



NAX

End Suction
Mixed Flow
Pumps

General description

This type of pumps can operate in reliable consistent with maximum efficiency and low energy consumption. NAX end suction mixed flow pump type is a kind of volute pump, single stage suction, with closed or semi-open impeller type, depending on the pump size.

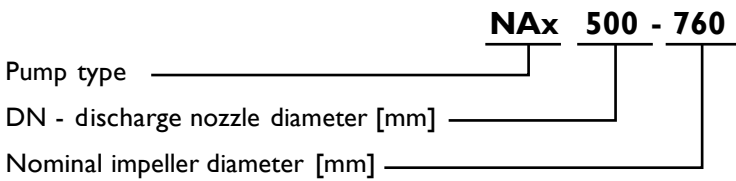
Applications

Handling of sewage, in sewage treatment, industry, power plants and refinery. Suitable for circulating water in power plant, irrigation and other fields.

Standard materials

Pump casing:	Cast iron (JL 1040)
Stuffing Box:	Cast iron (JL 1040)
Impeller:	Cast iron (JL 1040)
Shaft:	CK 60
Casing wear ring:	Cast iron (JL 1040)
Gland Packing	

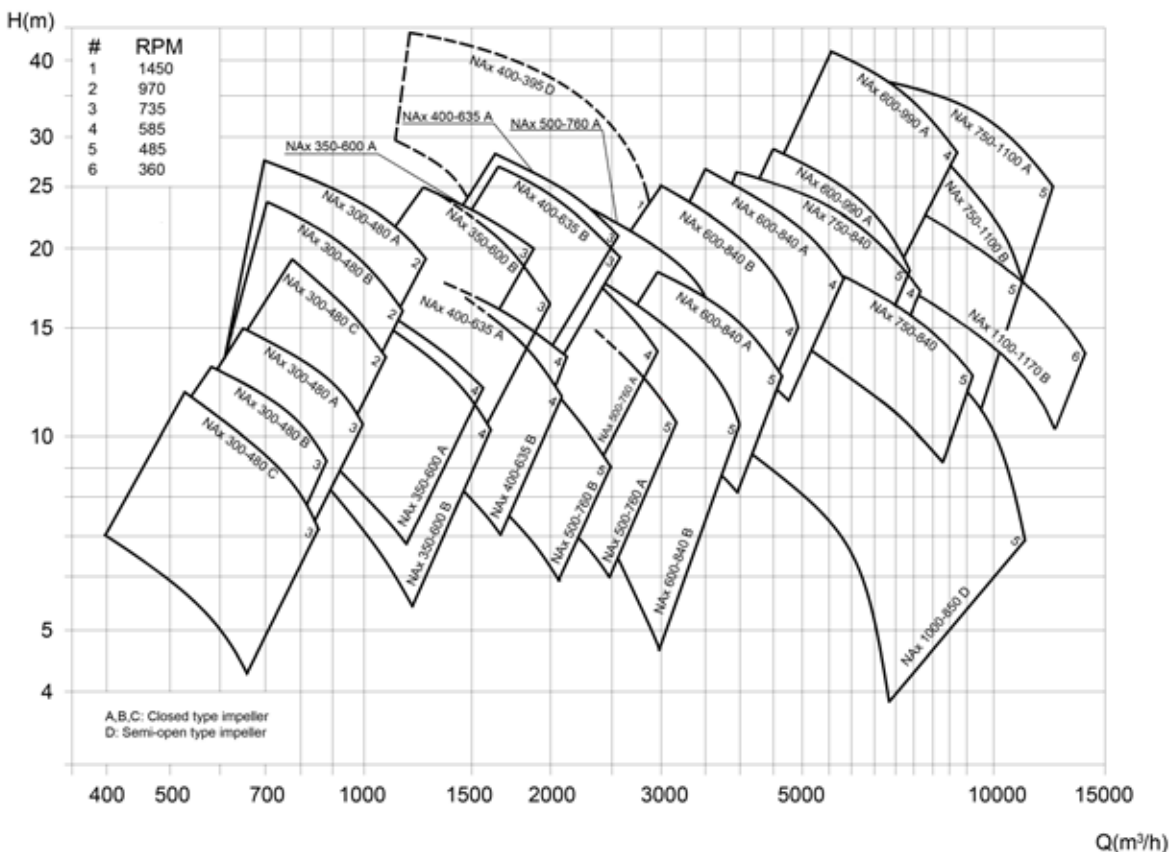
Designation



Design

Horizontally or vertically mounted, volute casing pump. Dry or wet installation, with bottom suction or suction elbow. For vertical installation, there is the ability for direct coupling with motor, motor mounted on and supported by pump, or connection through universal drive shaft.

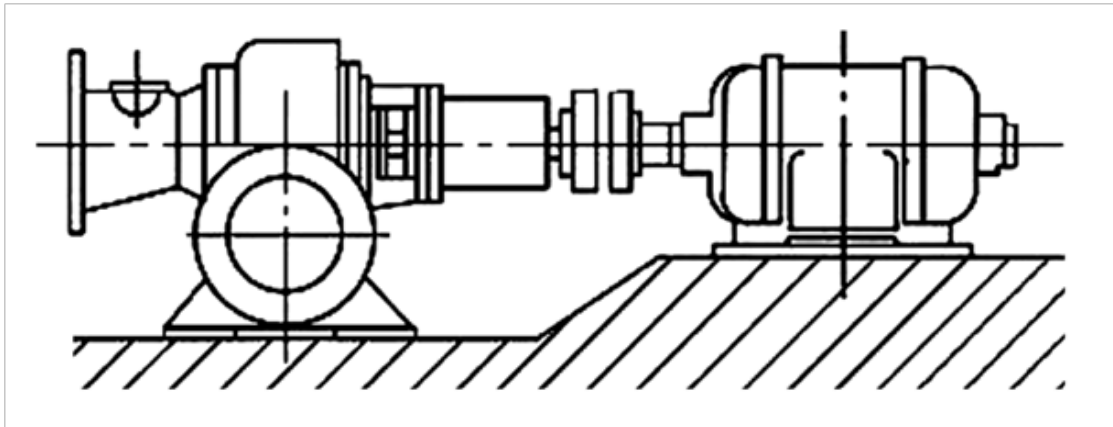
Selection diagrams



* For hydraulic data outside the above curves, please contact DP Pumps.

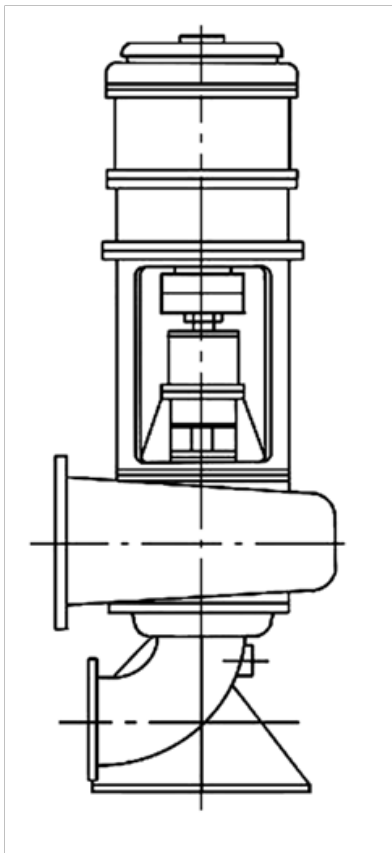
Installation types

NAX - H



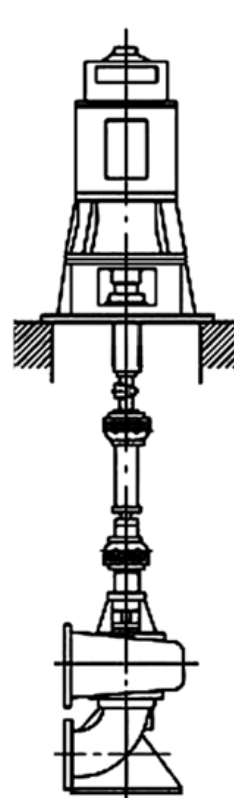
Standard type horizontal installation. For more details and accessories, contact DP Pumps.

