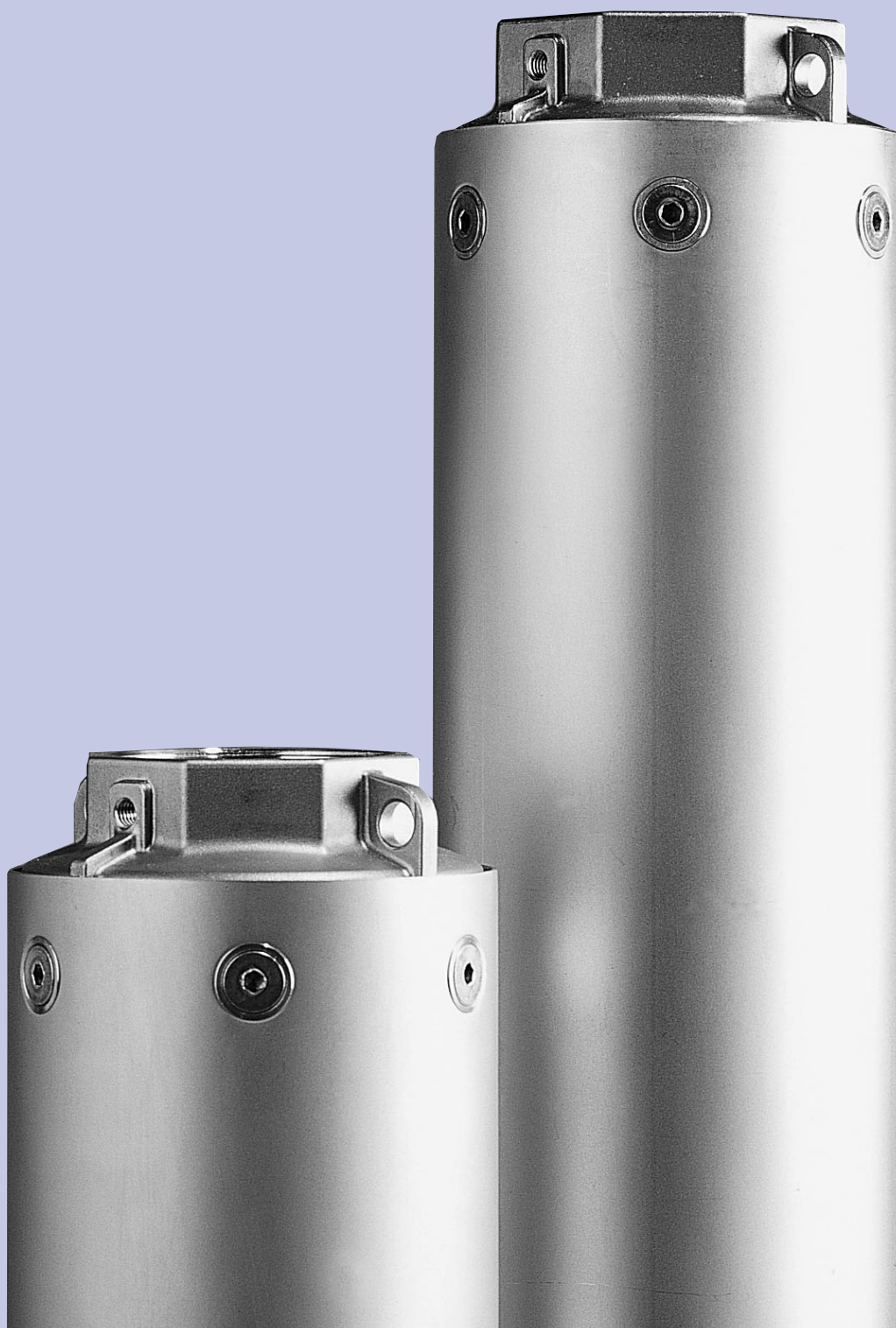




VS SERIES

6" SUBMERSIBLE PUMPS AND ACCESSORIES



Index

VS Series Characteristics

VS Series Parts Description

VS Series Performance Curves and Tables

VS Series Pump Sections and List of Main Components

VS Series. Stainless Steel Submersible Pumps for 6" deep wells and larger

APPLICATIONS

This heavy-duty 6" is specially designed for:

- Municipal water works
- Water distribution and pressure boosting
- Irrigation and sprinkler systems, water treatment plants, filtration and reverse osmosis
- Industrial cooling and processing
- Mining industry, drainage and dewatering
- Fountains
- Fire-fighting equipment
- General industry

FEATURES

- Fabricated stainless steel impellers and diffusers for corrosion resistance
- Heavy duty stainless steel structure to assure permanent alignment of all the components in order to increase run time and trouble-free operation
- Teflon floating neck ring, ceramic guide journal and Nitrile rubber fluted bearing ensure durability against wear for long-lasting constant performances and product reliability
- Hexagonal shaft to ensure positive drive of the impeller stack
- Compact, reliable and suited to operate in horizontal position
- Built-in check valve to protect the pump against water hammer risk
- The hydraulic design is such to enhance the overall efficiency thus reducing energy consumption and making the pumping systems more cost effective

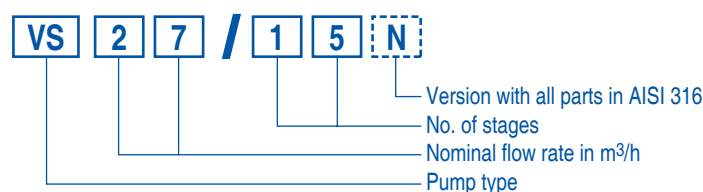
SPECIFICATIONS

- Capacities up to 72 m³/h at 50Hz / 318 GPM at 60Hz
- 49 Bar (490 m) at 50Hz / 1620 feet at 60Hz
- Maximum allowable amount of sand 50 gr/m³ (of the same hardness and granulometry of silt)
- Water temperature range: from -5° C to 60°C
- Rotation: counter clockwise when looking into the discharge
- Motor adapter in compliance with NEMA standard
- Pump can work continuously in a vertical or horizontal position

AVAILABLE OPTIONS

- 316 Stainless steel (N) version (DIN/EN 1.4401)
- Double cable guard
- Rp 2" and Rp 3" discharge heads for VS 13 and VS 18
- Rp 4" discharge head
- 4" motor adapter
- High temperature version (till 90° C)

PUMP IDENTIFICATION CODE





Radial flow stage

Mixed flow stage



PARTS DESCRIPTION	Type	MATERIAL			
		Standard version		N version	
		AISI	DIN / EN	AISI	DIN / EN
Outer case with motor adapter	Stainless steel	304	1.4301	316	1.4404
Discharge head with built-in check valve	Stainless steel	316	1.4404	316	1.4404
Sealing O-Ring	Nitrile rubber (NBR)				
Upper bowl	Stainless steel	316	1.4404	316	1.4404
Upper bearing bush	Nitrile rubber (NBR)				
Upper journal sleeve	Stainless steel with ceramic coating	329	1.4460	329	1.4460
Pump shaft	Stainless steel	304	1.4301	316	1.4401
Coupling to motor	Stainless steel	316/329	1.4401/1.4460	316/329	1.4401/1.4460
Diffuser	Stainless steel	304	1.4301	316	1.4404
Floating neck ring	Teflon (PTFE)				
Secondary bearing bush	Nitrile rubber (NBR)				
Secondary journal sleeve	Stainless steel	304	1.4301	316	1.4401
Impeller	Stainless steel	304	1.4301	316	1.4404
Cable guard	Stainless steel	316	1.4401	316	1.4401
Suction strainer	Stainless steel	316	1.4401	316	1.4401
Insert locking outer case	Stainless steel	316	1.4401	316	1.4401
Up-thrust washer	Stainless steel	316	1.4401	316	1.4401
Up-thrust disc	Teflon (PTFE)				
Screws and washers	Stainless steel	316	1.4401	316	1.4401

