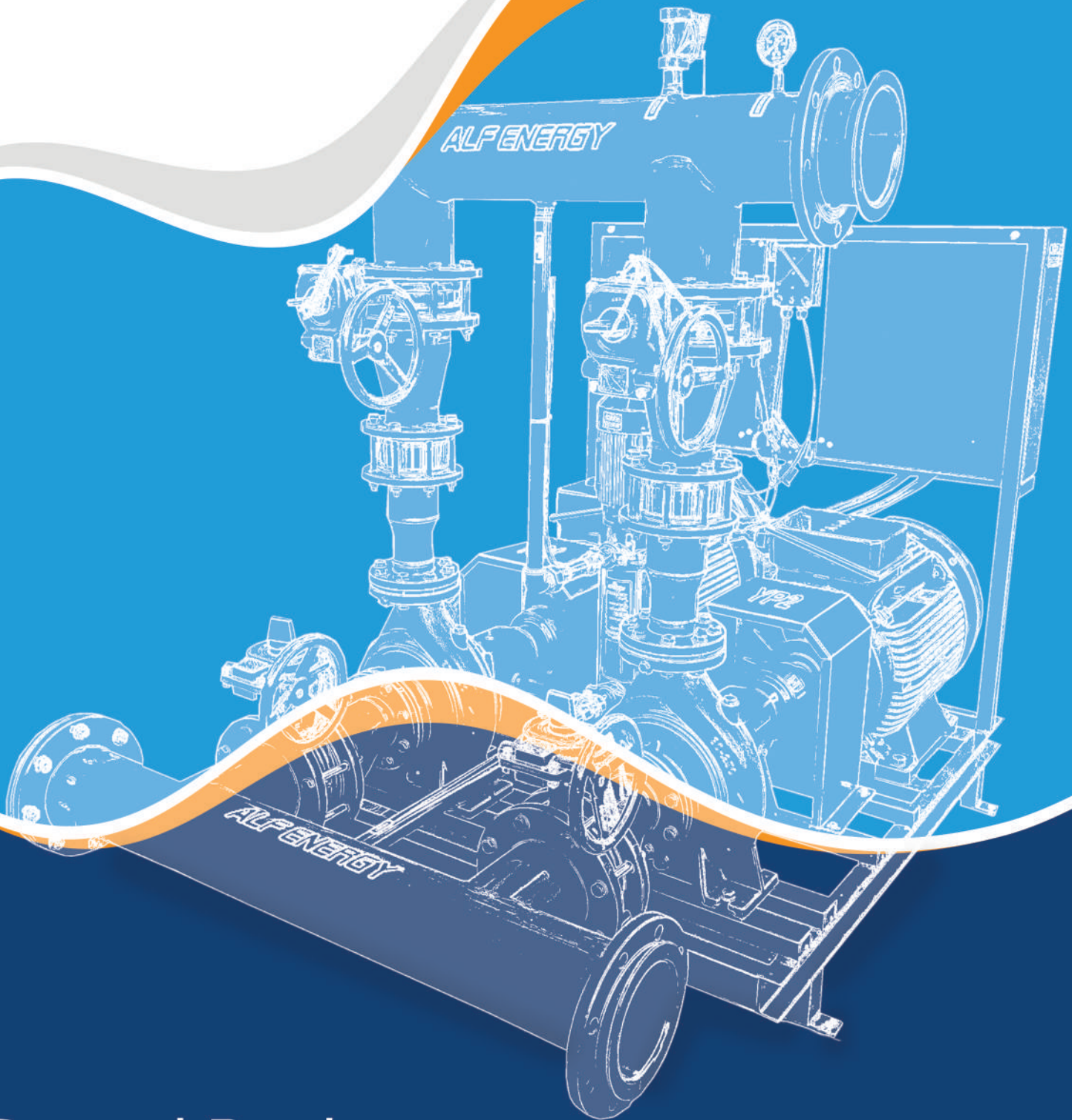


Pump & Booster
Systems



General Product
Catalog

2023

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We are manufacturer of pumps&pumps systems located at Istanbul - Turkiye since 2012.

We can list the ALF ENERGY branded products which are manufactured in our 2.000 m2 factory in Istanbul:

- Semi Industrial Booster Sets, Semi Industrial Booster Pumps
- Industrial Booster Sets, Industrial Booster Pumps
- Fire Fighting Pumps Sets (suitable for NFPA 20&EN 12845)
- End Suction Centrifugal Pumps
- Inline Type Centrifugal Pumps
- Vertical Multistage Pumps
- Horizontal Multistage Pumps
- Splyt Case Centrifugal Pumps
- Waste Water Submersible Pumps
- Waste Water Transfer Box-Tanks with Submersible Pumps
- Domestic Booster Sets, Domestic surface Pumps
- Wet rotor Circulation Pumps Entegrated Frequency Invertor



Our aim is to increase customer satisfaction through the selection of the appropriate product, the technical consultancy provided, the fast delivery time according to the need and all the documentation provided. Of course, on-time commissioning, maintenance, repair, supply of spare parts, user training and operating expenses to minimize the need to create after-sales services, where our goal is to maximize customer satisfaction.

Concepts such as total cost of ownership, energy efficiency indexes and high efficiency products are becoming increasingly important. When the total cost of ownership of a centrifugal pump is examined, it is seen that the initial purchase price of the pump is only 5% of the lifetime cost of use, and the original cost is more than 90% of electricity. For this reason, we attach great importance to the high efficiency of our products, that is, to be able to operate with the lowest possible electricity consumption. We are continuously improving energy-saving frequency control panels and motor-frequency frequency controllers.

Our research and product development activities are focused on producing solutions that reduce service requirement and increase usage reliability while at the same time improving efficiency and minimizing electricity consumption.

With this understanding, we are committed to continue to serve our country and to the world with our environmental and social sensitivity, to improve our corporate structure and to continue our efforts to provide higher satisfaction to our users, and we hope that our valuable cooperation will create more efficient results for each of us.

Technical Specifications

- Three speed pumps.
- Close coupled, non-sealed, wet rotor type construction.
- **Flange connection:** PN 6/PN 10, inline type available for pipe connection. (DIN 2531 & EN 1092-2)
- **Permitted temp for the liquid:** TF 110 Class (EN 60335-2-51) Maximum 110°C
- **Motor protection class:** IP 44 (EN 60259)
- **Isolation class:** H
- **Environment Temperature:** 0 / +40°C
- Noise Level < 43

Materials

- **Pump body:** Cast iron GG-25
- **Shaft:** Stainless Steel
- **Impeller:** Polyethylene reinforced with glass fibers.

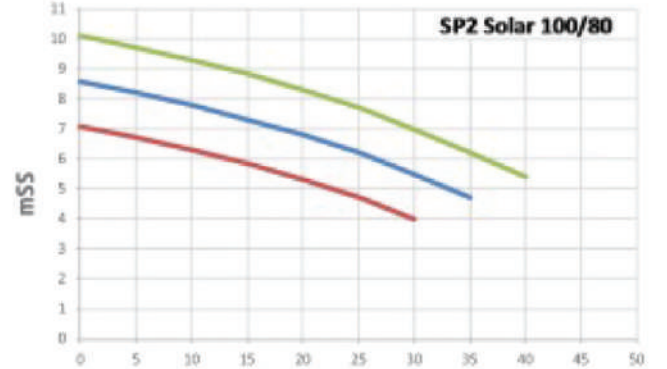
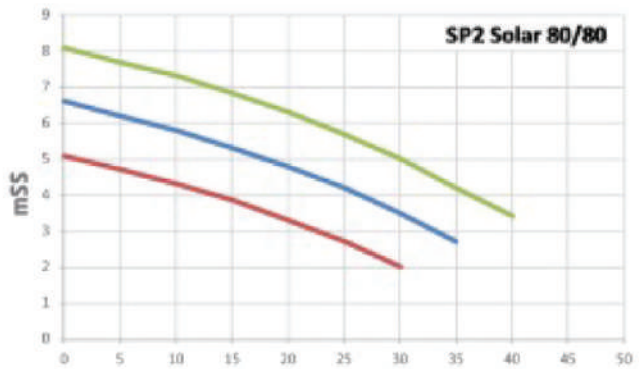
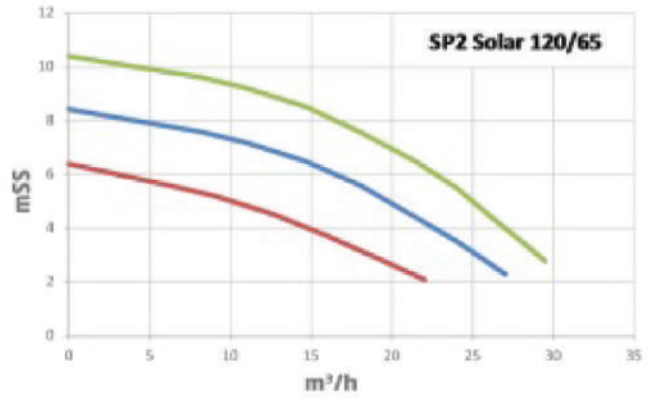
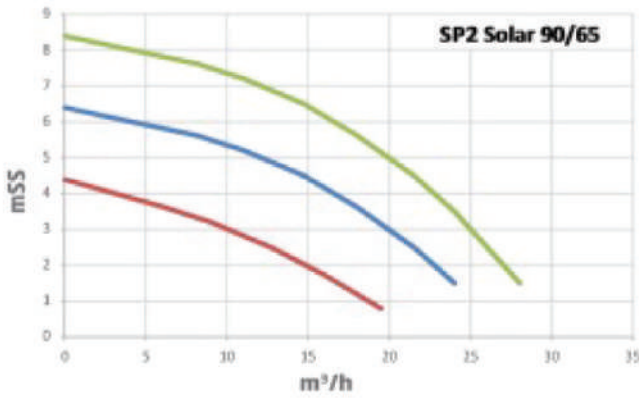
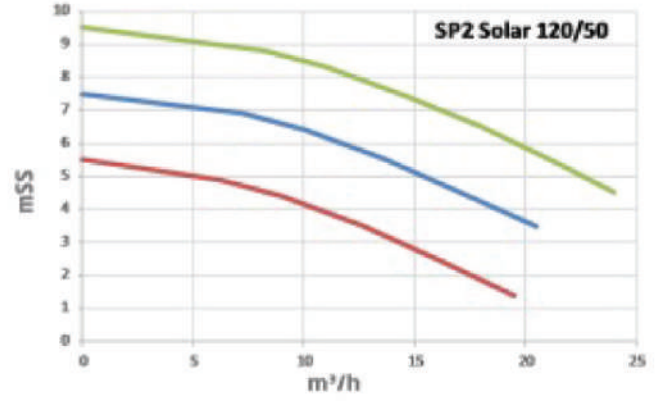
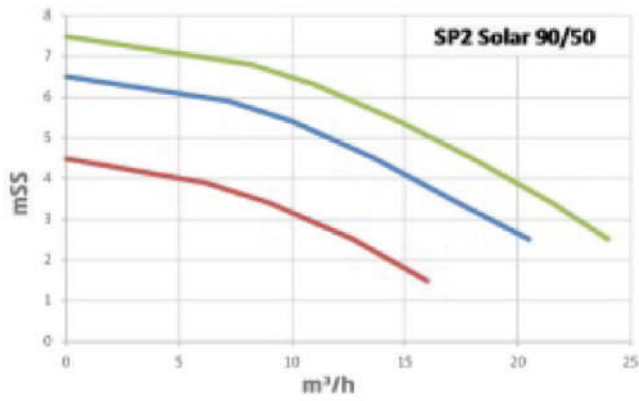
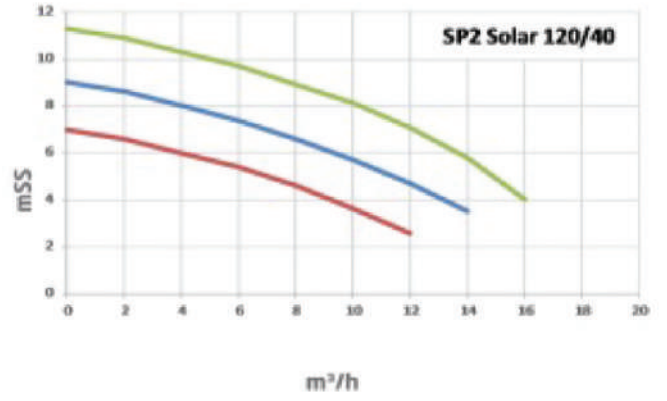
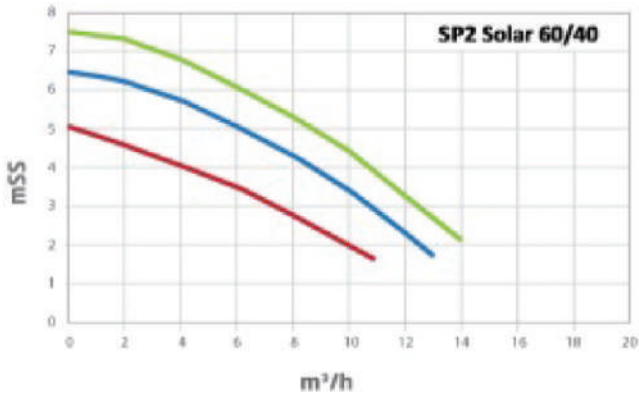
Electronic Cart

- Current protection
- Motor blokage protection
- Voltage protection



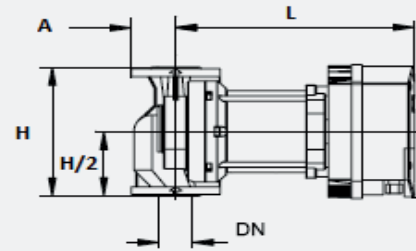
Three Speed Wet Rotor Solar Energy Circulation Pumps

Pump Type	Speed Stage	Power (Watt)	Power Input	Inlet/Outlet	H (mm)	Weight (kg)	WxLxH (cm)
SP2-Solar 60/40 M	3	320	220 V Monophase	DN 40	250	20	40x20x43
	2	195					
	1	160					
SP2-Solar 60/40 T	3	400	380 V Triphase	DN 40	250	20	40x20x43
	2	330					
	1	250					
SP2-Solar 120/40 T	3	490	380 V Triphase	DN 40	250	20	40x20x43
	2	340					
	1	295					
SP2-Solar 90/50 T	3	550	380 V Triphase	DN 50	280	22	40x20x43
	2	490					
	1	400					
SP2-Solar 120/50 T	3	800	380 V Triphase	DN 50	280	22	40x20x43
	2	710					
	1	620					
SP2-Solar 90/65 T	3	1300	380 V Triphase	DN 65	340	34	47x24x47
	2	1100					
	1	950					
SP2-Solar 120/65 T	3	1550	380 V Triphase	DN 65	340	34	47x24x47
	2	1300					
	1	1100					
SP2-Solar 80/80 T	3	1450	380 V Triphase	DN 80	360	37	47x24x47
	2	1250					
	1	1100					
SP2-Solar 100/80 T	3	1700	380 V Triphase	DN 80	360	37	47x24x47
	2	1520					
	1	1350					



Technical Specifications

- New generation circulation pumps for reducing energy consumption with permanent magnet motor technologies.
- With integrated inverter on the motor the pump works according to;
 - ΔP -Constant
 - Preset limited current value
 - Preset limited motor power value
- Close coupled, non-sealed, wet rotor type construction.
- Union connection: inline type available for pipe connection.
- Permitted temp for the liquid: 110°C max.
- Motor protection class: IP 44
- Isolation class: H



Materials

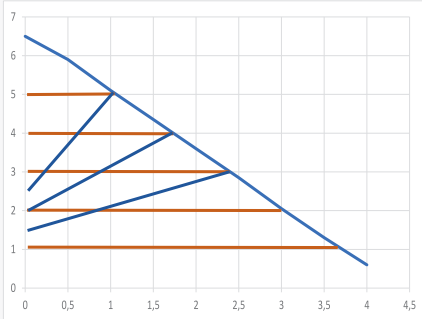
- Pump body: Cast iron GG-25
- Shaft: Stainless Steel
- Impeller: Polyethylene reinforced with glass fibers



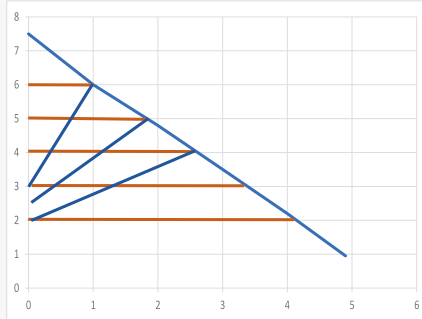
High Efficiency Variable Speed Circulation Pump with Union Connection

Pump Type	Power (Watt)	Power Input	H (mm)	Weight (kg)	Inlet/Outlet	WxLxH (mm)
alfaMAG 70/25	37	220 V Monophase	180	6	1 1/2"-1"	19x15x19
alfaMAG 80/25	56			6.5		
alfaMAG 80/32	66			8	2"-1 1/4"	20x16x20
alfaMAG 90/32	99					
alfaMAG 100/32	163					
alfaMAG 110/32	173					
alfaMAG 120/32	195			18	40x20x43	

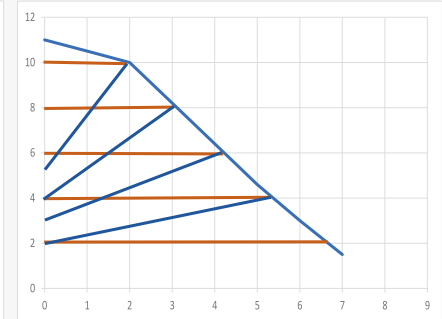
alfaMAG 70/25



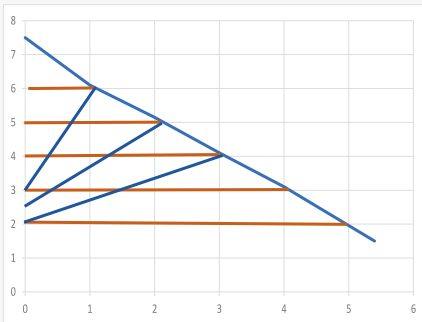
alfaMAG 80/25



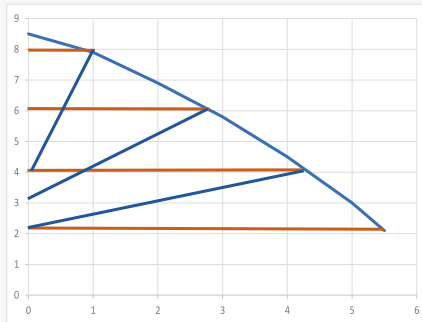
alfaMAG 110/25



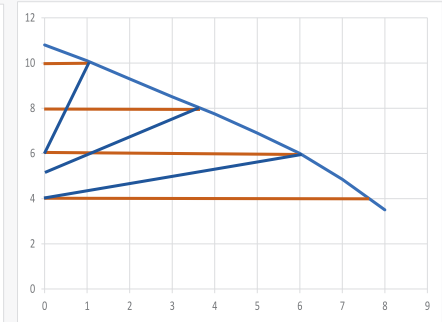
alfaMAG 80/32



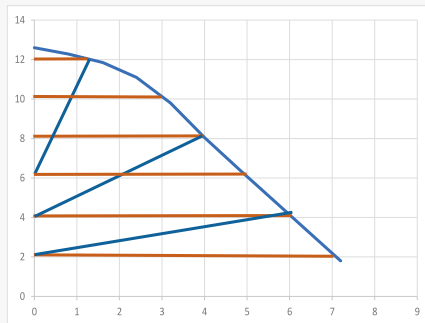
alfaMAG 90/32



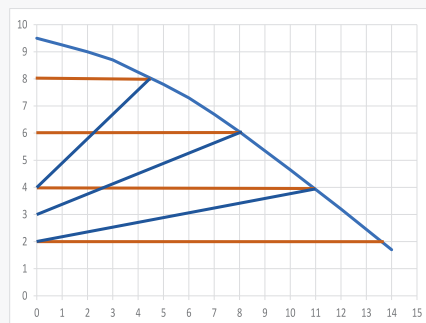
alfaMAG 100/32



alfaMAG 110/32



alfaMAG 120/32

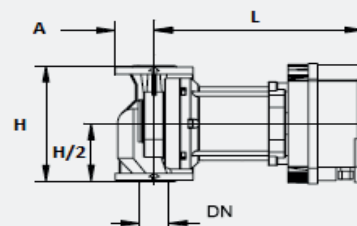


Technical Specifications

- New generation circulation pumps for reducing energy consumption with permanent magnet motor technologies.
- With integrated inverter on the motor the pump works according to:
 - ΔP -Constant
 - Preset limited current value
 - Preset limited motor power value
- Close coupled, non-sealed, wet rotor type construction.
- Flange connection: PN 6/PN 10, inline type available for pipe connection.
- Permitted temp for the liquid: 110°C max.
- Motor protection class: IP 44
- Isolation class: H

Materials

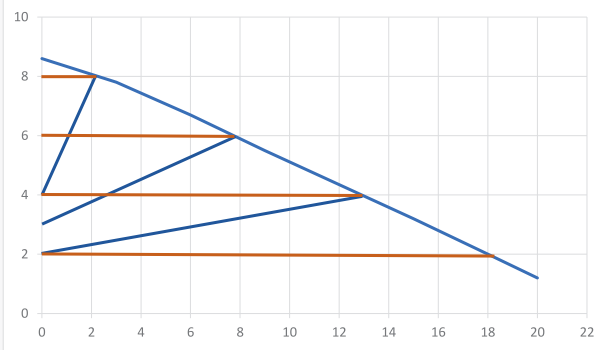
- Pump body: Cast iron GG-25
- Shaft: Stainless Steel
- Impeller: Polyethylene reinforced with glass fibers



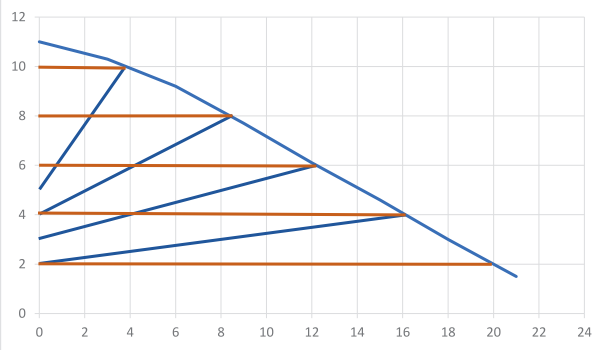
High Efficiency Variable Speed Circulation Pump with Flanged Connection

Pump Type	Power (Watt)	Power Input	H (mm)	Weight (kg)	Inlet/Outlet	WxLxH (mm)
alfaMAG 80/40 F	280	220 V Monophase	250	25	DN 40	40x20x43
alfaMAG 100/40 F	395					
alfaMAG 120/40 F	490					
alfaMAG 150/40 F	550					
alfaMAG 80/50 F	540		280	31	DN 50	40x20x43
alfaMAG 100/50 F	635					
alfaMAG 120/50 F	750					
alfaMAG 150/50 F	830					
alfaMAG 80/65 F	1200		340	36	DN 65	47x24x47
alfaMAG 100/65 F	1300					
alfaMAG 120/65 F	1400					
alfaMAG 150/65 F	1500					
alfaMAG 80/80 F	1450		360	43	DN 80	47x24x47
alfaMAG 100/80 F	1650					
alfaMAG 120/80 F	1700					
alfaMAG 150/80 F	1650					

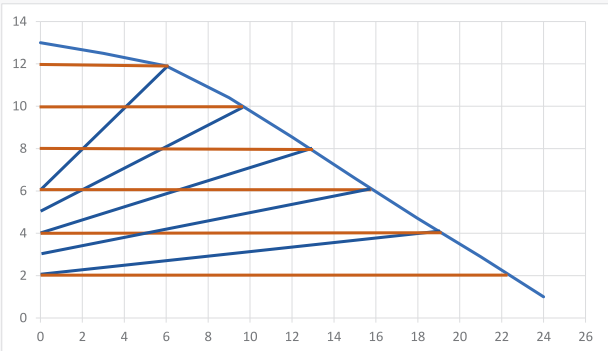
alfaMAG 80/40 F



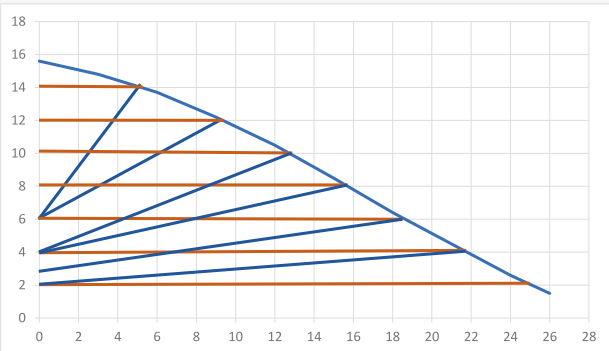
alfaMAG 100/40 F



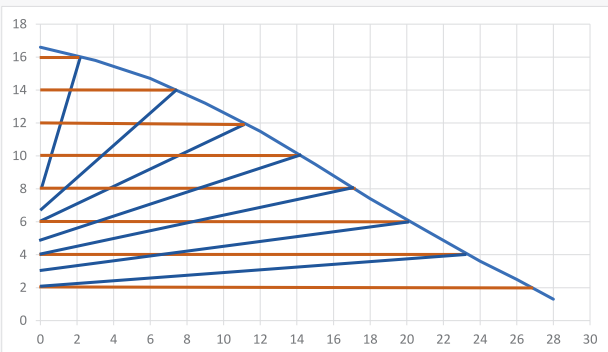
alfaMAG 120/40 F



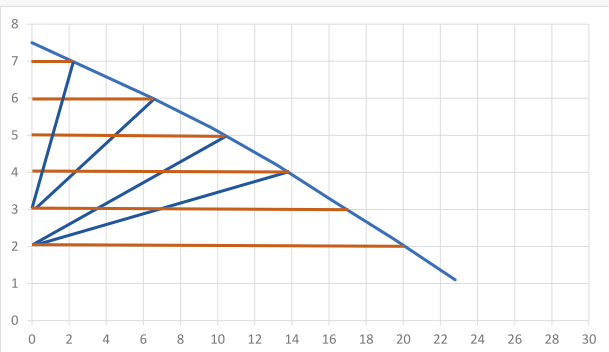
alfaMAG 150/40 F



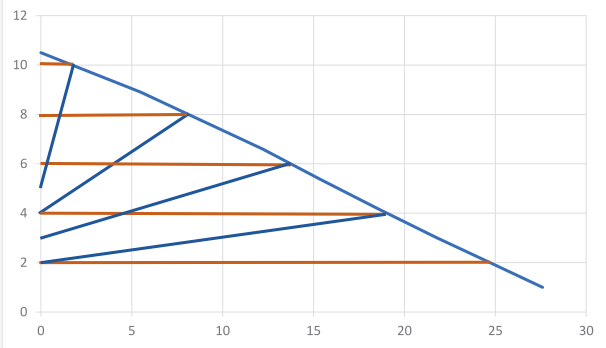
alfaMAG 180/40 F



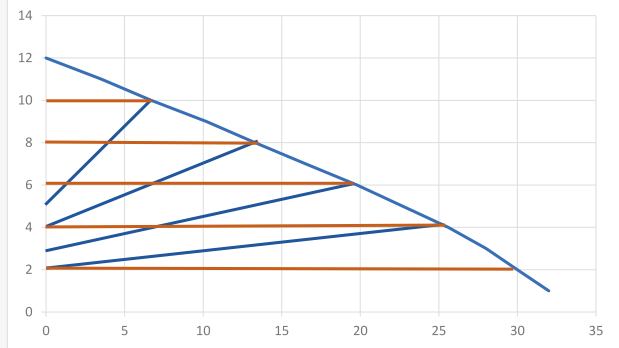
alfaMAG 80/50 F



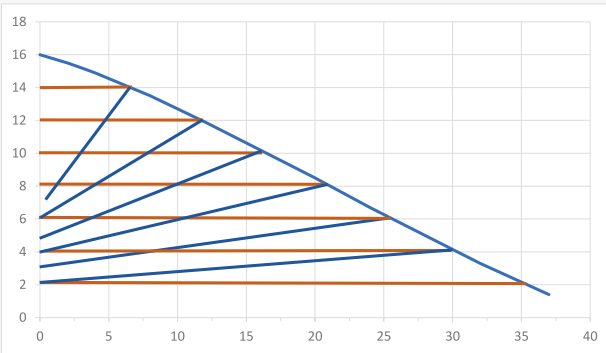
alfaMAG 100/50 F



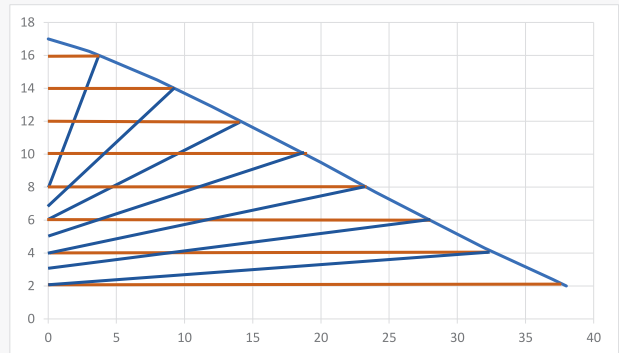
alfaMAG 120/50 F



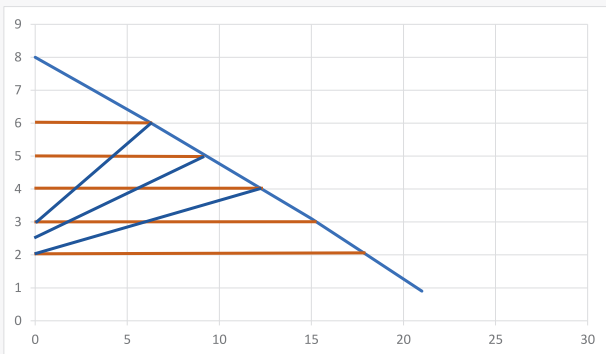
alfaMAG 150/50 F



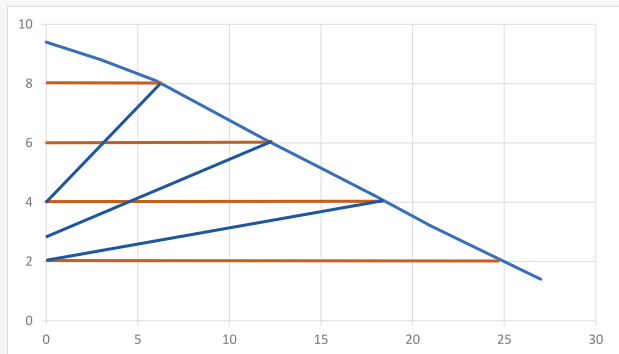
alfaMAG 180/50 F



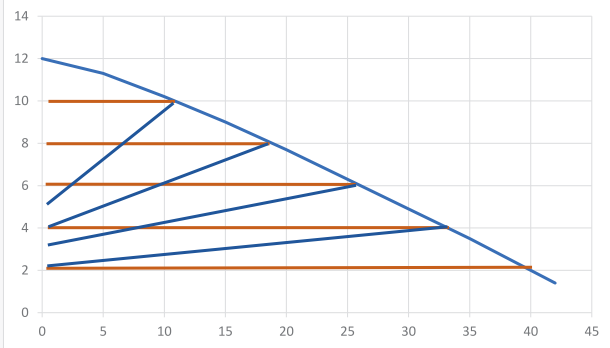
alfaMAG 80/65 F



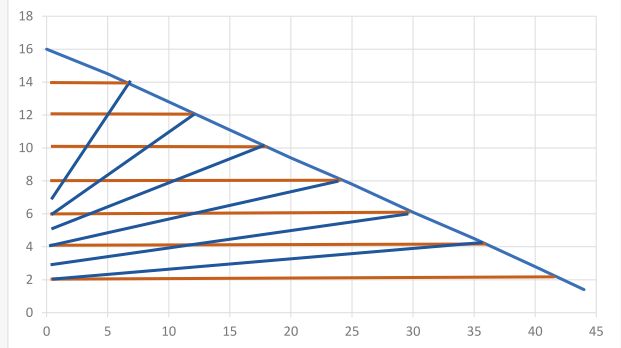
alfaMAG 100/65 F



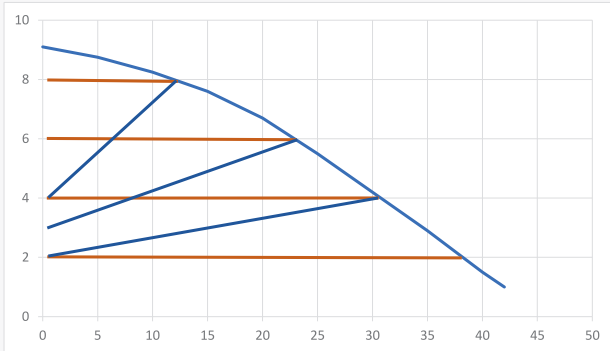
alfaMAG 120/65 F



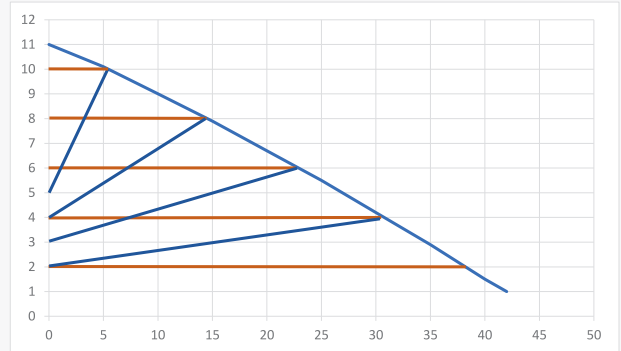
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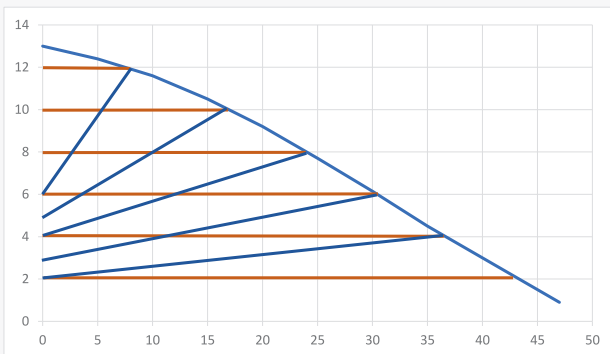
alfaMAG 80/80 F