NAX - VD



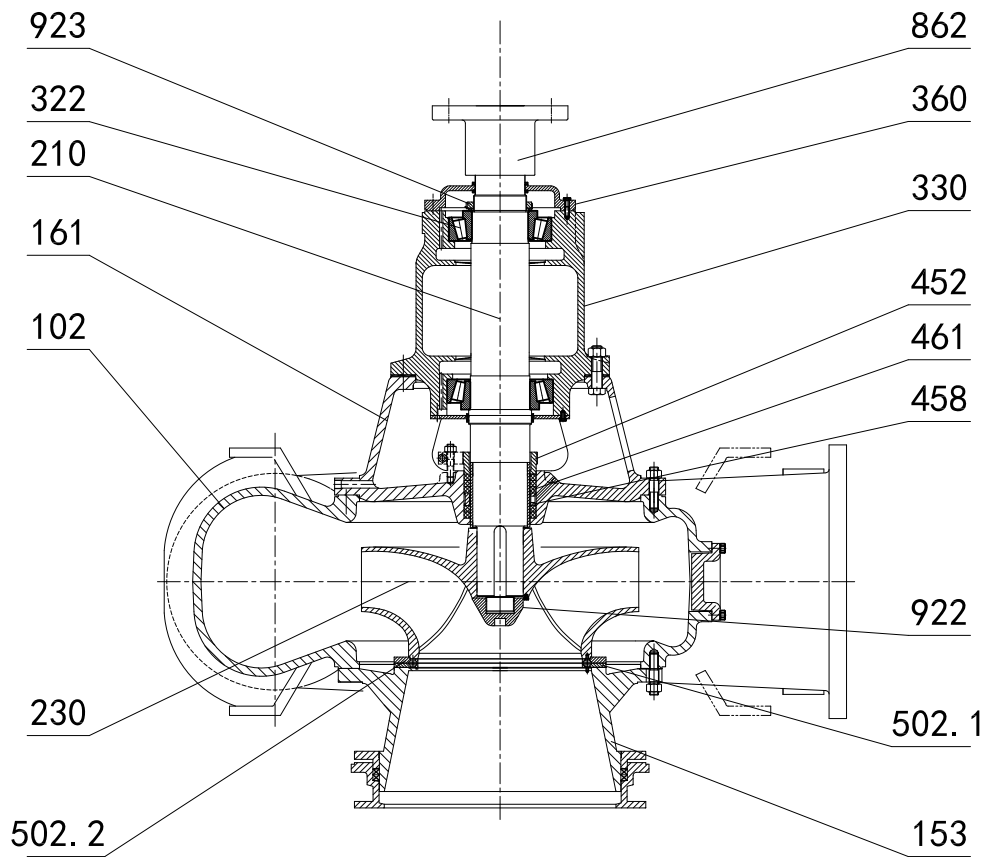
Standard vertical installation, motor mounted on and supported by pump. For more details and accessories, contact DP Pumps.

NAX - MSL



Vertical installation on separate levels or floors, with drive shaft. For more details and accessories, contact DP Pumps.

