

Submersible Pumps



PUMPS



Pumping Solution

50 Hz

INTRODUCTION

Submersible bore well pumps for 3" (DN 80 mm), 4" (DN 100 mm), 6" (DN 150 mm), 8" (DN 200mm), 10" (DN 250 mm) and 12" (DN 300 mm) wells.

Sized for connection to the motor according to NEMA standards up to 8" motor joining.

Delivery casing with built-in non-return valve.

These pumps are available in two basic impellers design.

Radial flow impellers

- ☐ 3" Pumps : N51H, N52H
- ☐ 4" Pumps : N4A, N12
- ☐ 6" Pumps : K40A, K50A, K60A, K80A, K100A, K120A, N40A, N50A, N60A, N80A, N100A
- ☐ 8" Pumps : K150A, K250A, K300A, K400A, K500A
- ☐ 10" Pumps : L90, L125, L150

Mixed flow impellers

- ☐ 4" Pumps : N6A, N8H, N10H, N15A, N15H, N20A, N25, N31, N40, G30, G50
- 6" Pumps : M10A, M12A, M14A, M16A, B20, B25A
- 8" Pumps : F40, F50, F60, F70, F80, F100
- 10" Pumps : P150A, P200A, P250A, P300A
- 12" Pumps : P350A, P500A.

Connection: Screwed pipe connection with BSP thread as standard.
(NPT thread pipe connection are available on request).

APPLICATIONS

- ☐ Water supply
- ☐ Irrigation
- ☐ Civil
- ☐ Industrial
- ☐ Fire fighting

OPERATING CONDITIONS

Flow range	: Max. 4.7 m ³ /h (for 3" pump) Max. 33 m ³ /h (for 4" pump) Max. 73.8 m ³ /h (for 6" pump) Max. 151.2 m ³ /h (for 8" pump) Max. 289.1 m ³ /h (for 10" pump) Max. 486 m ³ /h (for 12" pump)
Head range	: Max. 85 metres (for 3" pump) Max. 355 metres (for 4" pump) Max. 565 metres (for 6" pump) Max. 660 metres (for 8" pump) Max. 833 metres (for 10" pump) Max. 284 metres (for 12" pump)
Liquid temperature	: 0°C to +45°C
Installation depth	: 350 metres
Maximum sand content:	50 g/m ³

MOTOR

Motor type	: Submersible rewindable motor
Ratings	: 1 phase - 0.37 to 4 kW, : 3 phase - 0.37 to 185 kW
Rated speed	: 2900 rpm
Enclosure class	: IP 68
Insulation class	: F (Oil Filled motors)
Nominal voltages	: 1 phase 220 V, 230 V
(Tolerance +6% / -10%)	: 3 phase 380 V, 400 V, 415 V
Supply frequency	: 50 Hz
Ambient temperature	: +45°C
Water pH	: 6.5 - 8
Duty / Rating	: S1 / Continuous
Direction of rotation	: Clockwise as seen from the pump coupling side.

PUMPED LIQUIDS

These pumps are designed for liquids which are thin, clean, non-aggressive, non-explosive, not containing solid particles or fibres.

DESIGN FEATURES

All pumps have been designed using computational fluid dynamics to ensure maximum efficiency.

All pumps are designed using material which can work with sand found in the bore well.

All journal bearing and impeller were ring are made of Nitrile rubber to ensure that performances of pumps remain the same over a period of time.

On all Bronze impeller are available in stainless steel to provide high abrasion resistance to sand found in bore well.

All pumps are provided with upthrust bearing to control axial movement of the impeller assembly during transportation as well as startup.

Low friction Non return valve is provided on all pumps to reduce waters hammer when the pumps is stopped.

All Impellers are individually balanced to G 6.3 of ISO.

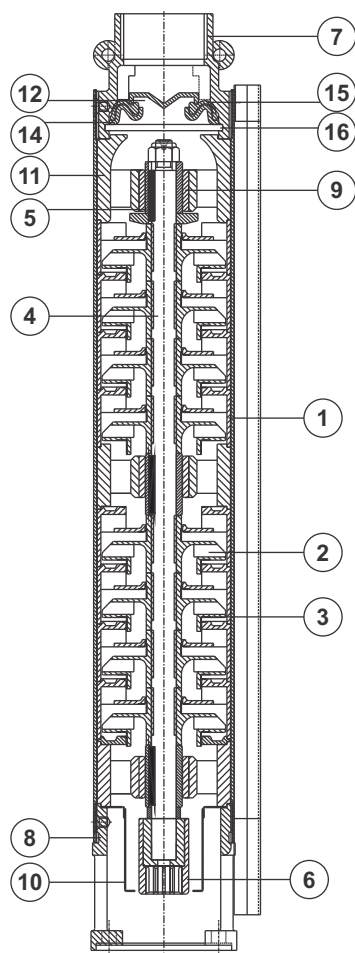
The entire shaft is protected by stainless steel which can be easily replaced when they wear out during maintenance.

