160	315	400	19	212	
		18,5	180L					519	906									241	
		22	180M																249
		15	160L																249
	125-315	18,5	180M	150	125	140	255	519	914	635	280	355	150	200	400	500	23	278	
		22	180M					555	950									286	
		30	200L					310	625									1075	338
		37	225S																388
D2	125-400	37	225S	150	125	160	310	625	1095	635	280	355	150	200	400	500	23	413	
		45	225M					644	1114									450	
		55	250M																475
		11	160M																221
D1	150-200	15	160L	200	150	160	247	476	883	635	280	355	150	200	400	500	23	235	
		18,5	180M					519	926									264	
		15	160L																265
		18,5	180M																294
D1	150-250	22	180L	200	150	160	247	519	926	655	280	375	150	200	400	500	23	302	
		30	200L					253	555									968	354
		22	180L																306
		30	200L					255	555									970	358
D2	150-315	37	225S	200	150	160	310	625	1095	680	280	400	150	200	450	550	23	408	
		45	225M																445
		45	225M																472
		55	250M																497

Note: Dimensions and weight may change according to motor brand. Rights reserved to change without notice.

Flange Dimensions

DNe / DNb	Suction and 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



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														

● Standart manufacturing.

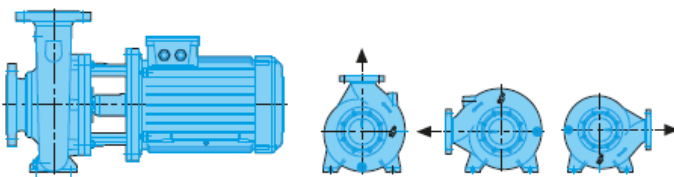
○ Optional

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

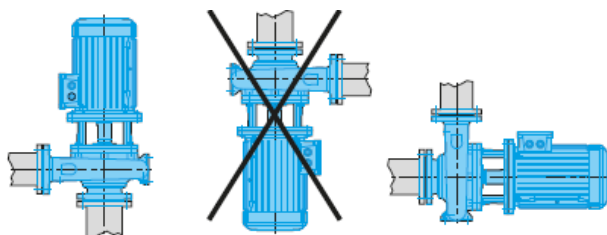
Material Equivalents

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG 25)	A 48 Class 40-B
Noduler 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	GX4 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 316 L

Installation arrangements



Horizontal installation on ground
(Horizontal position on base plate)



Installation on perpendicular pipes
(Between two perpendicular pipes in horizontal or vertical position. The axis of motor the horizontal line is not admissible)