General assembly drawing with list of components



List of components with standard versions of materials

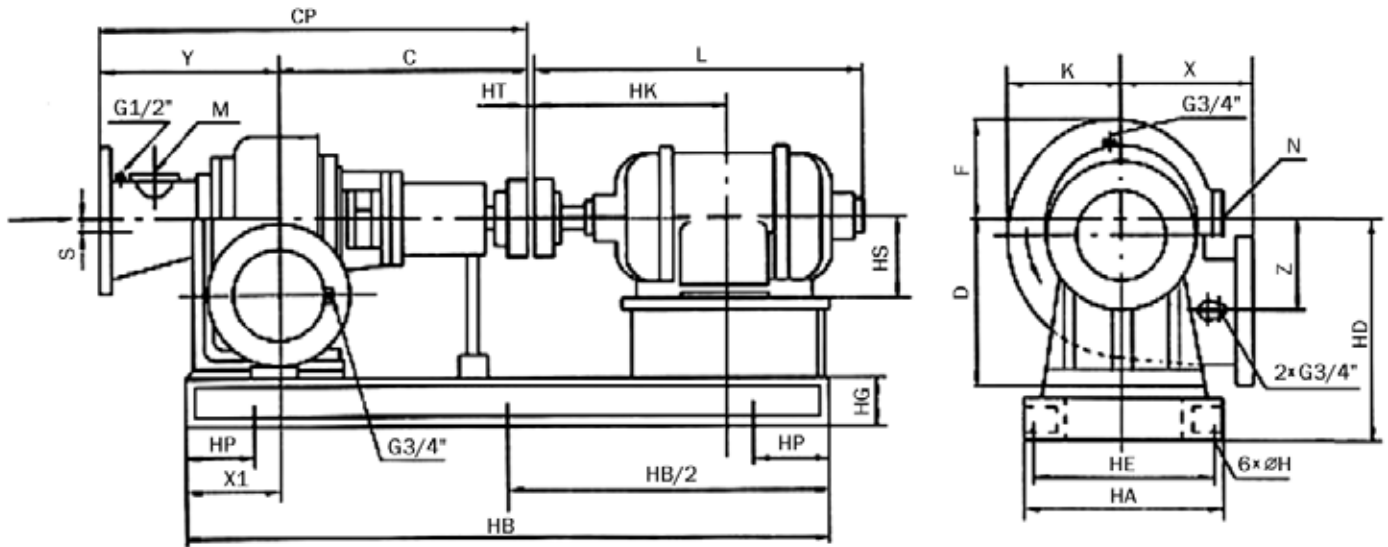
Part number to VDMA	Part name	Standard material of construction
102	Pump casing	Cast Iron GG - 20
153	Suction	Cast Iron GG - 20
161	Housing cover	Cast Iron GG - 20
210	Shaft	CK 60
230	Impeller	Cast Iron GG - 20
322	Cylindrical roller bearing	---
330	Bearing housing	Cast Iron GG - 20
360	Bearing cover	Cast Iron GG - 20
452	Stuffing box gland	Cast Iron GG - 20
458	Locking ring	CuSn12
461	Stuffing box packing	Teflon
502	Wear ring	Cast Iron GG - 20
862	Pump coupling	Cast Iron GG - 20
922	Impeller nut	CK 60
923	Bearing nut	St

Material cross reference

DIN Designation	DIN Number	USA Designation
GG - 20	0.6020	A48 Class 30
X20Cr13	1.4021	AISI 420
Ck35	1.1181	AISI 1035
Ck45	1.1191	AISI 1045
St 35	1.0308	
St 60-2	1.0543	
St 70-2	1.0633	
St 37-2	1.0112	
USt 37-2	1.0036	A 570 Gr 33.36
Rg 5 (CuSn5 ZnPb)	2.1096.01	SAE 40
Rg 7 (CuSn7 ZnPb)	2.1090.01	SAE 660

