

Submersible motor-driven pumps Type AP 80-90 -closed impeller



Uses

They are suitable for transferring liquids containing impurities up to 2 mm in size.

Their hydraulic components: impeller and feed screw in cast iron, pump body in cast iron/steel allow them to be used with water, emulsions and oily substances in general, with a viscosity not exceeding 21 cSt (3° Engle). The temperature of the liquid must not exceed 90°C.

They are commonly used on:

- machine tools (milling and turning machines-machining centres)
- glass processing machinery
- surface treatment plants
- filtration systems

They are normally installed on a tank with a capacity which is proportional to their flow rate, about 6-7 cm from the bottom.

It is important to make sure that the maximum liquid level in the tank is always 3-4 cm lower than the support flange (see figure).

Should the liquid be particularly dirty, it is advisable to build a compartment tank in order to allow the sludge to deposit before it is sucked by the pump.

For different uses, please consult our Technical Office

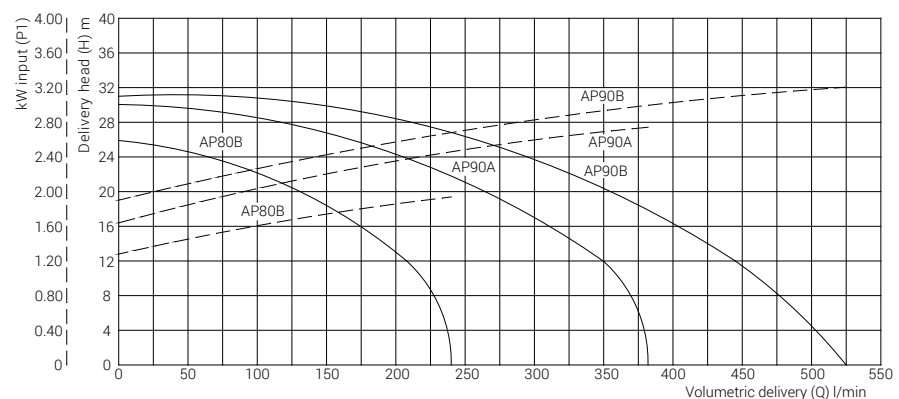
Size and weights table

Type of pump	A mm	B mm	C mm	D mm	ØE mm	ØF mm	ØG mm	ØH mm	ØI mm	ØL mm	M mm	N mm	Mass kg
AP 80B	620	320	300	280	240	1 1/4"	2 1/2"	300	270	13 (n.4)	170	136	37.0
	750	450											43.0
	910	610											46.0
	1160	860											48.0
AP 90A	675	320	355	280	240	1 1/2"	2 1/2"	300	270	13 (n.4)	170	136	41.0
	805	450											47.0
	965	610											49.0
	1215	860											51.0
AP 90B	675	320	355	280	240	1 1/2"	2 1/2"	300	270	13 (n.4)	170	136	43.0
	805	450											49.0
	965	610											51.0
	1215	860											53.0

Rating plate data

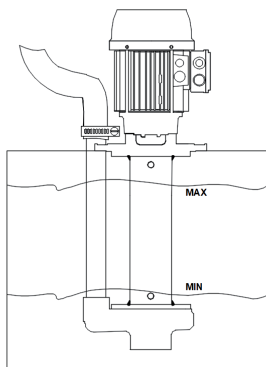
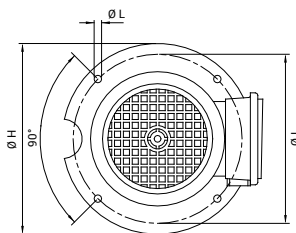
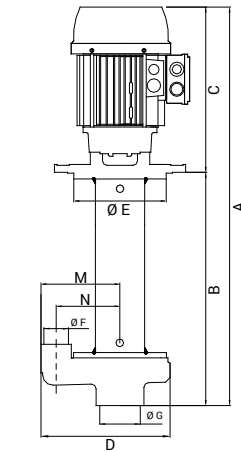
Type of pump	kW		V 230/400 - Hz 50			Q - maxQ litres/min	maxH - H metres
	Input (P1)	Nom. (P2)	In Amp.	n min ⁻¹	cos φ		
AP 80B	1.86	1.5	5.7/3.3	2845	0.83	65 - 240	25 - 0
AP 90A	2.70	2.2	8.1/4.7	2870	0.83	14 - 382	30 - 0
AP 90B	3.58	3.0	10.6/6.1	2855	0.84	119 - 525	30 - 0