All components are machined using state of the art CNC machines to ensure high dimensional accuracy which gives a longer life to the pump.



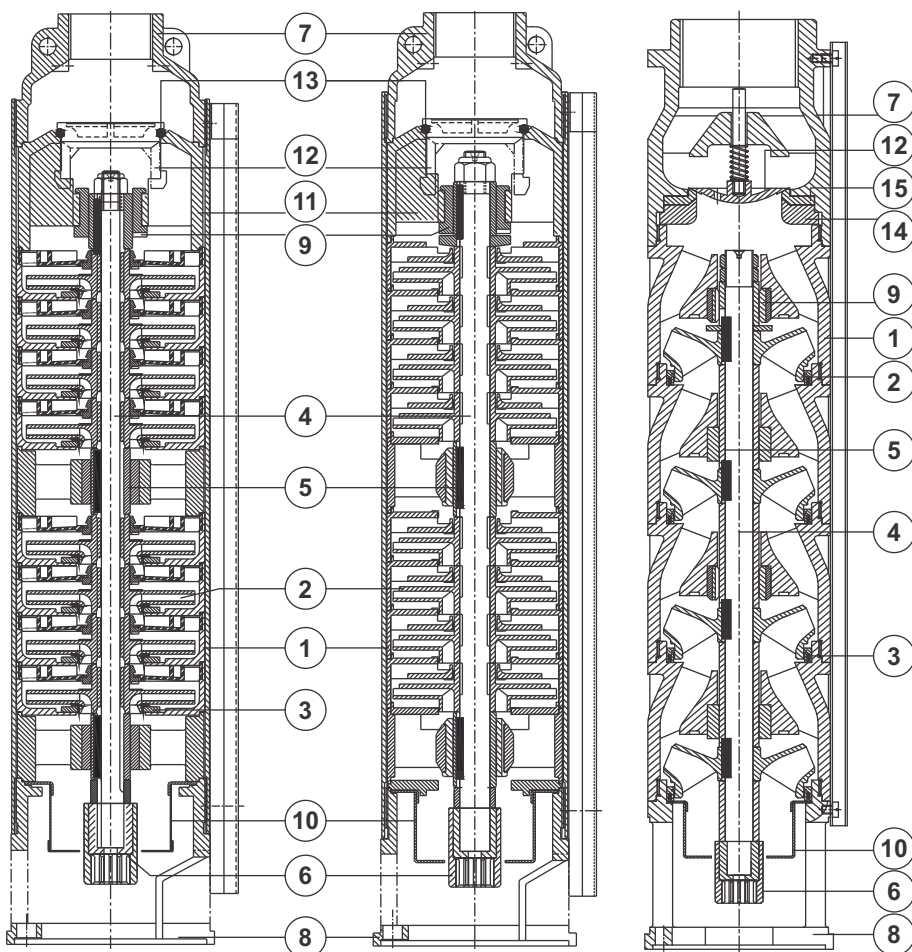
SECTIONAL DRAWING & MATERIALS

3" PUMP



N51H, N52H

4" PUMP



**N4A, N6A, N8H,
N10H, N12, N15A,
N15H, N20A, N31, N40**

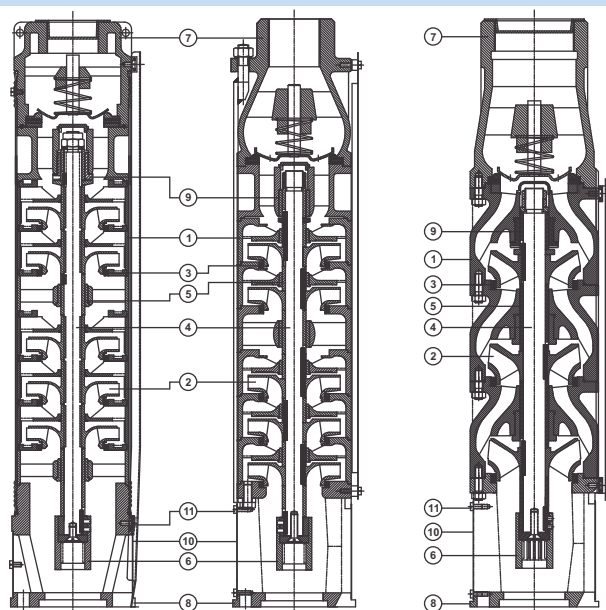
G30, G50

POS.	COMPONENT	3" PUMP "N" TYPE	4" PUMP	
			"N" TYPE	"G" TYPE
1	Bowl / Diffuser	Noryl GFN3V*	Noryl GFN3V*	Grey iron 200 ISO 185
2	Impeller	Noryl GFN3V*	Noryl GFN3V*	S.S AISI 410
3	Neck ring	S.S AISI 304	S.S AISI 304	Nitrile rubber
4	Shaft	S.S AISI 410	S.S AISI 410	S.S AISI 410
5	Shaft sleeve	S.S AISI 410	S.S AISI 410	S.S AISI 410
6	Couple	S.S AISI 410	S.S AISI 410	S.S AISI 410
7	Delivery casing	CF8	CF8	Grey iron 200 ISO 185
8	Suction case	CF8	CF8	Grey iron 200 ISO 185
9	Bearing bush	Bronze	Nitrile rubber	Nitrile rubber/Bronze
10	Strainer	S.S AISI 304	S.S AISI 304	S.S AISI 304
11	Top support	Grey Iron 200 ISO 185	Noryl GFN3V*	-
12	NRV base	S.S AISI 304	ABS	Grey iron 200 ISO 185
13	'O' ring	-	Nitrile rubber	-
14	NRV ring	S.S AISI 304	-	Grey iron 200 ISO 185
15	NRV rubber ring	Nitrile rubber	-	Nitrile rubber
16	NRV circlip	Spring steel	-	-

Note: * Available in 20% Glass filled polycarbonate on request.