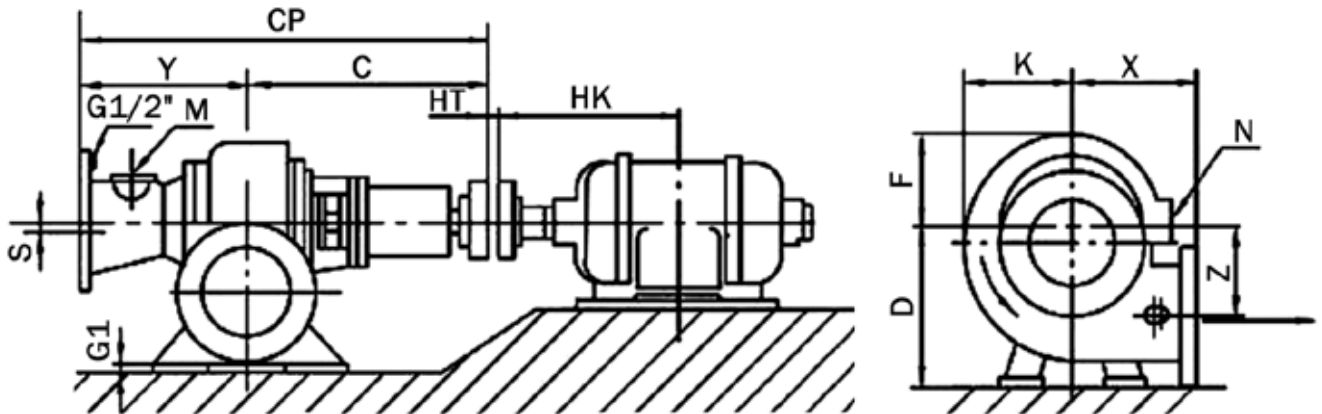
Installation dimensions

- Horizontal - type I * (NAX 300-480 ~ NAX 500-760)**



Pump size	Dimensions to mm																						
	C	CP	D	F	K	M	N	S	X	Y	Z	HA	HB	HD	HE	HG	ØH	HP	HK	HS	HT	L	X ₁
300-480	984	1454	660	406	457	127	127	41	432	470	368	760	2545	875	700	180	19	180	615	315	5	1250	306
350-600	981	1514	864	521	584	127	152	35	533	533	445	915	2560	1110	850	200	24	200	615	315	5	1210	364
400-395	800	1130	720	540	565	-	-	12.5	535	330	527	1150	2244	940	1070	200	27	300	852	610	5	1570	200
400-635	1184	1756	864	546	622	152	152	0	559	572	483	915	2860	1110	850	200	24	200	744	355	6	1280	390
500-760	1170	1786	1041	686	775	152	152	16	676	616	584	1068	3740	1315	998	240	24	240	1165	450	6	2120	444