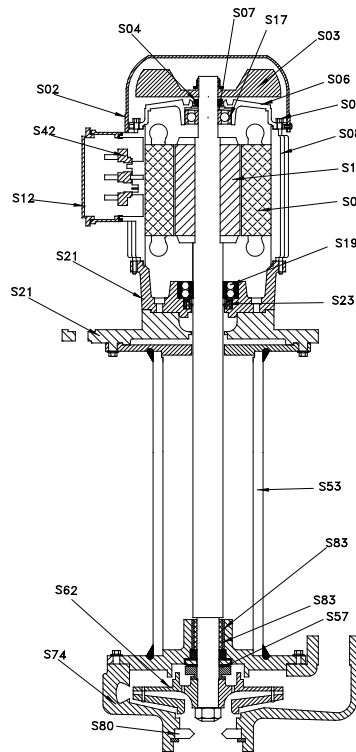
Hydraulic performance curves (closed impeller)



Hydraulic performance table (closed impeller)

Delivery head (H) m →	0	10	12	14	16	18	20	22	24	26	28	30
Type of pump	Volumetric delivery (Q) l/min ↓											
AP 80B	240	222	207	191	173	152	129	106	65			
AP 90A	382	367	350	331	311	289	266	241	211	173	99	14
AP 90B	525	468	449	423	400	374	346	315	276	237	192	119





Spare parts nomenclature

	Component
S02.	Fan cover
S03.	Fan
S04.	V-ring
S05.	Stay rod
S06.	Upper shield
S07.	Spring ring
S08.	Housing
S09.	Wound stator
S12.	Terminal box
S17.	Upper bearing
S18.	Axis + Rotor
S19.	Lower bearing
S21.	Motor flange
S21.	Support flange
S23.	Motor seal ring
S42.	Terminal board
S53.	Pump body
S57.	Mechanical seal
S62.	Impeller
S74.	Impeller-cover
S80.	Suction reduction
S83.	IR rings
S83.	Bushing

AP 80
Materials
Nylon*
Nylon
NBR
Steel
Aluminium
Steel
Aluminium
-
Nylon
-
Steel
-
Cast Iron G20
Cast Iron G20
NBR
-
Cast Iron G20/Steel
-
Cast Iron G20
Cast Iron G20
Nylon
Steel**
Bronze**

AP 90
Materials
Nylon*
Nylon
NBR
Steel
Aluminium
Steel
Aluminium
-
Nylon
-
Steel
-
Cast Iron G20
Cast Iron G20
NBR
-
Cast Iron G20/Steel
-
Cast Iron G20
Cast Iron G20
Nylon ***
Steel**
Bronze**

*On demand Sheet metal

**Available only on suction pipe 860

*On demand Sheet metal

**Available only on suction pipe 860

***Available only for AP90A

Submersible motor-driven pumps Type AP 100-112 -closed impeller



Uses

They are suitable for transferring liquids containing impurities up to 2 mm in size.

Their hydraulic components: impeller and feed screw in cast iron, pump body in cast iron/steel allow them to be used with water, emulsions and oily substances in general, with a viscosity not exceeding 21 cSt (3° Engel). The temperature of the liquid must not exceed 90°C.

They are commonly used on:

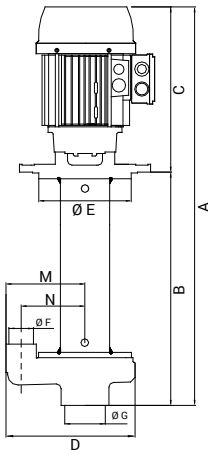
- machine tools (milling and turning machines-machining centres)
- glass processing machinery
- surface treatment plants
- filtration systems

They are normally installed on a tank with a capacity which is proportional to their flow rate, about 6-7 cm from the bottom.

It is important to make sure that the maximum liquid level in the tank is always 3-4 cm lower than the support flange (see figure).

Should the liquid be particularly dirty, it is advisable to build a compartment tank in order to allow the sludge to deposit before it is sucked by the pump.