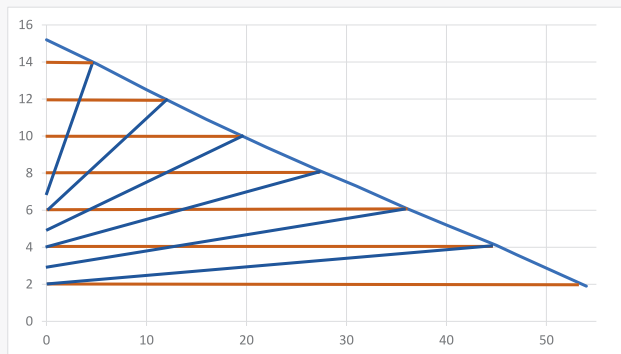
alfaMAG 100/80 F



alfaMAG 120/80 F

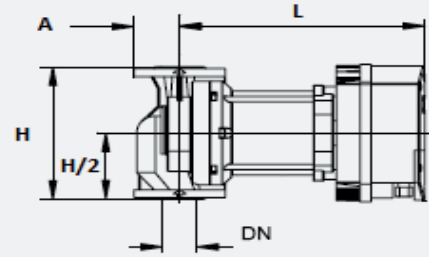


alfaMAG 150/80 F



Technical Specifications

- New generation twin circulation pumps for reducing energy consumption with permanent magnet motor technologies.
- With integrated inverter on the motor the pump works according to;
 - ΔP -Constant
 - Preset limited current value
 - Preset limited motor power value
- Close coupled, non-sealed, wet rotor type construction.
- Flange connection: PN 6/PN 10 , inline type.
- Permitted temp for the liquid: 110°C max.
- Motor protection class: IP 44
- Isolation class: H



Materials

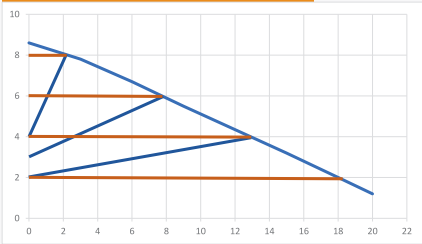
- Pump body: Cast iron GG-25
- Shaft: Stainless Steel
- Impeller: Polyethylene reinforced with glass fibers



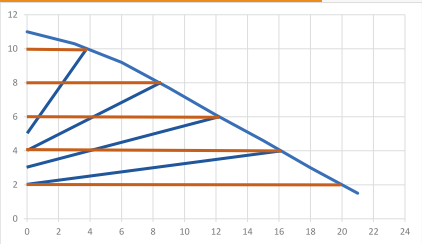
High Efficiency Variable Speed Circulation Pump with Flanged Connection

Pump Type	Power (Watt)	Power Input	H (mm)	Weight (kg)	Inlet/Outlet	WxLxH (mm)
alfaMAG-D 80/40 F	2x280	220 V Monophase	250	50	DN 40	80x20x43
alfaMAG-D 100/40 F	2x395					
alfaMAG-D 120/40 F	2x490					
alfaMAG-D 150/40 F	2x550					
alfaMAG-D 80/50 F	2x540		280	62	DN 50	80x20x43
alfaMAG-D 100/50 F	2x635					
alfaMAG-D 120/50 F	2x750					
alfaMAG-D 150/50 F	2x830					
alfaMAG-D 80/65 F	2x1200		340	72	DN 65	94x24x47
alfaMAG-D 100/65 F	2x1300					
alfaMAG-D 120/65 F	2x1400					
alfaMAG-D 150/65 F	2x1500					
alfaMAG-D 80/80 F	2x1450		360	86	DN 80	94x24x47
alfaMAG-D 100/80 F	2x1650					
alfaMAG-D 120/80 F	2x1700					
alfaMAG-D 150/80 F	2x1650					

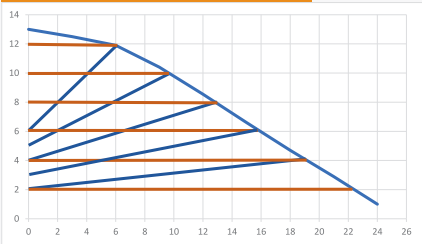
alfaMAG-D 80/40 F



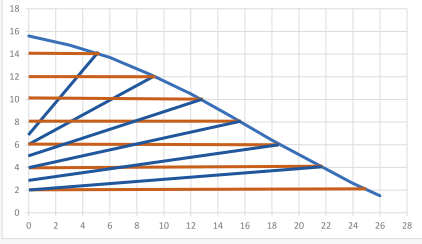
alfaMAG-D 100/40 F



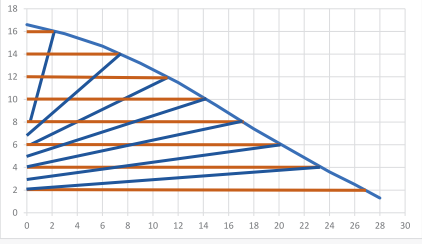
alfaMAG-D 120/40 F



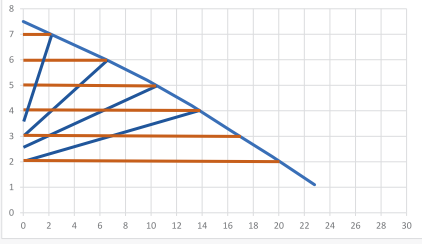
alfaMAG-D 150/40 F



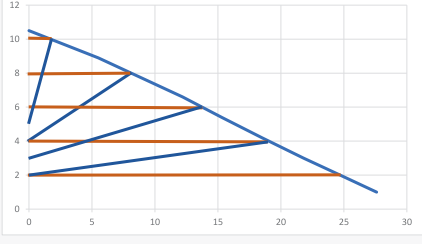
alfaMAG-D 180/40 F



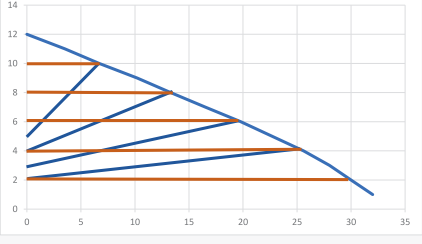
alfaMAG-D 80/50 F



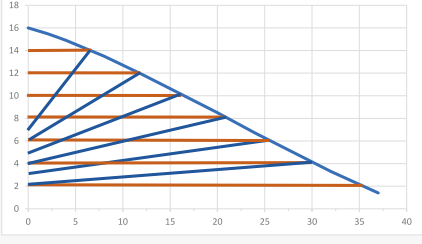
alfaMAG-D 100/50 F



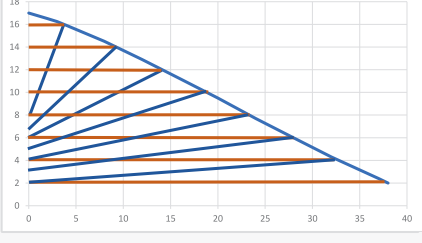
alfaMAG-D 120/50 F



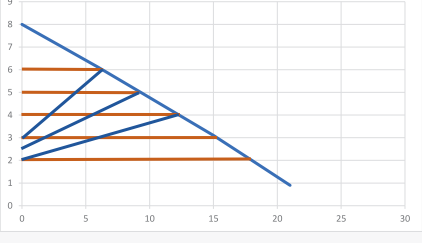
alfaMAG-D 150/50 F



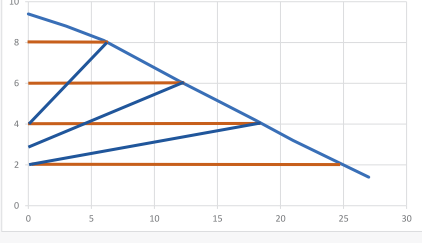
alfaMAG-D 180/50 F



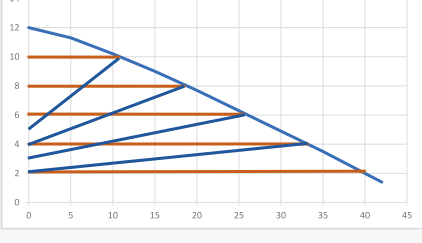
alfaMAG-D 80/65 F



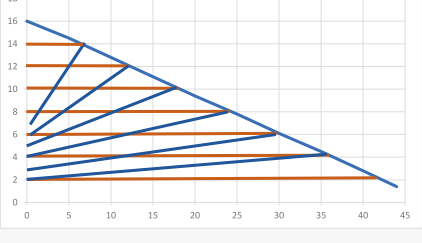
alfaMAG-D 100/65 F



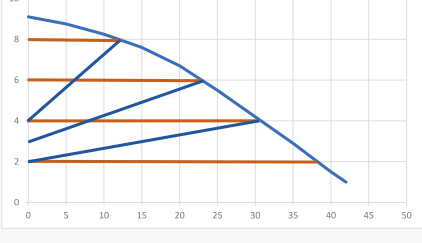
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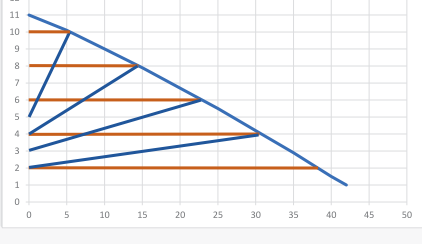
alfaMAG-D 150/65 F



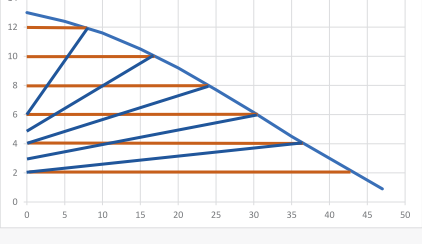
alfaMAG-D 80/80 F



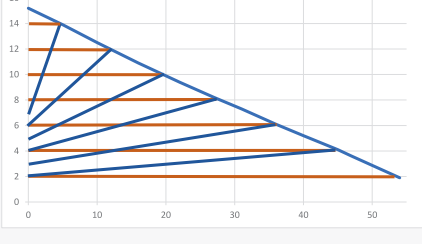
alfaMAG-D 100/80 F



alfaMAG-D 120/80 F



alfaMAG-D 150/80 F



Technical Specifications

These vessels are suitable for use in heating systems conforming to VDI 2035, domestic hot or cold water, cooling/condense water, water/glycol mixtures and they may be used in water supply, pressurising, heating and cooling applications. The membranes used in the vessels conform to health standards, does not produce odors and hygienic. They may be used as expansion tank in heating systems and as contraction tanks in cooling systems. They prevent formation of corrosion and scale, lower fuel expenses. Membrane type expansion vessels are mass produced for 8- 5000 liters capacity in PN10, PN16 and PN25 nominal pressure classes and are suitable for use at ambient temperatures of 40°C and -10°C to 100°C fluid temperatures.

- Reduces repair and maintenance expenses and extends system useful life
- Not being able to heat enough problem caused by scaling of the system becomes obsolete and fuel expenses are reduced.
- Provides additional savings in fuel expenses because of the high efficiency of heating the water under pressure.
- System efficiency increases by lack of heat loss caused by evaporative losses.



Material

- Membranes are made of EPDM and all types consists of interchangeable membranes.
- Operating Temperature: -10°C + 100°C
- The vessels does not consist of pressure security valve and connection adapter with delivery.
- The vessels are made of St 37 carbon steel metal sheet and pressure tested at %100.

Expansion Vessels With Interchangeable Membranes (PN 10)

Type	Operating Pressure (Bar)	Preset Pressure (Bar)	Diameter (mm)	Height (mm)	Hose Connection	Weight (kg)
GT-24 Sphere	8	1.5	260	430	1"	3.5
GT-24 Horizontal	8	1.5	260	430	1"	4.5
GT-50 Horizontal	8	1.5	370	680	1"	7.2
GT-50 Vertical	8	1.5	370	680	1"	7.2
GT-100 Vertical Manometer	8	1.5	460	970	1"	14
GT-200 Vertical Manometer	10	4	585	1120	1"	28
GT-300 Vertical Manometer	10	4	635	1240	1 1/4"	41
GT-500 Vertical Manometer	10	4	750	1520	1 1/4"	66
GT-750 Vertical Manometer	10	4	800	1690	1 1/4"	78
GT-1000 Vertical Manometer	10	4	800	2190	2"	138
GT-1500 Vertical Manometer	10	4	960	2430	2"	185
GT-2000 Vertical Manometer	10	4	1100	2525	2"	220

Expansion Vessels With Interchangeable Membranes (PN 16)

Type	Operating Pressure (Bar)	Preset Pressure (Bar)	Diameter (mm)	Height (mm)	Hose Connection	Weight (kg)
GT-100/16 Vertical	16	4	450	875	1"	1"
GT-200/16 Vertical	16	4	600	1127	1 1/4"	1 1/4"
GT-300/16 Vertical	16	4	640	1327	1 1/4"	1 1/4"
GT-500/16 Vertical	16	4	750	1592	1 1/4"	1 1/4"
GT-750/16 Vertical	16	4	800	1857	2"	2"
GT-1000/16 Vertical	16	4	800	2350	2 1/2"	2 1/2"
GT-1500/16 Vertical	16	4	960	2585	2 1/2"	2 1/2"
GT-2000/16 Vertical	16	4	1100	2705	2 1/2"	2 1/2"

VERTICAL MULTISTAGE BOOSTER PUMPS			
Model		Power (Kw)	Inlet/Outlet
HNK 800 Series	DP 805	0.75	1" - 1"
	DP 806	0.75	
	DP 808	1.1	
	DP 810	1.5	
	DP 812	1.5	

Model		Power (Kw)	Inlet/Outlet
HNK 900 Series	DP 905	1.1	1 1/4" - 1 1/4"
	DP 906	1.5	
	DP 907	2.2	
	DP 908	2.2	
	DP 909	3	

Model		Power (Kw)	Inlet/Outlet
HNK 1000 Series	DP 1104	1.5	1 1/2" - 1 1/2"
	DP 1105	2.2	
	DP 1106	2.2	
	DP 1107	3	
	DP 1108	3	
	DP 1109	4	

Model		Power (Kw)	Inlet/Outlet
HNK 1600 Series	DP 1704	2.2	1 1/2" - 1 1/2"
	DP 1705	3	
	DP 1706	3	
	DP 1707	4	
	DP 1708	4	
	DP 1709	5.5	

Model		Power (Kw)	Inlet/Outlet
HNK 2400 Series	DP 2404	4	2" - 2"
	DP 2405	5.5	
	DP 2406	5.5	
	DP 2407	7.5	
	DP 2408	7.5	

Model		Power (Kw)	Inlet/Outlet
HNK 3200 Series	DP 3203	4	2 1/2" - 2"
	DP 3204	5.5	
	DP 3205	7.5	
	DP 3206	7.5	
	DP 3207	11	
	DP 3208	11	

Model		Power (Kw)	Inlet/Outlet
HNK 4800 Series	DP 4803	11	3" - 2 1/2"
	DP 4804	11	
	DP 4805	15	
	DP 4806	18.5	

Model		Power (Kw)	Inlet/Outlet
HNK 900 Series	DP 905-Inline	1.5	1 1/4" - 1 1/4"
	DP 906-Inline	1.5	
	DP 907-Inline	2.2	
	DP 908-Inline	2.2	
	DP 909-Inline	3	

Model		Power (Kw)	Inlet/Outlet
HNK 1000 Series	DP 1005-Inline	2.2	1 1/2" - 1 1/2"
	DP 1006-Inline	3	
	DP 1007-Inline	3	
	DP 1008-Inline	4	
	DP 1009-Inline	4	
	DP 1010-Inline	5.5	

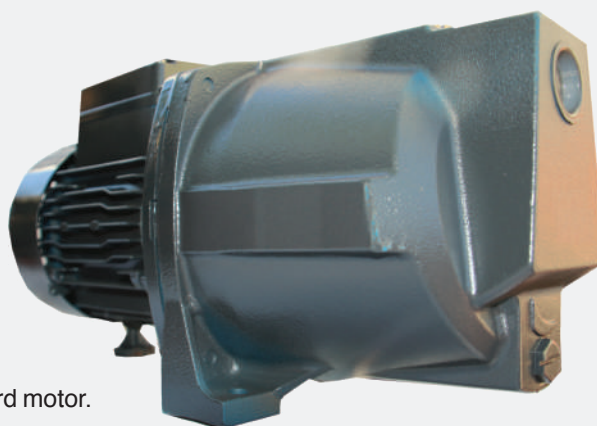
Model		Power (Kw)	Inlet/Outlet
HNK 1600 Series	DP 1605-Inline	3	1 1/2" - 1 1/2"
	DP 1606-Inline	4	
	DP 1607-Inline	4	
	DP 1608-Inline	5.5	
	DP 1609-Inline	5.5	
	DP 1610-Inline	7.5	

Model		Power (Kw)	Inlet/Outlet
HNK 2400 Series	DP 2404-Inline	4	1 1/2" - 1 1/2"
	DP 2405-Inline	5.5	
	DP 2406-Inline	5.5	
	DP 2407-Inline	7.5	
	DP 2408-Inline	7.5	
	DP 2409-Inline	11	
	DP 2410-Inline	11	



General

Close coupled self Priming water pumps with a high performance and a considerable pressure capacity. The self-priming water pumps are designed to pump water even in cases where air is present. As a result of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications.



Technical Specification

- Horizontal, self priming water pumps coupled to a standard motor.
- Suitable for potable clean water.
- Maksimum liquid temperature 35 °C
- Maksimum ambient temperature up to 40 °C
- Seal is mechanical.
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm 1-phase 230 V ± %10 Insulation class F,
- Protection IP44 Constructed in accordance with IEC 60034.

Material

- **Pump Body:** GG-25 Cast iron for JETT, PERF Series, Stainless Steel for JETTOX Series.
- **Shaft:** Stainless Steel
- **Impeller:** PPO for JETT series, stainless Steel for JETTX series, Brass for PERFO series.

Volumetric Pumps

Model	Power (Kw)	Voltage	Head	Flow Rate m ³ /h						Inlet/Outlet
				0	0.6	1.1	1.6	1.8	2	
PERF 50	0.37	230 V 50 Hz	mWc	40	31	22	12	10	6	1" - 1"
PERF 100 M	0.75			68	55	42	29	20	17	

Jet Pumps

Model	Power (Kw)	Voltage	Head	Flow Rate m ³ /h						Inlet/Outlet
				0	1.2	2.4	3.2	3.6	4.2	
JETT 100 M	0.75	230 V 50 Hz	mWc	52	40	32	25	10		1" - 1"
JETT 150 M	1.1			57	42	35	28	12		
JETT 150L M	1.1			55	47	41	37	35	30	
JETT 200 M	1.5			62	54	49	42	40	37	11/2" - 1"

Volumetric Pumps

Model	Power (Kw)	Voltage	Head	Flow Rate m ³ /h						Inlet/Outlet
				0	0.6	1.2	1.6	2	2.6	
JETTX 100 M	0.75	230 V 50 Hz	mWc	51	45	41	38	34	31	1" - 1"

General

Close coupled stainless steel water pumps with a high performance and a considerable pressure capacity. The self-priming water pumps are designed to pump water even in cases where air is present. As a result of their reliability and the fact that they are easy to use, they are recommended for use in domestic and industrial applications.



Technical Specification

- Horizontal, multistage centrifugal pumps coupled to a standard motor.
- Suitable for potable clean water.
- Maksimum liquid temperature 35 °C
- Maksimum ambient temperature up to 40 °C
- Seal is mechanical.
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm 1-phase 230 V ± %10 Insulation class F,
- Protection IP44 Constructed in accordance with IEC 60034.

Material

- **Pump Suction-Delivery Head:** GG-25 Cast iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless Steel

PYN Series Horizontal Multistage Pump

Model	Power (Kw)	Voltage	Head	Flow Rate m ³ /h						Inlet/Outlet	
				0	2.5	3	3.8	5.5	6.2		7
PYN 804 M	0.75	230 V 50 Hz	mWc	47	45	43	40	30	25	15	1 1/4" - 1"
PYN 805 M	1.1			58	55	53	48	40	30	21	
PYN 806 M	1.1			66	63	61	56	45	35	27	
PYN 807 M	1.5			80	76	72	70	56	44	31	

Model	Power (Kw)	Voltage	Head	Flow Rate m ³ /h						Inlet/Outlet	
				0	3	4	5.5	7	8		9
PYN 904 M	1.1	230 V 50 Hz	mWc	50	46	44	38	28	22	15	1 1/4" - 1 1/4"
PYN 905 M	1.5			60	57	54	43	36	28	18	
PYN 906 M	2.2			70	68	65	54	45	35	24	
PYN 908 M	3			95	83	80	62	50	39	28	



General

Pressure boosting sets with automatic operation, consisting of 1 pump on a expansion vessel. According to decrease or increase of pressure, the pressure switch determines when the pump will start or stop.

Compact design, small built-in pressure boosters for household water feeding consisting of;

- Close-coupled self priming pump,
- Cylindrical expansion tank with changeable membrane
- Flexible metal hose
- Pressure switch
- Pressure gauge
- 5 way connector
- Float switch against dry running
- 2 m cable with plug

Technical Specification

- Horizontal, self priming water pumps coupled to a standard motor.
- Suitable for potable clean water.
- Maksimum liquid temperature 35 °C
- Maksimum ambient temperature up to 40 °C
- Seal is mechanical.
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm 1-phase 230 V ± %10 Insulation class F, Protection IP44 Constructed in accordance with IEC 60034.

Material

- **Pump Body:** GG-25 Cast iron for JETTO Series, Stainless Steel for JETTOX Series.
- **Shaft:** Stainless Steel
- **Impeller:** PPO for JETTO series, stainless Steel for JETTOX series, Brass for PERFO series

JETTO Series Self Priming Booster Sets with Jet Pumps & 24 Lt Expansion Vessel

Model	Power (Kw)	Voltage	Pressure Difference (mWc)	Flow Rate m³/h	Inlet/Outlet
JETTO 100 M	0.75	230 V 50 Hz	20-45	3,0 - 1	1" - 1"
JETTO 150 M	1.1		25-55	3,0 - 1	
JETTO 150L M	1.1		20-45	3,6 - 1	

JETTO Series Self Priming Booster Sets with Jet Pumps & 50 Lt Expansion Vessel

Model	Power (Kw)	Voltage	Pressure Difference (mWc)	Flow Rate m³/h	Inlet/Outlet
JETTO 100 MB	0.75	230 V 50 Hz	20-45	3,0 - 1	1" - 1"
JETTO 150 MB	1.1		25-55	3,0 - 1	
JETTO 150L MB	1.1		20-45	3,6 - 1	
JETTO 200 MB	1.5		30-58	5,2 - 2	1 1/2" - 1"

JETTOX Series Self Priming Stainless Steel Booster Sets with Jetx Pumps & 24 Lt Expansion Vessel

Model	Power (Kw)	Voltage	Pressure Difference (mWc)	Flow Rate m³/h	Inlet/Outlet
JETTOX 100 M	0.75	230 V 50 Hz	20-45	3,0 - 1	1" - 1"

JETTOX Series Self Priming Stainless Steel Booster Sets with Jetx Pumps & 50 Lt Expansion Vessel

Model	Power (Kw)	Voltage	Pressure Difference (mWc)	Flow Rate m³/h	Inlet/Outlet
JETTOX 100 MB	0.75	230 V 50 Hz	20-45	3,0 - 1	1" - 1"

PERFO Series Self Priming Booster Sets with Volumetric Pumps & 24 Lt Expansion Vessel

Model	Power (Kw)	Voltage	Pressure Difference (mWc)	Flow Rate m³/h	Inlet/Outlet
PERF 50	0.37	230 V 50 Hz	20-40	2,5 - 1	1" - 1"
PERF 100 M	0.75		35-55	2,5 - 1	



General

Pressure boosting sets with automatic operation, consisting of 1 pump on a expansion vessel. According to decrease or increase of pressure, the pressure switch determines when the pump will start or stop. Compact design, small built-in pressure boosters for household water feeding consisting of;

- Close-coupled pump, • Cylindrical expansion tank with membrane
- Flexible metal hose • Pressure switch • Pressure gauge
- 5 way connector • Float switch against dry running
- 2 m cable with plug

Technical Specification

- Horizontal, multistage centrifugal pumps coupled to a standard motor.
- Suitable for potable clean water. • Maksimum liquid temperature 35 °C
- Maksimum ambient temperature up to 40 °C • Seal is mechanical.
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm 1-phase 230 V ± %10 Insulation class F, Protection IP44 Constructed in accordance with IEC 60034.

Material

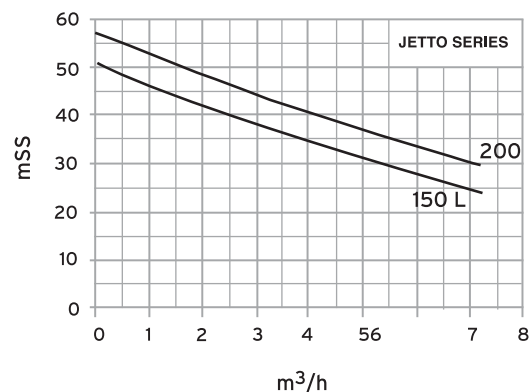
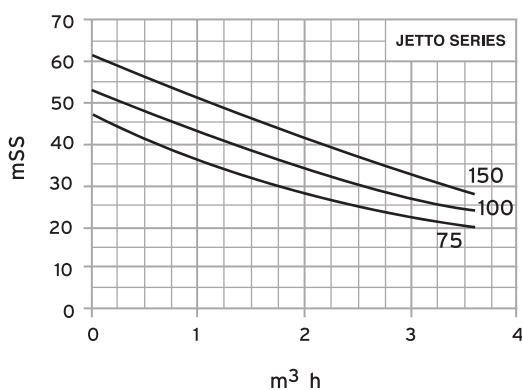
- **Pump Suction-Delivery Head:** GG-25 Cast iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless Steel

HYN Series Booster Set with Horizontal Multistage Pump

Type	Expansion Ves-sel Volume	Power (Kw)	Voltage	Pressure Differ-ence (mWc)	Flow Rate m³/h	Inlet/Outlet
HYN 804 M	50 Litre	0.75	230 V - 50 Hz	25 - 45	7 - 2	1 1/4" - 1"
HYN 805 M		1.1		35 - 55	7 - 2	
HYN 806 M		1.5		45 - 65	7 - 2	
HYN 807 M		2.2		55 - 75	7 - 2	

HYN Series Booster Set with Horizontal Multistage Pump

Type	Expansion Ves-sel Volume	Power (Kw)	Voltage	Pressure Differ-ence (mWc)	Flow Rate m³/h	Inlet/Outlet
HYN 904 M	100 Litre	1.1	230 V - 50 Hz	25 - 45	9 - 3	1 1/4" - 1 1/4"
HYN 905 M		1.5		35 - 55	9 - 3	
HYN 906 M		2.2		45 - 65	9 - 3	
HYN 908 M		3		65 - 85	9 - 3	



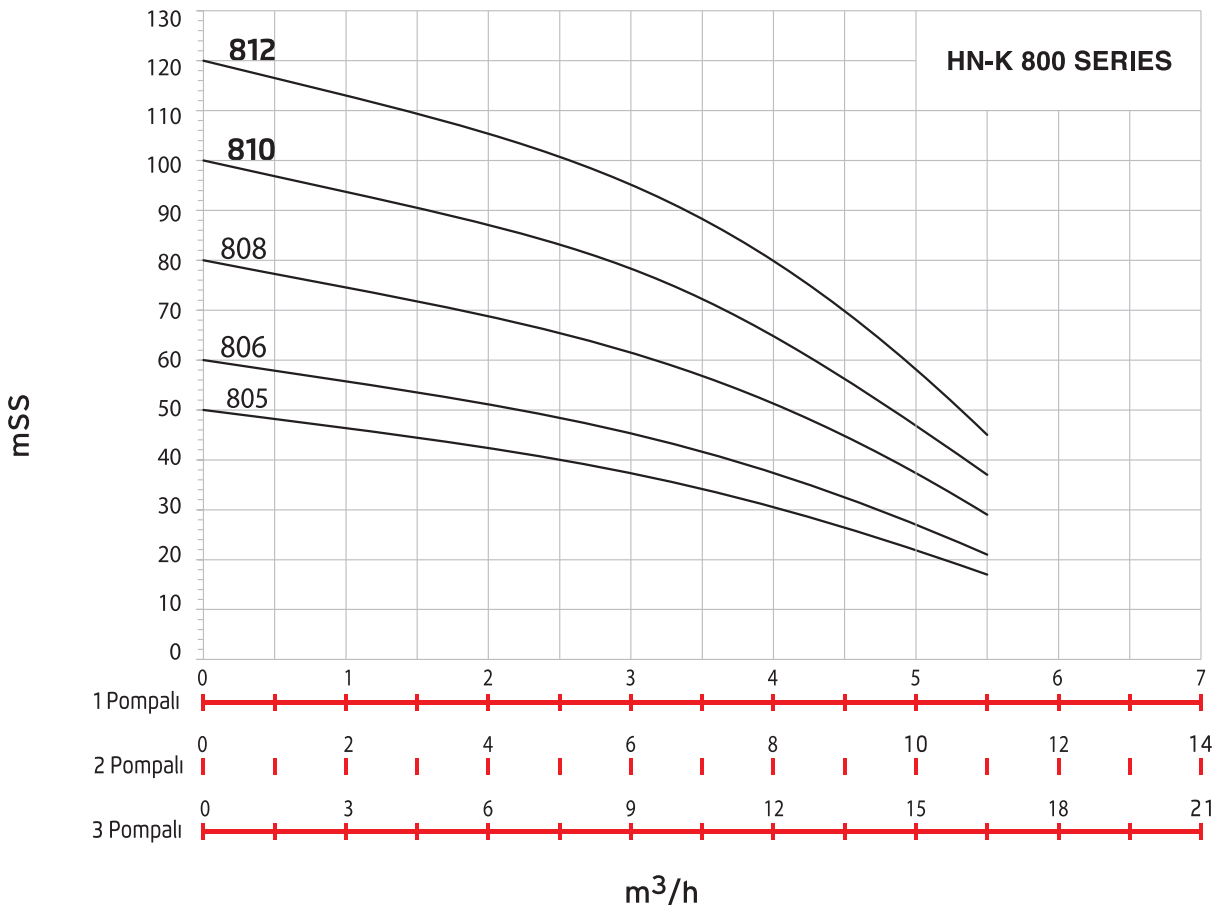
HN-K 800 Series Booster Sets

Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel. Stainless steel on request