SECTIONAL DRAWING & MATERIALS

6" PUMP

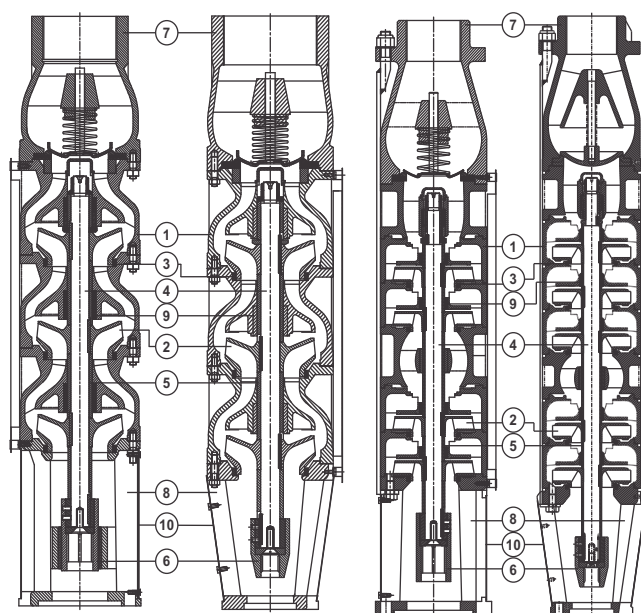


**N40A, N50A,
N60A, N80A,
N100A**

**K40A, K50A,
K60A, K80A,
K100A, K120A**

**M10A, M12A,
M14A, M16A,
B20, B25A**

8" PUMP



**F40, F50, F60,
F70, F80, F100**

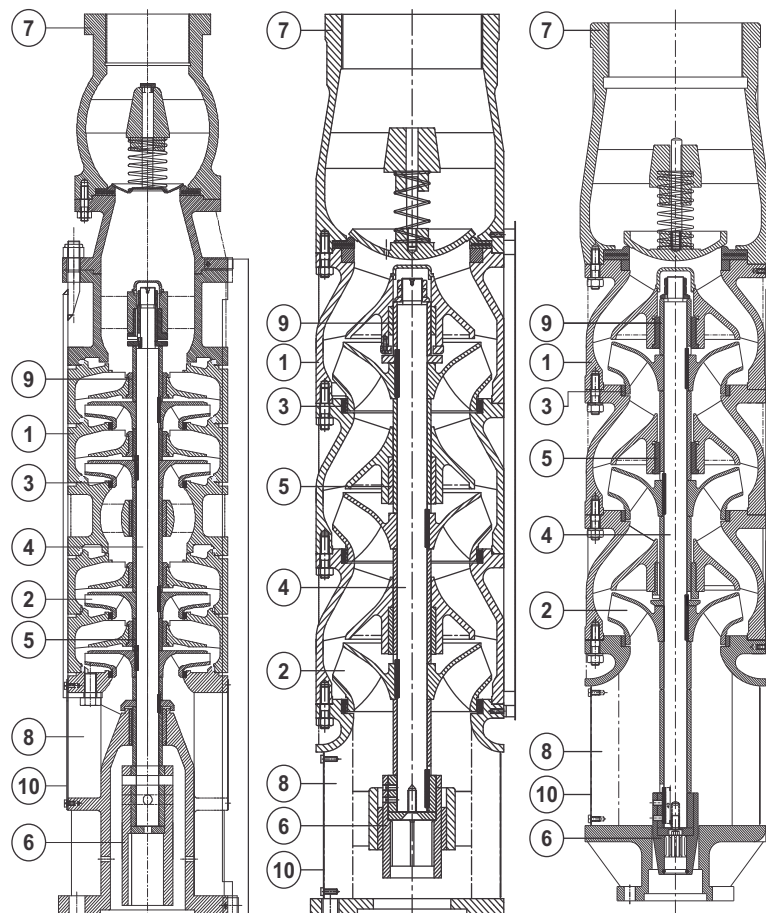
**K150A, K250A,
K300A, K400A, K500A**

POS.	COMPONENT	6" PUMP		8" PUMP
		"N & K" TYPE	"M & B" TYPE	"N" TYPE
1	Bowl / Diffuser	Noryl GFN3V**	Grey iron 200 ISO 185	Grey iron 200 ISO 185
2	Impeller	Noryl GFN3V**	Bronze*	Bronze*
3	Neck ring	Nitrile rubber	Nitrile rubber	Nitrile rubber
4	Shaft	S.S AISI 410	S.S AISI 410	S.S AISI 410
5	Shaft sleeve	S.S AISI 410	S.S AISI 410	S.S AISI 410
6	Couple	S.S AISI 410	S.S AISI 410	S.S AISI 410
7	Delivery casing	Grey iron 200 ISO 185	Grey iron 200 ISO 185	Grey iron 200 ISO 185
8	Suction case	Grey iron 200 ISO 185	Grey iron 200 ISO 185	Grey iron 200 ISO 185
9	Bearing bush	Nitrile rubber	Nitrile rubber	Nitrile rubber
10	Strainer	S.S AISI 202	S.S AISI 202	S.S AISI 202

Note: * S.S AISI 410 available on request. ** Noryl GFN3V = Available in 20% Glass filled polycarbonate on request.