For different uses, please consult our Technical Office

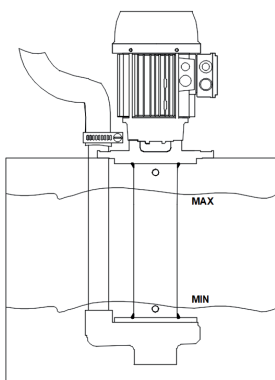
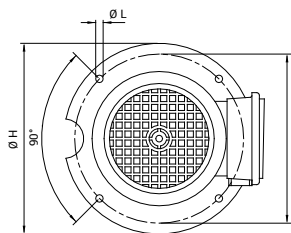


Size and weights table

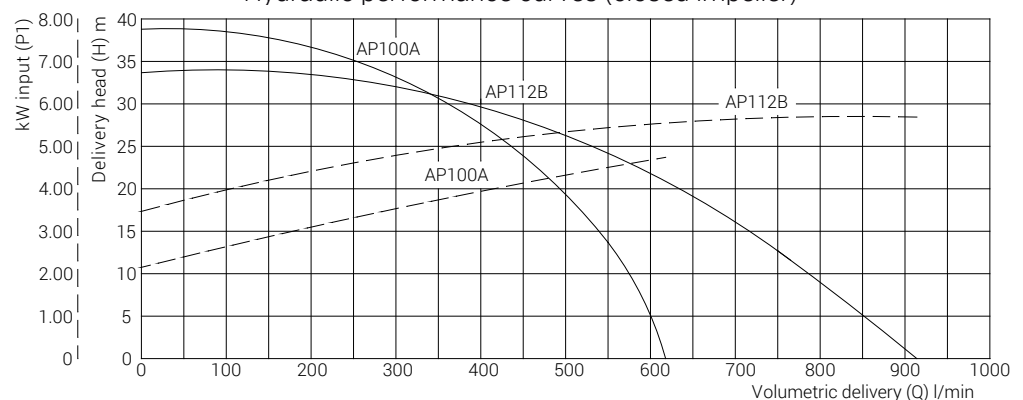
Type of pump	A mm	B mm	C mm	D mm	ØE mm	ØF	ØG	ØH mm	ØI mm	ØL mm	M mm	N mm	Mass kg
AP 100A	700	320	380	280	240	1 ½"	2 ½"	300	270	13 (n.4)	170	136	37.0
	830	450											43.0
	990	610											46.0
	1240	860											48.0
AP 112B	730	320	410	320	240	2"	2 ½"	300	270	13 (n.4)	190	145	43.0
	860	450											49.0
	1020	610											51.0
	1270	860											53.0

Rating plate data

Type of pump	kW		V 230/400 - Hz 50			Q - maxQ litres/min	maxH - H metres
	Input (P1)	Nom. (P2)	In Amp.	n min ⁻¹	cos φ		
AP 100A	4.85	4	14.9/8.6	2875	0.81	138 - 612	38 - 0
AP 112B	6.57	5.5	18.7/10.8	2900	0.88	73 - 914	34 - 0

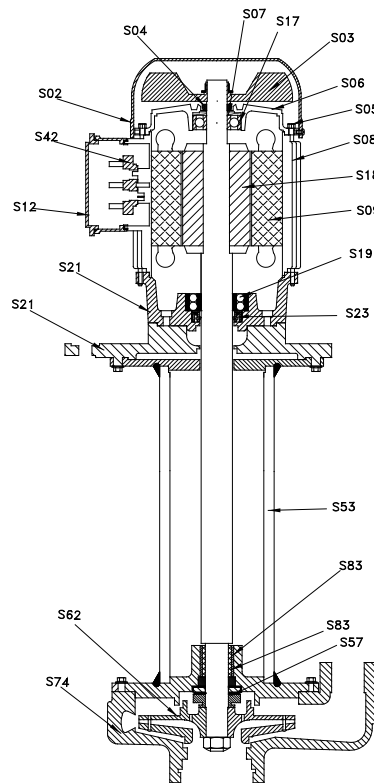


Hydraulic performance curves (closed impeller)



Hydraulic performance table (closed impeller)

Delivery head (H) m →	0	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38
Type of pump	Volumetric delivery (Q) l/min ↓															
AP 100A	612	577	561	545	528	511	492	471	450	426	394	360	323	286	234	138
AP 112B	914	786	772	752	731	706	677	635	580	507	432	346	239	73		