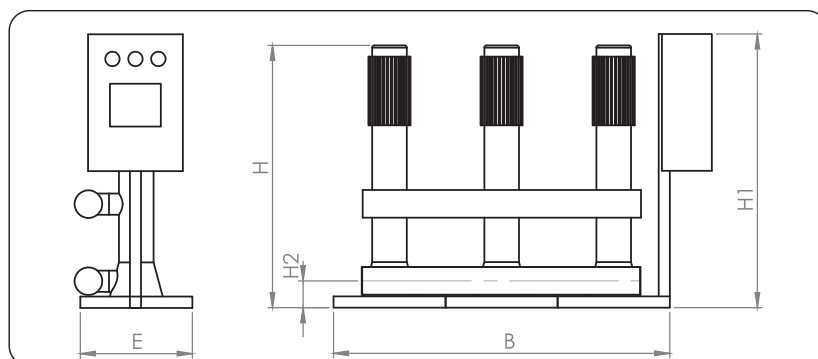
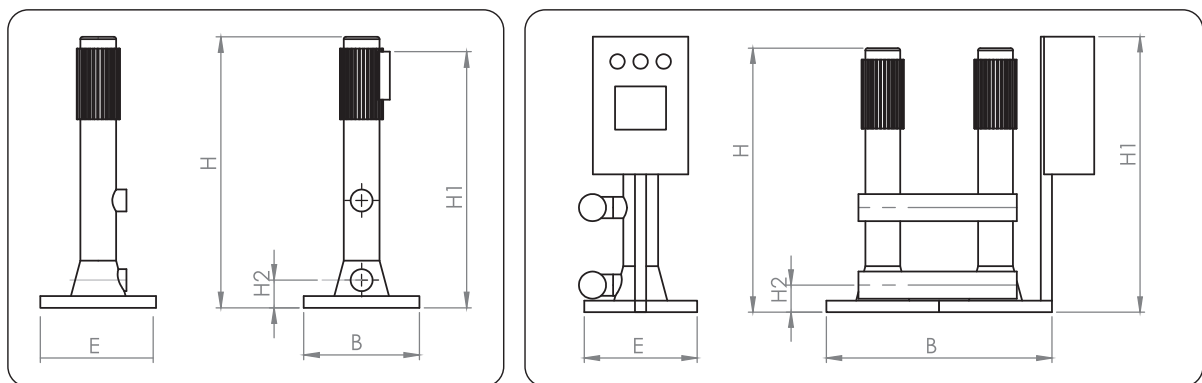


HN-K 800 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 805	1 x 0,75	380 - 50	GT - 100	1" - 1"	300	110	550	625	300
	HN-K1 806	1 x 0,75		GT - 100		300	110	555	630	300
	HN-K1 808	1 x 1,1		GT - 100		300	110	560	635	300
	HN-K1 810	1 x 1,5		GT - 100		300	110	565	640	300
	HN-K1 812	1 x 1,5		GT - 100/16		300	110	570	645	300

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 805	2 x 0,75	380 - 50	GT - 200	1 1/4" - 1 1/4"	500	115	550	625	500
	HN-K2 806	2 x 0,75		GT - 200		500	115	556	631	500
	HN-K2 808	2 x 1,1		GT - 200		500	115	562	637	500
	HN-K2 810	2 x 1,5		GT - 200		500	115	568	643	500
	HN-K2 812	2 x 1,5		GT - 200/16		500	115	574	649	500

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 805	3 x 0,75	380 - 50	GT - 200	1 1/2" - 1 1/2"	720	120	550	625	510
	HN-K3 806	3 x 0,75		GT - 200		720	120	555	635	510
	HN-K3 808	3 x 1,1		GT - 200		720	120	570	645	510
	HN-K1 810	3 x 1,5		GT - 200		720	120	580	655	510
	HN-K3 812	2 x 1,5		GT - 200/16		720	120	590	665	510



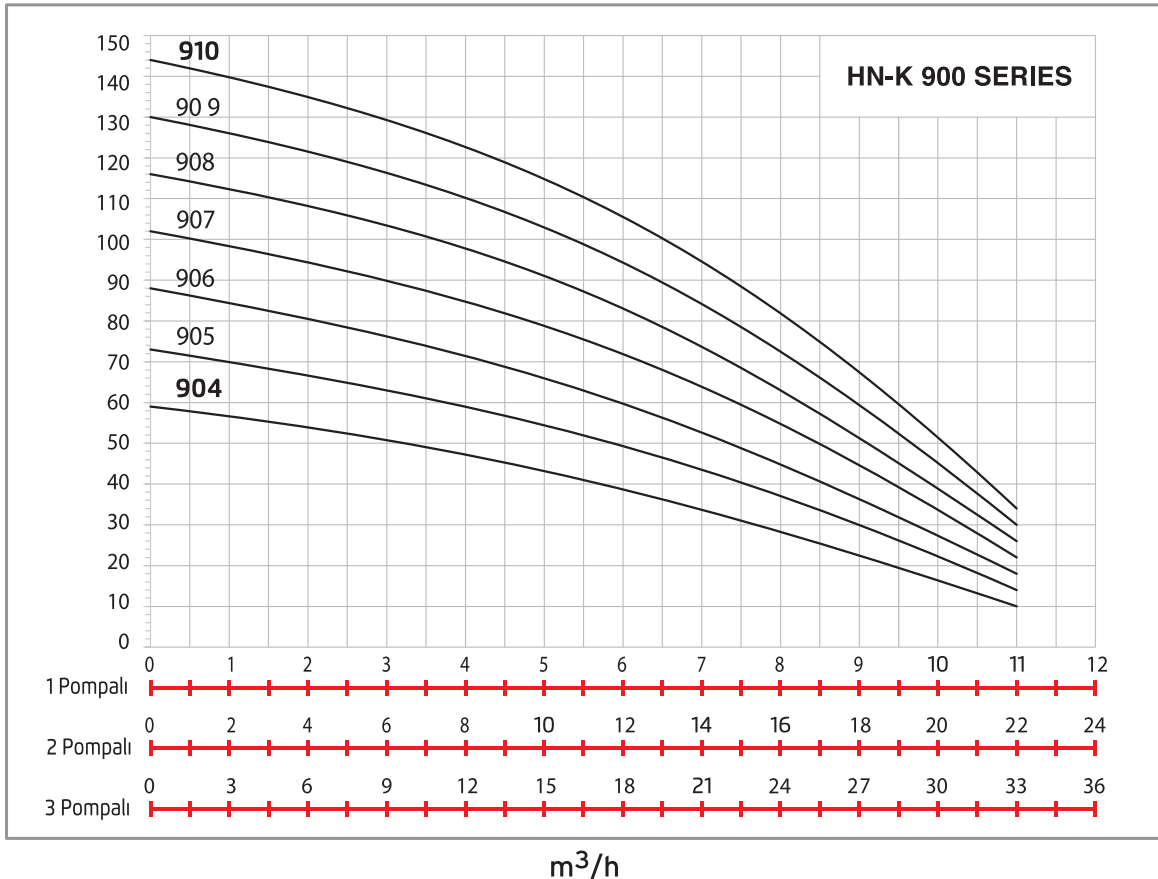
HN-K 900 Series Booster Sets

Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V ± %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034.
Other voltages and frequencies on request.

Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

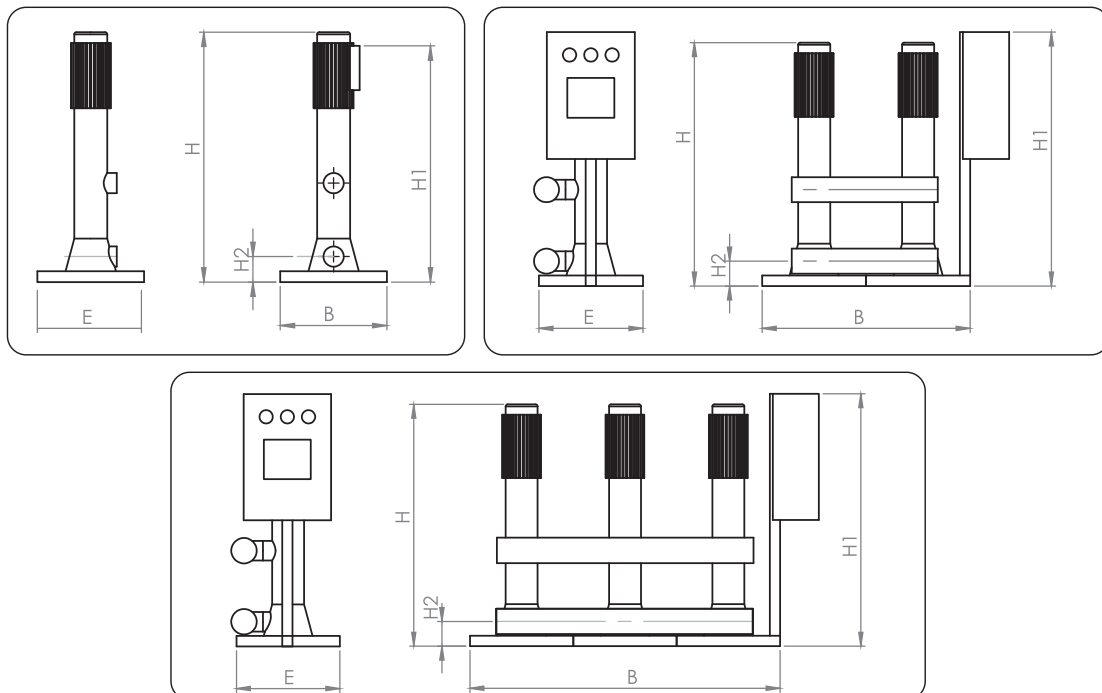


HN-K 900 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 904	1 x 1,1	380 - 50	GT - 100	11/4" - 11/4"	300	115	550	552	300
	HN-K1 905	1 x 1,5		GT - 100		300	115	560	562	300
	HN-K1 906	1 x 1,5		GT - 100		300	115	570	572	300
	HN-K1 907	1 x 2,2		GT - 100		300	115	580	582	300
	HN-K1 908	1 x 2,2		GT - 100/16		300	115	590	592	300
	HN-K1 909	1 x 3		GT 100/16		300	115	600	602	300
	HN-K1 910	1 x 3		GT - 100/16		300	115	610	612	300

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 904	2 x 1,1	380 - 50	GT - 200	11/2" - 11/2"	500	120	550	625	500
	HN-K2 905	2 x 1,5		GT - 200		500	120	560	635	500
	HN-K2 906	2 x 1,5		GT - 200		500	120	570	645	500
	HN-K2 907	2 x 2,2		GT - 200		500	120	580	655	500
	HN-K2 908	2 x 2,2		GT 200/16		500	120	590	665	500
	HN-K2 909	2 x 3		GT - 200/16		500	120	600	675	500
	HN-K2 910	2 x 3		GT - 200/16		500	120	610	685	500

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 904	3 x 1,1	380 - 50	GT - 300	11/2" - 11/2"	720	125	550	625	510
	HN-K3 905	3 x 1,5		GT - 300		720	125	560	635	510
	HN-K3 906	3 x 1,5		GT - 300		720	125	570	645	510
	HN-K3 907	3 x 2,2		GT - 300		720	125	580	655	510
	HN-K3 908	3 x 2,2		GT 300/16		720	125	590	665	510
	HN-K3 909	3 x 3		GT - 300/16		720	125	600	675	510
	HN-K3 910	3 x 3		GT - 300/16		720	125	610	685	510



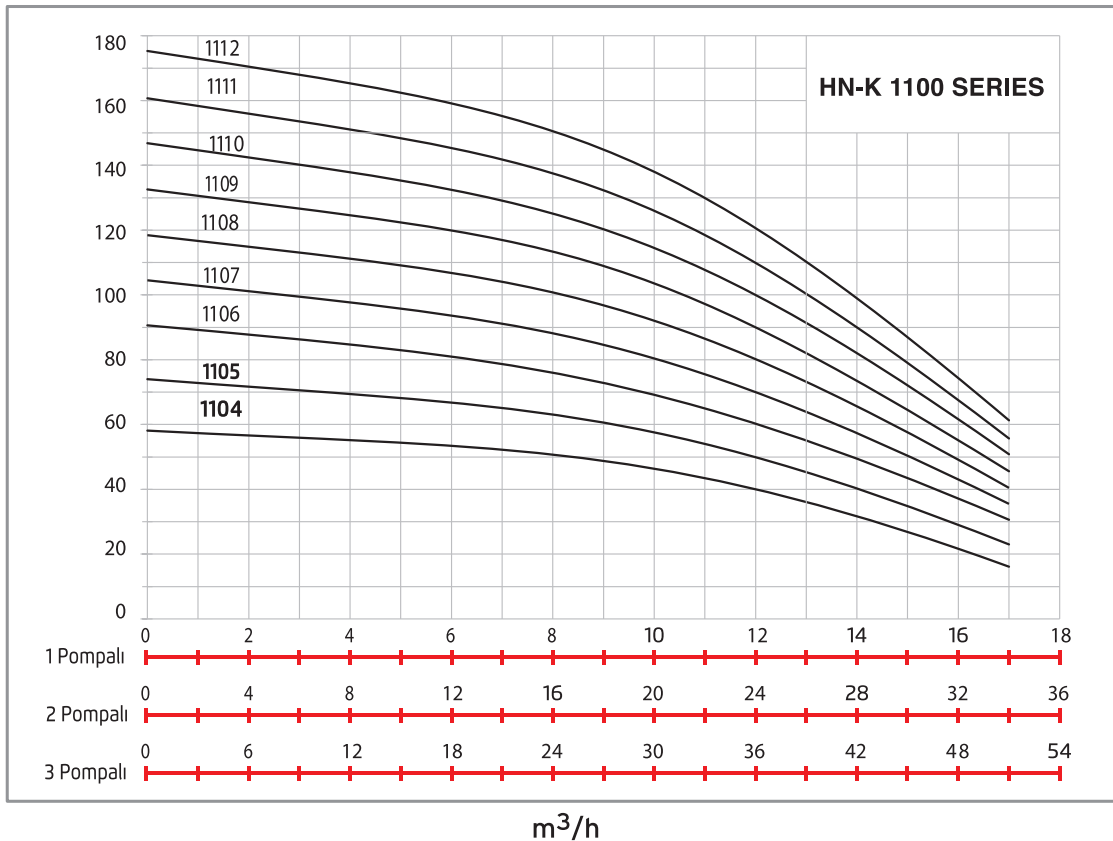
HN-K 1100 Series Booster Sets

Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed.
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel. Stainless steel on request

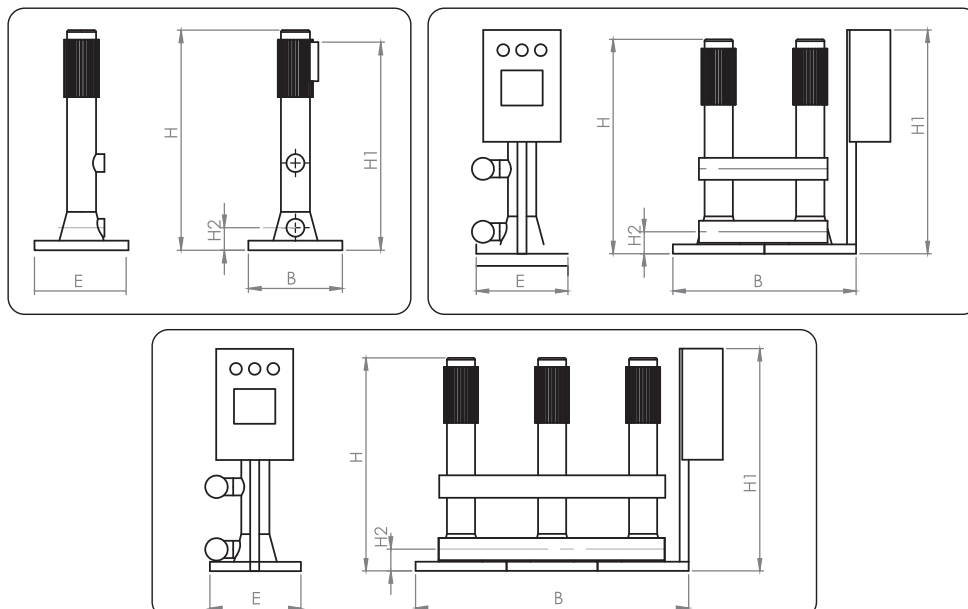


HN-K 1100 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 1104	1 x 1,1	380 - 50	GT - 100	11/4" - 11/4"	300	115	550	552	300
	HN-K1 1105	1 x 1,5		GT - 100		300	115	560	562	300
	HN-K1 1106	1 x 1,5		GT - 100		300	115	570	572	300
	HN-K1 1107	1 x 2,2		GT - 100		300	115	580	582	300
	HN-K1 1108	1 x 2,2		GT - 100		300	115	590	592	300
	HN-K1 1109	1 x 3		GT - 100		300	115	600	602	300
	HN-K1 1110	1 x 3		GT - 100/16		300	115	610	612	300
	HN-K1 1111	1 x 5,5		GT - 100/16		300	115	625	627	300
	HN-K1 1112	1 x 5,5		GT - 100/16		300	115	640	642	300

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 1104	2 x 1,5	380 - 50	GT - 200	2" - 2"	500	120	550	625	520
	HN-K2 1105	2 x 2,2		GT - 200		500	120	560	635	520
	HN-K2 1106	2 x 2,2		GT - 200		500	120	570	645	520
	HN-K2 1107	2 x 3		GT - 200		500	120	580	655	520
	HN-K2 1108	2 x 3		GT - 200		500	120	590	665	520
	HN-K2 1109	2 x 4		GT - 200		500	120	600	675	520
	HN-K2 1110	2 x 4		GT - 200/16		500	120	610	685	520
	HN-K2 1111	2 x 5,5		GT - 200/16		500	120	625	695	520
	HN-K2 1112	2 x 5,5		GT - 200/16		500	120	640	715	520

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 1104	3 x 1,5	380 - 50	GT - 300	21/2" - 21/2"	720	125	550	625	510
	HN-K3 1105	3 x 2,2		GT - 300		720	125	560	635	510
	HN-K3 1106	3 x 2,2		GT - 300		720	125	570	645	510
	HN-K3 1107	3 x 3		GT - 300		720	125	580	655	510
	HN-K3 1108	3 x 3		GT - 300		720	125	590	665	510
	HN-K3 1109	3 x 4		GT - 300		720	125	600	675	510
	HN-K3 1110	3 x 4		GT - 300/16		720	125	610	685	510
	HN-K3 1111	3 x 5,5		GT - 300/16		720	125	625	695	510
	HN-K3 1112	3 x 5,5		GT - 300/16		720	125	640	715	510



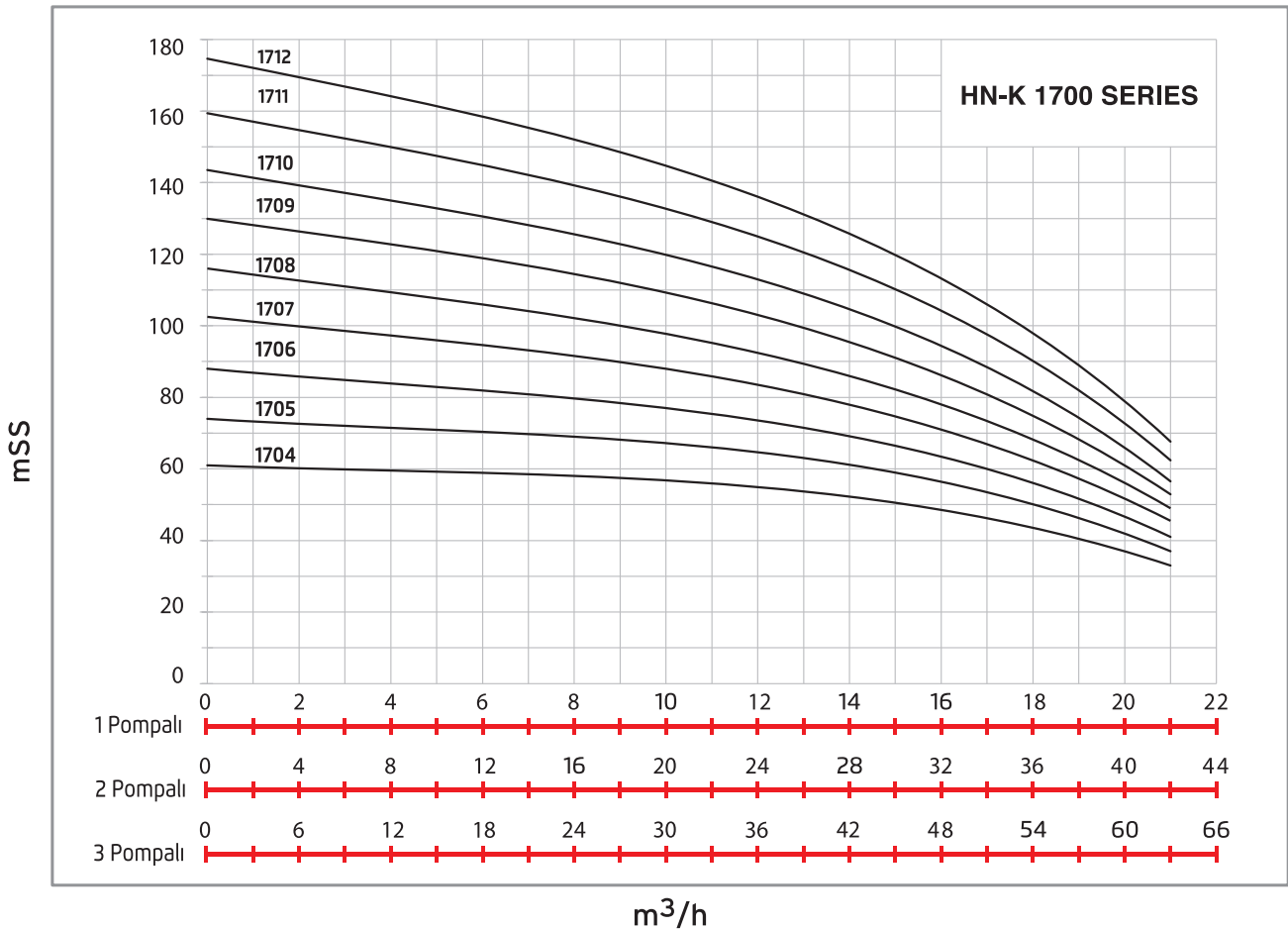
HN-K 1700 Series Booster Sets

Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F,
- Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel. Stainless steel on request

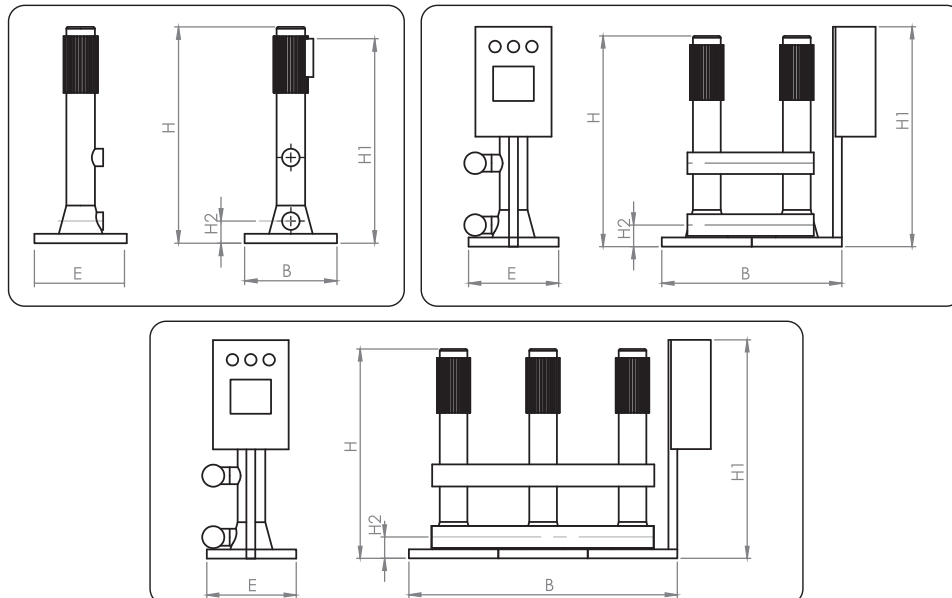


HN-K 1700 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 1704	1 x 2.2	380 - 50	GT - 100	11/4" - 11/4"	300	115	555	557	300
	HN-K1 1705	1 x 3		GT - 100		300	115	565	567	300
	HN-K1 1706	1 x 3		GT - 100		300	115	575	577	300
	HN-K1 1707	1 x 4		GT - 100		300	115	585	587	300
	HN-K1 1708	1 x 4		GT - 100/16		300	115	595	597	300
	HN-K1 1709	1 x 5,5		GT - 100/16		300	115	605	607	300
	HN-K1 1710	1 x 5,5		GT - 100/16		300	115	615	617	300
	HN-K1 1711	1 x 7,5		GT - 100/16		300	115	630	632	300
	HN-K1 1712	1 x 7,5		GT - 100/16		300	115	645	647	300

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 1704	2 x 2.2	380 - 50	GT - 200	2" - 2"	500	120	555	630	500
	HN-K2 1705	2 x 3		GT - 200		500	120	565	640	500
	HN-K2 1706	2 x 3		GT - 200		500	120	575	650	500
	HN-K2 1707	2 x 4		GT - 200		500	120	585	660	500
	HN-K2 1708	2 x 4		GT - 200/16		500	120	595	670	500
	HN-K2 1709	2 x 5,5		GT - 200/16		500	120	605	680	500
	HN-K2 1710	2 x 5,5		GT - 200/16		500	120	615	690	500
	HN-K2 1711	2 x 7,5		GT - 200/16		500	120	630	700	500
	HN-K2 1712	2 x 7,5		GT - 200/16		500	120	645	720	500

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 1704	3 x 2.2	380 - 50	GT - 300	21/2" - 21/2"	720	125	555	630	510
	HN-K3 1705	3 x 3		GT - 300		720	125	565	640	510
	HN-K3 1706	3 x 3		GT - 300		720	125	575	650	510
	HN-K3 1707	3 x 4		GT - 300		720	125	585	660	510
	HN-K3 1708	3 x 4		GT - 300/16		720	125	595	670	510
	HN-K3 1709	3 x 5,5		GT - 300/16		720	125	605	680	510
	HN-K3 1710	3 x 5,5		GT - 300/16		720	125	615	690	510
	HN-K3 1711	3 x 7,5		GT - 300/16		720	125	630	700	510
	HN-K3 1712	3 x 7,5		GT - 300/16		720	125	645	720	510



HN-K 2500 Series Booster Sets

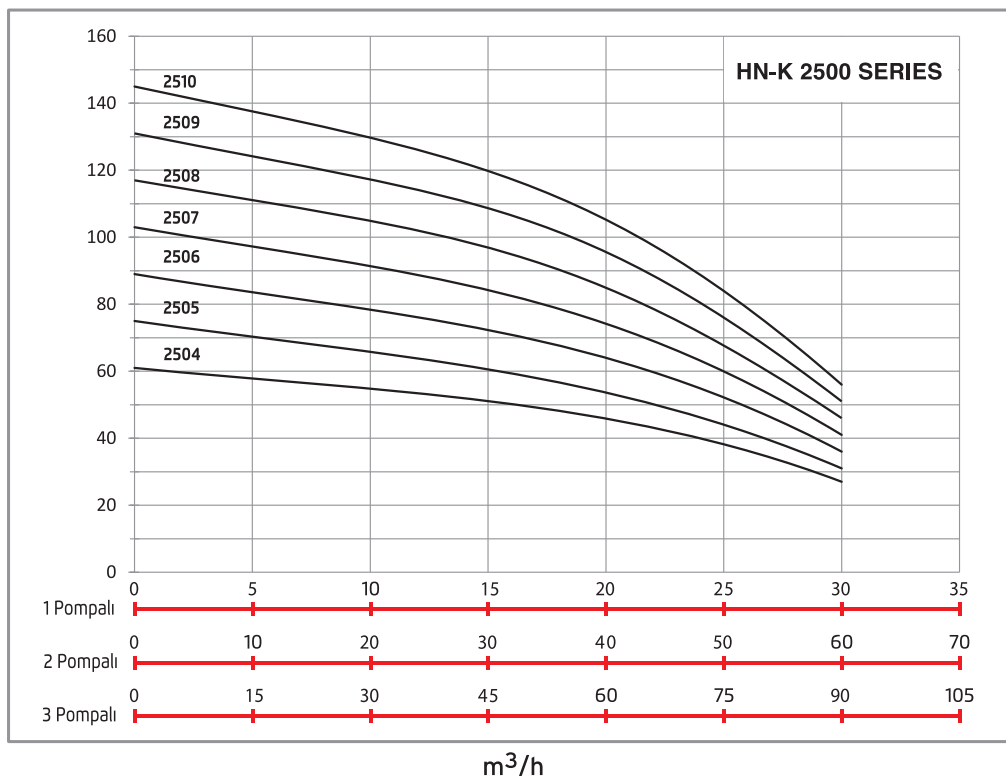
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

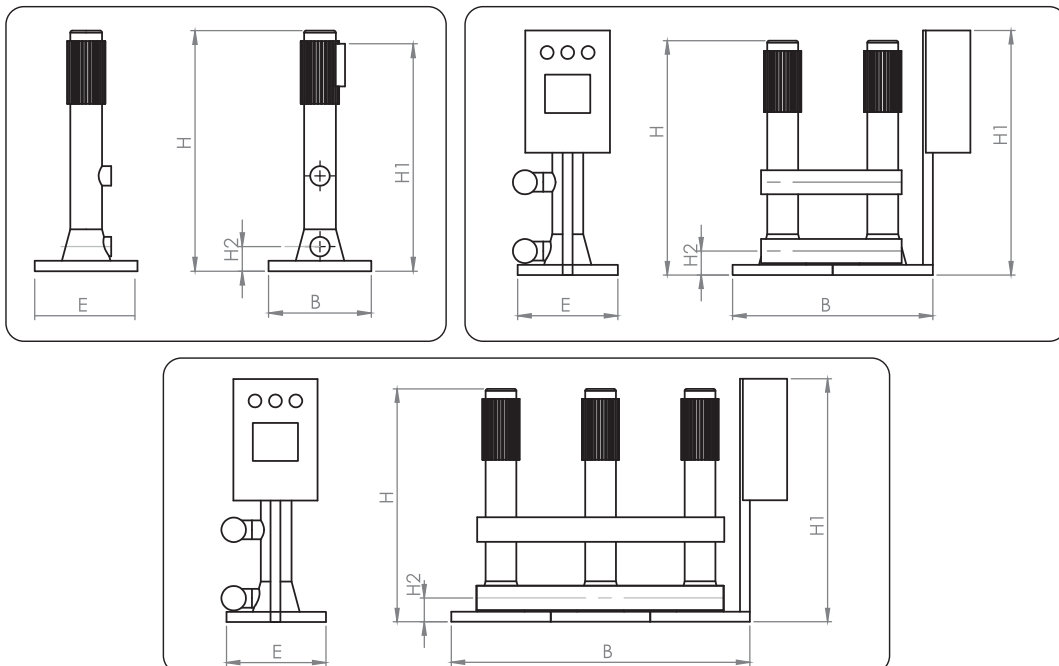


HN-K 2500 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 2504	1 x 4	380 - 50	GT - 300	11/2" - 11/2"	400	210	805	850	400
	HN-K1 2505	1 x 5,5		GT - 300		400	210	865	910	400
	HN-K1 2506	1 x 5,5		GT - 300		400	210	925	970	400
	HN-K1 2507	1 x 7,5		GT - 300		400	210	985	1030	400
	HN-K1 2508	1 x 7,5		GT - 300		400	210	1045	1090	400
	HN-K1 2509	1 x 11		GT - 300/16		400	210	1105	1150	400
	HN-K1 2510	1 x 11		GT - 300/16		400	210	1165	1210	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 2504	2 x 4	380 - 50	GT - 500	21/2" - 21/2"	700	220	805	860	750
	HN-K2 2505	2 x 5,5		GT - 500		700	220	865	940	750
	HN-K2 2506	2 x 5,5		GT - 500		700	220	925	1020	750
	HN-K2 2507	2 x 7,5		GT - 500		700	220	985	1100	750
	HN-K2 2508	2 x 7,5		GT - 500		700	220	1045	1180	750
	HN-K2 2509	2 x 11		GT - 500/16		700	220	1105	1260	750
	HN-K2 2510	2 x 11		GT - 500/16		700	220	1165	1340	750

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 2504	3 x 4	380 - 50	GT - 750	3" - 3"	1100	230	805	870	760
	HN-K3 2505	3 x 5,5		GT - 750		1100	230	865	970	760
	HN-K3 2506	3 x 5,5		GT - 750		1100	230	925	1070	760
	HN-K3 2507	3 x 7,5		GT - 750		1100	230	985	1170	760
	HN-K3 2508	3 x 7,5		GT - 750/16		1100	230	1045	1270	760
	HN-K3 2509	3 x 11		GT - 750/16		1100	230	1105	1370	760
	HN-K3 2510	3 x 11		GT - 750/16		1100	230	1165	1470	760