VS Series Performance Curves and Tables

VS 13 50Hz

VS 18 50Hz

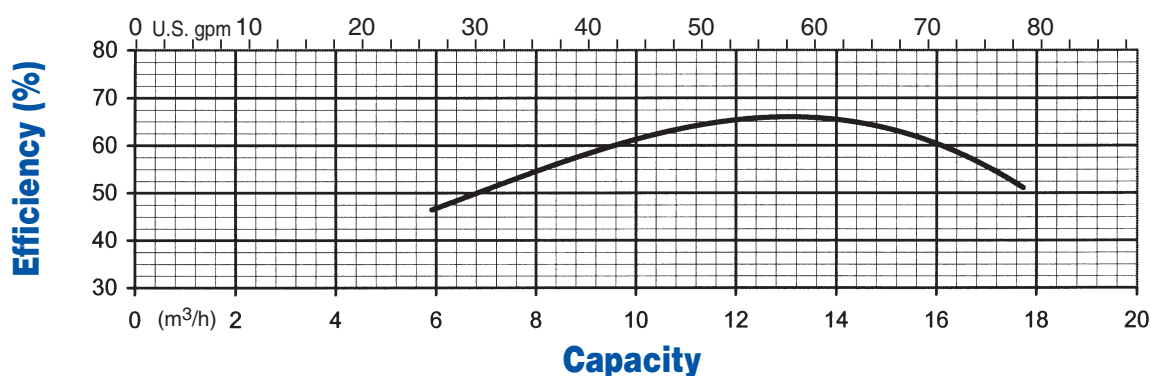
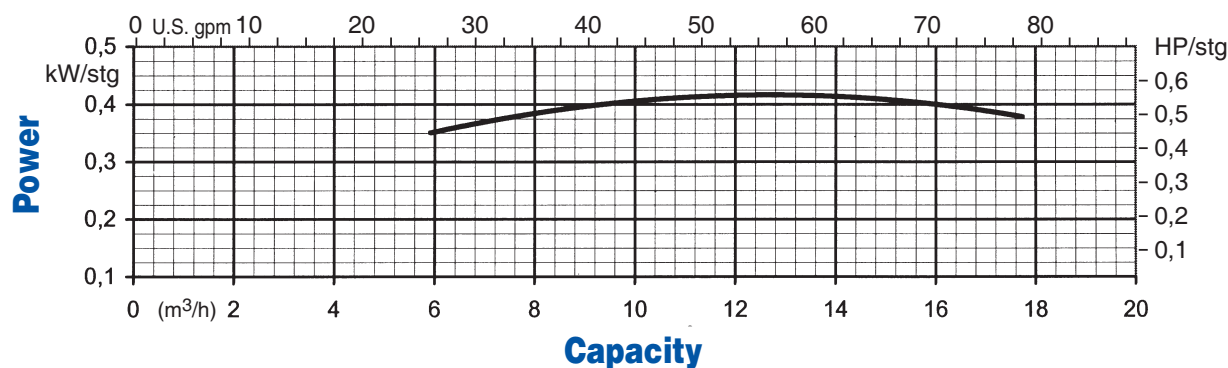
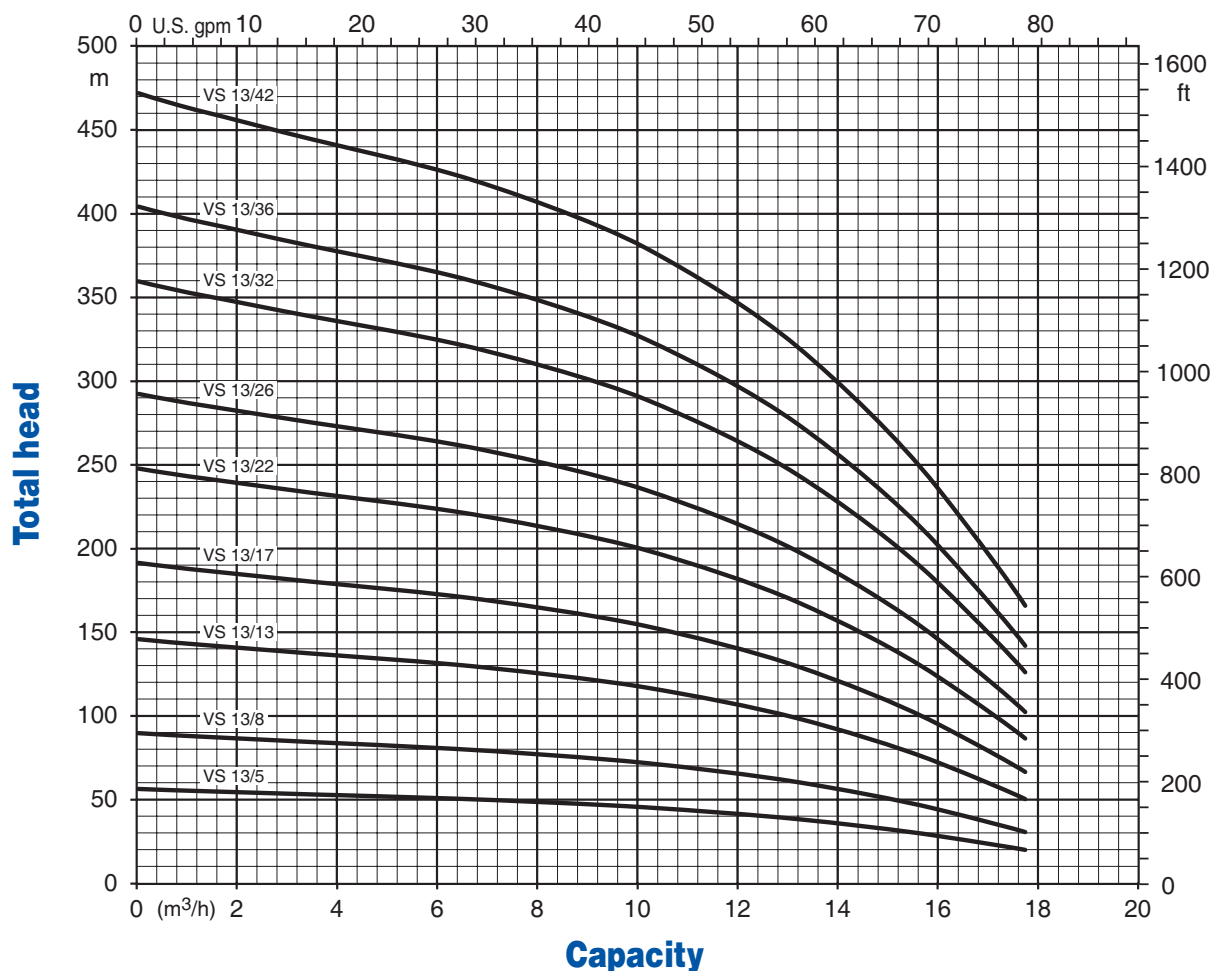
VS 27 50Hz

VS 45 50Hz

VS 60 50Hz



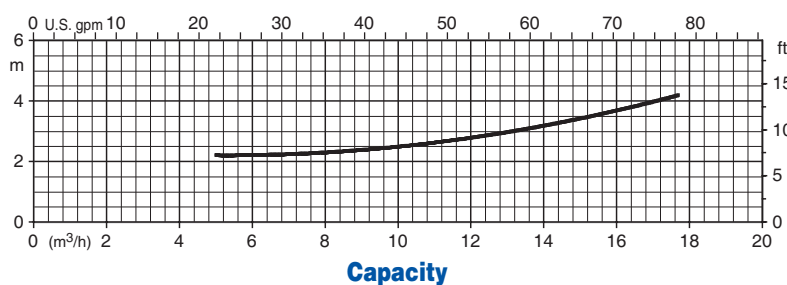
Performance curves at ~ 2850 rpm



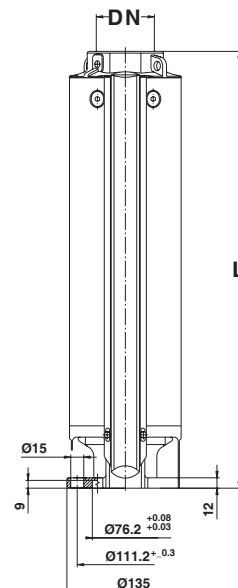
Performance table at ~ 2850 rpm

Pump model	kW	HP	Dimensions		Weight [Kg]
			L [mm]	DN	
VS 13/5	2.2	3.0	356	Rp 2" ½	10.5
VS 13/8	3.7	5.0	446	Rp 2" ½	13.0
VS 13/13	5.5	7.5	596	Rp 2" ½	16.5
VS 13/17	7.5	10.0	716	Rp 2" ½	19.5
VS 13/22	9.3	12.5	866	Rp 2" ½	23.0
VS 13/26	11.0	15.0	986	Rp 2" ½	26.0
VS 13/32	15.0	20.0	1166	Rp 2" ½	30.5
VS 13/36	15.0	20.0	1286	Rp 2" ½	33.5
VS 13/42	18.5	25.0	1466	Rp 2" ½	38.0