Spare parts nomenclature

	Component
S02.	Fan cover
S03.	Fan
S04.	V-ring
S05.	Stay rod
S06.	Upper shield
S07.	Spring ring
S08.	Housing
S09.	Wound stator
S12.	Terminal box
S17.	Upper bearing
S18.	Axis + Rotor
S19.	Lower bearing
S21.	Motor flange
S21.	Support flange
S23.	Motor seal ring
S42.	Terminal board
S53.	Pump body
S57.	Mechanical seal
S62.	Impeller
S74.	Impeller-cover
S83.	IR rings
S83.	Bushing

AP 100	Materials
	Nylon*
	Nylon
	NBR
	Steel
	Aluminium
	Steel
	Aluminium
	-
	Nylon
	-
	Steel
	-
	Cast Iron G20
	Cast Iron G20
	NBR
	-
	Cast Iron G20/Steel
	-
	Cast Iron G20
	Cast Iron G20
	Steel**
	Bronze**

*On demand Sheet metal
**Available only on suction pipe 860

AP 112	Materials
	Nylon*
	Nylon
	NBR
	Steel
	Aluminium
	Steel
	Aluminium
	-
	Nylon
	-
	Steel
	-
	Cast Iron G20
	Cast Iron G20
	NBR
	-
	Cast Iron G20/Steel
	-
	Cast Iron G20
	Cast Iron G20
	Steel**
	Bronze**

*On demand Sheet metal
**Available only on suction pipe 860

Submersible motor-driven pumps Type AP 90 -open impeller



Uses

They are suitable for transferring liquids containing impurities up to 3 mm in size.

Their hydraulic components: impeller and feed screw in cast iron, pump body in cast iron/steel allow them to be used with water, emulsions and oily substances in general, with a viscosity not exceeding 21 cSt (3° Engle).

The temperature of the liquid must not exceed 90°C.

They are commonly used on:

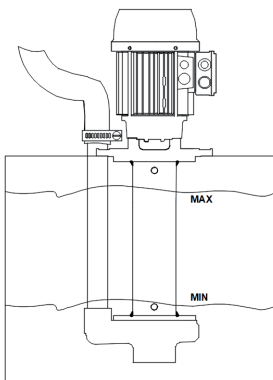
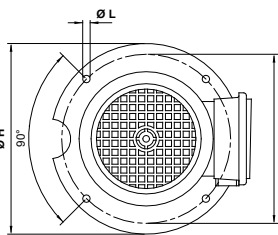
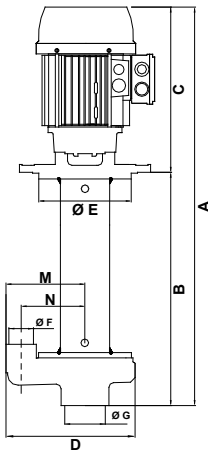
- machine tools (milling and turning machines-machining centres)
- glass processing machinery
- surface treatment plants
- filtration systems

They are normally installed on a tank with a capacity which is proportional to their flow rate, about 6-7 cm from the bottom.

It is important to make sure that the maximum liquid level in the tank is always 3-4 cm lower than the support flange (see figure).

Should the liquid be particularly dirty, it is advisable to build a compartment tank in order to allow the sludge to deposit before it is sucked by the pump.

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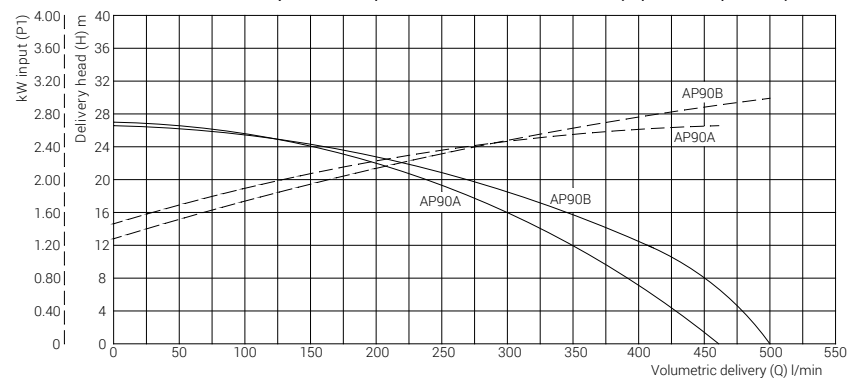
Size and weights table