HN-K 3200 Series Booster Sets

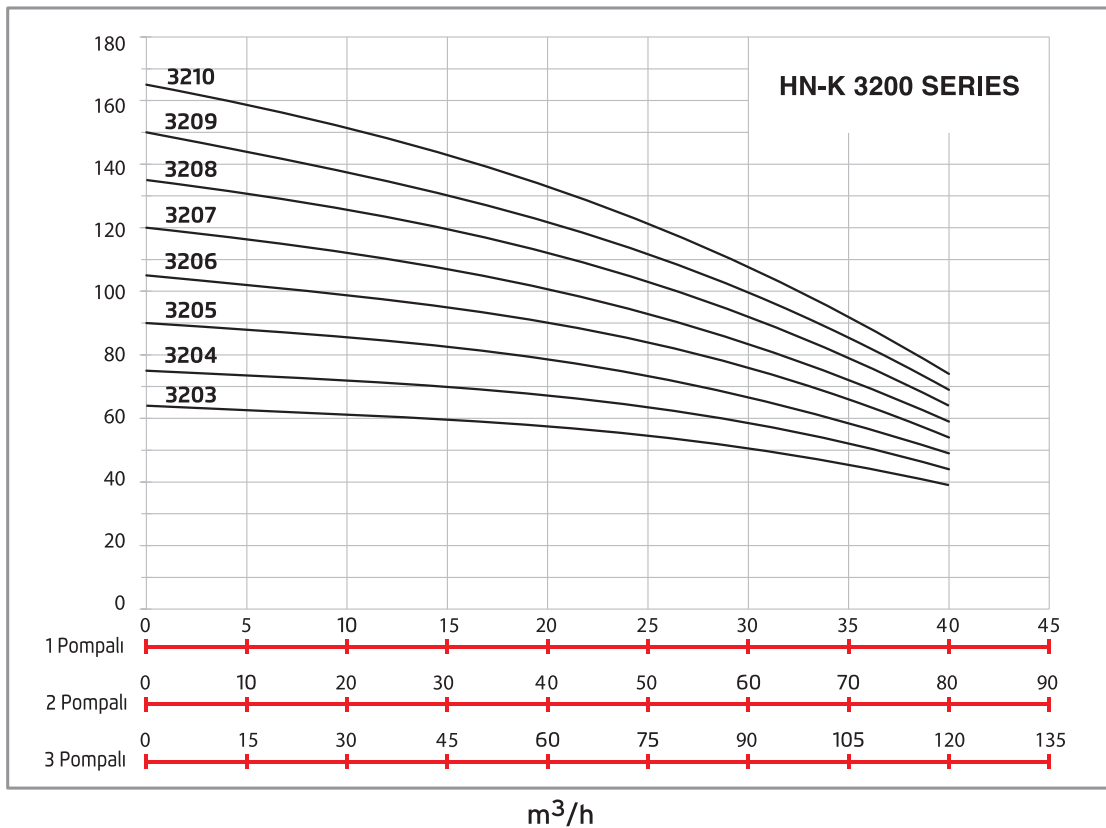
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel. Stainless steel on request

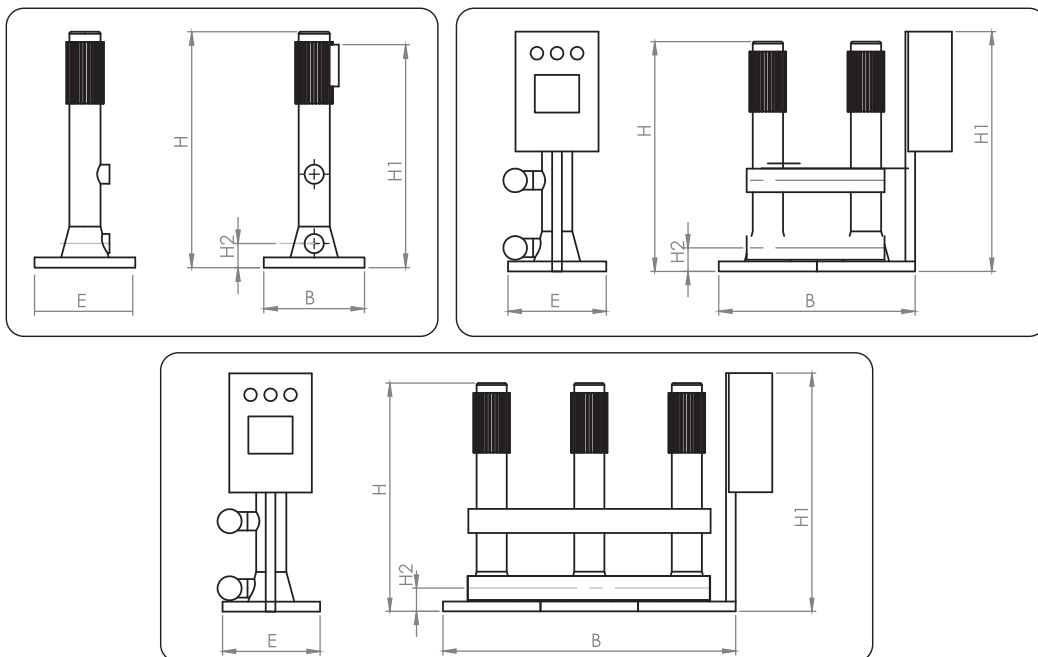


HN-K 3200 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 3203	1 x 4	380 - 50	GT - 750	21/2" - 2"	400	220	765	840	400
	HN-K1 3204	1 x 5,5		GT - 750		400	220	895	970	400
	HN-K1 3205	1 x 7,5		GT - 750		400	220	1025	1100	400
	HN-K1 3206	1 x 7,5		GT - 750		400	220	1155	1230	400
	HN-K1 3207	1 x 11		GT - 750/16		400	220	1285	1360	400
	HN-K1 3208	1 x 11		GT - 750/16		400	220	1415	1490	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 3203	2 x 4	380 - 50	GT - 750	3" - 3"	700	230	765	850	750
	HN-K2 3204	2 x 5,5		GT - 750		700	230	895	990	750
	HN-K2 3205	2 x 7,5		GT - 750		700	230	1025	1130	750
	HN-K2 3206	2 x 7,5		GT - 750		700	230	1155	1270	750
	HN-K2 3207	2 x 11		GT - 750/16		700	230	1285	1410	750
	HN-K2 3208	2 x 11		GT - 750/16		700	230	1415	1550	750

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 3203	3 x 4	380 - 50	GT - 1000	DN 100 - DN 100	1100	240	765	860	760
	HN-K3 3204	3 x 5,5		GT - 1000		1100	240	895	1010	760
	HN-K3 3205	3 x 7,5		GT - 1000		1100	240	1025	1160	760
	HN-K3 3206	3 x 7,5		GT - 1000		1100	240	1155	1310	760
	HN-K3 3207	3 x 11		GT - 1000/16		1100	240	1285	1460	760
	HN-K3 3208	3 x 11		GT - 1000/16		1100	240	1415	1610	760



HN-K 4800 Series Booster Sets

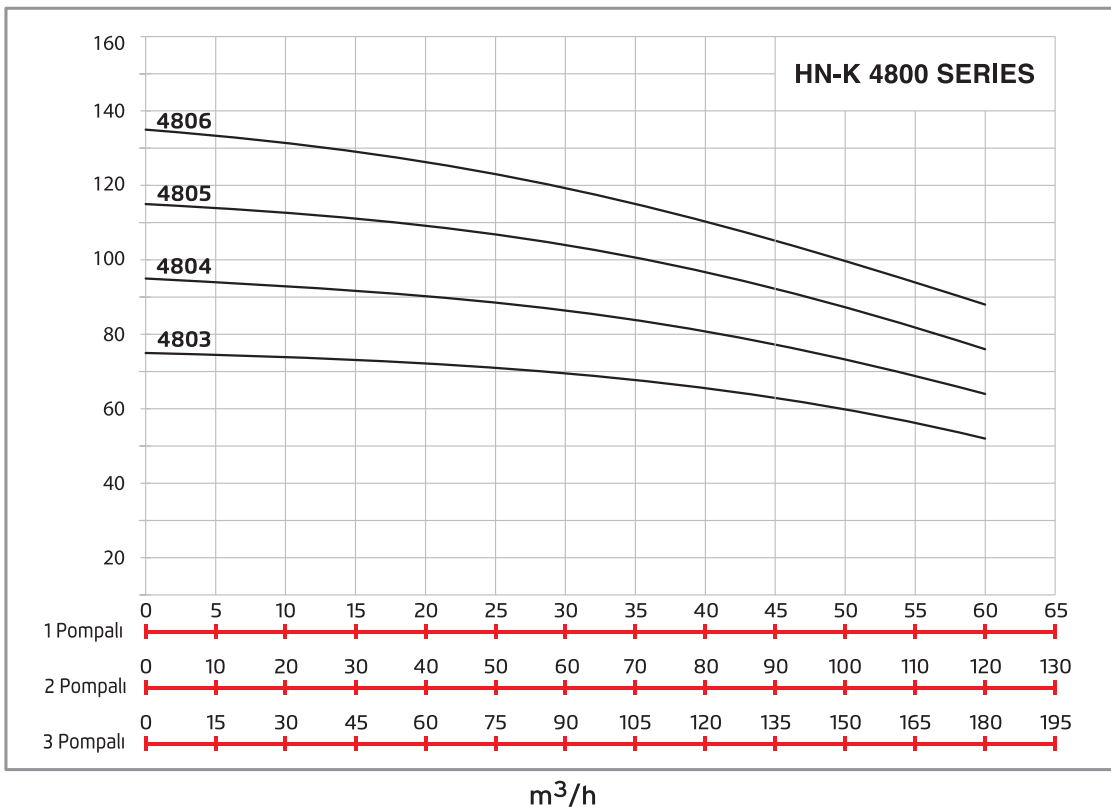
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

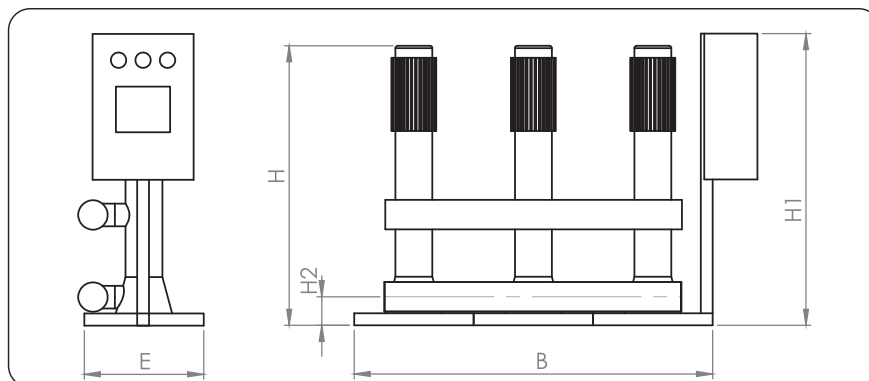
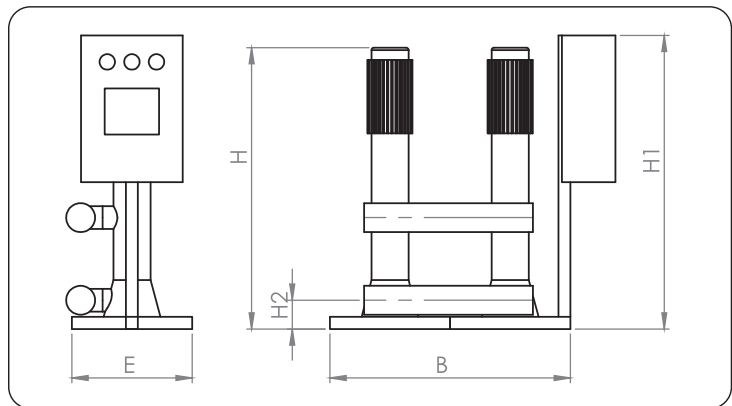
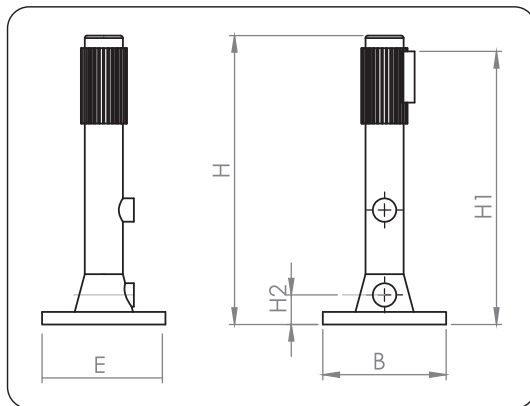


HN-K 4800 Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN-K1 4804	1 x 11	380 - 50	GT -200	3" - 2 1/2"	500	300	1000	1040	500
	HN-K1 4805	1 x 11		GT - 200		500	300	1050	1090	500
	HN-K1 4806	1 x 15		GT - 200		500	300	1100	1140	500
	HN-K1 4807	1 x 18,5		GT - 200/16		500	300	1150	1190	500

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN-K2 4804	2 x 11	380 - 50	GT -500	DN 100 - DN 100	800	320	1000	1040	850
	HN-K2 4805	2 x 11		GT - 500		800	320	1050	1120	850
	HN-K2 4806	2 x 15		GT - 500		800	320	1100	1200	850
	HN-K2 4807	2 x 18,5		GT - 500/16		800	320	1150	1280	850

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN-K3 4804	3 x 11	380 - 50	GT -750	DN 125 - DN 125	1200	340	1000	1040	890
	HN-K3 4805	3 x 11		GT - 750		1200	340	1050	1160	890
	HN-K3 4806	3 x 15		GT - 750		1200	340	1100	1280	890
	HN-K3 4807	3 x 18,5		GT - 750/16		1200	340	1150	1400	890



HN 900 Inline Series Booster Sets

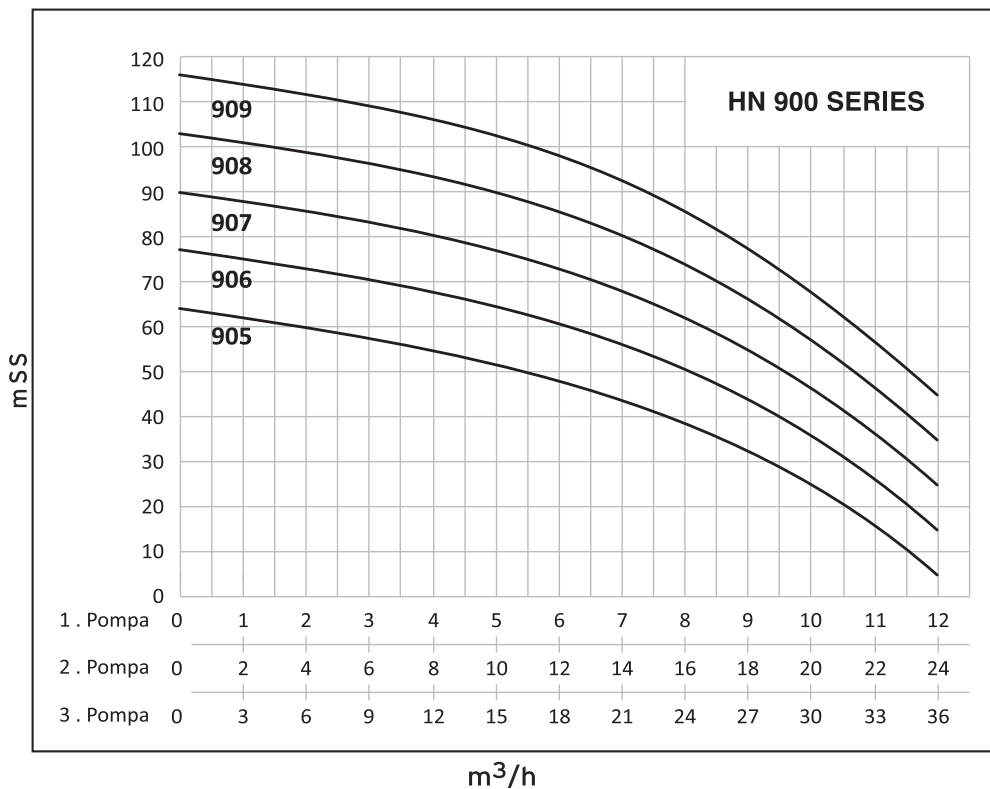
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Suction and delivery head is in-line type and on same axis
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORLY-Stainless Steel
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

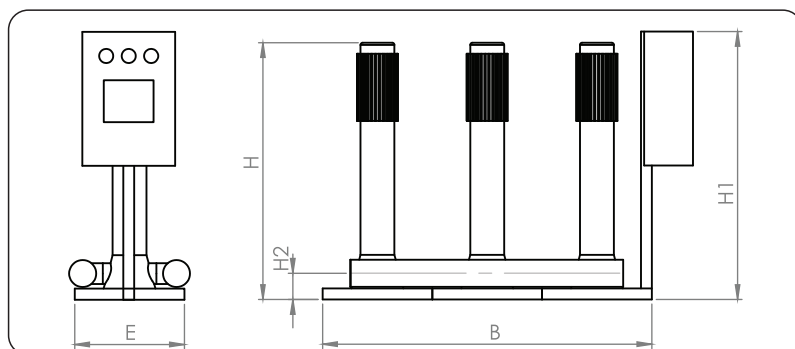
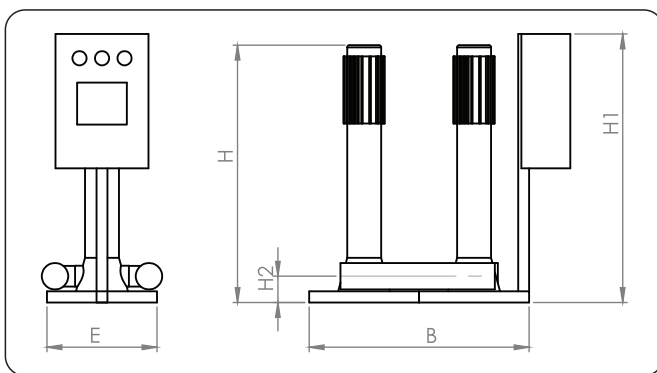
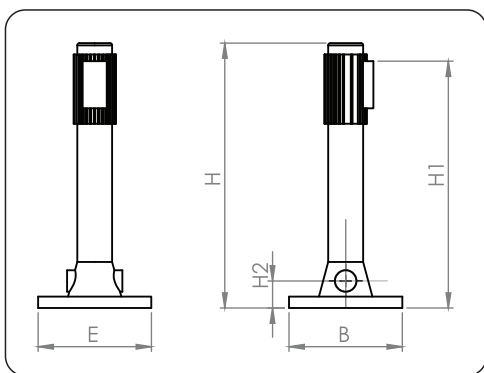


HN 900 Inline Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN1 905	1 x 1,5	380 - 50	GT - 100	11/4" - 11/4"	300	130	790	700	400
	HN1 906	1 x 1,5		GT - 100		300	130	820	730	400
	HN1 907	1 x 2,2		GT - 100		300	130	850	760	400
	HN1 908	1 x 2,2		GT - 100/16		300	130	880	790	400
	HN1 909	1 x 3		GT - 100/16		300	130	910	820	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN2 905	2 x 1,5	380 - 50	GT - 200	11/2" - 11/2"	600	130	790	700	700
	HN2 906	2 x 1,5		GT - 200		600	130	820	730	700
	HN2 907	2 x 2,2		GT - 200		600	130	850	760	700
	HN2 908	2 x 2,2		GT - 200/16		600	130	880	790	700
	HN2 909	2 x 3		GT - 200/16		600	130	910	820	700

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN3 905	3 x 1,5	380 - 50	GT - 300	2" - 2"	900	130	790	700	700
	HN3 906	3 x 1,5		GT - 300		900	130	820	730	700
	HN3 907	3 x 2,2		GT - 300		900	130	850	760	700
	HN3 908	3 x 2,2		GT - 300/16		900	130	880	790	700
	HN1 909	3 x 3		GT - 300/16		900	130	910	820	700



HN 1000 Inline Series Booster Sets

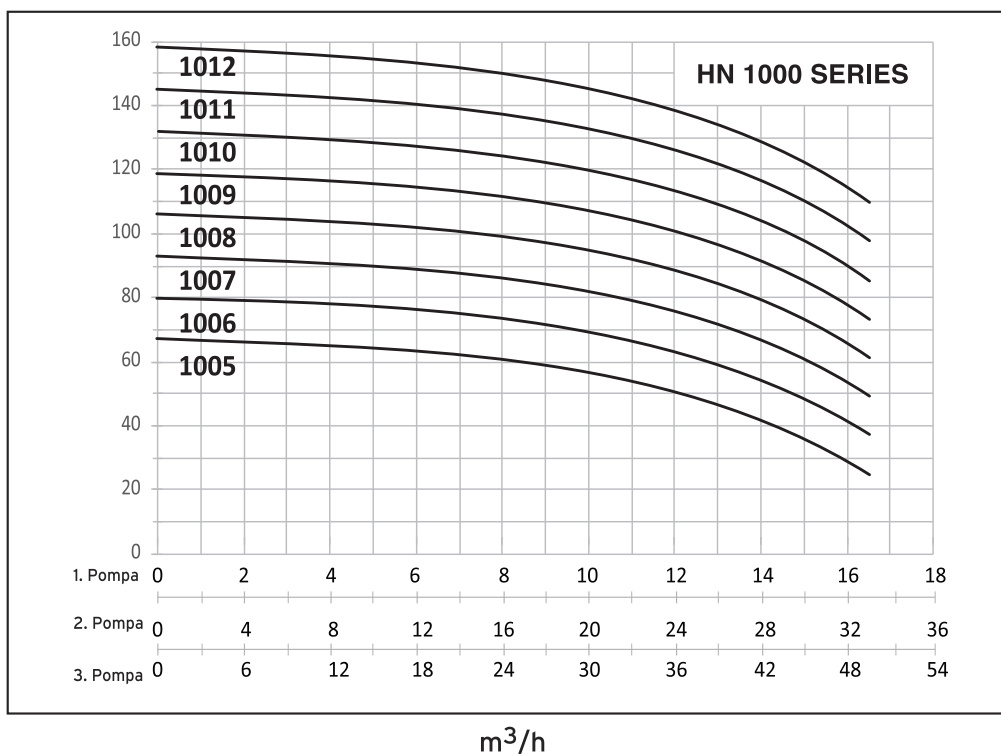
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Suction and delivery head is in-line type and on same axis
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Technical Specification

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORLY-Stainless Steel
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

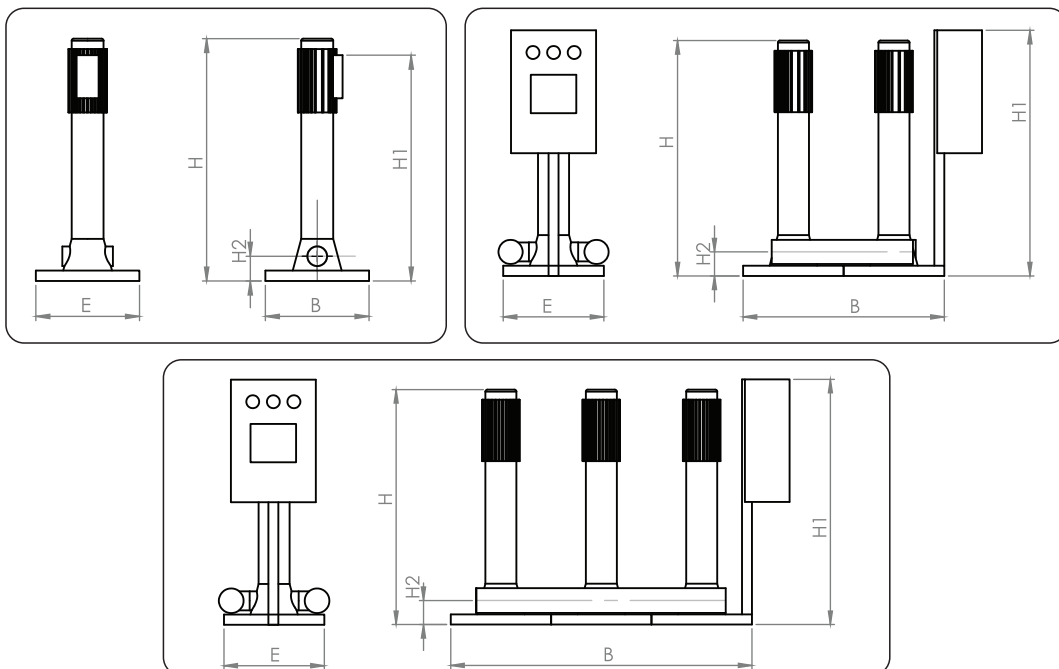


HN 1000 Inline Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN1 1005	1 x 2,2	380 - 50	GT - 200	11/2" - 11/2"	300	130	840	770	400
	HN1 1006	1 x 3		GT - 200		300	130	870	800	400
	HN1 1007	1 x 3		GT - 200		300	130	900	830	400
	HN1 1008	1 x 4		GT - 200		300	130	950	920	400
	HN1 1009	1 x 4		GT - 200/16		300	130	980	950	400
	HN1 1010	1 x 5,5		GT - 200/16		300	130	1010	980	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN2 1005	2 x 2,2	380 - 50	GT - 300	2" - 2"	600	130	840	770	700
	HN2 1006	2 x 3		GT - 300		600	130	870	800	700
	HN2 1007	2 x 3		GT - 300		600	130	900	830	700
	HN2 1008	2 x 4		GT - 300		600	130	950	920	700
	HN2 1009	2 x 4		GT - 300/16		600	130	980	950	700
	HN2 1010	2 x 5,5		GT - 300/16		600	130	1010	980	700

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN3 1005	3 x 2,2	380 - 50	GT - 500	21/2" - 21/2"	900	130	840	770	700
	HN3 1006	3 x 3		GT - 500		900	130	870	800	700
	HN3 1007	3 x 3		GT - 500		900	130	900	830	700
	HN3 1008	3 x 4		GT - 500		900	130	950	920	700
	HN3 1009	3 x 4		GT - 500/16		900	130	980	950	700
	HN3 1010	3 x 5,5		GT - 500/16		900	130	1010	980	700



HN 1600 Inline Series Booster Sets

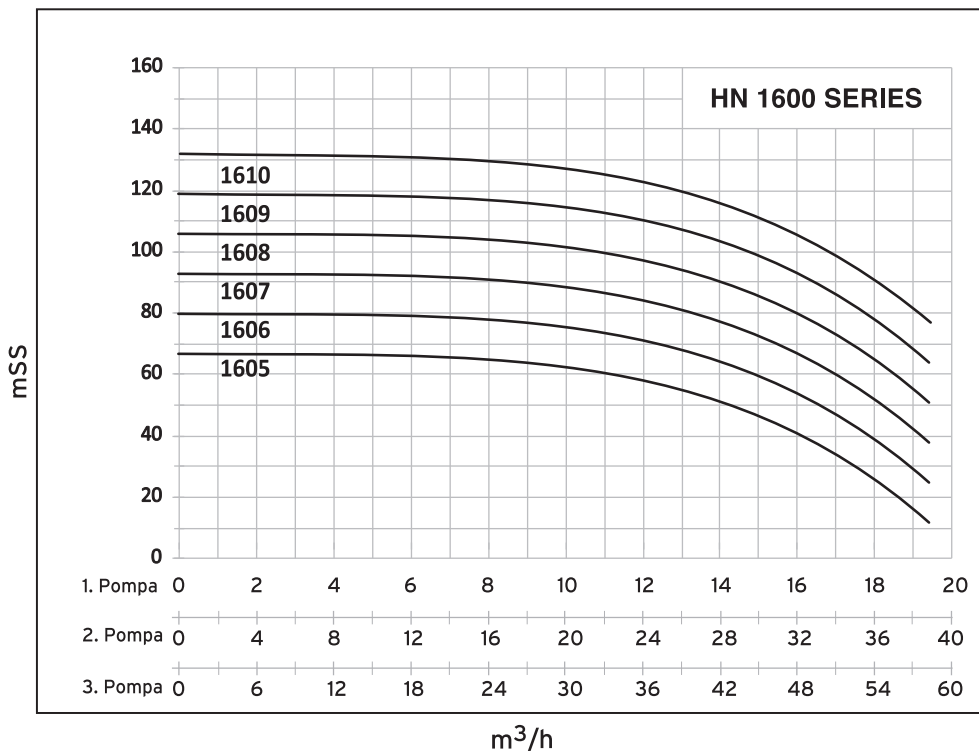
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Suction and delivery head is in-line type and on same axis
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORLY-Stainless Steel
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

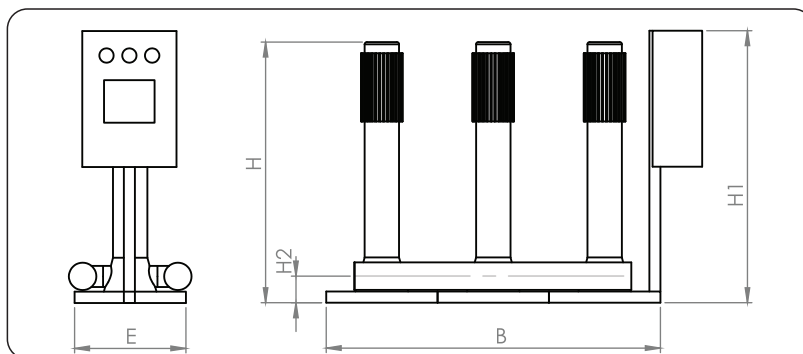
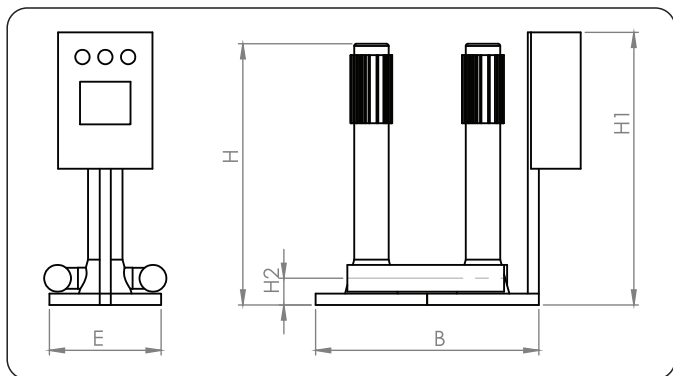
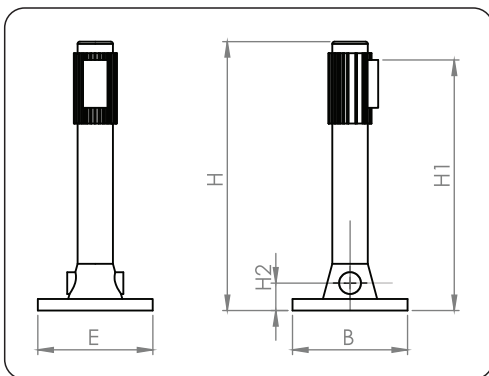


HN 1600 Inline Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN1 1605	1 x 3	380 - 50	GT - 200	11/2" - 11/2"	400	130	900	800	400
	HN1 1606	1 x 4		GT - 200		400	130	970	870	400
	HN1 1607	1 x 4		GT - 200		400	130	1000	900	400
	HN1 1608	1 x 5,5		GT - 200		400	130	1030	930	400
	HN1 1609	1 x 5,5		GT - 200/16		400	130	1060	960	400
	HN1 1610	1 x 7,5		GT - 200/16		400	130	1090	990	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN2 1605	2 x 3	380 - 50	GT - 300	21/2" - 2"	600	130	900	800	720
	HN2 1606	2 x 4		GT - 300		600	130	970	870	720
	HN2 1607	2 x 4		GT - 300		600	130	1000	900	720
	HN2 1608	2 x 5,5		GT - 300		600	130	1030	930	720
	HN2 1609	2 x 5,5		GT - 300/16		600	130	1060	960	720
	HN2 1610	2 x 7,5		GT - 300/16		600	130	1090	990	720

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN3 1605	3 x 3	380 - 50	GT - 500	3" - 21/2"	800	130	900	800	720
	HN3 1606	3 x 4		GT - 500		800	130	970	870	720
	HN3 1607	3 x 4		GT - 500		800	130	1000	900	720
	HN3 1608	3 x 5,5		GT - 500		800	130	1030	930	720
	HN3 1609	3 x 5,5		GT - 500/16		800	130	1060	960	720
	HN3 1610	3 x 7,5		GT - 500/16		800	130	1090	990	720



HN 2400 Inline Series Booster Sets

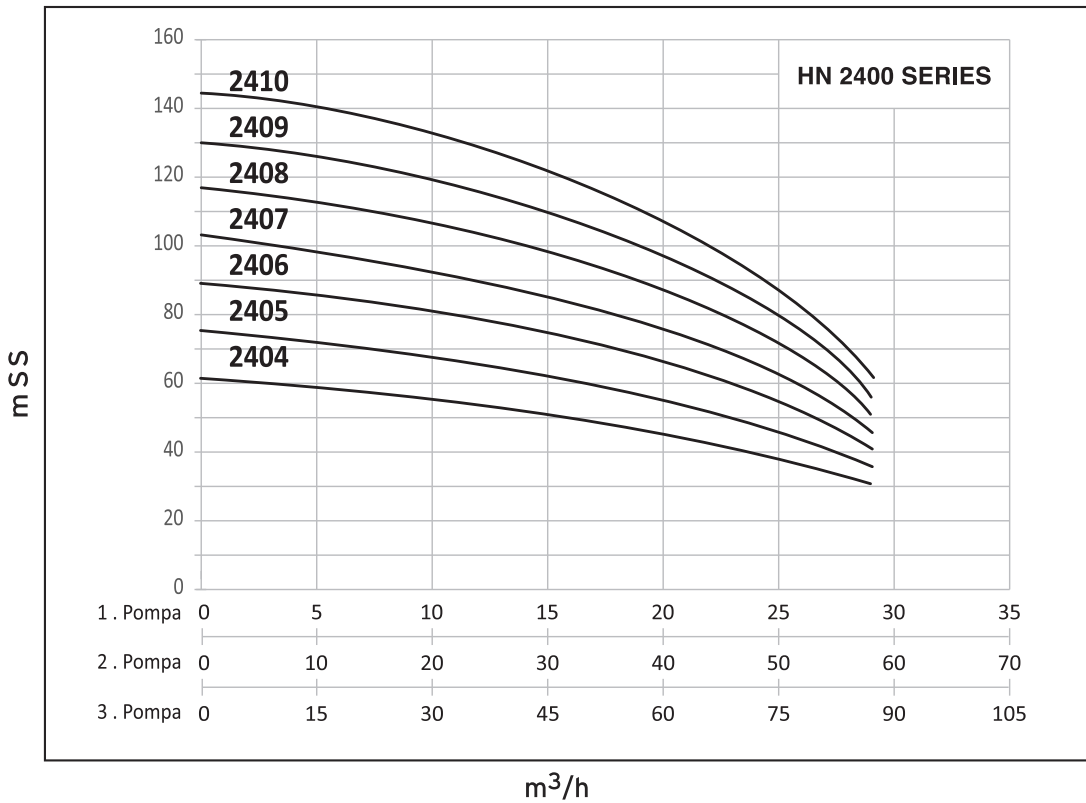
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Suction and delivery head is in-line type and on same axis
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common übaseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V ± %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Technical Specification