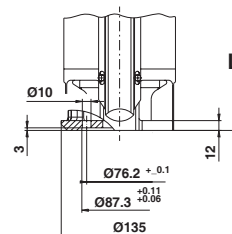
NPSH at ~ 2850 rpm



Dimensions



6" Motor Adapter

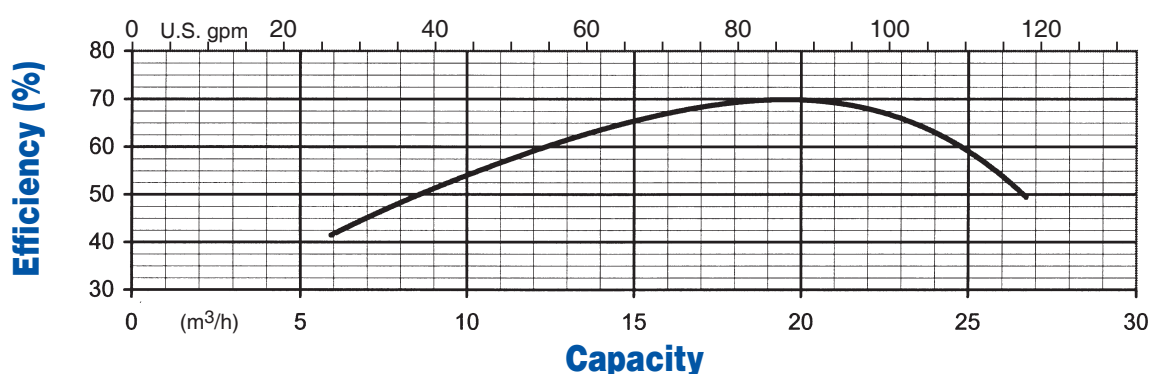
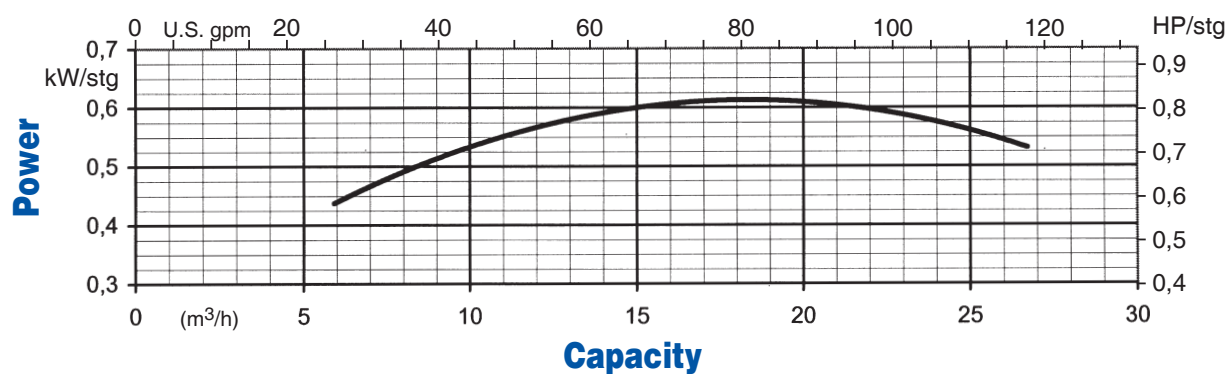
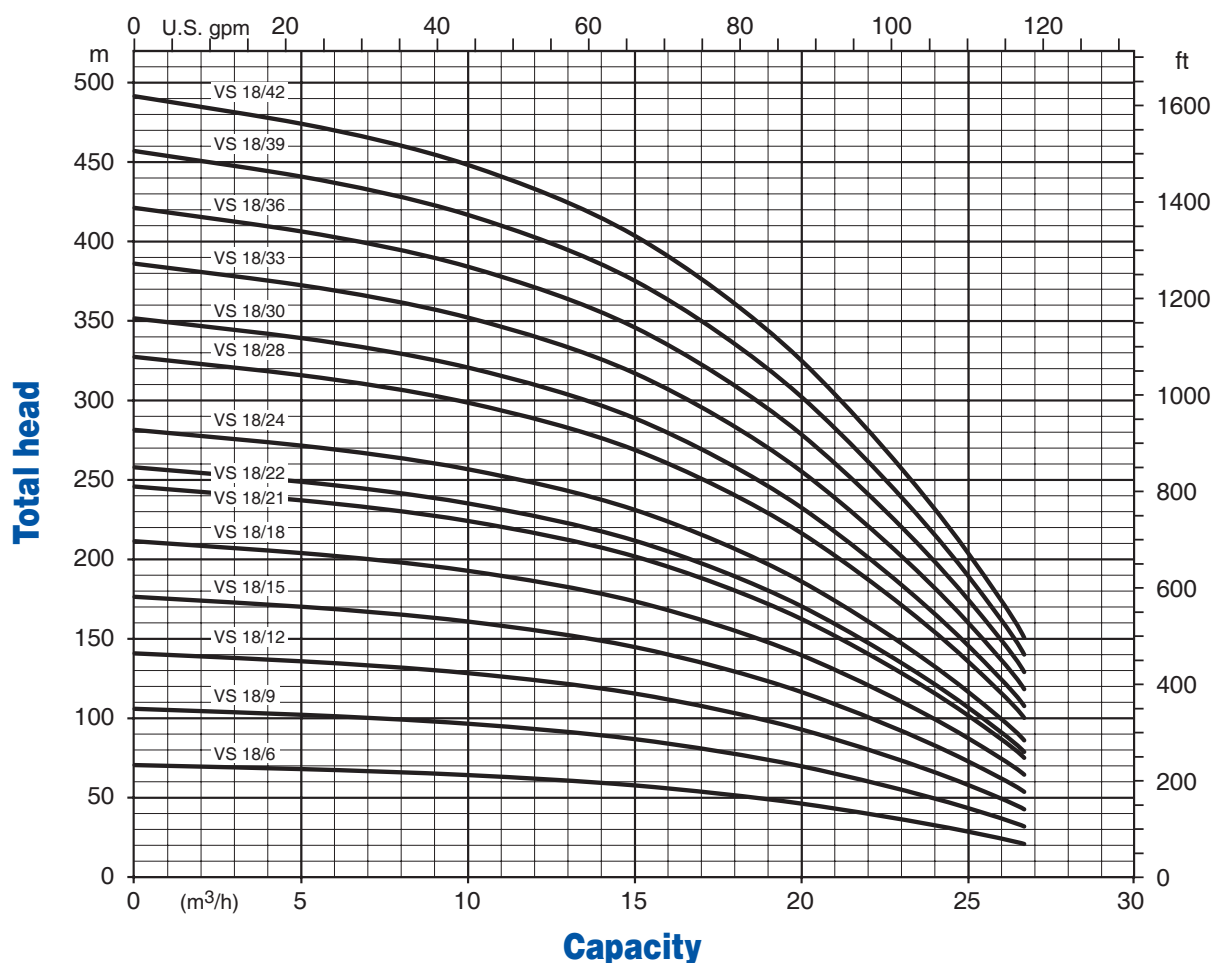


4" Motor Adapter

	Diameter with 1 cable cover	Diameter with 2 cable covers	External motor diameter
Pump 6"	141	145	/
Pump 6" with motor 4"	141	/	95.25
Pump 6" with motor 6"	144	146.5	136.5

The coupling to motor and all the mounting dimensions are in accordance with NEMA standard.