Type of pump	A mm	B mm	C mm	D mm	ØE mm	ØF	ØG	ØH mm	ØI mm	ØL mm	M mm	N mm	Mass kg
AP 90A	675	320	355	280	240	1 ½"	2 ½"	300	270	13 (n.4)	170	136	41.0
	805	450											47.0
	965	610											49.0
	1215	860											51.0
AP 90B	675	320	355	280	240	1 ½"	2 ½"	300	270	13 (n.4)	170	136	43.0
	805	450											49.0
	965	610											51.0
	1215	860											53.0

Rating plate data

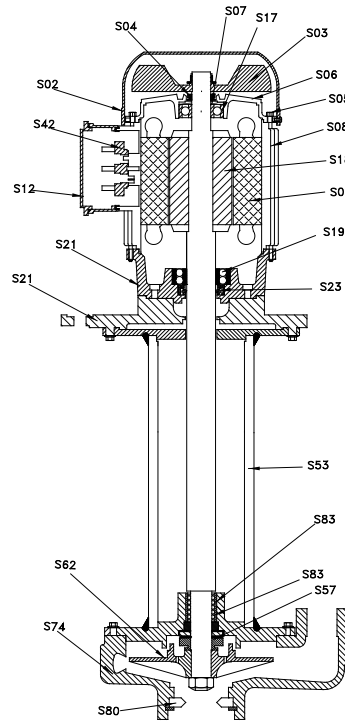
Type of pump	kW		V 230/400 - Hz 50			Q - Q _{max} litres/min	H _{max} - H metres
	Input (P1)	Nom. (P2)	In Amp.	n min ⁻¹	cos φ		
AP 90A	2.70	2.2	8.1/4.7	2870	0.83	85 - 461	26 - 0
AP 90B	3.58	3	10.6/6.10	2855	0.84	66 - 500	26 - 0

Hydraulic performance curves (open impeller)



Hydraulic performance table (open impeller)

Delivery head (H) m →	0	10	12	14	16	18	20	22	24	26	28	30	32	34	36
Type of pump	Volumetric delivery (Q) l/min ↓														
AP 90A	461	374	351	326	300	270	235	198	154	85					
AP 90B	500	436	403	369	338	309	273	233	178	66					



Spare parts nomenclature

	Component
S02.	Fan cover
S03.	Fan
S04.	V-ring
S05.	Stay rod
S06.	Upper shield
S07.	Spring ring
S08.	Housing
S09.	Wound stator
S12.	Terminal box
S17.	Upper bearing
S18.	Axis + Rotor
S19.	Lower bearing
S21.	Motor flange
S21.	Support flange
S23.	Motor seal ring
S42.	Terminal board
S53.	Pump body
S57.	Mechanical seal
S62.	Impeller
S74.	Impeller-cover
S80.	Suction reduction
S83.	IR rings
S83.	Bushing

AP 90	Materials
	Nylon*
	Nylon
	NBR
	Steel
	Aluminium
	Steel
	Aluminium
	-
	Nylon
	-
	Steel
	-
	Cast Iron G20
	Cast Iron G20
	NBR
	-
	Cast Iron G20/Steel
	-
	Cast Iron G20
	Cast Iron G20
	Nylon***
	Steel**
	Bronze**

*On demand Sheet metal

**Available only on suction pipe 860

***Available only for AP90A

Submersible motor-driven pumps Type AP 100-112 -open impeller



Uses

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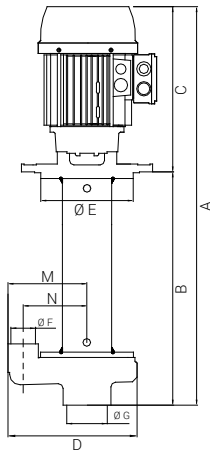
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- filtration systems

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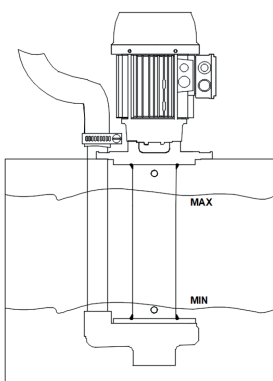
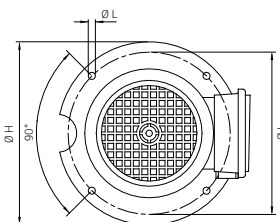