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORLY-Stainless Steel
- **Suction and delivery collector:** Galvanise coated steel.
Stainless steel on request

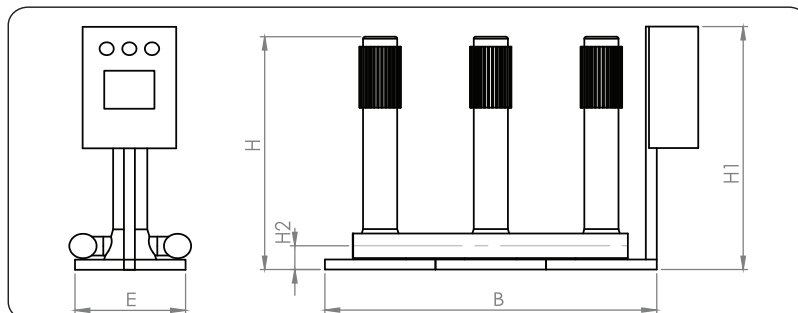
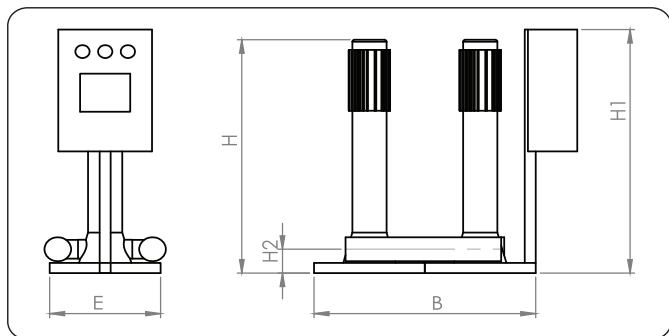
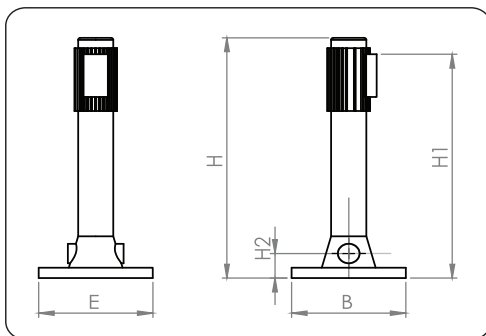


HN 2400 Inline Series Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HN1 2404	1 x 4	380 - 50	GT - 300	1 1/2" - 1 1/2"	400	150	970	830	400
	HN1 2405	1 x 5,5		GT - 300		400	150	1000	870	400
	HN1 2406	1 x 5,5		GT - 300		400	150	1030	900	400
	HN1 2407	1 x 7,5		GT - 300		400	150	1060	930	400
	HN1 2408	1 x 7,5		GT - 300		400	150	1090	960	400
	HN1 2409	1 x 11		GT - 300/16		400	150	1120	990	400
	HN1 2410	1 x 11		GT - 300/16		400	150	1150	1020	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HN2 2404	2 x 4	380 - 50	GT - 500	2 1/2" - 2 1/2"	600	150	970	830	720
	HN2 2405	2 x 5,5		GT - 500		600	150	1000	870	720
	HN2 2406	2 x 5,5		GT - 500		600	150	1030	900	720
	HN2 2407	2 x 7,5		GT - 500		600	150	1060	930	720
	HN2 2408	2 x 7,5		GT - 500		600	150	1090	960	720
	HN2 2409	2 x 11		GT - 500/16		600	150	1120	990	720
	HN2 2410	2 x 11		GT - 500/16		600	150	1150	1020	720

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HN3 2404	3 x 4	380 - 50	GT - 500	3" - 3"	800	150	970	830	720
	HN3 2405	3 x 5,5		GT - 500		800	150	1000	870	720
	HN3 2406	3 x 5,5		GT - 500		800	150	1030	900	720
	HN3 2407	3 x 7,5		GT - 500		800	150	1060	930	720
	HN3 2408	3 x 7,5		GT - 500		800	150	1090	960	720
	HN3 2409	3 x 11		GT - 500/16		800	150	1120	990	720
	HN3 2410	3 x 11		GT - 500/16		800	150	1150	1020	720



HS 03 Series Stainless Steel Booster Sets

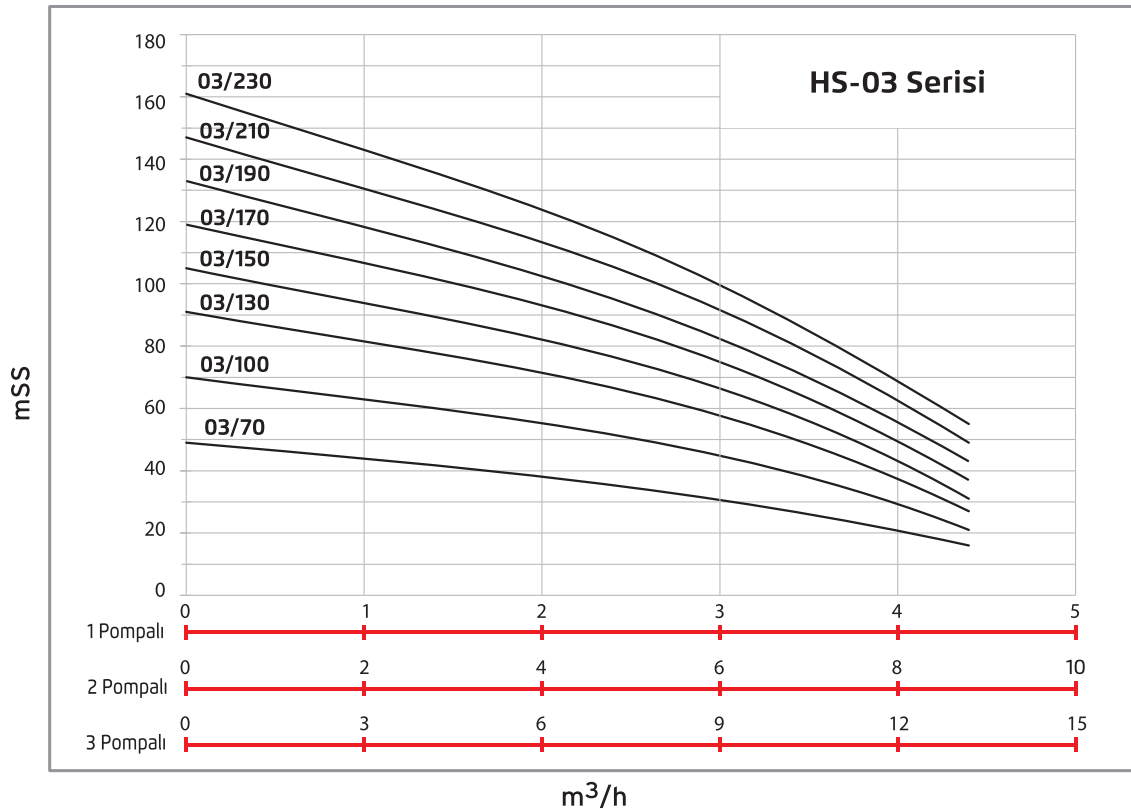
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
 - Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
 - Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
 Three-phase 230/400 V \pm %10 Insulation class F,
 Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron - All surface in contact with waters are stainless steel on request
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless steel
- **Suction and delivery collector:** Galvanised Steel as standard. Stainless Steel optionally

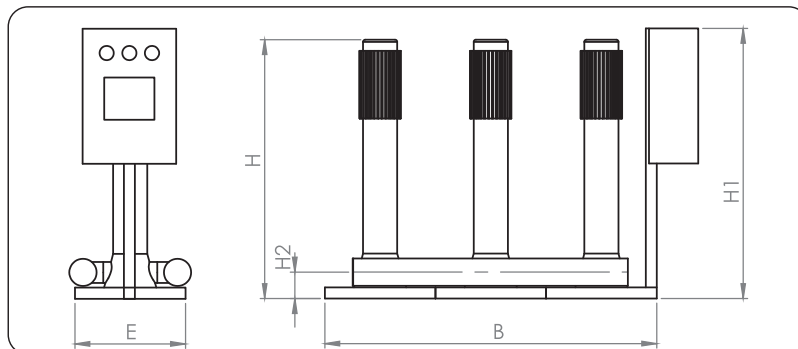
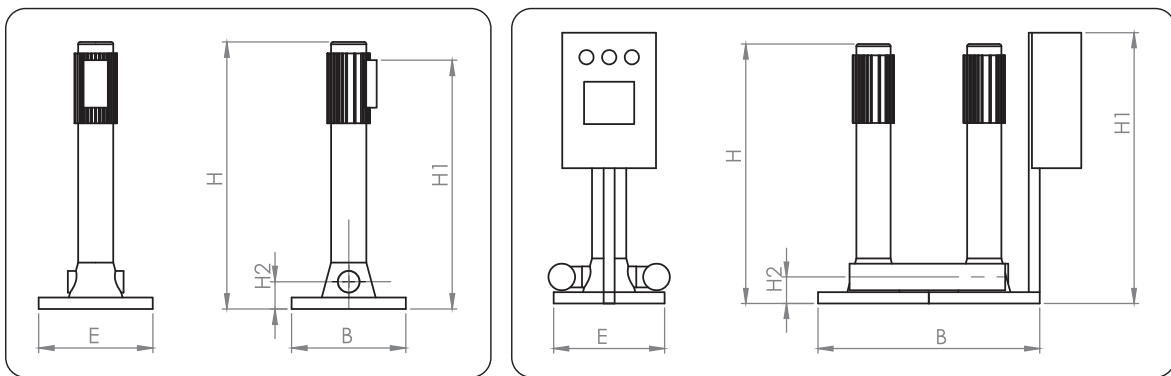


HS 03 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 03/70	1 x 0,55	380 - 50	GT - 100	1" - 1"	270	180	750	750	370
	HS1 03/100	1 x 0,75		GT - 100		270	180	900	900	370
	HS1 03/130	1 x 1,1		GT - 100		270	180	1050	1050	370
	HS1 03/150	1 x 1,1		GT - 100		270	180	1150	1150	370
	HS1 03/170	1 x 1,5		GT - 100/16		270	180	1250	1250	370
	HS1 03/190	1 x 2,2		GT - 100/16		270	180	1350	1350	370

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 03/70	2 x 0,55	380 - 50	GT - 200	11/4" - 11/4"	650	200	750	1000	650
	HS2 03/100	2 x 0,75		GT - 200		650	200	900	1000	650
	HS2 03/130	2 x 1,1		GT - 200		650	200	1050	1000	650
	HS2 03/150	2 x 1,1		GT - 200		650	200	1150	1000	650
	HS2 03/170	2 x 1,5		GT - 200/16		650	200	1250	1000	650
	HS2 03/190	2 x 2,2		GT - 200/16		650	200	1350	1000	650

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS3 03/70	3 x 0,55	380 - 50	GT - 200	11/2" - 11/2"	1000	205	750	1000	660
	HS3 03/100	3 x 0,75		GT - 200		1000	205	900	1000	660
	HS3 03/130	3 x 1,1		GT - 200		1000	205	1050	1000	660
	HS3 03/150	3 x 1,1		GT - 200		1000	205	1150	1000	660
	HS3 03/170	3 x 1,5		GT - 200/16		1000	205	1250	1000	660
	HS3 03/190	3 x 2,2		GT - 200/16		1000	205	1350	1000	660



HS 05 Series Stainless Steel Booster Sets

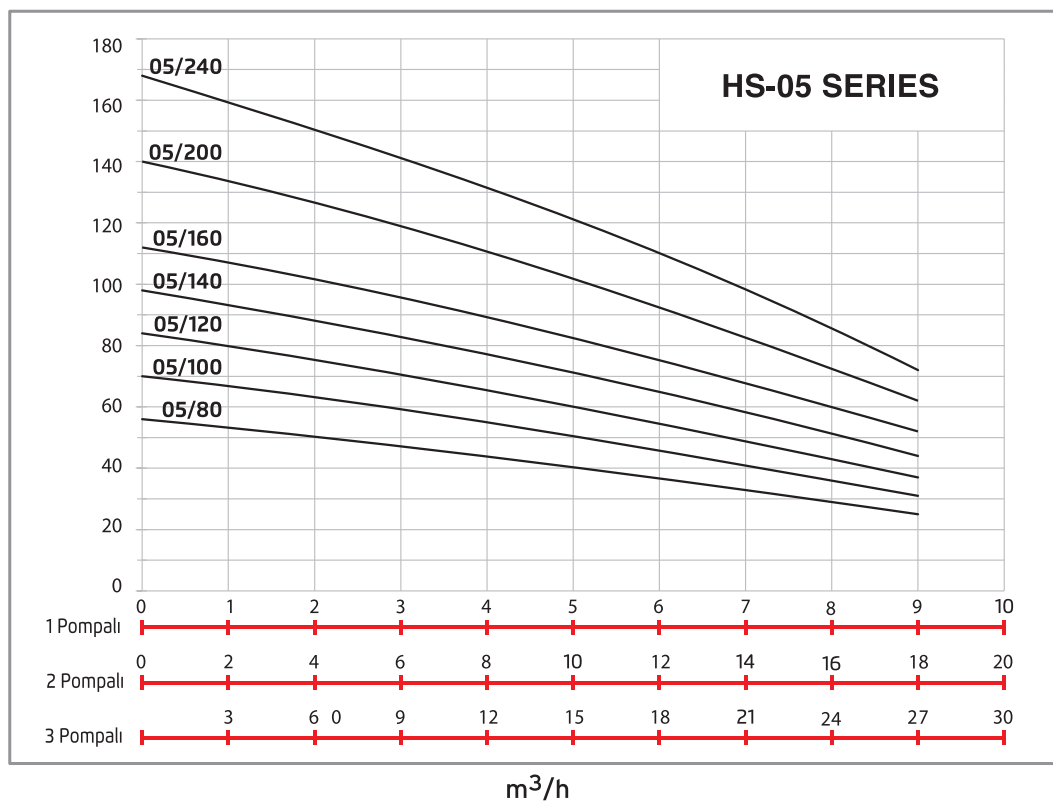
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron - All surface in contact with waters are stainless steel on request
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless steel
- **Suction and delivery collector:** Galvanised Steel as standard - Stainless Steel optionally

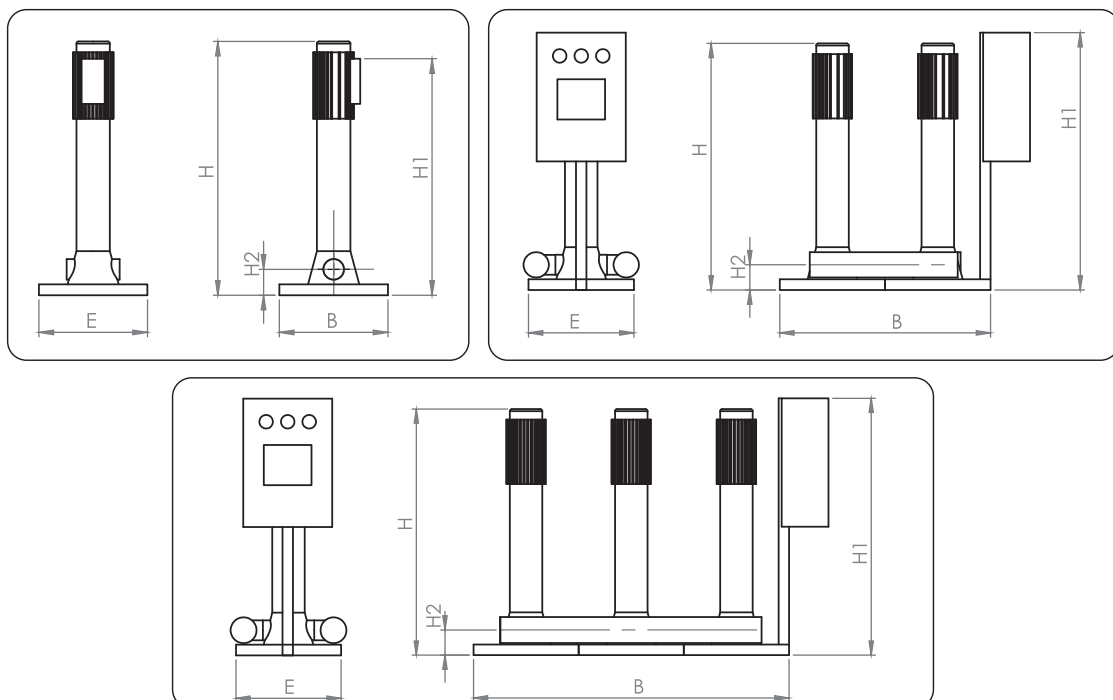


HS 05 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 05/80	1 x 1,1	380 - 50	GT - 100	11/4" - 11/4"	270	190	850	850	370
	HS1 05/100	1 x 1,5		GT - 100		270	190	950	950	370
	HS1 05/120	1 x 2,2		GT - 100		270	190	1050	1050	370
	HS1 05/140	1 x 2,2		GT - 100		270	190	1150	1150	370
	HS1 05/160	1 x 2,2		GT - 100/16		270	190	1250	1250	370
	HS1 05/200	1 x 3		GT - 100/16		270	190	1450	1450	370

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 05/80	2 x 1,1	380 - 50	GT - 100	11/2" - 11/2"	650	210	850	1000	650
	HS2 05/100	2 x 1,5		GT - 100		650	210	950	1000	650
	HS2 05/120	2 x 2,2		GT - 100		650	210	1050	1000	650
	HS2 05/140	2 x 2,2		GT - 100		650	210	1150	1000	650
	HS2 05/160	2 x 2,2		GT - 100/16		650	210	1250	1000	650
	HS2 05/200	2 x 3		GT - 100/16		650	210	1450	1000	650

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS3 05/80	3 x 1,1	380 - 50	GT - 200	2" - 2"	1000	215	850	1000	670
	HS3 05/100	3 x 1,5		GT - 200		1000	215	950	1000	670
	HS3 05/120	3 x 2,2		GT - 200		1000	215	1050	1000	670
	HS3 05/140	3 x 2,2		GT - 200		1000	215	1150	1000	670
	HS3 05/160	3 x 2,2		GT - 200/16		1000	215	1250	1000	670
	HS3 05/200	3 x 3		GT - 200/16		1000	215	1450	1000	670



HS 10 Series Stainless Steel Booster Sets

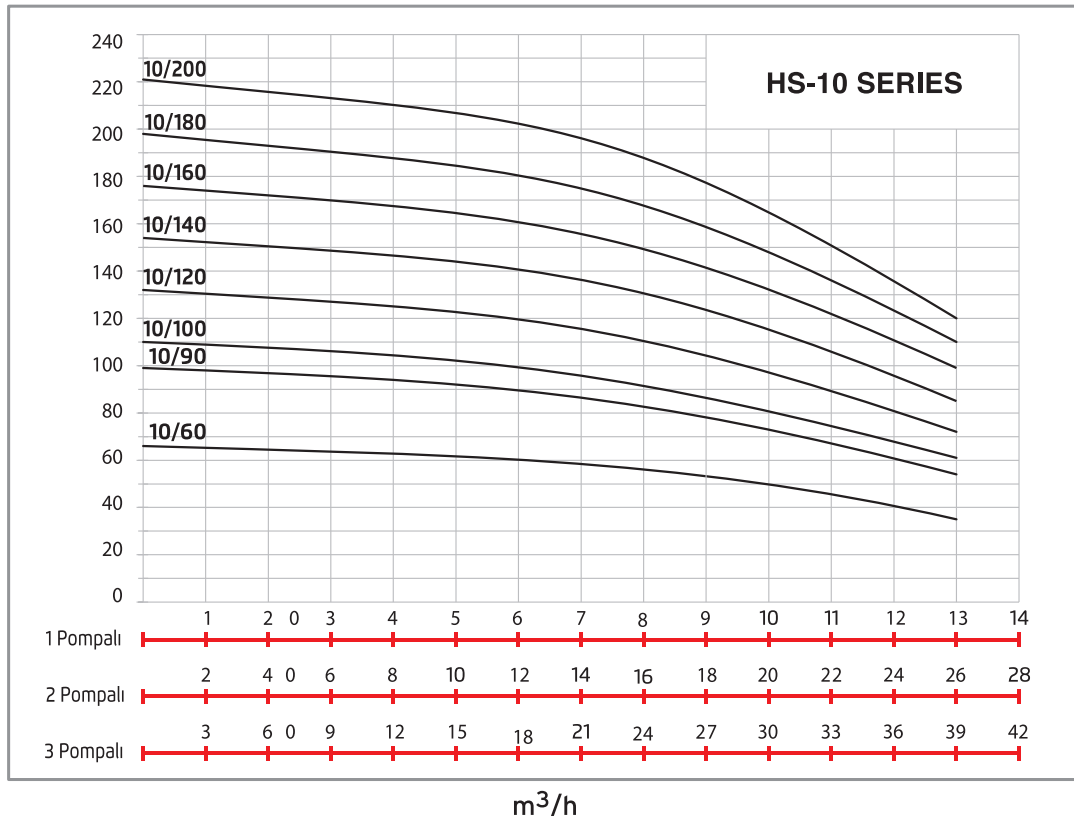
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron - All surface in contact with waters are stainless steel on request
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless steel
- **Suction and delivery collector:** Galvanised Steel as standard
- Stainless Steel optionally

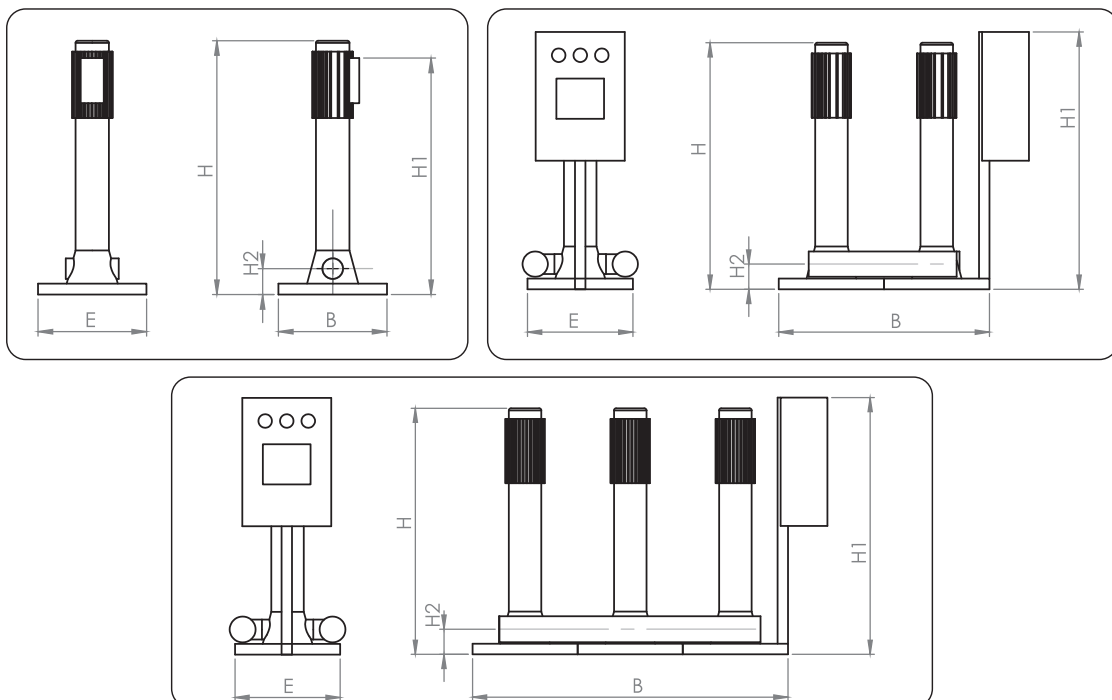


HS 10 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 10/60	1 x 2,2	380 - 50	GT - 100	11/2" - 11/2"	300	210	900	900	400
	HS1 10/90	1 x 3		GT - 100		300	210	1000	1000	400
	HS1 10/100	1 x 4		GT - 100		300	210	1050	1050	400
	HS1 10/120	1 x 4		GT - 100/16		300	210	1150	1150	400
	HS1 10/140	1 x 5,5		GT - 100/16		300	210	1250	1250	400

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 10/60	2 x 2,2	380 - 50	GT - 200	2" - 2"	750	230	900	1000	700
	HS2 10/90	2 x 3		GT - 200		750	230	1000	1000	700
	HS2 10/100	2 x 4		GT - 200		750	230	1050	1050	700
	HS2 10/120	2 x 4		GT - 200/16		750	230	1150	1000	700
	HS2 10/140	2 x 5,5		GT - 200/16		750	230	1250	1000	700

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS3 10/60	3 x 2,2	380 - 50	GT - 300	21/2" - 21/2"	1100	230	900	1000	700
	HS3 10/90	3 x 3		GT - 300		1100	230	1000	1000	700
	HS3 10/100	3 x 4		GT - 300		1100	230	1050	1050	700
	HS3 10/120	3 x 4		GT - 300/16		1100	230	1150	1000	700
	HS3 10/140	3 x 5,5		GT - 300/16		1100	230	1250	1000	700



HS 15 Series Stainless Steel Booster Sets

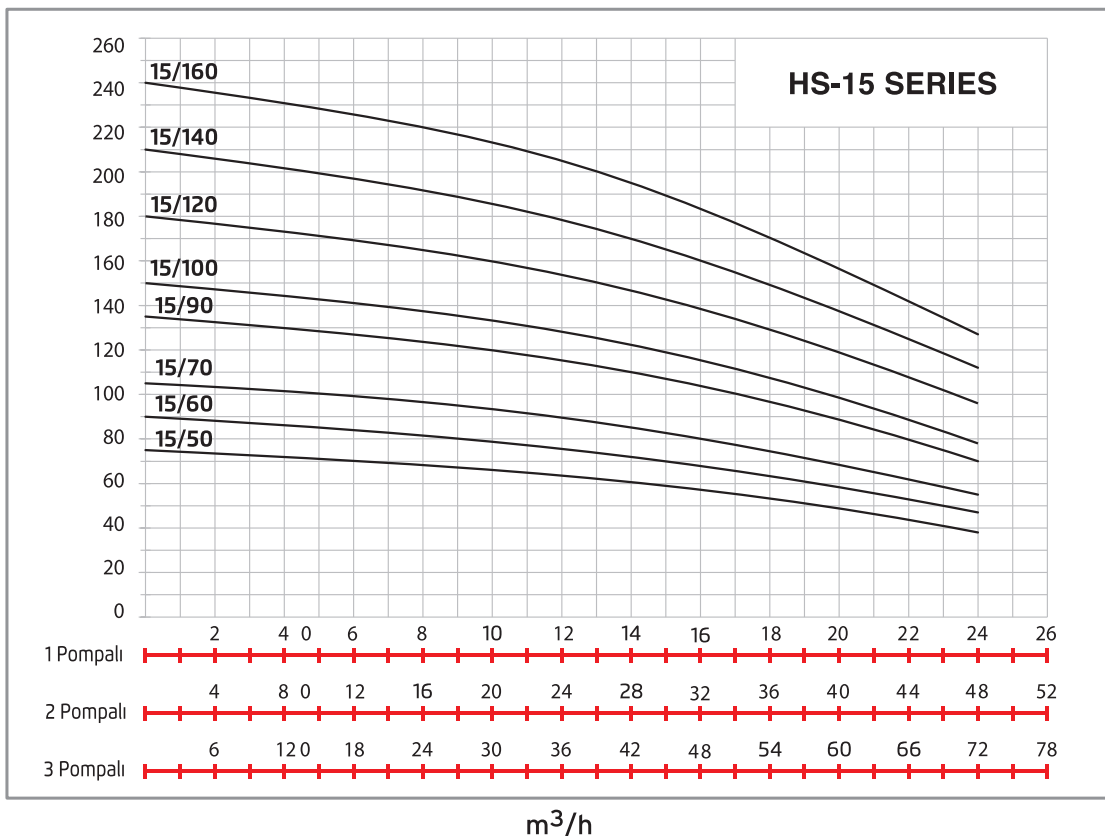
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- Pump Suction-Delivery Head: GG-25 Cast Iron - All surface in contact with waters are stainless steel on request
- Shaft: Stainless Steel
- Pump Body: Stainless Steel
- Impeller: Stainless steel
- Suction and delivery collector: Galvanised Steel as standard Stainless Steel optionally

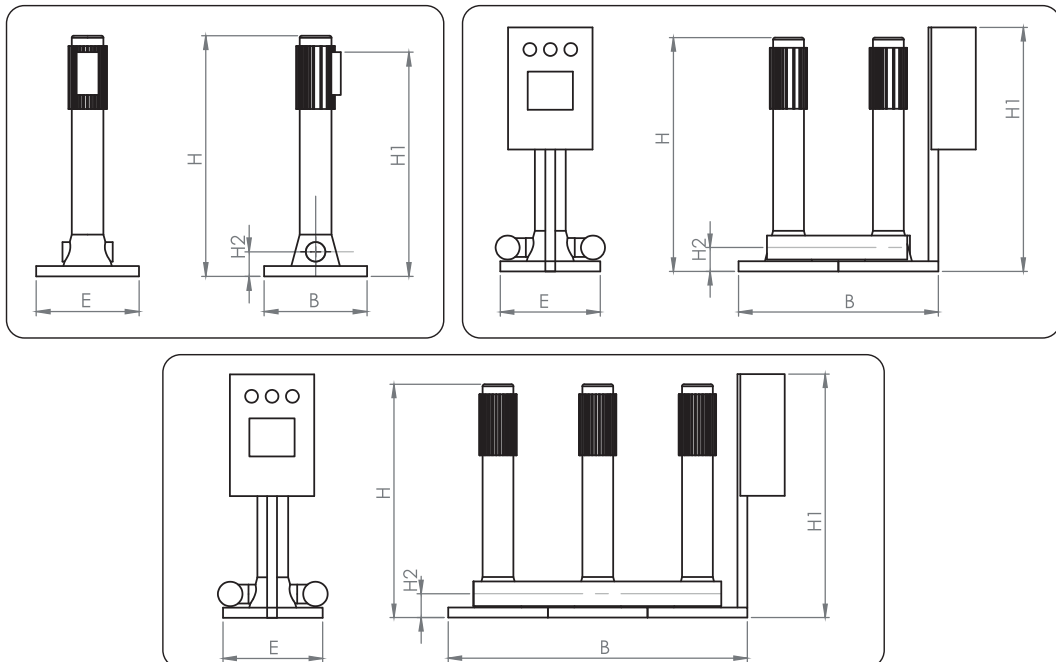


HS 15 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 15/50	1 x 4	380 - 50	GT - 200	2" - 2"	350	230	1000	1000	450
	HS1 15/60	1 x 5,5		GT - 200		350	230	1050	1050	450
	HS1 15/70	1 x 5,5		GT - 200		350	230	1100	1100	450
	HS1 15/90	1 x 7,5		GT - 200		350	230	1200	1200	450
	HS1 15/100	1 x 11		GT - 200/16		350	230	1250	1250	450
	HS1 15/120	1 x 11		GT - 200/16		350	230	1350	1350	450
	HS1 15/140	1 x 11		GT - 200/16		350	230	1350	1350	450
	HS1 15/160	1 x 15		GT - 200/16		350	230	1350	1350	450

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 15/50	2 x 4	380 - 50	GT - 300	21/2" - 21/2"	800	250	1000	1000	750
	HS2 15/60	2 x 5,5		GT - 300		800	250	1050	1000	750
	HS2 15/70	2 x 5,5		GT - 300		800	250	1100	1000	750
	HS2 15/90	2 x 7,5		GT - 300		800	250	1200	1000	750
	HS2 15/100	2 x 11		GT - 300/16		800	250	1250	1000	750
	HS2 15/120	2 x 11		GT - 300/16		800	250	1350	1000	750
	HS2 15/140	2 x 11		GT - 300/16		800	250	1350	1000	750
	HS2 15/160	2 x 15		GT - 300/16		800	250	1350	1000	750