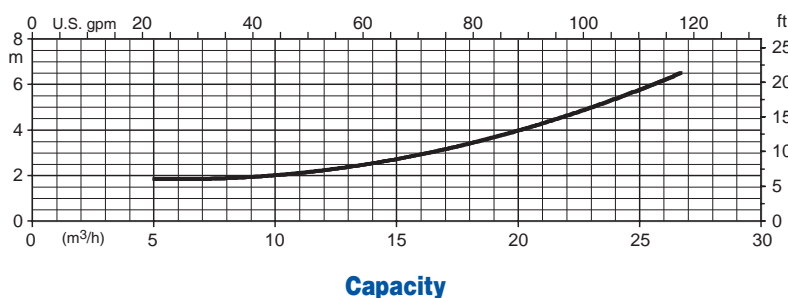
Performance curves at ~ 2850 rpm



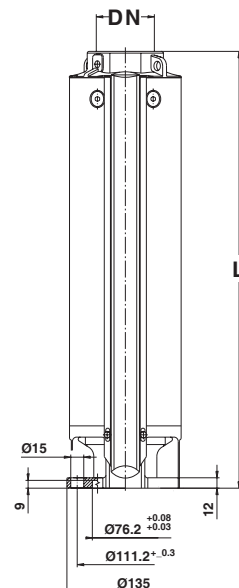
Performance table at ~ 2850 rpm

Pump model	kW	HP	Dimensions		Weight [Kg]
			L [mm]	DN	
VS 18/6	3.7	5.0	431	Rp 2" ½	12.0
VS 18/9	5.5	7.5	543.5	Rp 2" ½	14.5
VS 18/12	7.5	10.0	656	Rp 2" ½	16.5
VS 18/15	9.3	12.5	768.5	Rp 2" ½	19.0
VS 18/18	11.0	15.0	881	Rp 2" ½	21.5
VS 18/21	15.0	20.0	993.5	Rp 2" ½	24.0
VS 18/22	15.0	20.0	1031	Rp 2" ½	25.0
VS 18/24	15.0	20.0	1106	Rp 2" ½	26.5
VS 18/28	18.5	25.0	1256	Rp 2" ½	30.0
VS 18/30	18.5	25.0	1331	Rp 2" ½	31.5
VS 18/33	22.0	30.0	1443.5	Rp 2" ½	34.0
VS 18/36	22.0	30.0	1556	Rp 2" ½	36.5
VS 18/39	30.0	40.0	1668	Rp 2" ½	39.0
VS 18/42	30.0	40.0	1853	Rp 2" ½	42.0

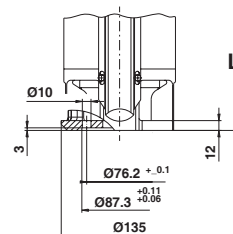
NPSH at ~ 2850 rpm



Dimensions



6" Motor Adapter

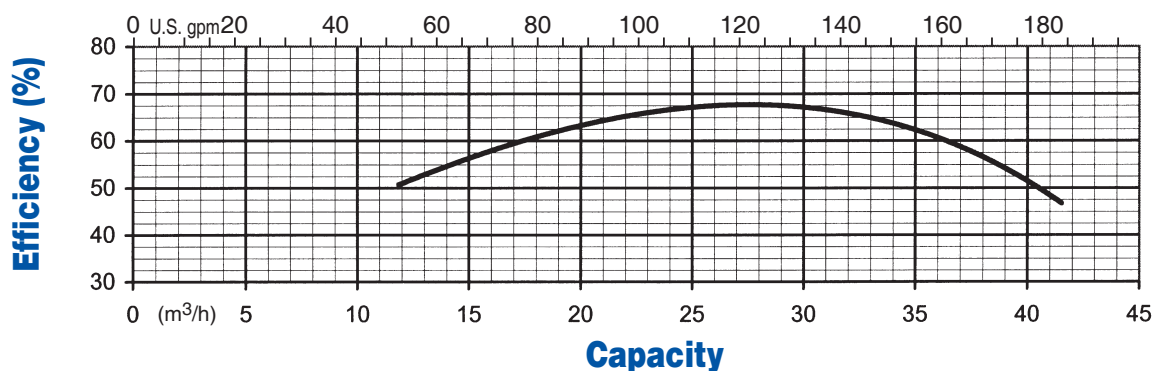
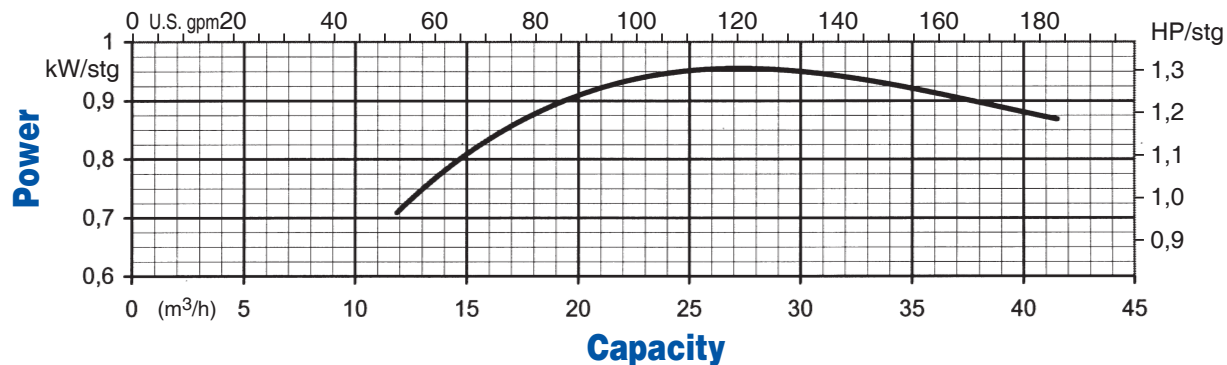
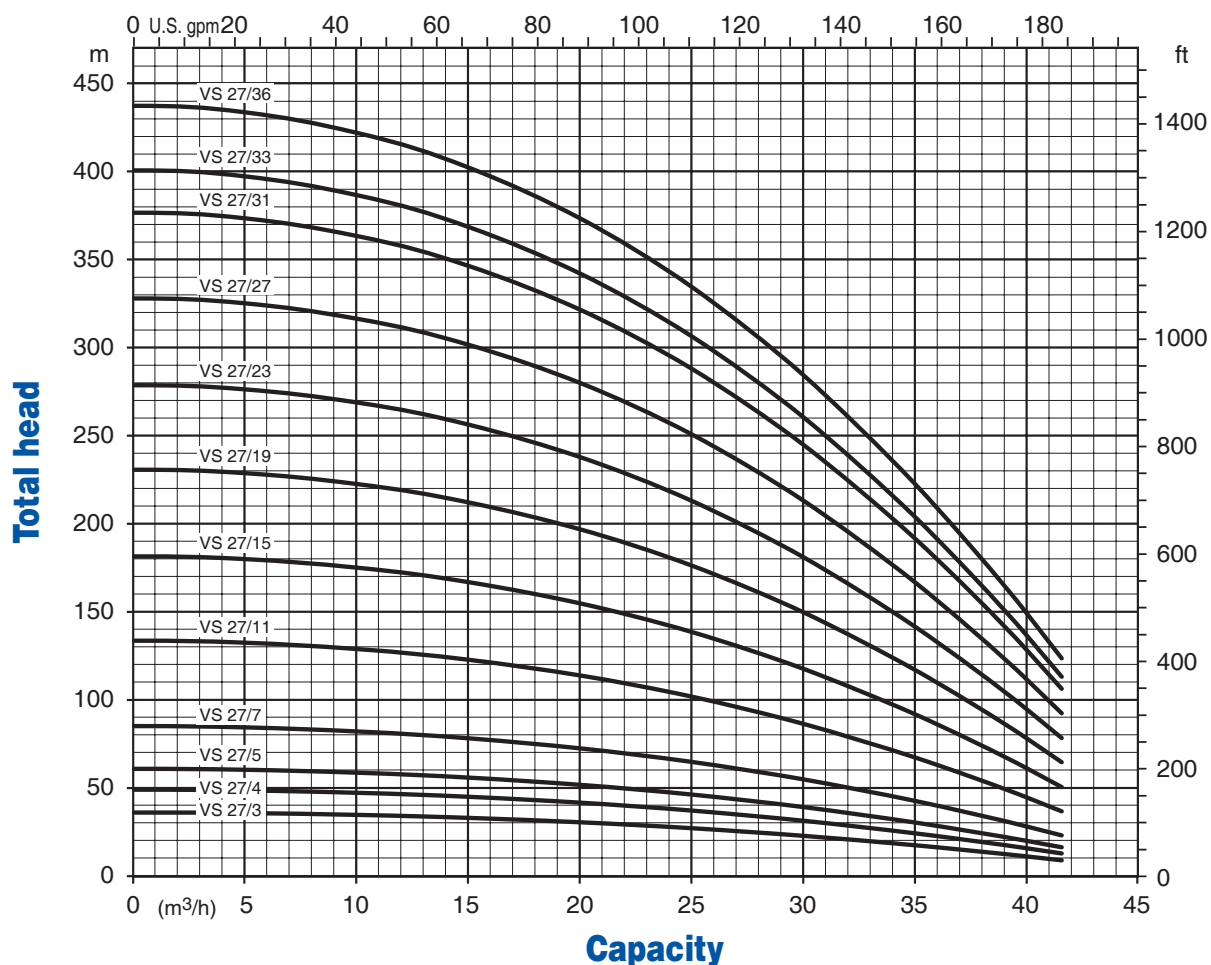