Size and weights table

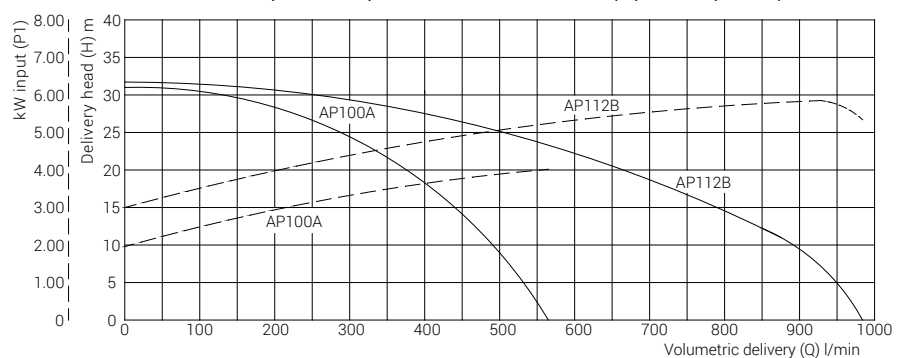
Type of pump	A mm	B mm	C mm	D mm	ØE mm	ØF	ØG	ØH mm	ØI mm	ØL mm	M mm	N mm	Mass kg
AP 100A	700	320	380	280	240	1 ½"	2 ½"	300	270	13 (n.4)	170	136	37.0
	830	450											43.0
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AP 112B	730	320	410	320	240	2"	2 ½"	300	270	13 (n.4)	190	145	43.0
	860	450											49.0
	1020	610											51.0
	1270	860											53.0

Rating plate data

Type of pump	kW		V 230/400 - Hz 50			Q - maxQ litres/min	maxH - H metres
	Input (P1)	Nom. (P2)	In Amp.	n min ⁻¹	cos φ		
AP 100A	4.85	4	14.9/8.6	2875	0.81	156 - 565	30 - 0
AP 112B	6.57	5.5	18.7/10.8	2900	0.88	48 - 984	32 - 0

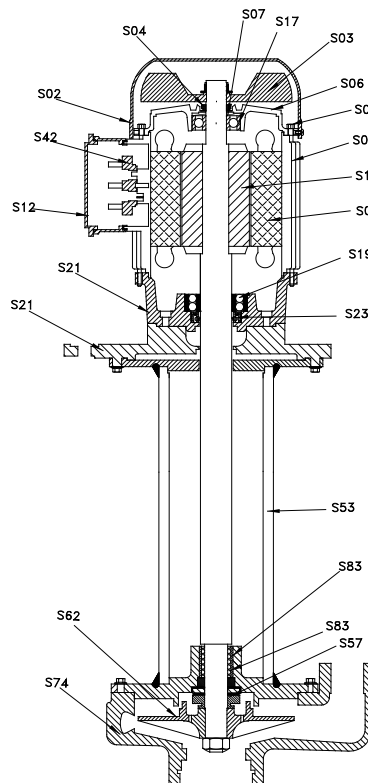


Hydraulic performance curves (open impeller)



Hydraulic performance table

Delivery head (H) m →	<10	10	12	14	16	18	20	22	24	26	28	30	32	34	36
Type of pump	Volumetric delivery (Q) l/min ↓														
AP 100A	565	495	475	454	431	406	375	342	306	270	224	156			
AP 112B	984	893	865	814	765	712	655	596	528	461	372	257	48		



Spare parts nomenclature

	Component
S02.	Fan cover
S03.	Fan
S04.	V-ring
S05.	Stay rod
S06.	Upper shield
S07.	Spring ring
S08.	Housing
S09.	Wound stator
S12.	Terminal box
S17.	Upper bearing
S18.	Axis + Rotor
S19.	Lower bearing
S21.	Motor flange
S21.	Support flange
S23.	Motor seal ring
S42.	Terminal board
S53.	Pump body
S57.	Mechanical seal
S62.	Impeller
S74.	Impeller-cover
S83.	IR rings
S83.	Bushing

AP 100
Materials
Nylon*
Nylon
NBR
Steel
Aluminium
Steel
Aluminium
-
Nylon
-
Steel
-
Cast Iron G20
Cast Iron G20
NBR
-
Cast Iron G20/Steel
-
Cast Iron G20
Cast Iron G20
Steel**
Bronze**

AP 112
Materials
Nylon*
Nylon
NBR
Steel
Aluminium
Steel
Aluminium
-
Nylon
-
Steel
-
Cast Iron G20
Cast Iron G20
NBR
-
Cast Iron G20/Steel
-
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