- Horizontal - type II * (NAX 600-840 ~ NAX 1100-1170)**

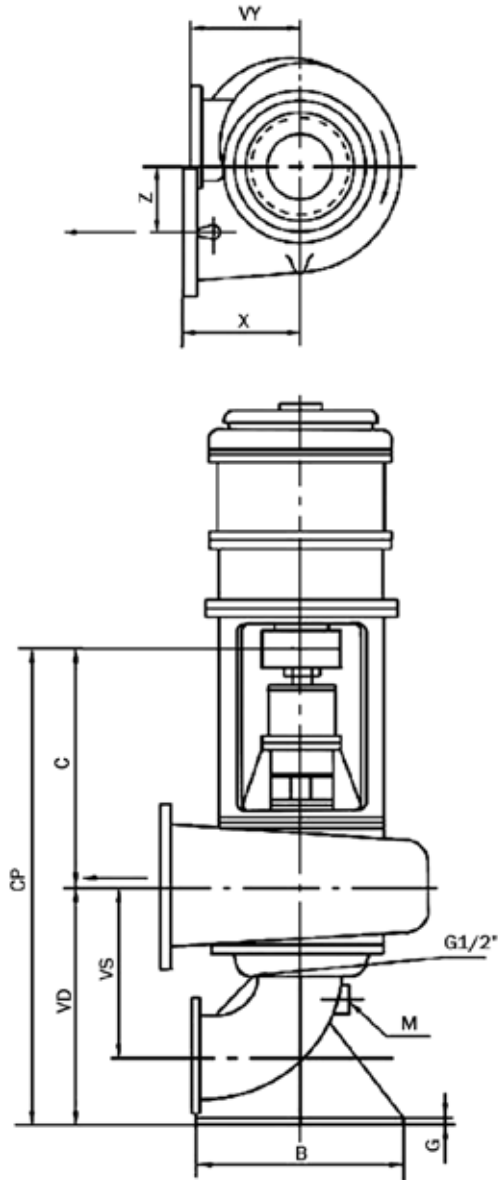


Pump size	Dimensions to mm													
	C	CP	D	F	K	M	N	S	X	Y	Z	G ₁	HK	HT
600-840	1438	2142	1092	851	965	180	180	37	660	704	680	38	1350	7
600-990	1453	2418	1295	1016	1118	259	230	64	836	965	742	38	1630	8
750-840	1281	2317	1205	851	1041	260	230	86	813	1036	560	45	1350	8
750-1100	1486	2859	1321	991	1156	230	230	121	800	1373	826	45	1430	8
1000-850	1262	2392	965	1260	1430	-	-	0	1100	1130	1185	265	800	8
1100-1170	1644	3024	1600	1156	1359	320	320	121	1138	1380	784	55	1430	8

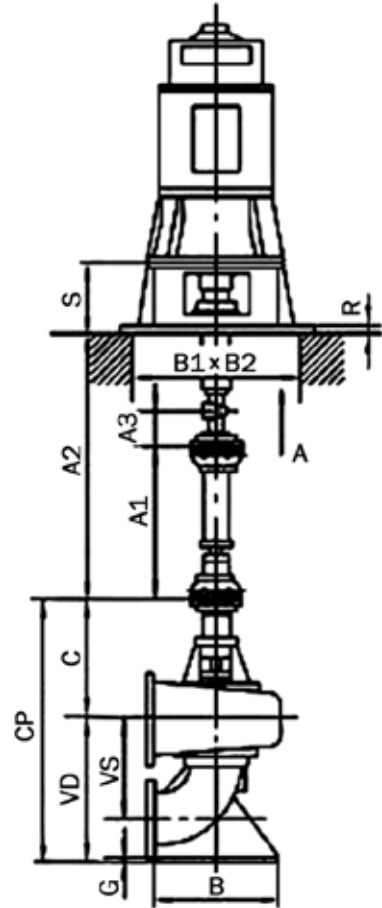
* There is the ability for installation on baseplate for the bigger pump sizes (NAX 600-840 ~ NAX 1100-1170), as well as the installation on separate bases for the smaller pump sizes (NAX 300-480 ~ NAX 500-760). Please contact DP Pumps.

Vertical

VD



*MSL



Pump size	Dimensions to mm									
	B	C	CP	G	M	VD	VS	VY	X	Z
300-480	762	984	1810	32	127	826	546	394	432	368
350-600	762	981	1933	38	127	953	635	406	533	445
400-635	914	1184	2251	38	152	1067	711	470	559	483
500-760	1118	1170	2472	45	152	1302	870	572	676	584
600-840	1950	1438	2142	36	180	440	-	660		680
600-990	2280	1453	2418	50	260	413	-	836		742
750-840	2250	1281	2371	41	260	520	-	813		560
750-1100	2420	1486	2351	50	230	520	-	800		826
1100-1170	2900	1644	2789	38	320	699	-	1138		784

*The dimensions for vertical MSL type installations depend on the needs and the data of the site. Please contact DP Pumps.

Available materials and specifications (*)