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS2 15/50	3 x 4	380 - 50	GT - 500	3" - 3"	1250	250	1000	1000	750
	HS2 15/60	3 x 5,5		GT - 500		1250	250	1050	1000	750
	HS2 15/70	3 x 5,5		GT - 500		1250	250	1100	1000	750
	HS2 15/90	3 x 7,5		GT - 500		1250	250	1200	1000	750
	HS2 15/100	3 x 11		GT - 500/16		1250	250	1250	1000	750
	HS2 15/120	3 x 11		GT - 500/16		1250	250	1350	1000	750
	HS2 15/140	3 x 11		GT - 500/16		1250	250	1350	1000	750
	HS2 15/160	3 x 15		GT - 500/16		1250	250	1350	1000	750



HS 20 Series Stainless Steel Booster Sets

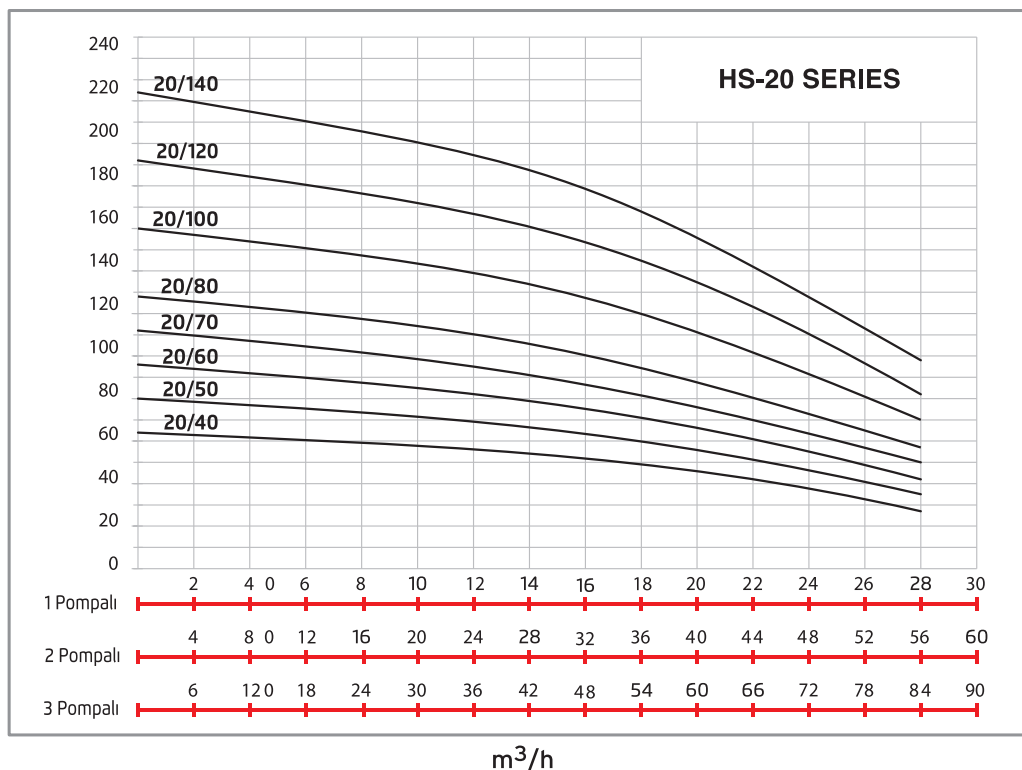
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron - All surface in contact with waters are stainless steel on request
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless steel
- **Suction and delivery collector:** Galvanised Steel as standard - Stainless Steel optionally

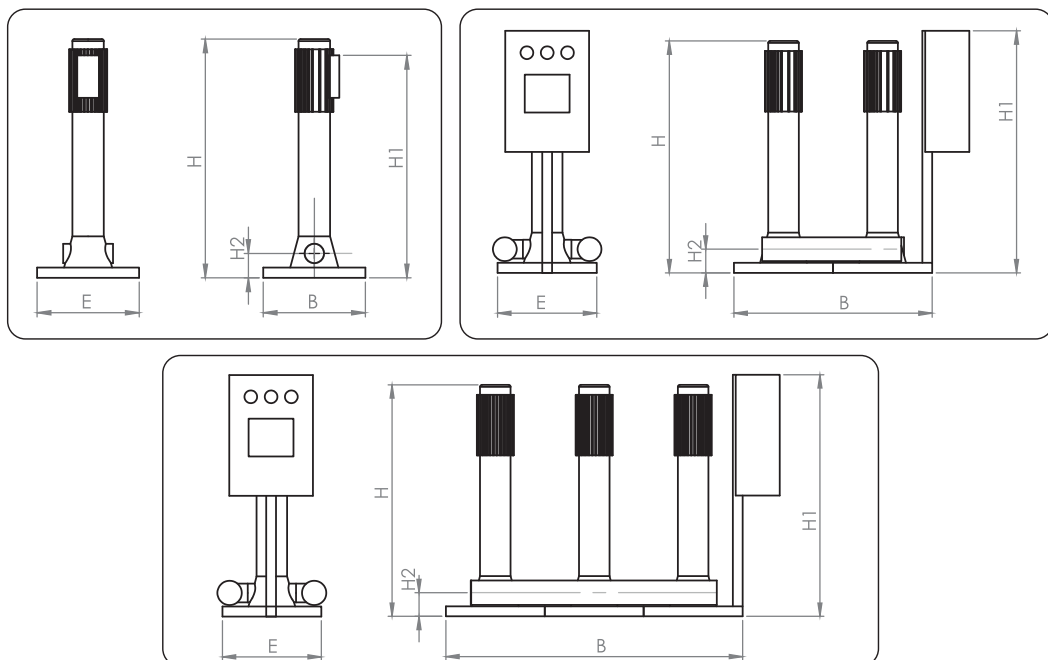


HS 20 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 20/40	1 x 5,5	380 - 50	GT - 200	2" - 2"	400	240	1050	1050	500
	HS1 20/50	1 x 5,5		GT - 200		400	240	1110	1110	500
	HS1 20/60	1 x 7,5		GT - 200		400	240	1150	1150	500
	HS1 20/70	1 x 7,5		GT - 200		400	240	1200	1200	500
	HS1 20/80	1 x 11		GT - 200/16		400	240	1250	1250	500
	HS1 20/100	1 x 11		GT - 200/16		400	240	1350	1350	500
	HS1 20/160	1 x 15		GT - 200/16		400	240	1350	1350	500

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 20/40	2 x 5,5	380 - 50	GT - 300	2 1/2" - 2 1/2"	850	260	1050	1000	800
	HS2 20/50	2 x 5,5		GT - 300		850	260	1110	1000	800
	HS2 20/60	2 x 7,5		GT - 300		850	260	1150	1000	800
	HS2 20/70	2 x 7,5		GT - 300		850	260	1200	1000	800
	HS2 20/80	2 x 11		GT - 300/16		850	260	1250	1000	800
	HS2 20/100	2 x 11		GT - 300/16		850	260	1350	1000	800
	HS2 20/160	2 x 15		GT - 300/16		850	260	1350	1000	800

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS3 20/40	3 x 5,5	380 - 50	GT - 500	3" - 3"	1300	260	1050	1000	800
	HS3 20/50	3 x 5,5		GT - 500		1300	260	1110	1000	800
	HS3 20/60	3 x 7,5		GT - 500		1300	260	1150	1000	800
	HS3 20/70	3 x 7,5		GT - 500		1300	260	1200	1000	800
	HS3 20/80	3 x 11		GT - 500/16		1300	260	1250	1000	800
	HS3 20/100	3 x 11		GT - 500/16		1300	260	1350	1000	800
	HS3 20/160	3 x 15		GT - 500/16		1300	260	1350	1000	800



HS 30 Series Stainless Steel Booster Sets

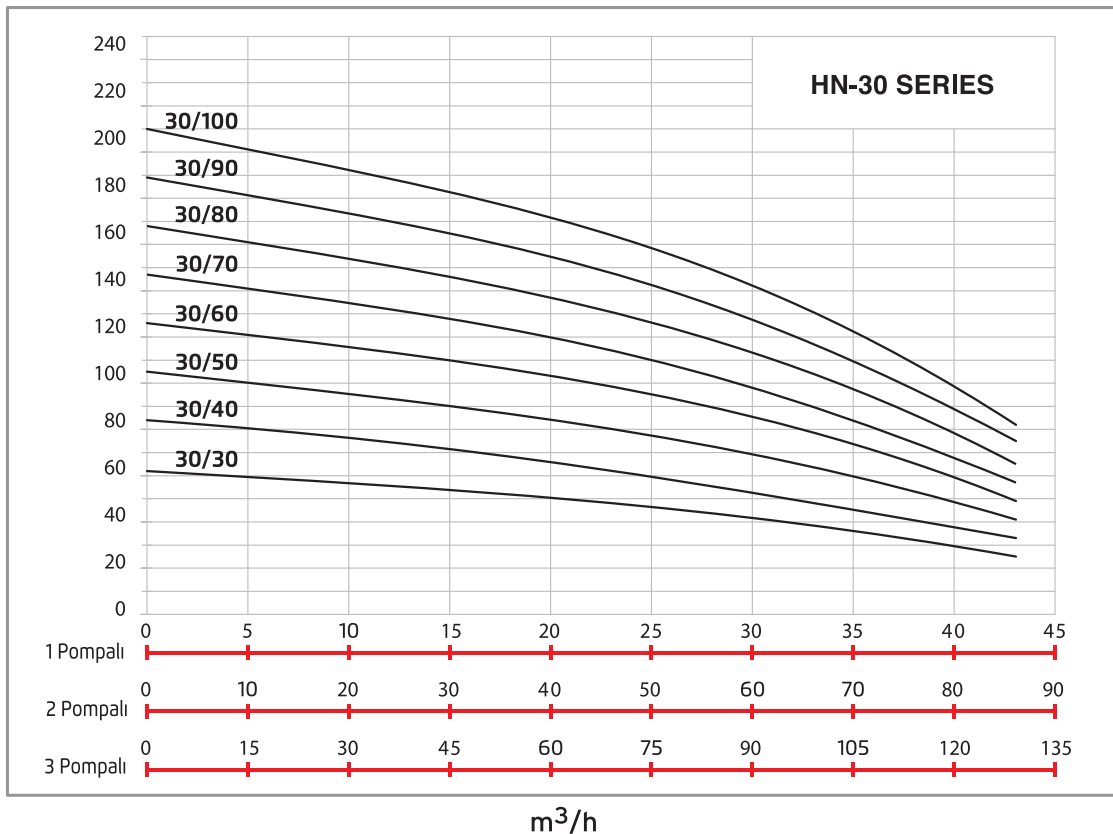
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V ± %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.



Technical Specification

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** Stainless steel
- **Suction and delivery collector:** Galvanised Steel as standard - Stainless Steel optionally

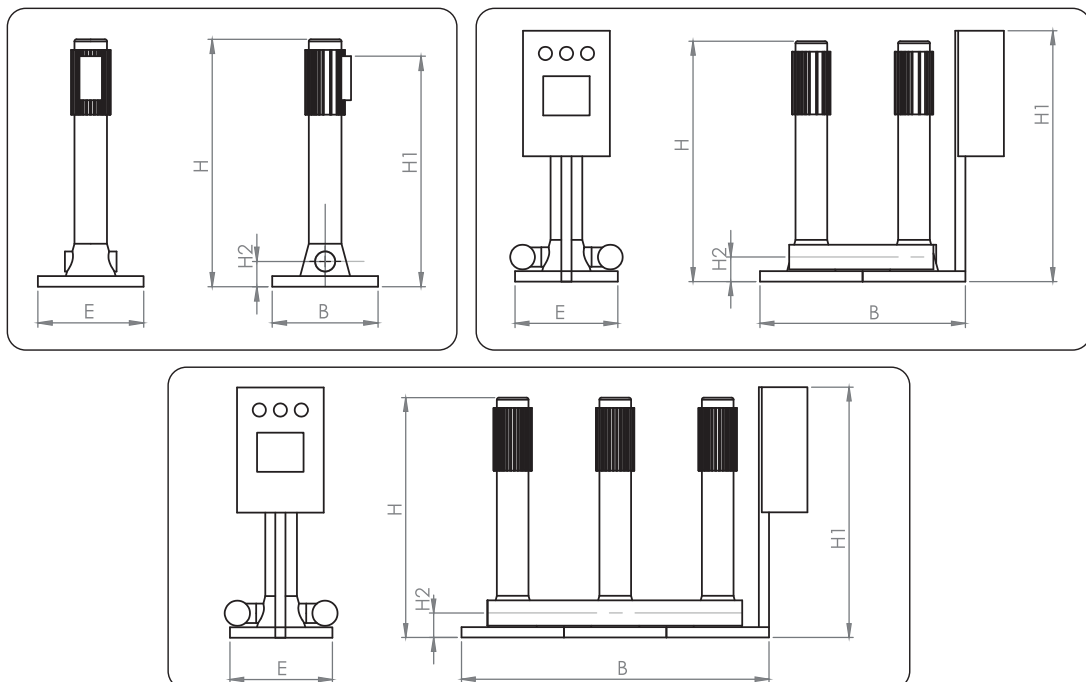


HS 30 Series Stainless Steel Booster Sets

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
SINGLE PUMP	HS1 30/30	1 x 7,5	380 - 50	GT - 300	2 1/2" - 2 1/2"	550	260	1050	1050	750
	HS1 30/40	1 x 11		GT - 300		550	260	1150	1200	750
	HS1 30/50	1 x 11		GT - 300		550	260	1200	1200	750
	HS1 30/60	1 x 15		GT - 300/16		550	260	1300	1200	750
	HS1 30/70	1 x 15		GT - 300/16		550	260	1350	1200	750
	HS1 30/80	1 x 18,5		GT - 300/16		550	260	1450	1200	750

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
DOUBLE PUMP	HS2 30/30	2 x 7,5	380 - 50	GT - 750	3" - 3"	1000	300	1050	1200	1100
	HS2 30/40	2 x 11		GT - 750		1000	300	1150	1200	1100
	HS2 30/50	2 x 11		GT - 750		1000	300	1200	1200	1100
	HS2 30/60	2 x 15		GT - 750/16		1000	300	1300	1200	1100
	HS2 30/70	2 x 15		GT - 750/16		1000	300	1350	1200	1100
	HS2 30/80	2 x 18,5		GT - 750/16		1000	300	1450	1200	1100

Booster Type		Power (Kw)	Voltage (V) Frequency (Hz)	Necessary Expansion Vessel (Not included)	Inlet/Outlet Connection	B (mm)	H2 (mm)	H (mm)	H1 (mm)	E (mm)
TRIPLE PUMP	HS3 30/30	3 x 7,5	380 - 50	GT - 1000	DN 100 - DN 100	1500	310	1050	1200	1150
	HS3 30/40	3 x 11		GT - 1000		1500	310	1150	1200	1150
	HS3 30/50	3 x 11		GT - 1000		1500	310	1200	1200	1150
	HS3 30/60	3 x 15		GT - 1000/16		1500	310	1300	1200	1150
	HS3 30/70	3 x 15		GT - 1000/16		1500	310	1350	1200	1150
	HS3 30/80	3 x 18,5		GT - 1000/16		1500	310	1450	1200	1150



HD 32 Series Booster Sets

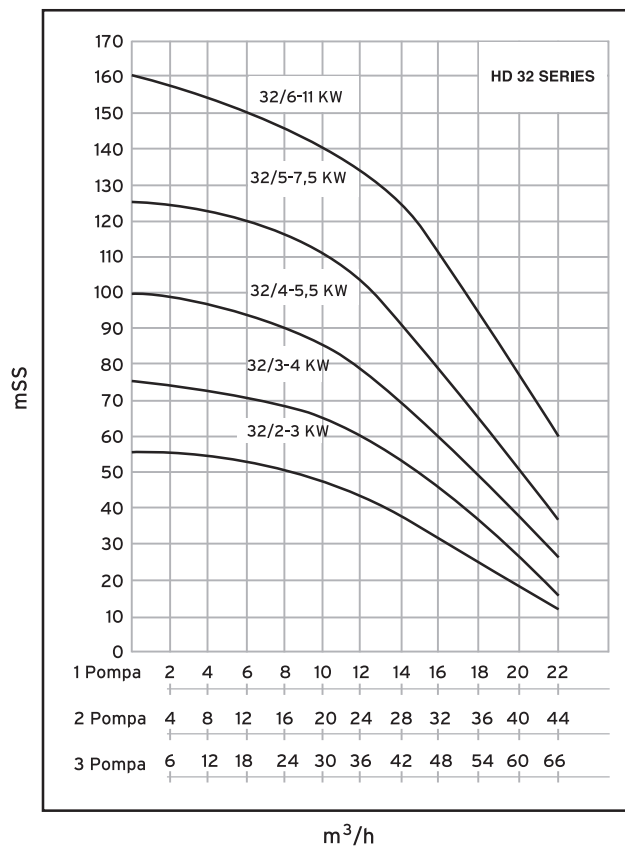
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034.
Other voltages and frequencies on request.

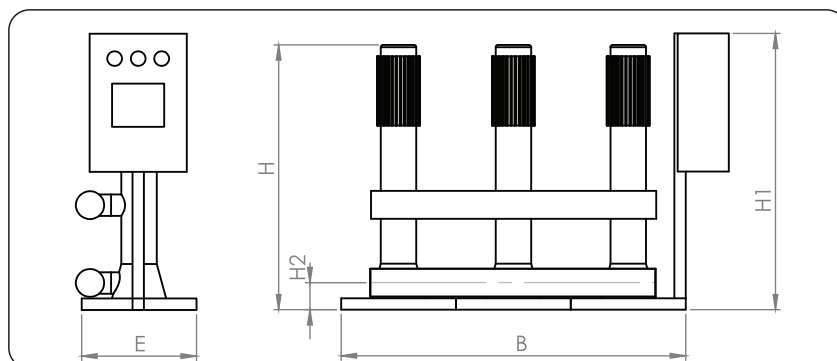
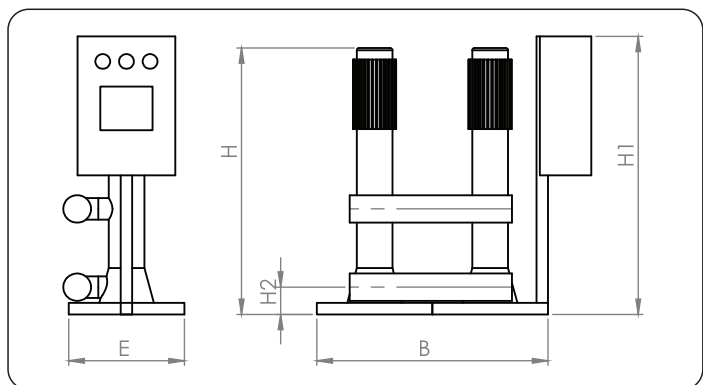
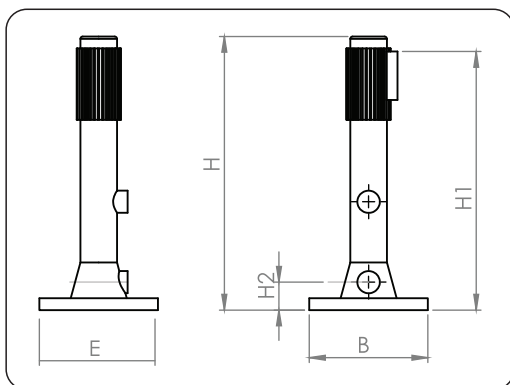


Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** GG-25 Cast iron
- **Impeller:** GG-25 Cast iron
- **Suction and delivery collector:** Painting steel



HD 32 Series Booster Sets					
Booster Type		Power (kW)	Vol. (V) Freq.(Hz)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet
SINGLE PUMP	HD1 32/2	1 x 3	380 - 50	GT - 500	11/2" - 11/4"
	HD1 32/3	1 x 4		GT - 500	
	HD1 32/4	1 x 5,5		GT - 500	
	HD1 32/5	1 x 7,5		GT - 500/16	
	HD1 32/6	1 x 11		GT - 500/16	
DOUBLE PUMP	HD2 32/2	2 x 3	380 - 50	GT - 500	21/2" - 21/2"
	HD2 32/3	2 x 4		GT - 500	
	HD2 32/4	2 x 5,5		GT - 500	
	HD2 32/5	2 x 7,5		GT - 500/16	
	HD2 32/6	2 x 11		GT - 500/16	
TRIPLE PUMP	HD2 32/2	3 x 3	380 - 50	GT - 750	3" - 3"
	HD2 32/3	3 x 4		GT - 750	
	HD2 32/4	3 x 5,5		GT - 750	
	HD2 32/5	3 x 7,5		GT - 750/16	
	HD2 32/6	3 x 11		GT - 750/16	



HD 40 Series Booster Sets

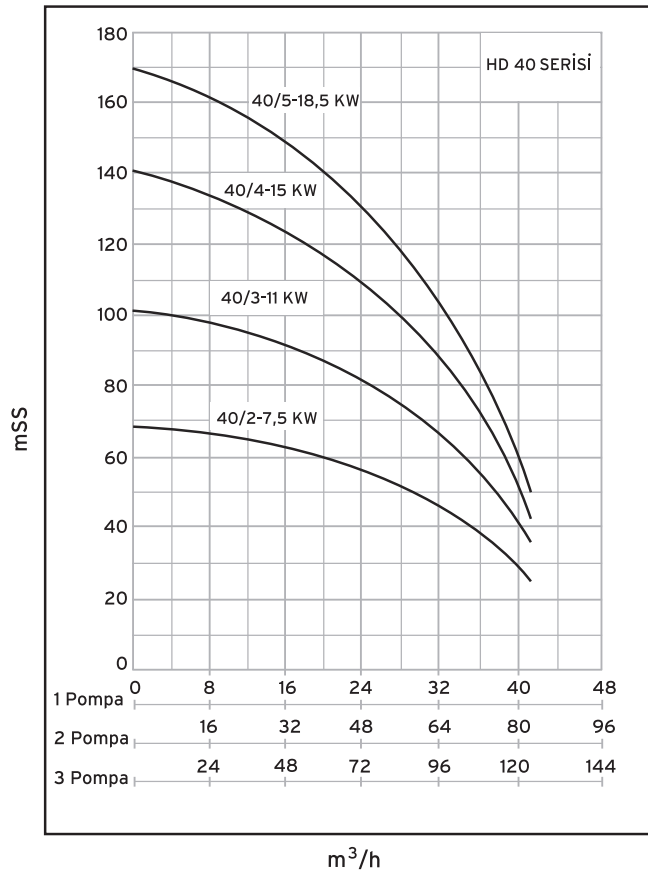
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F,
- Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

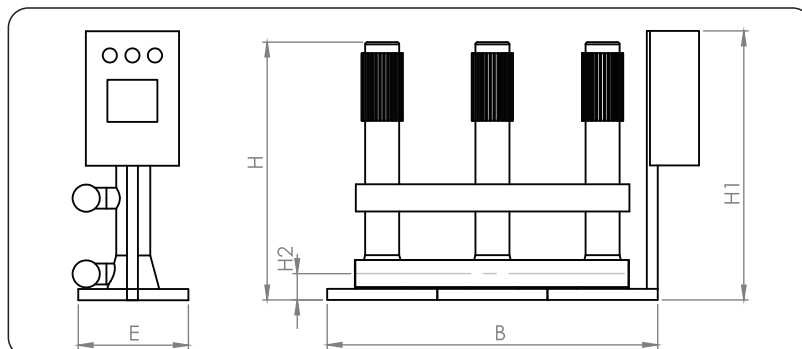
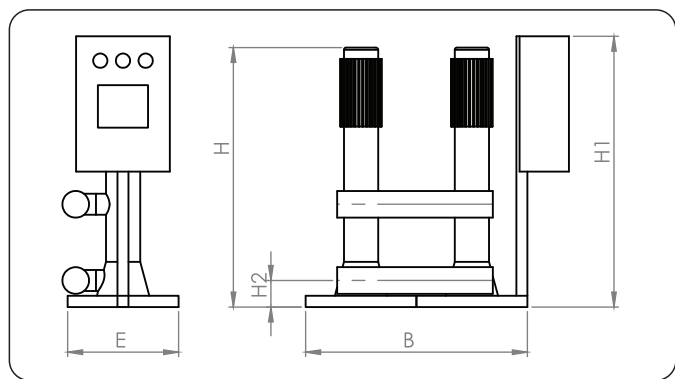
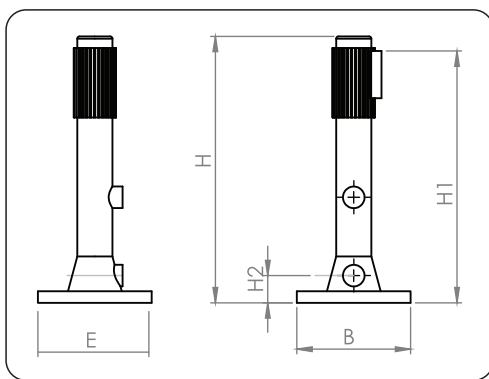


Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** GG-25 Cast iron
- **Impeller:** GG-25 Cast iron
- **Suction and delivery collector:** Painting steel



HD 40 Series Booster Sets					
Booster Type		Power (kW)	Vol. (V) Freq.(Hz)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet
SINGLE PUMP	HD1 40/2	1 x 7,5	380 - 50	GT - 750	2" - 11/2"
	HD1 40/3	1 x 11		GT - 750	
	HD1 40/4	1 x 15		GT - 750/16	
	HD1 40/5	1 x 18,5		GT - 750/16	
DOUBLE PUMP	HD2 40/2	2 x 7,5	380 - 50	GT - 750	3" - 21/2"
	HD2 40/3	2 x 11		GT - 750	
	HD2 40/4	2 x 15		GT - 750/16	
	HD2 40/5	2 x 18,5		GT - 750/16	
TRIPLE PUMP	HD3 40/2	3 x 7,5	380 - 50	GT - 1000	DN 100 - 3"
	HD3 40/3	3 x 11		GT - 1000	
	HD3 40/4	3 x 15		GT - 1000/16	
	HD3 40/5	3 x 18,5		GT - 1000/16	



HD 50 Series Booster Sets

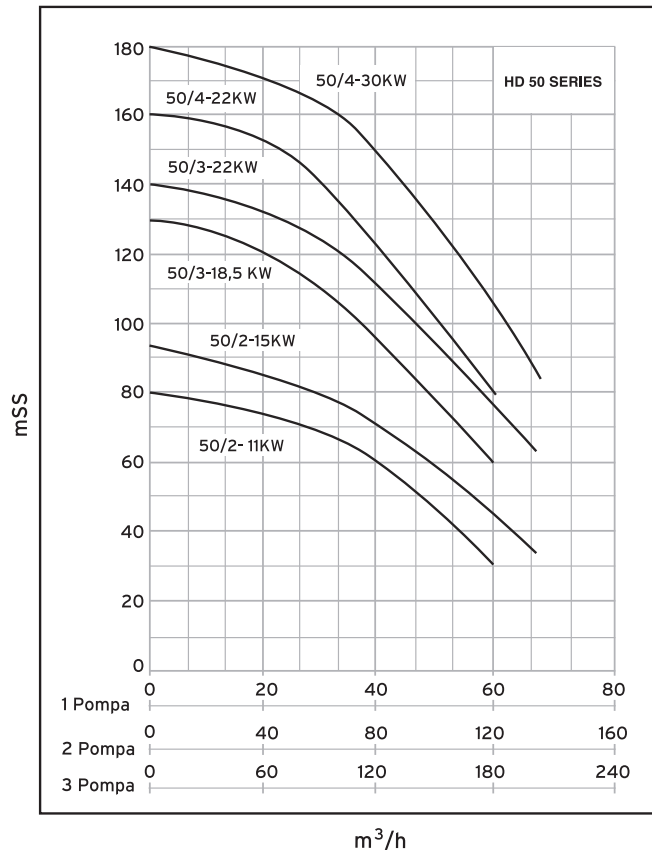
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

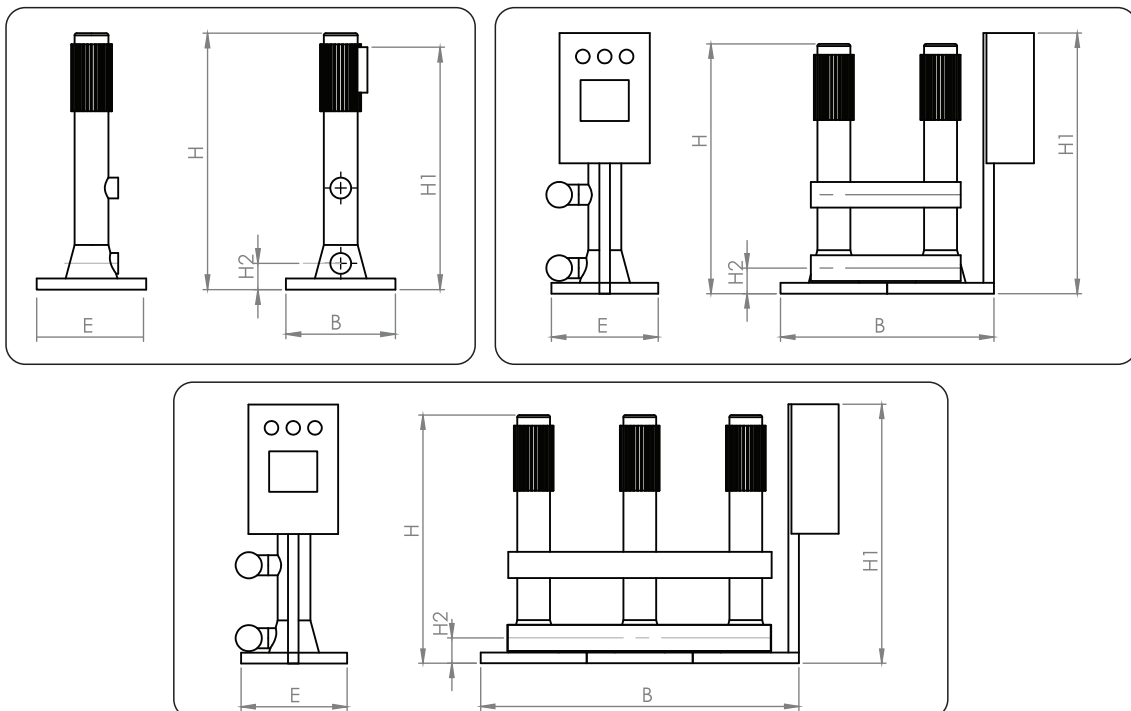


Technical Specification

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** GG-25 Cast iron
- **Impeller:** GG-25 Cast iron
- **Suction and delivery collector:** Painting steel



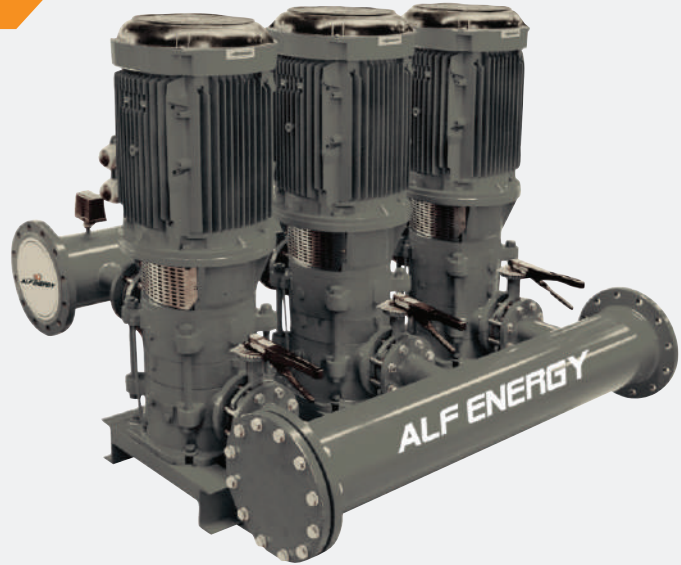
HD 50 Series Booster Sets					
Booster Type		Power (kW)	Vol. (V) Freq.(Hz)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet
SINGLE PUMP	HD1 50/2	1 x 11	380 - 50	GT - 1000	2 1/2" - 2"
	HD1 50/2 B	1 x 15		GT - 1000	
	HD1 50/3	1 x 18,5		GT - 1000/16	
	HD1 50/3 B	1 x 22		GT - 1000/16	
	HD1 50/4	1 x 22		GT - 1000/16	
	HD1 50/4 B	1 x 30		GT - 1000/16	
DOUBLE PUMP	HD1 50/2	2 x 11	380 - 50	GT - 1000	DN 100-DN 100
	HD1 50/2 B	2 x 15		GT - 1000	
	HD1 50/3	2 x 18,5		GT - 1000/16	
	HD1 50/3 B	2 x 22		GT - 1000/16	
	HD1 50/4	2 x 22		GT - 1000/16	
	HD1 50/4 B	2 x 30		GT - 1000/16	
TRIPLE PUMP	HD3 50/2	3 x 11	380 - 50	GT - 1500	DN 125-DN 125
	HD3 50/2 B	3 x 15		GT - 1500	
	HD3 50/3	3 x 18,5		GT - 1500	
	HD3 50/3 B	3 x 22		GT - 1500	
	HD3 50/4	3 x 22		GT - 1500/16	
	HD3 50/4 B	3 x 30		GT - 1500/16	



HD 65 Serisi Booster Sets

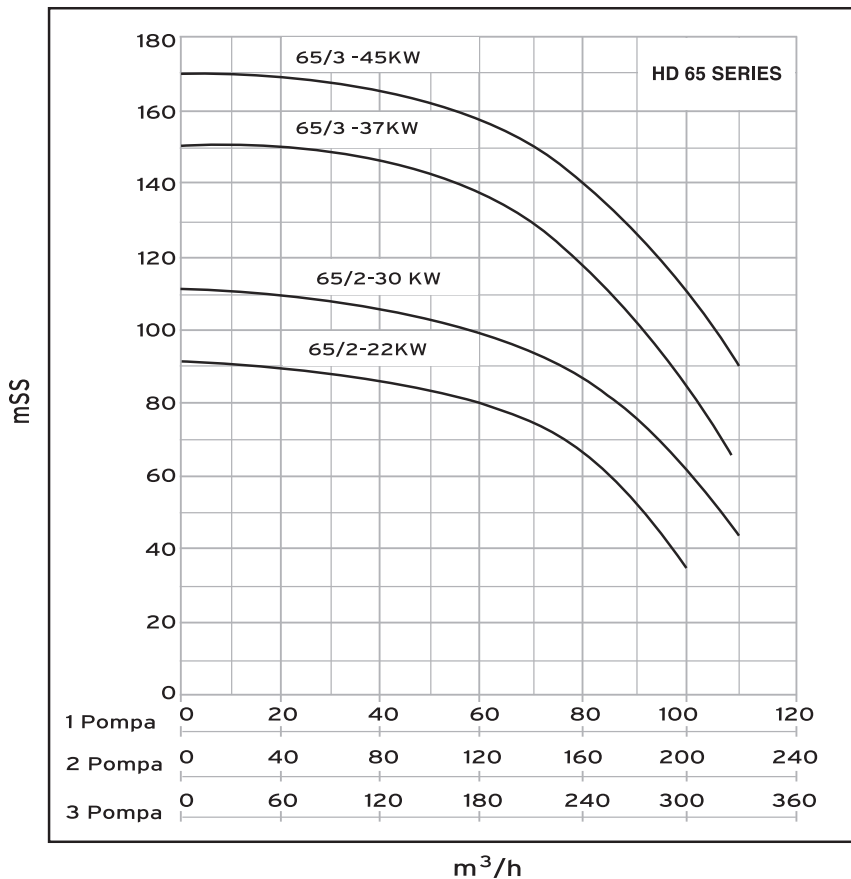
Technical Specification

- Vertical, multistage centrifugal pumps coupled to a standard motor.
- Pressure boosting sets with automatic operation, consisting of 1, 2, 3 or more pump(s) on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed
- Control panel provides co-aging for each pumps in real time and consisting of phase protection, current protection, phase failure protection, high-low voltage protection,
- Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.