4" Motor Adapter

	Diameter with 1 cable cover	Diameter with 2 cable covers	External motor diameter
Pump 6"	141	145	/
Pump 6" with motor 4"	141	/	95.25
Pump 6" with motor 6"	144	146.5	136.5

The coupling to motor and all the mounting dimensions are in accordance with NEMA standard.

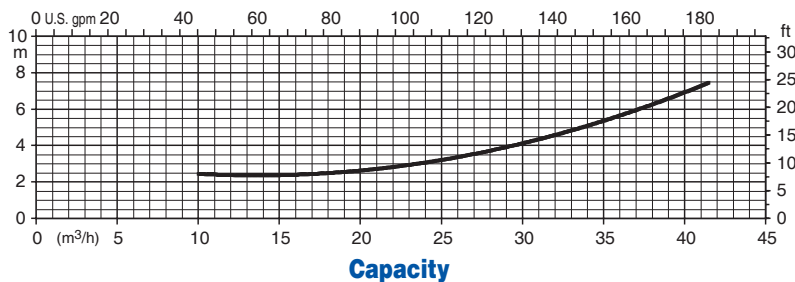
Performance curves at ~ 2850 rpm



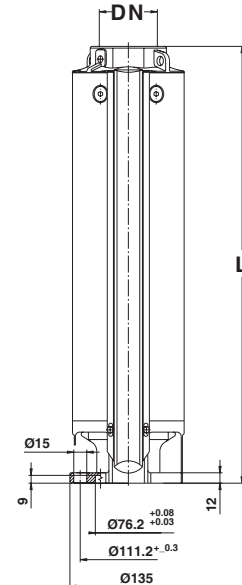
Performance table at ~ 2850 rpm

Pump model	kW	HP	Dimensions		Weight [Kg]
			L [mm]	DN	
VS 27/3	3.0	4.0	365.5	Rp 3"	10.5
VS 27/4	4.0	5.5	412	Rp 3"	11.5
VS 27/5	5.5	7.5	458.5	Rp 3"	12.5
VS 27/7	7.5	10.0	551.5	Rp 3"	14.5
VS 27/11	11.0	15.0	737.5	Rp 3"	18.5
VS 27/15	15.0	20.0	923.5	Rp 3"	22.5
VS 27/19	18.5	25.0	1109.5	Rp 3"	26.0
VS 27/23	22.0	30.0	1295.5	Rp 3"	30.0
VS 27/27	30.0	40.0	1481.5	Rp 3"	34.0
VS 27/31	30.0	40.0	1667.5	Rp 3"	38.0
VS 27/33	37.0	50.0	1760	Rp 3"	40.0
VS 27/36	37.0	50.0	1899.5	Rp 3"	43.0

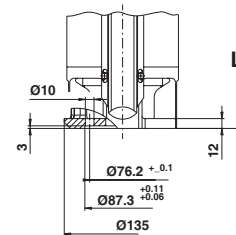
NPSH at ~ 2850 rpm



Dimensions



6" Motor Adapter

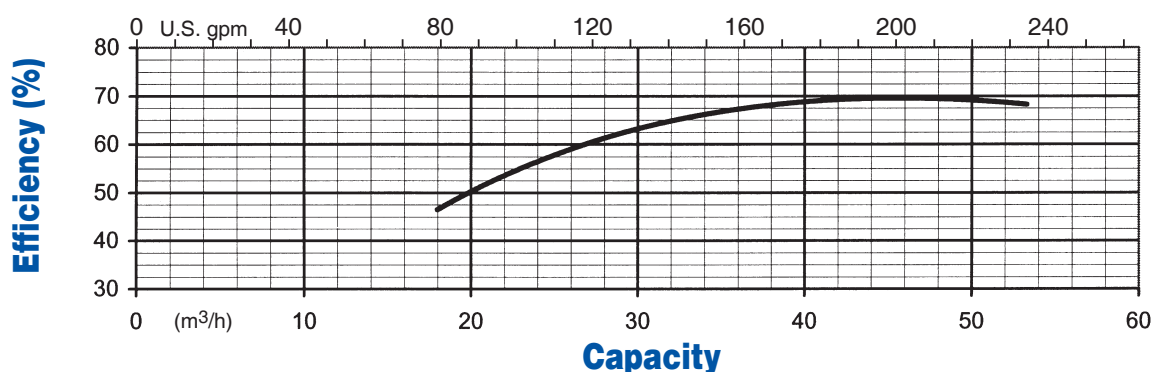
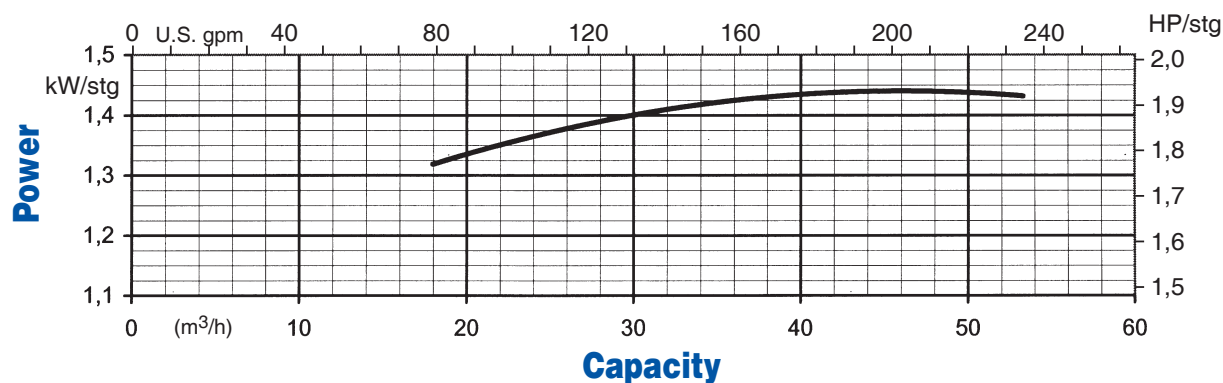
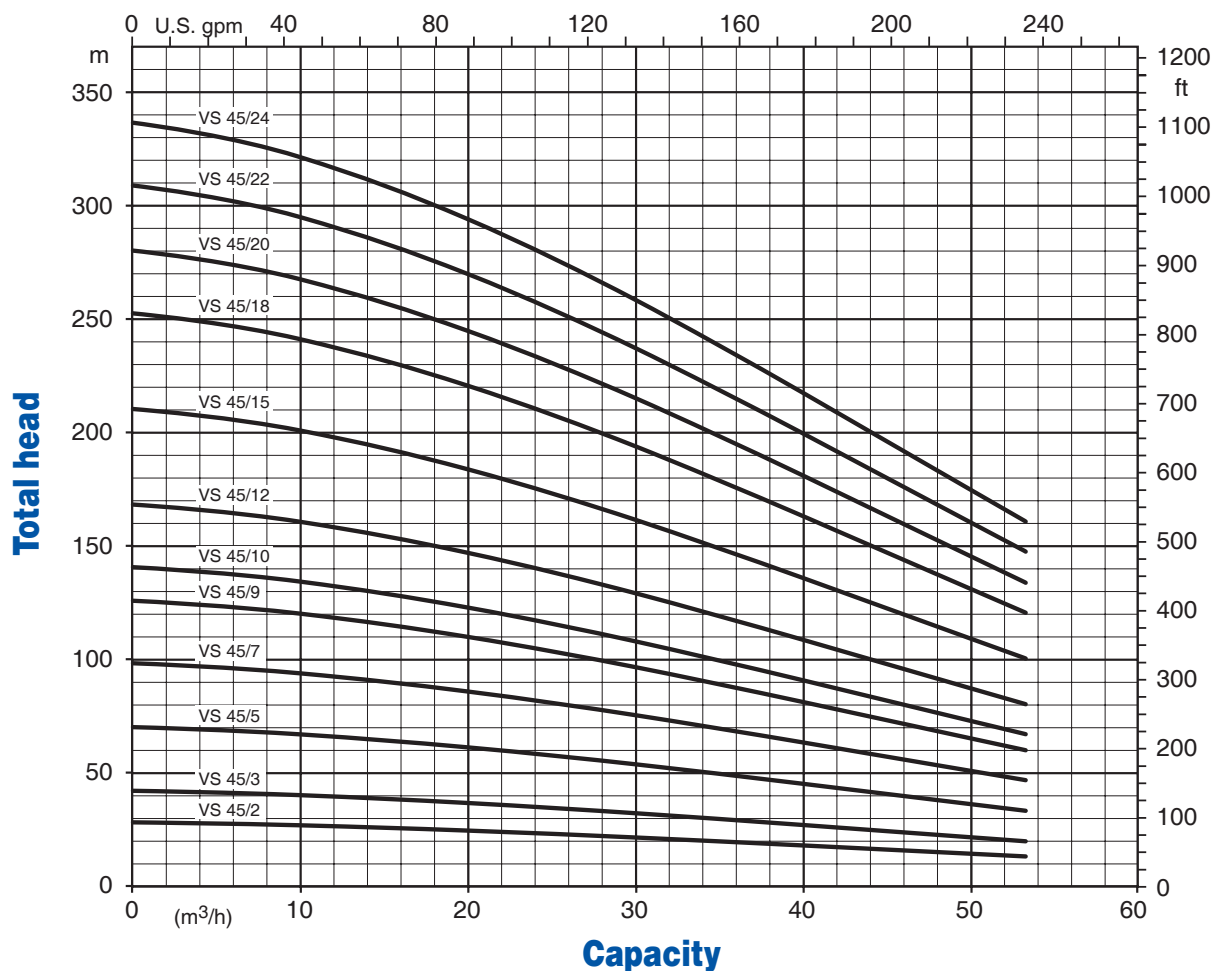