	Type	Description	DIN Designation	W.K. Number	EN Designation	USA Designation
Castings	Cast Iron	Grey Cast Iron	GG-20	0.6020	BS-EN 1561:2012 EN-GJL-200 (EN-JL1030)	A48 Class 30
		Grey Cast Iron	GG-25	0.6025	BS-EN 1561:2012 EN-GJL-250 (EN-JL1040)	A48 Class 40
		Ductile Iron	GGG40.3	0.7043	BS-EN 1563:2011 EN-GJS-400-18 (EN-JS1025)	A536 60-40-18
		Ni-Resist	GGG-NiCrNb 20 2	0.7661	EN-ISO2892 EN-GJS-AXNiCrNb20-2	A571 D-2
	Bronze	Tin-Lead Bronze	G-CuSn5Zn5Pb5	2.1096	EN-1982:2008-G-CuSn5Zn5Pb5 (CB491K)	B62 C83600
		Zinc-Free Bronze	G-CuSn10	2.1050	EN-1982:2008-G-CuSn10 (CB480K)	
		Ni-Al Bronze	G-CuAl10Fe5Ni5	-	EN-1982:2008-G-CuAl10 Fe5Ni5	A148 C95500
	Cast Steel	Non alloy steel	GS-45	1.0446	EN-10293-GE240	A 27 (65-35)
		Non alloy steel	GS-52	1.0552	EN-10293-GE260	A 27 (70-40)
		Structural Steel	GP240GH	1.0619	EN 10213-2-GP240GH	A216 (WCB)
	Stainless Steel	Austenitic (316)	GX5CrNiMo19-11-2	1.4408	EN-10213-GX5CrNiMo19-11-2	A351 (CF8M)
		Austenitic (316L)	GX2CrNiMo19-11-2	1.4409	EN-10213-GX2CrNiMo19-11-2	A351 (CF3M)
		Full Austenitic (904L)	GX2NiCrMoCu25-20-5	1.4584	EN-10213-GX2NiCrMoCu25-20-5	~AISI-904L
		Duplex (1B)	GX2CrNiMoCuN25-6-3-3	1.4517	EN-10213-GX2CrNiMoCuN25-6-3-3	A890 (CD4MCuN)
		Duplex (3A)	-	-	-	A890 (CD6MN)
Super Duplex (5A)		GX2CrNiMoN26-7-4	1.4469	EN-10213-GX2CrNiMoN26-7-4	A890 (CE3MN)	
Wrought Steel	Stainless Steel	Martensitic (420)	X20Cr13	1.4021	EN-10088:2005-3 X20Cr13	A 276 UNS S42000
		Martensitic (431)	X17CrNi16-2	1.4057	EN-10088:2005-3 X17CrNi16-2	A 276 UNS S43100
		Austenitic (304)	X10CrNi18-8	1.4310	EN-10088:2005-3 X10CrNi18-8	A 276 UNS S30400
		Austenitic (316)	X5CrNiMo17-12-2	1.4401	EN-10088:2005-3 X5CrNiMo17-12-2	A 276 UNS S31600
		Austenitic (316L)	X2CrNiMo17-12-2	1.4404	EN-10088:2005-3 X2CrNiMo17-12-2	A 276 UNS S31603
		Duplex (2205)	X2CrNiMoN22-5-3	1.4462	EN-10088:2005-3X2CrNiMoN22-5-3	A 276 UNS S32205
		Super Duplex (2507)	X2CrNiMoN25-7-4	1.4410	EN-10088:2005-3 X2CrNiMoN25-7-4	A 276 UNS S32750

* Other material available on request. Please contact DP Pumps.

Materials - Information

Cast Iron / JL 1040 (GG-25) / Grey cast iron

The grey cast iron GG25 to DIN 1691 has very wide application to pumps production. It is usually used as the standard material for the parts of a pump for water, neutral media and/or media unlikely to cause excessive wear.

Ni Al Bronze / CuAl10Ni5Fe4

Aluminium nickel bronze alloy is a special high strength copper aluminium alloy, which is an excellent choice for applications involving heavy loads, abrasive wear resistant, friction, abrasive wear and corrosion. The addition of nickel increases the alloys strength without diminishing its excellent ductility, toughness and corrosion resistance. It is ideally used for sea water applications. Moreover, it has great behaviour to cavitation.

Duplex Steel / GX2CrNiMoCuN25-6-3-3 / Ferritic-austenitic corrosion resistant casting steel

Ferritic-austenitic corrosion resistant casting steel has a great resistance to pitting. This property makes it a good choice to the production of sewage pump for use with media containing substantial amounts of chlorides and acids, for use with sea water; etc. Its great mechanical and chemical characteristics, obtain a wide application in the industry, the power plants and the refinery.

Guarantee, inspections, tests and quality assurance

Pumps are subjected to ISO standard's functional test. Their performance is guaranteed to ISO 9906/A. Other inspections, tests or acceptance inspection conforming to ISO / DIN or another standard are offered as extras. The total quality is assured to EN ISO 9001.

notes

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DPP PUMPS
DRAKOS·POLEMIS

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