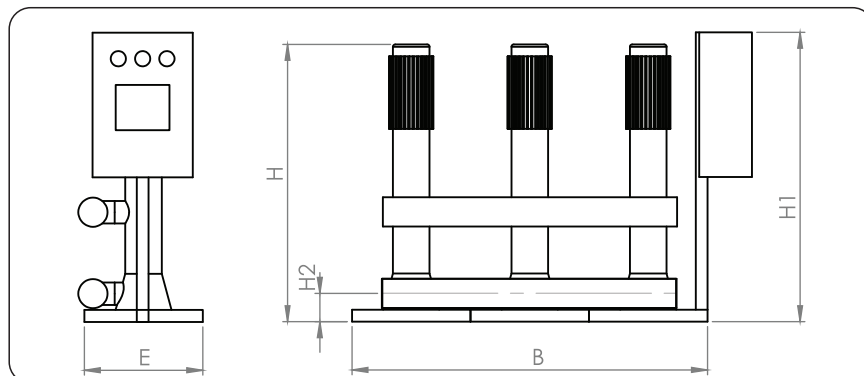
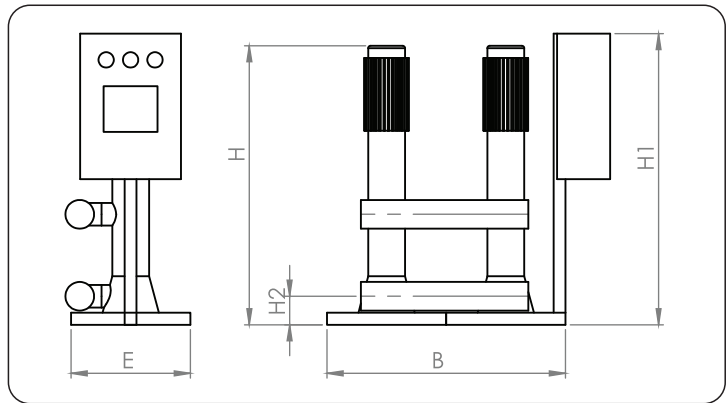
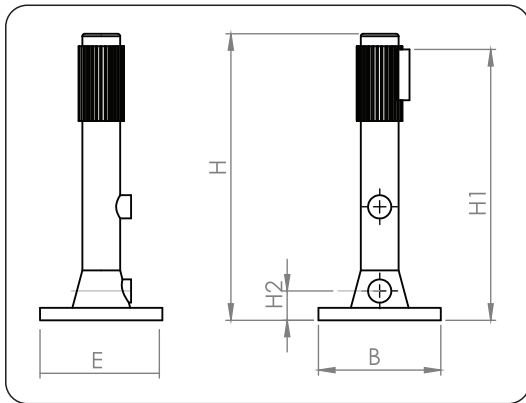


Material

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** GG-25 Cast iron
- **Impeller:** GG-25 Cast iron
- **Suction and delivery collector:** Painting steel



HD 65 Series Booster Sets					
Booster Type		Power (kW)	Vol. (V) Freq.(Hz)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet
SINGLE PUMP	HD1 65/2	1 x 22	380 - 50	GT - 1500	3" - 2 1/2"
	HD1 65/2 B	1 x 30		GT - 1500	
	HD1 65/3	1 x 37		GT - 1500/16	
	HD1 65/3 B	1 x 45		GT - 1500/16	
DOUBLE PUMP	HD1 65/2	2 x 22	380 - 50	GT - 1500	DN 125-DN 125
	HD1 65/2 B	2 x 30		GT - 1500	
	HD1 65/3	2 x 37		GT - 1500/16	
	HD1 65/3 B	2 x 45		GT - 1500/16	
TRIPLE PUMP	HD1 65/2	3 x 22	380 - 50	GT - 2000	DN 150-DN 150
	HD1 65/2 B	3 x 30		GT - 2000	
	HD1 65/3	3 x 37		GT - 2000/16	
	HD1 65/3 B	3 x 45		GT - 2000/16	



YH2 Compact Series Fire Fighting Booster Sets

Technical Specification

- YH Compact series sets have horizontal, multistage centrifugal pump coupled to a standard motor and horizontal, multistage centrifugal pump coupled to diesel motors.
- Pressure boosting sets with automatic operation, consisting of 2 (3 if jockey pumps) pumps on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed.
- A Control panel controls to both electric and diesel motor pumps and consisting of phase protection, current protection, phase failure protection, high-low voltage protection for electric motor and oil control, heat control for diesel motor.
- Adjustable automatic test system as standard for sets.
- Compact series have rectifier to charge the battery.
- Electric Motors 2-pole induction motors, 50 Hz, n=2900 rpm Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.
- 4 stroke and 1 cylinder, air cooled diesel motors.
- Diesel Fuel Tank Volume: 5,5 Lt

Material (Vertical Multistage Pumps)

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Suction & Delivery collector:** Galvanise coated steel.

As Standard Delivery

- A Control panel for electric and diesel pumps.
- Suction & Delivery collector
- Pressure switch for each pumps
- Pressure gauge
- Common baseplate
- Valf, none-returnable check valf for each pumps
- Diesel Fuel Tank



YH2 Compact Series Fire Fighting Booster Sets							
Model	Electric Motor Power (kW)	Vol. (V) Freq.(Hz)	Flow Rate (m ³ /h)	Head (mSS)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet	
1 Main-1 Standby Electric & Electric Motors	YH2 Compact - e 1006	2 x 3	380 - 50	2 X 12	60	GT - 100	2"-2"
	YH2 Compact - e 1007	2 x 4			70	GT - 100	
	YH2 Compact - e 1008	2 x 4			80	GT - 100	
	YH2 Compact - e 1009	2 x 5,5			95	GT - 100/16	
	YH2 Compact - e 1010	2 x 5,5			110	GT - 100/16	
1 Main-1 Standby Electric & Electric Motors	YH2 Compact - e 1606	2 x 4	380 - 50	2 x 15	60	GT - 100	2 1/2"-2"
	YH2 Compact - e 1607	2 x 5,5			70	GT - 100	
	YH2 Compact - e 1608	2 x 5,5			85	GT - 100	
	YH2 Compact - e 1609	2 x 7,5			100	GT - 100/16	
	YH2 Compact - e 1610	2 x 7,5			110	GT - 100/16	
1 Main-1 Standby Electric & Electric Motors	YH2 Compact - e 2405	2 x 5,5	380 - 50	2 x 24	50	GT - 100	2 1/2"-2 1/2"
	YH2 Compact - e 2406	2 x 5,5			60	GT - 100	
	YH2 Compact - e 2407	2 x 7,5			70	GT - 100	
	YH2 Compact - e 2408	2 x 7,5			80	GT - 100	
	YH2 Compact - e 2409	2 x 11			90	GT - 100/16	
	YH2 Compact - e 2410	2 x 11			100	GT - 100/16	

Compact YH Series Horizontal Type Fire Fighting Booster Sets

Model	Electric Motor Power (kW)	Diesel Motor Power (kw)	Flow Rate (m ³ /h)	Head (mSS)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet
1 Main-1 Standby Electric & Diesel Motors	YH2 Compact - ed 1006	1 x 3	2 X 12	60	GT - 100	2"-2"
	YH2 Compact - ed 1007	1 x 4		70	GT - 100	
	YH2 Compact - ed 1008	1 x 4		80	GT - 100	
	YH2 Compact - ed 1009	1 x 5,5		95	GT - 100/16	
	YH2 Compact - ed 1010	1 x 5,5		110	GT - 100/16	
1 Main-1 Standby Electric & Diesel Motors	YH2 Compact - ed 1606	1 x 4	2 x 15	60	GT - 100	2 1/2"-2"
	YH2 Compact - ed 1607	1 x 5,5		70	GT - 100	
	YH2 Compact - ed 1608	1 x 5,5		85	GT - 100	
	YH2 Compact - ed 1609	1 x 7,5		100	GT - 100/16	
	YH2 Compact - ed 1610	1 x 7,5		110	GT - 100/16	
1 Main-1 Standby Electric & Diesel Motors	YH2 Compact - ed 2405	1 x 5,5	2 x 24	50	GT - 100	2 1/2"-2 1/2"
	YH2 Compact - ed 2406	1 x 5,5		60	GT - 100	
	YH2 Compact - ed 2407	1 x 7,5		70	GT - 100	
	YH2 Compact - ed 2408	1 x 7,5		80	GT - 100	

YM2 Compact Series Fire Fighting Booster Sets

Technical Specification

- YM Compact series sets have vertical, multistage centrifugal pump coupled to a standard motor and horizontal, one stage centrifugal pump coupled to diesel motors.
- Pressure boosting sets with automatic operation, consisting of 2 (3 if jockey pumps) pumps on a common baseplate, with suction valves and delivery non-return valves, pressure switches, pressure gauge, float switch, and control panel as fixed speed.
- A Control panel controls to both electric and diesel motor pumps and consisting of phase protection, current protection, phase failure protection, high-low voltage protection for electric motor and oil control, heat control for diesel motor.
- Adjustable automatic test system as standard for sets.
- Compact series have rectifier to charge the battery.
- Electric Motors 2-pole induction motors, 50 Hz, n=2900 rpm
Three-phase 230/400 V \pm %10 Insulation class F, Protection IP55 Constructed in accordance with IEC 60034. Other voltages and frequencies on request.
- **Diesel Fuel Tank Volume:** 5,5 Lt
- 4 stroke and 1 cylinder, air cooled diesel motors.



Material (Vertical Multistage Pumps)

- **Pump Suction-Delivery Head:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Pump Body:** Stainless Steel
- **Impeller:** NORYL
- **Delivery collector:** Galvanise coated steel.

Material (Horizontal One Stage Pumps)

- **Pompa Body:** GG-25 Cast Iron
- **Shaft:** Stainless Steel
- **Impeller:** GG-25 Cast Iron

As Standard Delivery

- A Control panel for electric and diesel pumps.
- Delivery collector
- Pressure switch for each pumps
- Pressure gauge
- Common baseplate
- Valf, none-returnable check valf for each pumps
- Diesel Fuel Tank

YM2 Compact Series Fire Fighting Booster Sets

Type		Electric Motor Power (kW)	Diesel Motor Power (kw)	Flow Rate (m ³ /h)	Head (mSS)	Necessary Expansion Vessel (Not Included)	Inlet/Outlet Dimesions
1 Main - 1 Standby Electric & Diesel Motors	YM2 Compact-ed 1106	1 x 2,2	1 x 7	12	65	GT - 100	2"-2"
	YM2 Compact-ed 1107	1 x 3	1 x 7	12	70	GT - 100	2"-2"

General Features

Fire fighting pumps in our product portfolio are mainly composed of one or more mainly fire fighting pump(s) with electric motor and/or diesel engine drive and a jockey pump suitable for the main pump(s) according to NFPA 20.

Main Fire Fighting Pump Types

There are 4 pump type via NFPA conditions for fire fighting systems:

- Horizontal End Suction Pumps,
- Horizontal Split Case Pumps,
- Vertical Inline Type Pumps,
- Vertical Tribune Type Pumps,



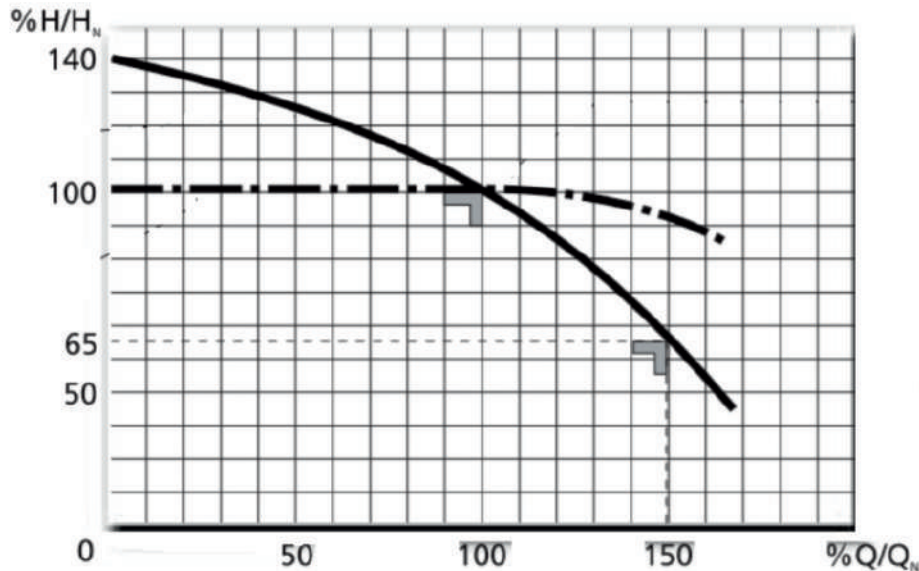
End suction type fire pumps mounted on a baseplate are single stage pumps developed for a wide range of applications and their body can be axially split for maintenance. Pump body is of a form that prevents formation of air pockets. The bearing bracket is easily disassembled for maintenance, the mechanical seal is of self lubricated design.

Split case pumps are manufactured to maximize the efficiency and to minimize turbulence by providing laminer flow in the suction eye of the impeller. They are ideal for use in limited spaces and replacing already installed systems with their compact sizes. Main fire pumps may be delivered in complete cast iron,

No permitted self priming systems for surface pumps. If need, you have to use tribune type pumps.

Capacity

• Jockey pump systems are used to prevent the main pumps from starting during small flow rates caused by leaks etc. They are actually self contained single pump boosters made of a vertical shaft multi stage pump. These are delivered together with a level float for dry running protection and a shock absorbing expansion tank of 100 liters capacity.



H_n : Anma Basinci
 Q_n : Anma Debisi

Electric Motor Driven Main Fire Pump System

Usually, end suction or split case pumps are used. Use of multi stage pumps with horizontal or vertical shafts or vertical shaft turbine pumps are also common. In multipump systems, the electrical controllers for the pumps are installed in a single controller enclosure. It is possible to provide the controllers in separate enclosures for each pump on request. The controllers provide weekly test function. A separate alarm device for signalling various states in the fire system is delivered together with the system. There are recirculation relief valves installed on the discharge side of the main pumps to redirect the fluid to the suction tank in case of operation with a closed delivery valve.

IP Class	NEMA Equivalent	Explanation
IP 10	NEMA 1	Internal settlement. Protects against falling particles.
IP 11	NEMA 2	Internal settlement. Protects against falling particles and dripping water.
IP 14	NEMA 3	External settlement. Protects against rain, sleet and wind-induced dust. It also protects against damage due to icing on the outside of the panel.
IP 14	NEMA 3R	External settlement. Protects against rain and sleet. It also protects against damage due to icing on the outside of the panel.
IP 14	NEMA 3S	Indoor or outdoor placement. Protects against rain, sleet and wind-induced dust. In addition, the external mechanisms are ready to work despite the ice deposits.
IP 66	NEMA 4	Indoor or outdoor placement. It protects against rain, wind-induced dust, gushing water and hose water. It also protects against damage due to icing on the outside of the panel.
IP 66	NEMA 4X	Indoor or outdoor placement. It protects against rain, wind-induced dust, gushing water, hose water and corrosion. It also protects against damage due to icing on the outside of the panel.
IP 66	NEMA 5	Internal settlement. It protects against falling particles, dust in the air and falling to the ground, and dripping liquids that will not cause corrosion.
IP 67	NEMA 6	Indoor or outdoor placement. It protects against falling particles, hose water, ingress of water if it is sometimes and partially submerged at a certain depth. It also protects against damage due to icing on the outside of the panel.
IP 67	NEMA 6P	Indoor or outdoor placement. Protects against ingress of hose water and in case of prolonged immersion in water at a certain depth. It also protects against damage due to icing on the outside of the panel.
IP 52	NEMA 12	Internal settlement. It protects against falling particles, flying dust and non-corrosive liquids.
IP 54	NEMA 13	Internal settlement. Protects against dust, falling particles, gushing water, oil and non-corrosive coolants.

Diesel Engine Driven Main Fire Pump System

Usually, end suction or split case pumps are used. Use of multistage pumps with horizontal shafts are also common. There is a recirculation relief valve installed on the discharge side of the pump to redirect the fluid to the suction tank in case of operation with a closed delivery valve. Pump is delivered together with the electrical controller, starting battery, fuel tank, exhaust manifold and an alarm device for signalling various states in the fire system.



Pump Structure and Materials

- ✓ Seal is soft package rolling as to be 5 times.
- ✓ In design of fire fighting pumps, fluid speed is maximum 3 m/sec. To reduce velocity of fluids, eksantric and concantric reduction must be used after inlet and outlet of pumps.
- ✓ Each pumps have control panel seperately.
- ✓ Pump body should be GG-25 cast iron or GGG 40 sphere cast iron depends on pressure level.
- ✓ Pump impeller should be bronze or stainless steel to resist of corrosion.
- ✓ Pump shaft should be AISI 316 stainless steel.

Rated Flows For Fire Fighting Pumps Sytem According to NFPA 20:

Flow Interval					
gpm (Gallon per Minute)	l/m (Liter / Minute)	m3/h (Cubic meter per hour)	gpm (Gallon per Minute)	l/d (Liter/Minute)	m3/h (Cuvic meter per hour)
25	95	5,7	1000	3785	227
50	189	11,4	1250	4731	284
100	379	22,7	1500	5677	341
150	568	34,1	2000	7570	454
200	757	45,4	2500	9462	568
250	946	56,8	3000	11355	681
300	1136	68,1	3500	13247	795
400	1514	91	4000	15140	908
450	1703	102	4500	17032	1022
500	1892	114	5000	18925	1136
750	2839	170			

Pipe Diameters According to NFPA 20:

Flow Rate (gpm)	Suction	Outlet	Relief Valve	Outlet Relief Valve	Flowmeter	Fire Connection Piece & Diameter	Fire Connection Feed Pipes
25	1"	1"	3/4"	1"	1 1/4"	1-1 1/2"	1"
50	1 1/2"	1 1/4"	1 1/4"	1 1/2"	2"	1-1 1/2"	1 1/2"
100	2"	2"	1 1/2"	2"	2 1/2"	1-2 1/2"	2 1/2"
150	2 1/2"	2 1/2"	2"	2 1/2"	3"	1-2 1/2"	2 1/2"
200	3"	3"	2"	2 1/2"	3"	1-2 1/2"	2 1/2"
250	4"	3"	2"	2 1/2"	4"	1-2 1/2"	3"
300	4"	4"	2 1/2"	4"	4"	1-2 1/2"	3"
400	4"	4"	3"	5"	4"	2-2 1/2"	4"
450	5"	5"	3"	5"	4"	2-2 1/2"	4"
500	5"	5"	3"	5"	5"	2-2 1/2"	4"
750	6"	6"	4"	6"	5"	3-2 1/2"	6"
1000	8"	6"	4"	8"	6"	4-2 1/2"	6"
1250	8"	8"	6"	8"	6"	6-2 1/2"	8"
1500	8"	8"	6"	8"	8"	6-2 1/2"	8"
2000	10"	10"	6"	10"	8"	6-2 1/2"	8"

ALF ENERGY Fire Fighting Pumps System:

This system is also available in different configurations and can be designed from the following elements:

- Electric motor driven main (standby) pump system,
- Diesel engine driven main (standby) pump system,
- Electric motor driven jockey pump system,
- Control panels selected and applied separately for pumps,
- Alarm devices,
- Integration devices to building automation,
- Panels with automatic transfer unit,
- Valves with traceable switches,
- GG-25 cast iron or GGG-40 sphero cast body according to pressure class,
- Bronze or stainless steel impeller,
- Suction & discharge collectors,
- Flowmeter,
- Relief valve,
- End-suction centrifugal pump, split case centrifugal pump or inline centrifugal pump for line type.

General Structure

One or two pumps are delivered as assembled on their own chassis, together with the jockey pump, with eccentric and concentric reducers connected to the suction and pressure lines, line valves, check valves and inlet-outlet collectors with a common chassis. In applications where diesel engine driven pumps are present and/or for the needs that cannot be positioned on a common chassis, each pump is delivered on its own chassis and with an independent pump control panel. Mechanical system elements such as valves, check valves, pressure switches, collector connections are included in the scope of delivery.

- ST37 carbon steel common chassis coated with electrostatic paint,
- Electro galvanized coated flanged and concentric type pressure line, flanged eccentric type suction line connection reductions,
- Two control valves and one check valve for each pump,
- Pressure line collector including manometer coated with electrostatic red paint,
- Separate pump control panel with automatic test unit for each pump,
- Solenoid valve, safety valve and discharge port integrated into the test unit,
- Sound and light alarm device,
- Redundant starter battery and fuel tank for diesel driven engines,
- A separate pressure switch for each pump, connected with a pneumatic system, backing up each other.

Pump and diesel engine types selected for fire fighting:

Nominal operating point and main dimensions as main and backup pumps in ALF Energy fire-fighting pump groups comply with VDI 2035 and TS EN 733 norms,

- Horizontal shaft, end suction, single stage, PN model pumps with volute fan,
- Horizontal shaft, split body, single stage, volute fan PA model pumps,
- Vertical shaft, single stage, volute fan, inline PL model pumps are used.

The electric motors are fully closed and fan-cooled (TFEC), in accordance with IEC, TSE and DIN norms, with special coupling and coupling protection, they can be easily separated from the pump and can be quickly coupled by repair.

Fire Fighting End Suction Pumps Sets

- **Flowrate:** 50 - 1250 gpm & 12 m³/h – 284 m³/h
- **Head:** 43 – 199 psi & 30 - 140 mss
- One stage, Horizontal, Suitable DIN norms.

➤ Using Place

- Apartment
- Military Facilities
- Hotel&Residance
- Shopping Center & Work Center
- Industrial Facilities
- Fueloil&Gas Stations
- School
- Airport&Seaport
- Sport facilities
- Cinema&theatre
- Dormitory

➤ Motor Options

- Elektriçty Motors
- UL Listed Elektriçty Motors
- Diesel Engine
- FM Approved Diesel Engine

➤ Notation

- **YP3 PN 80/250 - 55E - 66D - HJ909 - 3E**
- **YP:** Fire Fgihting Pumps
- **3:** 1 main - 1 standby - 1 jockey total 3 pumps.
- **PN:** Pump type (End suction)
- **55E:** Power of motor
- **66D:** Power of diesel engine
- **HJ909:** Model of jockey pump
- **3E:** Power of motor for jockey pump.



Fire Fighting Inline Type Pumps Sets

- **Flowrate:** 50 - 750 gpm & 12 m³/h – 170 m³/h
- **Head:** 43 – 145 psi & 30- 100 mSS
- Low space requirement.
- One stage, vertical, inline type.

➤ Using Place

- Apartment
- Military Facilities
- Hotel&Residance
- Shopping Center & Work Center
- Industrial Facilities
- Fueloil&Gas Stations
- School
- Airport&Seaport
- Sport facilities
- Cinema&theatre
- Dormitory

➤ Motor Options

- Elektriçty Motors
- UL Listed Elektriçty Motors

➤ Notation

- **YP3 PL:** 65/250 - 30E – HJ812 - 1,5E
- **YP:** Fire Fgihting Pumps
- **3:** 1 main - 1 standby - 1 jockey total 3 pumps.
- **PL:** Pump type (Inline)
- **30E:** Power of motor
- **HJ812:** Model of jockey pump
- **1,5E:** Power of jockey pump's motor



Detachable Body Fire Fighting Pump Groups

- **Flowrat:** 200 - 3000 gpm & 45 m³/h – 681 m³/h
- **Head:** 71 – 256 psi & 50 - 180 mss
- One stage, Horizontal, Split case.

➤ **Using Place**

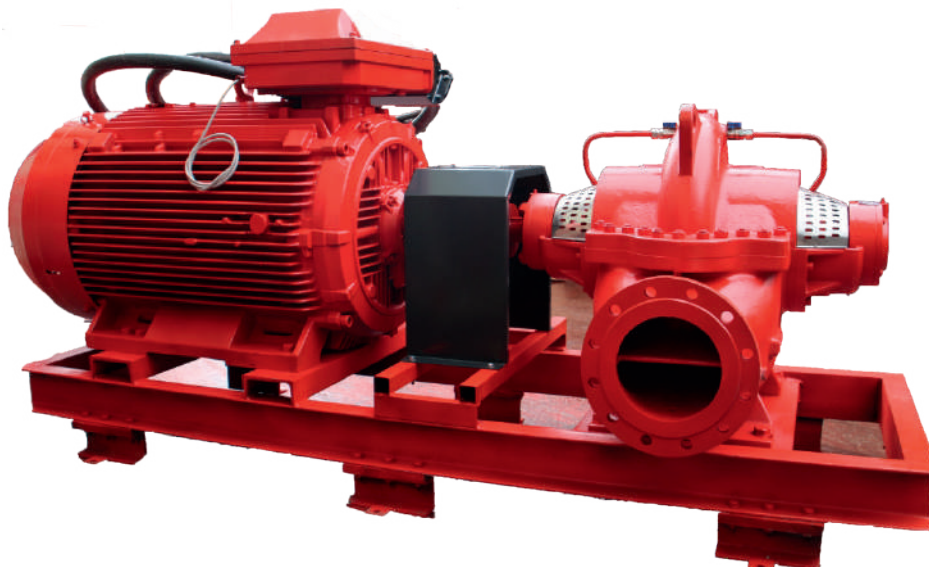
- Apartment
- Military Facilities
- Hotel&Residance
- Shopping Center & Work Center
- Industrial Facilities
- Fueloil&Gas Stations
- School
- Airport&Seaport
- Sport facilities
- Cinema&theatre

➤ **Motor Options**

- Elektriçty Motors
- UL Listed Elektriçity Motors
- Diesel Engine
- FM Approved Diesel Engine

➤ **Notation**

- **YP3 PA:** 100/250 - 75E - 75D – HJ1010 - 5,5E
- **YP:** Fire Fgihting Pumps
- **3:** 1 main - 1 standby - 1 jockey total 3 pumps.
- **PA:** Pump type (Split case)
- **75E:** Elektriçty motor power
- **75D:** Power of diesel engine
- **HJ1010:** Jockey pump model
- **5,5E:** Motor power of jockey pump.



Control in Electric Motor Driven Pumps

Fire pump control panels are designed in accordance with local and international standards to control and monitor the electric or diesel motors of fire pumps, which serve as the heart of the fire fixtures, for long years and without any problems. Fire pump control panels generally monitor the status of the line, and start the fire pump when they receive a signal from the pressure switch. They cannot be used to compensate for other water demands of the facility. It is important to realize and respond to the failures on time, such as congestion of the pumps as a result of non-operation for a long time, or any breakdown in the mechanical or electrical equipment. Therefore, they need to run once in a week and get tested. The test system is available in all of our fire panels.

Electricity Control Panel

- ✓ 4x20 LCD play,
- ✓ Screened real date and time information
- ✓ Automatic test systems
- ✓ Screened voltage and current values,
- ✓ Warning closed signal for inlet and outlet valve group.
- ✓ Remote start,
- ✓ Screened all fault codes,
- ✓ Viewed past 20 activities of pump
- ✓ Screened pump run time,
- ✓ Password for protection.
- ✓ Setting pump stop relay. (10 sec-240 hours)
- ✓ M-Bus for otomation,
- ✓ Protection Class IP 55.



Control in Diesel Engine Driven Pumps

Fire pump control panels are designed in accordance with local and international standards to control and monitor the electric or diesel motors of fire pumps, which serve as the heart of the fire fixtures, for long years and without any problems. Fire pump control panels generally monitor the status of the line, and start the fire pump when they receive a signal from the pressure switch. They cannot be used to compensate for other water demands of the facility. It is important to realize and respond to the failures on time, such as congestion of the pumps as a result of non-operation for a long time, or any breakdown in the mechanical or electrical equipment. Therefore, they need to run once in a week and get tested. The test system is available in all of our fire panels.

Diesel Control Panel

- ✓ 4x20 LCD play,
- ✓ Screened Battery voltage and current values,
- ✓ Screened temperature of motor,
- ✓ Screened diesel level (must be float for tank),
- ✓ Stop the system when empty diesel oil.
- ✓ Screened revolution of diesel engine.
- ✓ Screened real date and time information
- ✓ Automatic test systems
- ✓ Setting start duration and count,
- ✓ Automatic&manuel mod,
- ✓ Manuel stop,
- ✓ Screened diesel engine run time.
- ✓ Viewed past 20 activities of pump
- ✓ Protection Class IP 55.



Generals

Single stage pumps suitable for use in heating systems conforming to VDI 2035, hot and cold domestic water systems, cooling/condense water systems, water/glycol mixtures. Pump shaft is sealed by mechanical seals, pumps require very low maintenance and they possess good cavitation free operation. Produced in PN10 and PN16 nominal pressure class, they may be used in ambient temperatures up to 40°C and fluid temperatures between -10°C and 110°C. (140°C as optional)

Pump body, bearing bracket and impeller are manufactured from GG25, pump shaft from X20Cr13, and pump and motor shafts are coupled by a rigid coupling. Coupling protection provides complete protection and conforms to equipment operational safety standard EN294 and DIN 31001 norm.

Drive motor is a standard motor conforming to IEC - B5 / V1 with insulation class of F and protection class of IP55. Suction and discharge flanges are of the same size, and are on the same axis. The pumps may be either installed directly on the piping (in-line), or especially in bigger and heavier types, maybe placed on a concrete foundation.



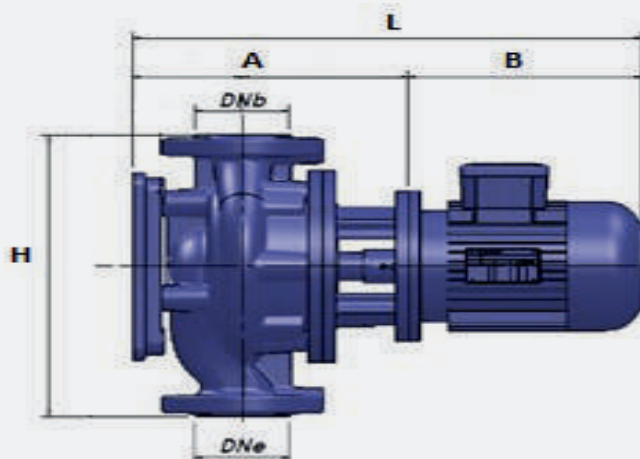
Advantages of Inline pumps

- Easy installation, low space requirements.
- Does not require any special maintenance during operation. Long operational life.