4" Motor Adapter

	Diameter with 1 cable cover	Diameter with 2 cable covers	External motor diameter
Pump 6"	141	145	/
Pump 6" with motor 4"	141	/	95.25
Pump 6" with motor 6"	144	146.5	136.5

The coupling to motor and all the mounting dimensions are in accordance with NEMA standard.

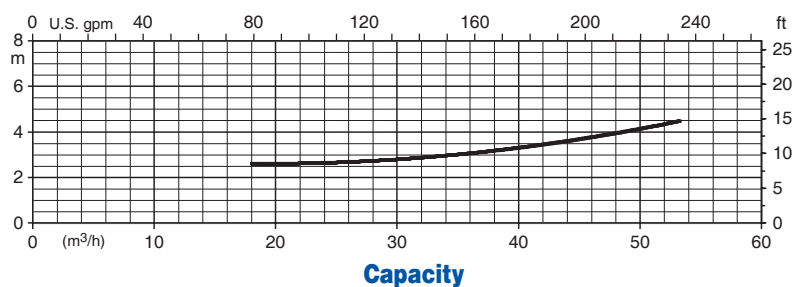
Performance curves at ~ 2850 rpm



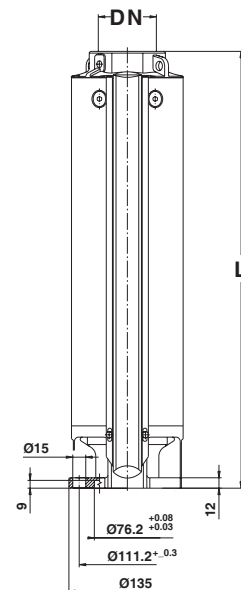
Performance table at ~ 2850 rpm

Pump model	kW	HP	Dimensions		Weight [Kg]
			L [mm]	DN	
VS 45/2	3.0	4.0	365.5	Rp 3"	11.0
VS 45/3	5.5	7.5	458.5	Rp 3"	13.5
VS 45/5	7.5	10.0	644.5	Rp 3"	18.0
VS 45/7	11.0	15.0	830.5	Rp 3"	22.5
VS 45/9	15.0	20.0	1016.5	Rp 3"	27.0
VS 45/10	15.0	20.0	1109.5	Rp 3"	29.5
VS 45/12	18.5	25.0	1295.5	Rp 3"	34.0
VS 45/15	22.0	30.0	1574.5	Rp 3"	40.5
VS 45/18	30.0	40.0	1853.5	Rp 3"	47.5
VS 45/20	30.0	40.0	2039.5	Rp 3"	52.0
VS 45/22	37.0	50.0	2225.5	Rp 3"	56.5
VS 45/24	37.0	50.0	2411	Rp 3"	61.0