SECTIONAL DRAWING & MATERIALS

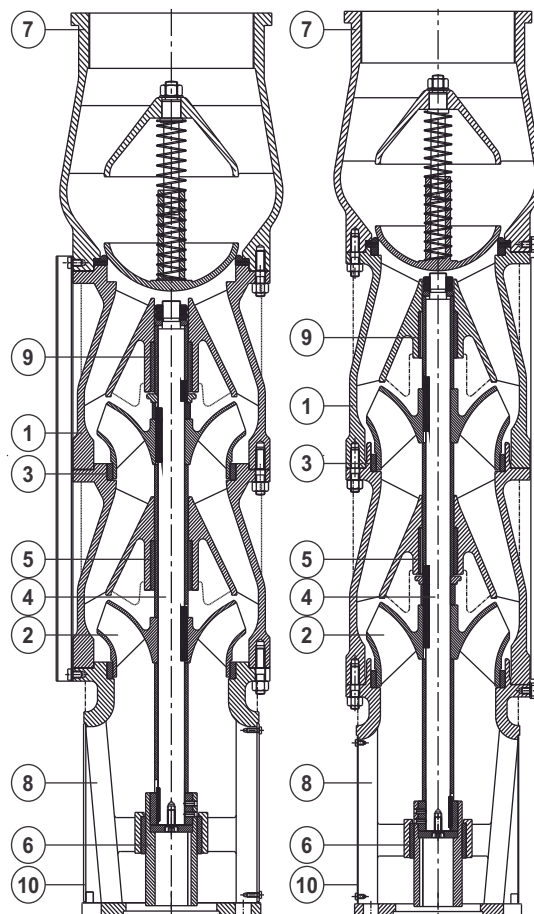
10" PUMP



**L90, L125,
L150**

**P150A, P200A,
P250A, P300A**

12" PUMP



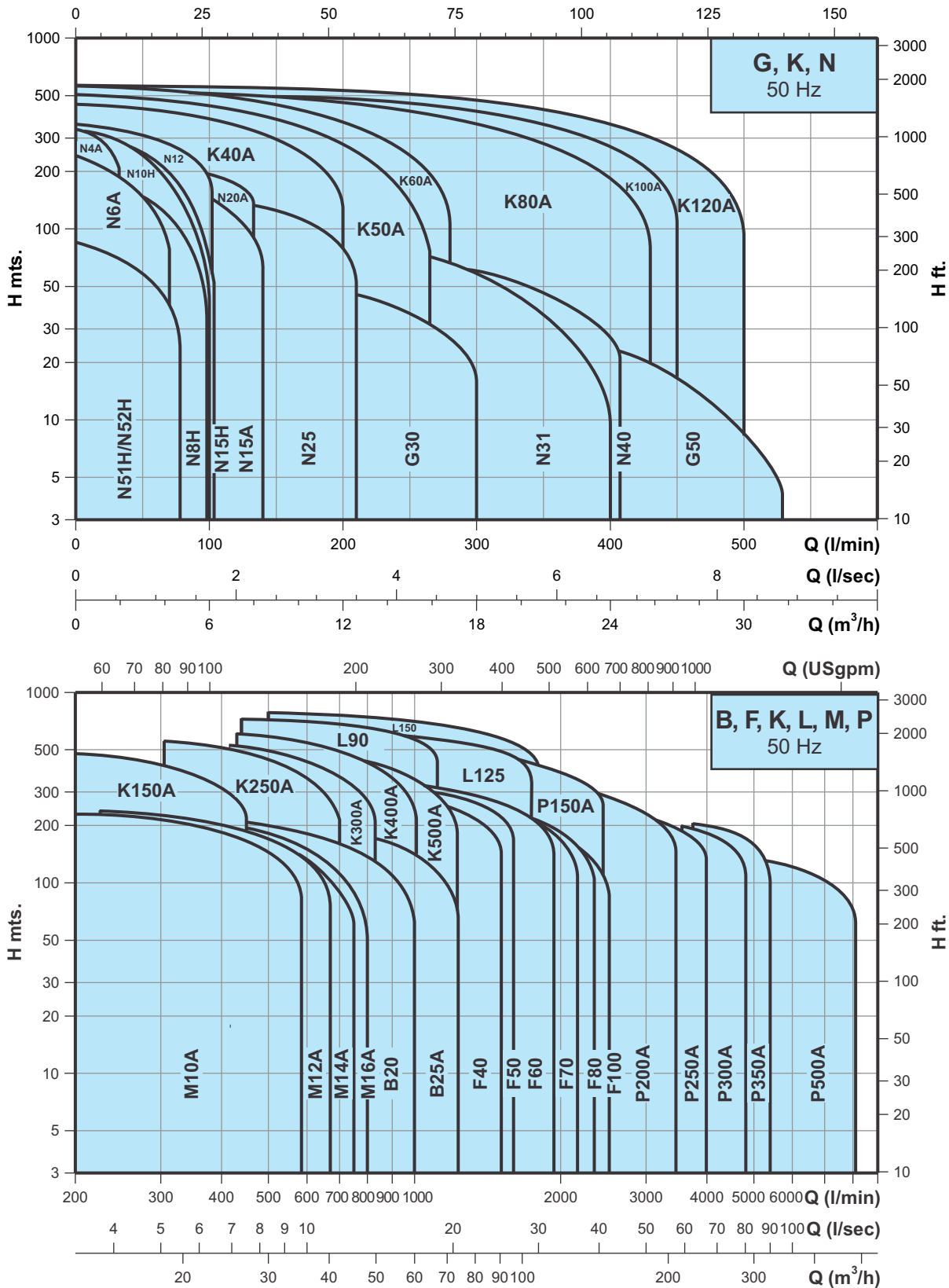
P350A

P500A

POS.	COMPONENT	10" PUMP "L & P" TYPE	12" PUMP "P" TYPE
1	Bowl / Diffuser	Grey iron 200 ISO 185	Grey iron 200 ISO 185
2	Impeller	Bronze*	Bronze*
3	Neck ring	Nitrile rubber	Nitrile rubber
4	Shaft	S.S AISI 410	S.S AISI 410
5	Shaft sleeve	S.S AISI 410	S.S AISI 410
6	Couple	S.S AISI 410	S.S AISI 410
7	Delivery casing	Grey iron 200 ISO 185	Grey iron 200 ISO 185
8	Suction case	Grey iron 200 ISO 185	Grey iron 200 ISO 185
9	Bearing bush	Nitrile rubber	Nitrile rubber
10	Strainer	S.S AISI 202	S.S AISI 202

Note: * S.S AISI 410 available on request.

PERFORMANCE RANGE



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