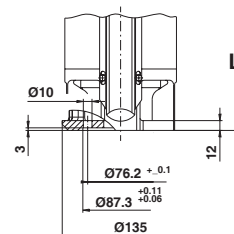
NPSH at ~ 2850 rpm



Dimensions



6" Motor Adapter

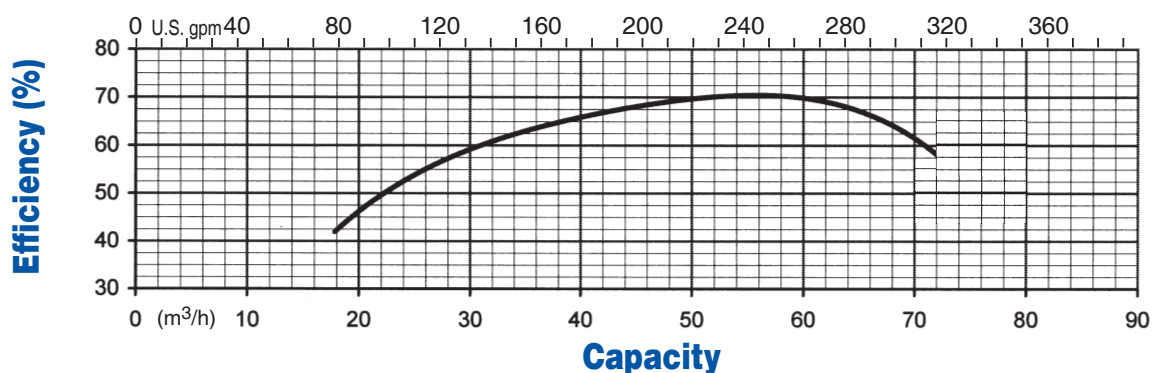
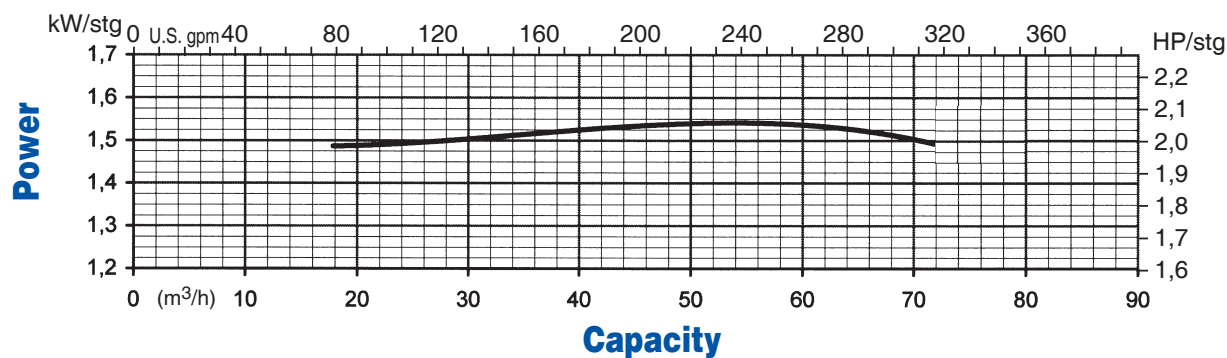
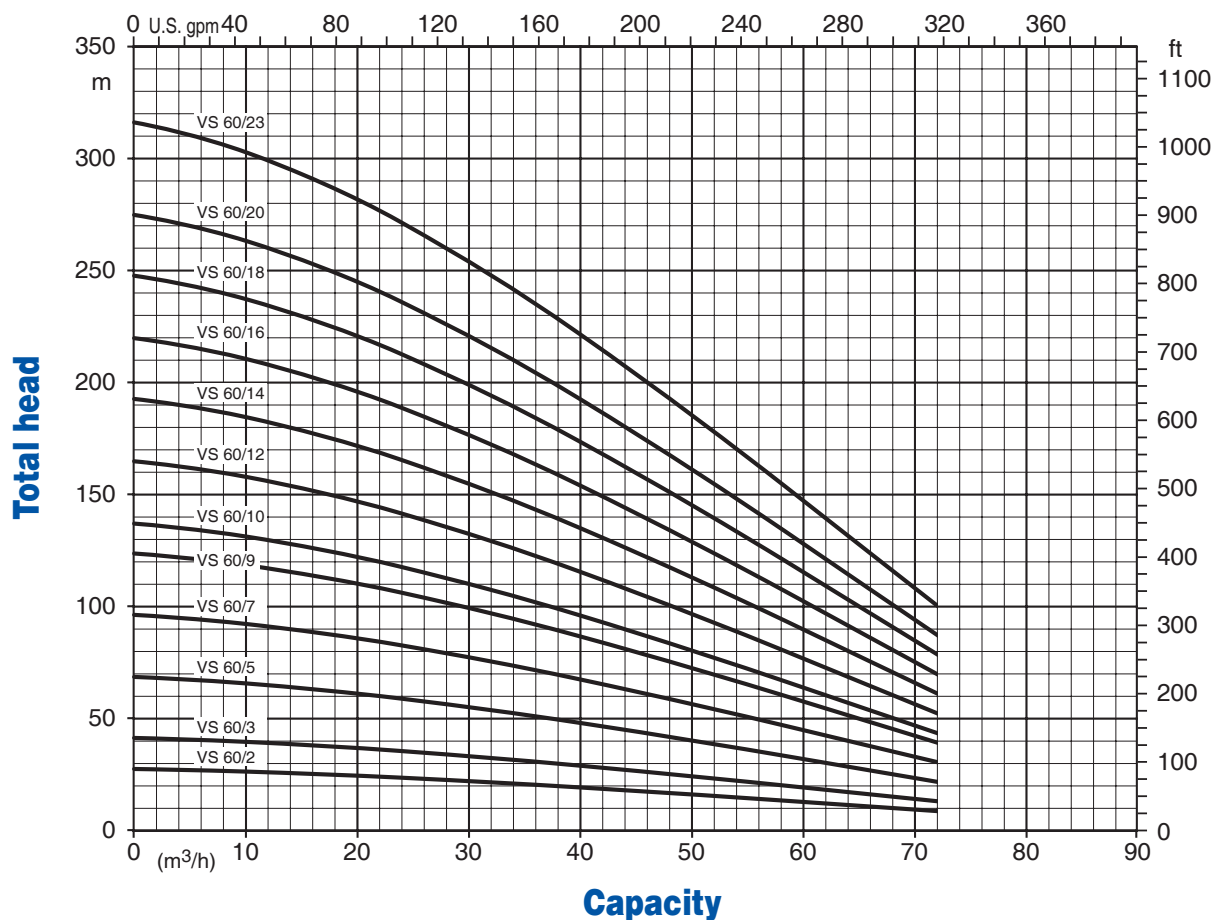


4" Motor Adapter

	Diameter with 1 cable cover	Diameter with 2 cable covers	External motor diameter
Pump 6"	141	145	/
Pump 6" with motor 4"	141	/	95.25
Pump 6" with motor 6"	144	146.5	136.5

The coupling to motor and all the mounting dimensions are in accordance with NEMA standard.

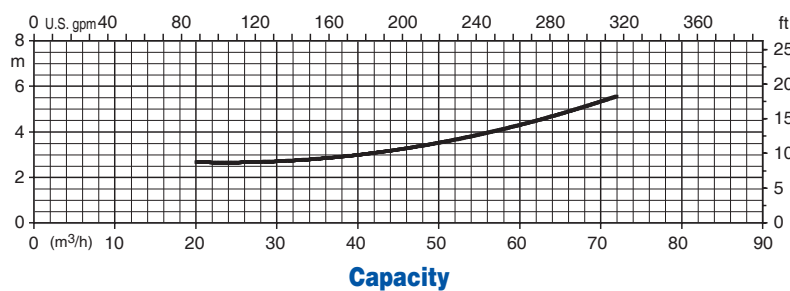
Performance curves at ~ 2850 rpm



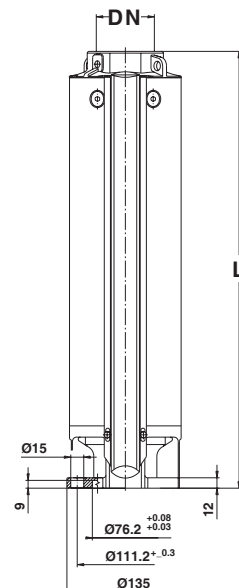
Performance table at ~ 2850 rpm

Pump model	kW	HP	Dimensions		Weight [Kg]
			L [mm]	DN	
VS 60/2	3.7	5.0	365.5	Rp 3"	11.5
VS 60/3	5.5	7.5	458.5	Rp 3"	13.5
VS 60/5	7.5	10.0	644.5	Rp 3"	18.0
VS 60/7	11.0	15.0	830.5	Rp 3"	23.0
VS 60/9	15.0	20.0	1016.5	Rp 3"	27.5
VS 60/10	15.0	20.0	1109.5	Rp 3"	30.0
VS 60/12	18.5	25.0	1295.5	Rp 3"	34.5
VS 60/14	22.0	30.0	1481.5	Rp 3"	39.0
VS 60/16	30.0	40.0	1667.5	Rp 3"	44.0
VS 60/18	30.0	40.0	1853.5	Rp 3"	48.5
VS 60/20	37.0	50.0	2040	Rp 3"	52.0
VS 60/23	37.0	50.0	2318	Rp 3"	60.0

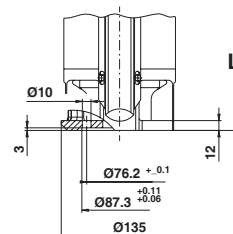
NPSH at ~ 2850 rpm



Dimensions



6" Motor Adapter



4" Motor Adapter

	Diameter with 1 cable cover	Diameter with 2 cable covers	External motor diameter
Pump 6"	141	145	/
Pump 6" with motor 4"	141	/	95.25
Pump 6" with motor 6"	144	146.5	136.5

The coupling to motor and all the mounting dimensions are in accordance with NEMA standard.

VS Series Pump Sections and List of Main Components

VS 13
Radial Flow Pump

VS 18
Radial Flow Pump

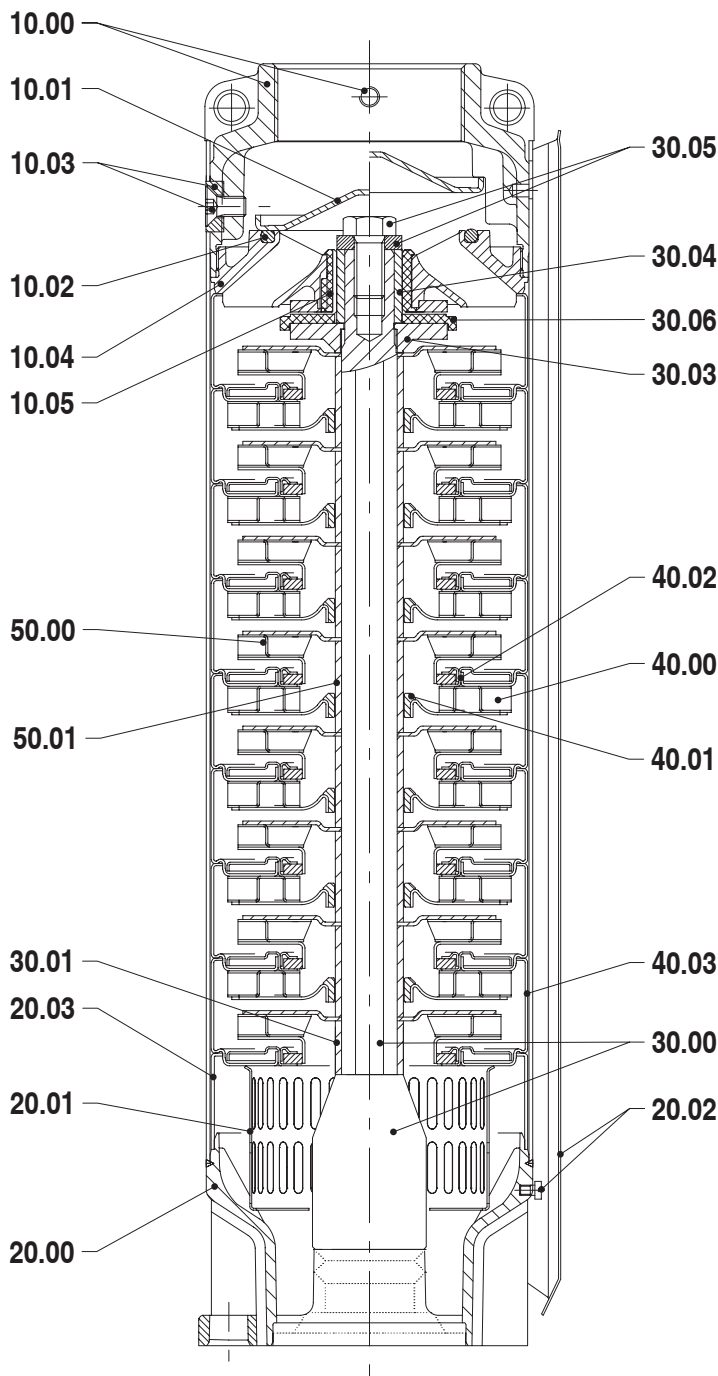
VS 27
Radial Flow Pump

VS 45
Mixed Flow Pump

VS 60
Mixed Flow Pump

VS 13 VS 18 VS 27

Radial Flow Pump

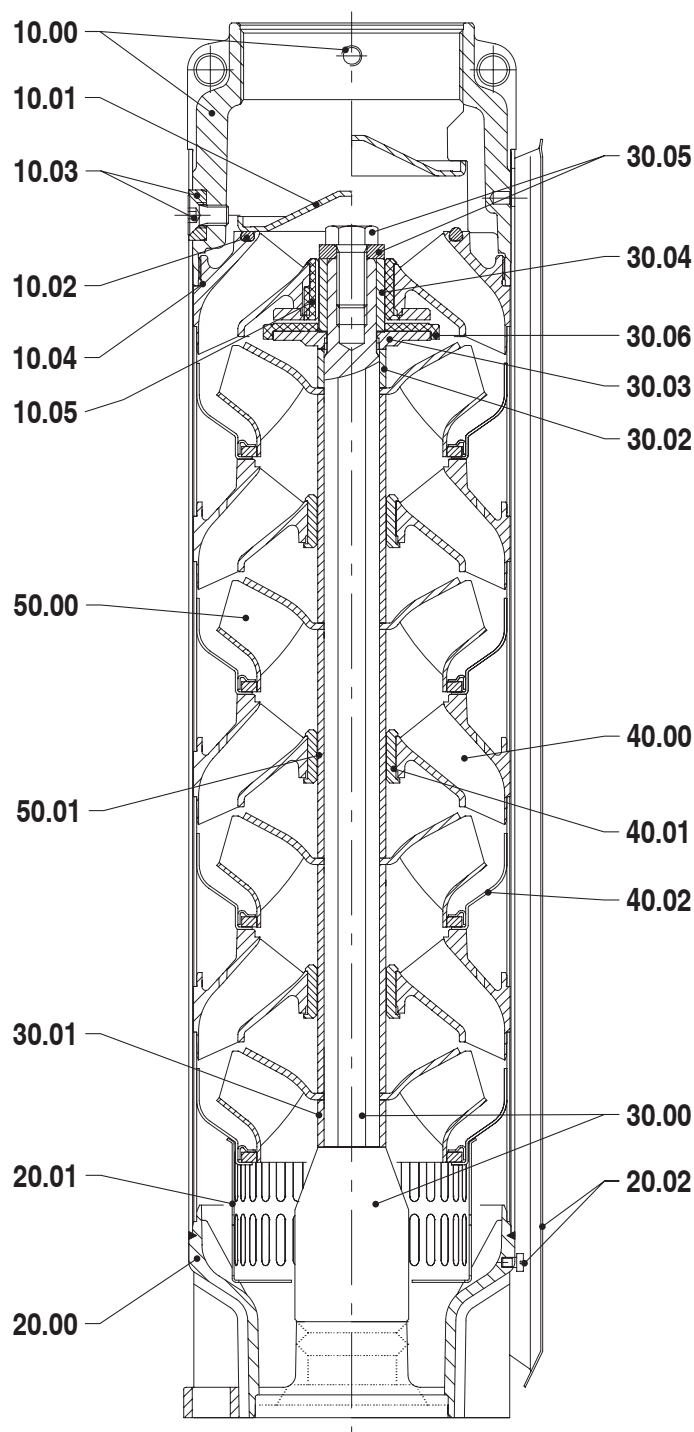


Ref. N.	Description
10 00	Discharge head
10 01	Valve
10 02	O-Ring
10 03	Screw and insert locking outer case
10 04	Upper bowl
10 05	Upper bearing bush
20 00	Outer case with motor adapter
20 01	Suction strainer
20 02	Cable guard
20 03	Initial spacer
30 00	Pump shaft with coupling

Ref. N.	Description
30 01	Lower spacer
30 03	Up-thrust washer
30 04	Upper journal sleeve
30 05	Bolt and washer
30 06	Up-thrust disc
40 00	Stage with diffuser and floating neck ring
40 01	Secondary bearing bush
40 02	Floating neck ring
40 03	First stage
50 00	Impeller
50 01	Secondary journal sleeve

VS 45 VS 60

Mixed Flow Pump



Ref. N.	Description
10 00	Discharge head
10 01	Valve
10 02	O-Ring
10 03	Screw and insert locking outer case
10 04	Upper bowl
10 05	Upper bearing bush
20 00	Outer case with motor adapter
20 01	Suction strainer
20 02	Cable guard
30 00	Pump shaft with coupling
30 01	Lower spacer

Ref. N.	Description
30 02	Upper spacer
30 03	Up-thrust washer
30 04	Upper journal sleeve
30 05	Bolt and washer
30 06	Up-thrust disc
40 00	Stage with diffuser and floating neck ring
40 01	Secondary bearing bush
40 02	Stage with floating neck ring
50 00	Impeller
50 01	Secondary journal sleeve



00103460 06/2006