- High efficiency. Saves electricity in operation.
- Shaft sealing is accomplished by mechanical seal.

The mechanical seals does not require adjustment, may operate regardless of the rotational direction and of self cooling type. With PL series in-line dry rotor circulating pumps, keep the comfort and the energy efficiency at the highest level.

- Direct connection to the installation with in-line connection.
- Used in cold & hot water circulation cycles of domestic and industrial heating & cooling, air-conditioning, and plumbing.



Fluid Property

- Clean, non-hard, non-viscose, chemically neutral water that is free of solid abrasive particles
- The maximum glycol ratio that can be added to the circulation water is 30%.

Technical Specifications

- Vertical, single stage, dry rotor, inline type centrifugal pump.
- **Seal:** Mechanical
- **Motor Efficiency Class:** IE-2
- **Voltage:** 380 V
- **Frequency:** 50 Hz

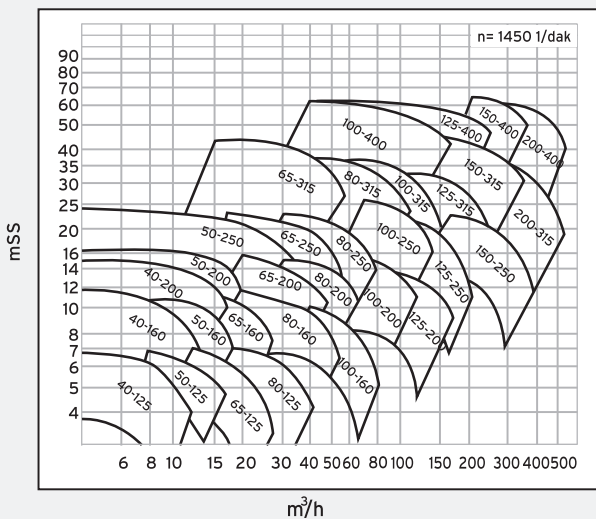
Material

- **Pump Body:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM) - A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

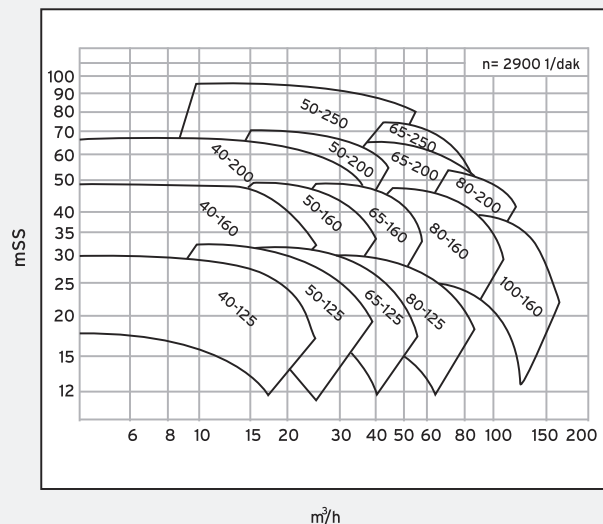
Optional

- Frequency controlled panel or integrated frequency controlled unit.
- Mechanical seal for high temperature and various fluids,
- Nodular Cast Iron GJS-400-15 (GGG-40) sphero for pump body,
- Cast Bronze G-CuSn10 for pump body,
- G-CuSn10 bronz / GJS-400-15 sphero / stainless steel for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material
- **Motor Efficiency Class:** IE-3
- **Voltage:** 380 V
- **Frequency:** 50 Hz

General Curves (1500 rpm)



General Curves (3000 rpm)



DRY ROTOR IN-LINE TYPE CIRCULATION PUMPS							
PL Series Inline Type Circulation Pumps (2900 rpm)							
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)				Weight (kg)
			H	L	A	B	
PL - 40/125	1,1-2900	DN 40 - DN 40	300	510	266	244	45
	1,5-2900		300	533	266	267	49
	2,2-2900		300	533	266	267	51
	3,0-2900		300	580	288	292	59
PL - 40/160	3,0-2900	DN 40 - DN 40	340	580	288	292	65
	4,0-2900		340	624	288	336	73
	5,5-2900		340	697	301	396	84
PL - 40/200	4,0-2900	DN 40 - DN 40	380	629	293	336	80
	5,5-2900		380	702	306	396	89
	7,5-2900		380	702	306	396	96
	11-2900		380	822	346	476	135
PL - 50/125	1,5-2900	DN 50 - DN 50	300	547	280	267	52
	2,2-2900		300	547	280	267	54
	3,0-2900		300	594	302	292	61
	4,0-2900		300	638	302	336	69
	5,5-2900		300	710	314	396	69
PL - 50/160	3,0-2900	DN 50 - DN 50	340	592	300	292	64
	4,0-2900		340	636	300	336	72
	5,5-2900		340	709	313	396	82
	7,5-2900		340	709	313	396	89
	11-2900		340	829	353	476	89
PL - 50/200	7,5-2900	DN 65 - DN 65	425	712	316	396	100
	11-2900		425	832	356	476	139
	15-2900		425	832	356	476	146
PL - 50/250	11-2900	DN 50 - DN 50	475	831	355	476	152
	15-2900		475	831	355	476	160
	18,5-2900		475	831	355	476	174
	22-2900		475	874	355	519	198
	30-2900		475	910	355	555	198
PL - 65/125	3,0-2900	DN 65 - DN 65	340	616	324	292	71
	4,0-2900		340	660	324	336	78
	5,5-2900		340	732	336	396	87
	7,5-2900		340	732	336	396	87
PL - 65/160	5,5-2900	DN 65 - DN 65	380	732	336	396	91
	7,5-2900		380	732	336	396	98
	11,0-2900		380	852	376	476	131

DRY ROTOR INLINE TYPE CIRCULATION PUMPS

PL Series Inline Type Circulation Pumps (1450 rpm)							
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)				Weight (kg)
			H	L	A	B	
PL - 80/125	0,37-1450	DN 80 - DN 80	380	535	312	223	60
	0,55-1450		380	566	322	244	63
	0,75-1450		380	566	322	244	64
	1,1-1450		380	589	322	267	67
PL - 80/160	0,75-1450	DN 80 - DN 80	425	587	343	244	70
	1,1-1450		425	610	343	267	72
	1,5-1450		425	610	343	267	74
	2,2-1450		425	635	343	292	81
PL - 80/200	1,5-1450	DN 80 - DN 80	475	610	343	267	81
	2,2-1450		475	635	343	292	92
	3-1450		475	635	343	292	95
	4-1450		475	679	343	336	102
PL - 80/250	2,2-1450	DN 80 - DN 80	560	662	370	292	116
	3-1450		560	662	370	292	116
	4-1450		560	706	370	336	126
	5,5-1450		560	779	383	396	138
PL - 80/315	5,5-1450	DN 80 - DN 80	595	795	399	396	167
	7,5-1450		595	795	399	396	188
	11-1450		595	915	439	476	213
	15-1450		595	915	439	476	227
PL - 100/160	1,5-1450	DN 100 - DN 100	475	609	342	267	84
	2,2-1450		475	634	342	292	91
	3-1450		475	634	342	292	94
PL - 100/200	3-1450	DN 100 - DN 100	525	683	391	292	93
	4-1450		525	727	391	336	119
	5,5-1450		525	801	405	396	132
	7,5-1450		525	801	405	396	132
PL - 100/250	4-1450	DN 100 - DN 100	580	736	400	336	139
	5,5-1450		580	809	413	396	151
	7,5-1450		580	809	413	396	172
	11-1450		580	929	453	476	197
PL - 100/315	7,5-1450	DN 100 - DN 100	670	804	408	396	211
	11-1450		670	924	448	476	236
	15-1450		670	924	448	476	250
	18,5-1450		670	967	448	519	280
PL - 100/400	15-1450	DN 100 - DN 100	800	923	447	476	343
	18,5-1450		800	966	447	519	372
	22-1450		800	966	447	519	380
	30-1450		800	1002	447	555	431
	37-1450		800	1102	477	625	500

DRY ROTOR INLINE TYPE CIRCULATION PUMPS

PL Series Inline Type Circulation Pumps (1450 rpm)

Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)				Weight (kg)
			H	L	A	B	
PL - 125/200	3-1450	DN 125 - DN 125	560	731	439	292	148
	4-1450		560	775	439	336	155
	5,5-1450		560	848	452	396	167
	7,5-1450		560	848	452	396	188
PL - 125/250	5,5-1450	DN 125 - DN 125	630	848	452	396	175
	7,5-1450		630	848	452	396	196
	11-1450		630	968	492	476	221
	15-1450		630	968	492	476	235
PL - 125/315	11-1450	DN 125 - DN 125	710	948	472	476	259
	15-1450		710	948	472	476	273
	18,5-1450		710	991	472	519	303
	22-1450		710	991	472	519	311
	30-1450		710	1,027	472	555	330
PL - 125/400	22-1450	DN 125 - DN 125	800	1,001	482	519	392
	30-1450		800	1,037	482	555	443
	37-1450		800	1,137	512	625	512
	45-1450		800	1,137	512	625	549
PL - 150/250	11-1450	DN 150 - DN 150	710	998	522	476	274
	15-1450		710	998	522	476	288
	18,5-1450		710	1,041	522	519	317
	22-1450		710	1,041	522	519	325
PL - 150/315	15-1450	DN 150 - DN 150	710	1,015	539	476	365
	18,5-1450		710	1,058	539	519	394
	22-1450		710	1,058	539	519	402
	30-1450		710	1,094	539	555	453
	37-1450		710	1,194	569	625	523
PL - 150/400	37-1450	DN 150 - DN 150	800	1,194	569	625	574
	45-1450		800	1,194	569	625	611
	55-1450		800	1,314	569	745	631
PL - 200/315	18,5-1450	DN 200 - DN 200	800	1,454	569	885	975
	22-1450		800	1,119	600	519	444
	30-1450		800	1,119	600	519	452
	37-1450		800	1,155	600	555	503
	45-1450		800	1,254	629	625	573
PL - 200/400	37-1450	DN 200 - DN 200	900	1,254	629	625	610
	45-1450		900	1,254	629	625	623
	55-1450		900	1254	629	625	660

DRY ROTOR INLINE TYPE CIRCULATION PUMPS							
PL Series Inline Type Circulation Pumps (1450 rpm)							
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)				Weight (kg)
			H	L	A	B	
PL - 40/125	0,37-1450	DN 40 - DN 40	300	479	256	223	42
PL - 40/160	0,37-1450	DN 40 - DN 40	340	476	253	223	48
	0,55-1450		340	532	288	244	52
	0,75-1450		340	532	288	244	53
PL - 40/200	0,55-1450	DN 40 - DN 40	380	537	293	244	58
	0,75-1450		380	537	293	244	59
	1,1-1450		380	560	293	267	62
PL - 50/125	0,37-1450	DN 50 - DN 50	300	493	270	223	43
	0,55-1450		300	524	280	244	44
PL - 50/160	0,37-1450	DN 50 - DN 50	340	488	265	223	47
	0,55-1450		340	544	300	244	51
	0,75-1450		340	544	300	244	52
	1,1-1450		340	567	300	267	55
PL - 50/200	0,75-1450	DN 50 - DN 50	425	547	303	244	63
	1,1-1450		425	570	303	267	65
	1,5-1450		425	570	303	267	65
	2,2-1450		425	595	303	292	67
PL - 50/250	1,5-1450	DN 50 - DN 50	475	569	302	267	81
	2,2-1450		475	594	302	292	90
	3-1450		475	594	302	292	93
PL - 65/125	0,37-1450	DN 65 - DN 65	340	515	292	223	52
	0,55-1450		340	546	302	244	56
	0,75-1450		340	546	302	244	57
PL - 65/160	0,75-1450	DN 65 - DN 65	380	567	323	244	61
	1,1-1450		380	590	323	267	62
	1,5-1450		380	590	323	267	64
PL - 65/200	1,1-1450	DN 65 - DN 65	475	593	326	267	77
	1,5-1450		475	593	326	267	82
	2,2-1450		475	618	326	292	88
	3-1450		475	618	326	292	88
PL - 65/250	2,2-1450	DN 65 - DN 65	475	615	323	292	96
	3-1450		475	615	323	292	99
	4-1450		475	659	323	336	105
	5,5-1450		475	732	336	396	115
PL - 65/315	3-1450	DN 65 - DN 65	560	655	363	292	132
	4-1450		560	699	363	336	139
	5,5-1450		560	772	376	396	152
	7,5-1450		560	772	376	396	173
	11-1450		560	892	416	476	197

DRY ROTOR IN-LINE TYPE CIRCULATION PUMPS							
PL Series Inline Type Circulation Pumps (2900 rpm)							
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)				Weight (kg)
			H	L	A	B	
PL - 65/200	11-2900	DN 65 - DN 65	475	855	379	476	147
	15-2900		475	855	379	476	153
	18,5-2900		475	855	379	476	168
	22-2900		475	898	379	519	182
PL - 65/250	15-2900	DN 65 - DN 65	475	852	376	476	180
	18,5-2900		475	852	376	476	180
	22-2900		475	895	376	519	204
	30-2900		475	931	376	555	246
PL - 80/125	4,0-2900	DN 80 - DN 80	380	680	344	336	85
	5,5-2900		380	752	356	396	94
	7,5-2900		380	752	356	396	101
	11,0-2900		380	872	396	476	101
PL - 80/160	11,0-2900	DN 80 - DN 80	425	872	396	476	144
	15,0-2900		425	872	396	476	151
	18,5-2900		425	872	396	476	166
PL - 80/200	15-2900	DN 80 - DN 80	475	872	396	476	158
	18,5-2900		475	872	396	476	173
	22-2900		475	915	396	519	197
	30-2900		475	951	396	555	242
PL - 80/250	22-2900	DN 80 - DN 80	560	942	423	519	200
	30-2900		560	978	423	555	205
	37-2900		560	978	423	555	229
	45-2900		560	1,048	423	625	287
	55-2900		560	1,097	453	644	287
PL - 100/160	11-2900	DN 100 - DN 100	475	871	395	476	154
	15-2900		475	871	395	476	161
	18,5-2900		475	871	395	476	176
	22-2900		475	914	395	519	176
PL - 100/200	22-2900	DN 100 - DN 100	525	963	444	519	246
	30-2900		525	999	444	555	300
	37-2900		525	999	444	555	319
	45-2900		525	1,069	444	625	358
PL - 100/250	37-2900	DN 100 - DN 100	580	1,008	453	555	300
	45-2900		580	1,078	453	625	363
	55-2900		580	1,127	483	644	402

FRI Series Inline Circulation Pump With Integrated Frequency Control Unit

Frequency controlled glanded double pump in in-line design with flange connection and automatic power adjustment.

Energy savings due to integrated frequency control unit that receive the pressure information inlet and outlet transmitters.

Specifications Of Frequency Control Unit

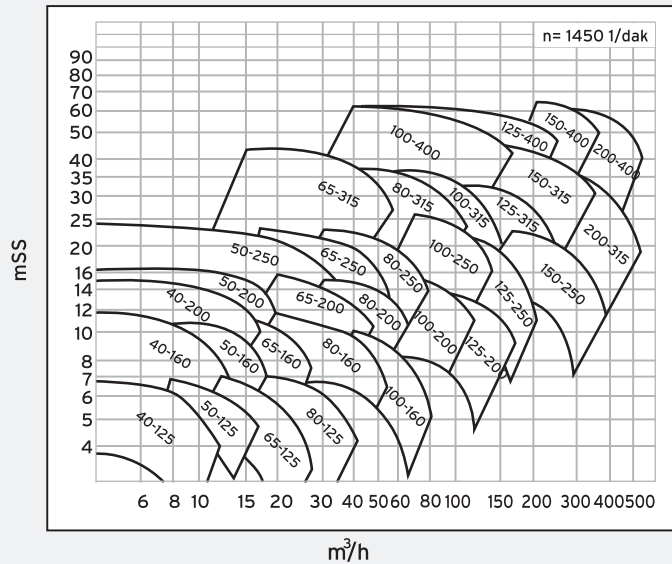
- 2* 16 characters LCD screen
- LINE / RUN/ GENERAL ALARM leds
- Mounting on motor with dedicated equipments
- Multipump (1 master + 3 slave) support
- IP 55 insulation class
- Easy Programming
- %120 overload up to 60 seconds
- Ambiance temperature 0 °C - 50 °C
- Adjusting output frequency (motor speed) using / buttons
- Adjustable output frequency by 2 digital input
- Programmable start-up and stoppage ramps
- Programmable pump sleep / wake up time for master pump
- Programmable pump start / stop time for slave pump(s)
- Automatic motor identification
- Data transfer to Building Automation System with RS485 interface via MODBUS
- Run with one 4-20 mA pressure transmitter on constant pressure mode, two 4-20 mA pressure transmitters circulation mode



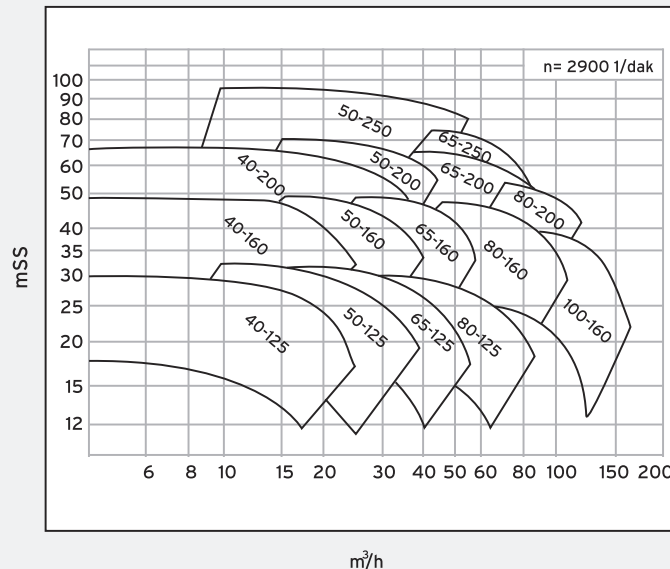
Protections

- **Low Voltage Protection:** Low Voltage Fault will be displayed when mains supply is lower than %20 of nominal voltage
- **High Voltage Protection:** High Voltage Fault will be displayed when mains supply is higher than %20 of nominal voltage
- **High Temperature Protection:** Temperature Fault will be displayed when body temperature is higher than 80°C
- **Phase Protection:** Phase Fault will be displayed when one of the three phases of supply voltage is lost for three-phase drivers.
- **Short Circuit Protection:** Motor short circuit fault will be displayed when motor connection is short-circuited
- **Minimum Pressure Protection:** In case the system does not reach set pressure before set duration, pressure fault will be displayed on screen but the system will not be blocked and the algorithm will try to reach set pressure for a few times more.
- Dry running protection with the help of floater

General Curves (1500 rpm)



General Curves (3000 rpm)



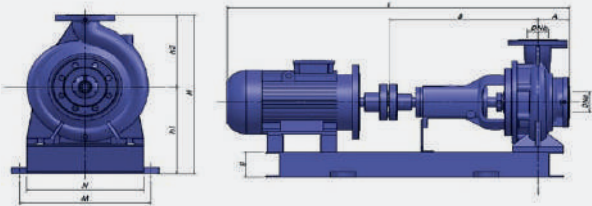
General

Single stage pumps with axial suction port, suitable for use in heating systems conforming to VDI 2035, hot and cold domestic water systems, cooling/condense water systems, water/glycol mixtures. Pump shaft is sealed by soft packed, pumps require very low maintenance and they possess good cavitation free operation. Produced in PN10 and PN16 nominal pressure class, they may be used in ambient temperatures up to 40°C and fluid temperatures between -10°C and 110°C. (140°C as optional)

Pump body, bearing bracket and impeller are manufactured from GG25, pump shaft from X20Cr13.

Coupling protection provides complete protection and conforms to equipment operational safety standard EN294 and DIN 31001 norm. Drive motor is a standard motor with insulation class of F and protection class of IP55.

Suction and discharge flanges, main pump dimensions and hydraulic performances conform to DIN 24255/EN 733.



Advantages of axial suction pumps

- May easily be replaced regardless of the pump manufacturer since the main dimensions and hydraulic performances conform to international standards.
 - Easy installation, low space requirements.
 - Long operational life.
 - High efficiency.
 - Saves electricity in operation.
 - Shaft sealing can be accomplished by mechanical seal.
- The mechanical seals do not require adjustment, may operate regardless of the rotational direction and of self cooling type.

Material

- **Pump Body:** Cast Iron GJL-250 (ASTM)(GG 25)
- A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25)
- A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM)
- A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

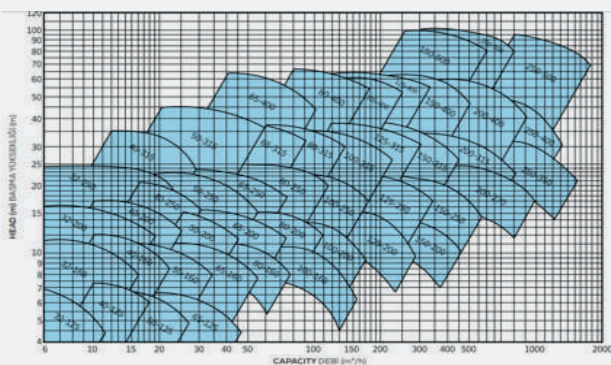
Technical Specifications

- Horizontal, single stage, end suction, centrifugal type
- **Seal:** Soft package
- **Motor Efficiency Class:** IE-2
- **Voltage:** 380 V **Frequency:** 50 Hz

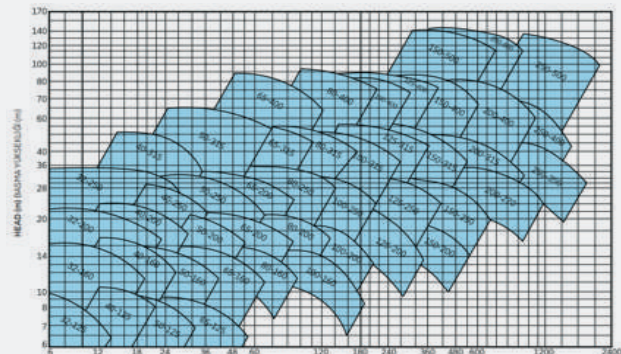
Optional

- Frequency controlled panel,
- Mechanical seal for high temperature and various fluids,
- Nodular Cast Iron GJS-400-15 (GGG-40) sphero for pump body,
- Cast Bronze G-CuSn10 for pump body,
- G-CuSn10 bronze / GJS-400-15 sphero / stainless steel for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material
- Motor Efficiency Class: IE-3

General Curves (1500 rpm)



General Curves (3000 rpm)



CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 32/125	0,37-1450	DN 50 - DN 32	223	82	146	112	140	105	81	220	160	28
PN - 32/160	0,37-1450	DN 50 - DN 32	223	79	140	132	160	103	79	240	190	32
	0,55-1450		244	79	175	132	160	103	79	240	190	35
	0,75-1450		244	79	175	132	160	103	79	240	190	37
PN - 32/200	0,75-1450	DN 50 - DN 32	223	80	141	160	180	102	79	244	190	40
	1,1-1450		244	80	176	160	180	102	79	244	190	43
	1,5-1450		244	80	176	160	180	102	79	244	190	44
PN - 32/250	1,1-1450	DN 50 - DN 32	267	102	183	180	225	126	100	320	260	94
	1,5-1450		267	102	183	180	225	126	100	320	260	96
	2,2-1450		292	102	183	180	225	126	100	320	260	104
	3-1450		292	102	183	180	225	126	100	320	260	107
PN - 40/125	0,25-1450	DN 65 - DN 40	223	80	154	112	140	100	79	208	160	31
	0,37-1450		244	80	164	112	140	100	79	208	160	32
	0,55-1450		254	80	154	112	140	100	79	208	160	39
PN - 40/160	0,55-1450	DN 65 - DN 40	244	90	172	132	160	103	78	246	190	35
	0,75-1450		244	90	172	132	160	103	78	246	190	38
	1,1-1450		244	90	172	132	160	103	78	246	190	39
PN - 40/200	0,75-1450	DN 65 - DN 40	244	100	178	160	180	102	77	270	214	50
	1,1-1450		267	100	178	160	180	102	77	270	214	53
	1,5-1450		267	100	178	160	180	102	77	270	214	57
	2,2-1450		267	100	178	160	180	102	77	270	214	65
PN - 40/250	1,1-1450	DN 65 - DN 40	267	114	178	180	225	128	99	320	255	103
	1,5-1450		267	114	178	180	225	128	99	320	255	105
	2,2-1450		292	114	178	180	225	128	99	320	255	113
	3-1450		292	114	178	180	225	128	99	320	255	116
PN - 40/315	2,2-1450	DN 65 - DN 40	292	100	185	200	250	127	100	348	280	91
	3-1450		292	100	185	200	250	127	100	348	280	94
	4-1450		336	100	185	200	250	127	100	348	280	101
	5,5-1450		396	100	198	200	250	127	100	348	280	111
PN - 50/125	0,37-1450	DN 65 - DN 50	223	100	154	132	160	100	77	240	190	35
	0,55-1450		244	100	164	132	160	100	77	240	190	38
	0,75-1450		244	100	164	132	160	100	77	240	190	39
PN - 50/160	0,75-1450	DN 65 - DN 50	244	110	167	160	180	100	75	268	214	41
	1,1-1450		267	110	167	160	180	100	75	268	214	42
	1,5-1450		267	110	167	160	180	100	75	268	214	44
PN - 50/200	1,1-1450	DN 65 - DN 50	267	110	172	160	200	108	80	269	216	53
	1,5-1450		267	110	172	160	200	108	80	269	216	56
	2,2-1450		292	110	172	160	200	108	80	269	216	62
	3-1450		292	110	172	160	200	108	80	269	216	68

CLOSE COUPLED CENTRIFUGAL PUMPS

PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)

Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 50/250	2,2-1450	DN 65 - DN 50	292	101	186	180	225	124	97	316	248	116
	3-1450		292	101	186	180	225	124	97	316	248	119
	4-1450		336	101	186	180	225	124	97	316	248	126
	5,5-1450		396	101	199	180	225	124	97	316	248	136
PN - 50/315	4-1450	DN 80 - DN 50	336	125	193	225	280	126	99	348	280	157
	5,5-1450		396	125	206	225	280	126	99	348	280	167
	7,5-1450		396	125	206	225	280	126	99	348	280	188
	11-1450		476	125	246	225	280	126	99	348	280	213
PN - 65/125	0,55-1450	DN 65 - DN 50	244	100	164	160	180	125	102	280	215	39
	0,75-1450		244	100	164	160	180	125	102	280	215	42
	1,1-1450		244	100	164	160	180	125	102	280	215	46
PN - 65/160	1,1-1450	DN 80 - DN 65	267	108	167	160	200	127	100	282	214	50
	1,5-1450		267	108	167	160	200	127	100	282	214	53
	2,2-1450		292	108	167	160	200	127	100	282	214	59
PN - 65/200	1,5-1450	DN 80 - DN 65	267	104	174	180	225	136	109	323	255	65
	2,2-1450		292	104	174	180	225	136	109	323	255	67
	3-1450		292	104	174	180	225	136	109	323	255	70
	4-1450		336	104	174	180	225	136	109	323	255	77
PN - 65/250	3-1450	DN 80 - DN 65	292	100	194	200	250	160	125	365	278	138
	4-1450		336	100	194	200	250	160	125	365	278	145
	5,5-1450		396	100	207	200	250	160	125	365	278	155
	7,5-1450		396	100	207	200	250	160	125	365	278	176
PN - 65/315	5,5-1450	DN 80 - DN 65	396	128	204	225	280	160	125	405	315	165
	7,5-1450		336	128	204	225	280	160	125	405	315	176
	11-1450		476	128	244	225	280	160	125	405	315	201
	15-1450		476	128	244	225	280	160	125	405	315	215
PN - 65/400	11-1450	DN 80 - DN 65	476	125	244	260	355	160	130	435	355	208
	15-1450		476	125	244	260	355	160	130	435	355	222
	18,5-1450		519	125	244	260	355	160	130	435	355	251
	22-1450		519	125	244	260	355	160	130	435	355	259
	30-1450		555	125	244	260	355	160	130	435	355	311
PN - 80/160	1,5-1450	DN 80 - DN 65	267	126	174	180	225	126	99	331	263	60
	2,2-1450		292	126	174	180	225	126	99	331	263	67
	3-1450		292	126	174	180	225	126	99	331	263	70
PN - 80/200	3-1450	DN 100 - DN 80	292	130	194	180	250	126	102	345	280	103
	4-1450		336	130	194	180	250	126	102	345	280	112
	5,5-1450		396	130	207	180	250	126	102	345	280	122
PN - 80/250	4-1450	DN 100 - DN 80	336	127	197	200	280	160	125	405	317	161
	5,5-1450		396	127	210	200	280	160	125	405	317	171
	7,5-1450		396	127	210	200	280	160	125	405	317	192
	11-1450		476	127	250	200	280	160	125	405	317	217

CLOSE COUPLED CENTRIFUGAL PUMPS

PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)

Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 80/315	7,5-1450	DN 100 - DN 80	396	126	206	250	315	160	125	404	315	218
	11-1450		476	126	246	250	315	160	125	404	315	243
	15-1450		476	126	246	250	315	160	125	404	315	257
	18,5-1450		519	126	246	250	315	160	125	404	315	286
PN - 80/400	18,5-1450	DN 100 - DN 80	519	125	257	280	355	160	125	440	355	274
	22-1450		519	125	257	280	355	160	125	440	355	282
	30-1450		555	125	257	280	355	160	125	440	355	334
	37-1450		625	125	287	280	355	160	125	440	355	384
PN - 100/160	3-1450	DN 125 - DN 100	292	120	199	200	280	160	125	363	278	108
	4-1450		336	120	199	200	280	160	125	363	278	115
	5,5-1450		396	120	212	200	280	160	125	363	278	125
PN - 100/200	3-1450	DN 125 - DN 100	292	127	196	200	280	163	130	360	285	175
	4-1450		336	127	196	200	280	163	130	360	285	182
	5,5-1450		396	127	124	200	280	163	130	360	285	192
	7,5-1450		396	127	124	200	280	163	130	360	285	213
PN - 100/250	5,5-1450	DN 125 - DN 100	396	142	207	225	280	160	126	395	315	201
	7,5-1450		396	142	207	225	280	160	126	395	315	222
	11-1450		476	142	247	225	280	160	126	395	315	247
	15-1450		476	142	247	225	280	160	126	395	315	261
PN - 100/315	11-1450	DN 125 - DN 100	476	140	247	250	315	160	124	401	315	271
	15-1450		476	140	247	250	315	160	124	401	315	285
	18,5-1450		519	140	247	250	315	160	124	401	315	314
	22-1450		519	140	247	250	315	160	124	401	315	322
	30-1450		555	140	247	250	315	160	124	401	315	374
PN - 100/400	22-1450	DN 125 - DN 100	519	147	254	280	355	200	155	505	399	442
	30-1450		555	147	254	280	355	200	155	505	399	497
	37-1450		625	147	284	280	355	200	155	505	399	535
	45-1450		625	147	284	280	355	200	155	505	399	580
	55-1450		745	147	284	280	355	200	155	505	399	665
PN - 125/200	7,5-1450	DN 150 - DN 125	396	143	208	250	315	160	130	400	315	237
	11-1450		476	143	248	250	315	160	130	400	315	262
	15-1450		476	143	248	250	315	160	130	400	315	276
PN - 125/250	11-1450	DN 150 - DN 125	476	137	250	250	355	160	125	400	315	278
	15-1450		476	137	250	250	355	160	125	400	315	292
	18,5-1450		519	137	250	250	355	160	125	400	315	321
	22-1450		519	137	250	250	355	160	125	400	315	329

CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 125/315	15-1450	DN 150 - DN 125	476	140	257	280	355	200	155	506	401	329
	18,5-1450		519	140	257	280	355	200	155	506	401	358
	22-1450		519	140	257	280	355	200	155	506	401	366
	30-1450		555	140	257	280	355	200	155	506	401	418
	37-1450		625	140	287	280	355	200	155	506	401	468
PN - 125/400	37-1450	DN 150 - DN 125	625	144	287	315	400	200	155	502	396	413
	45-1450		625	144	287	315	400	200	155	502	396	450
	55-1450		745	144	287	315	400	200	155	502	396	475
PN - 150/200	11-1450	DN 200 - DN 150	476	162	246	280	355	204	158	513	403	336
	15-1450		476	162	246	280	355	204	158	513	403	350
	18,5-1450		519	162	246	280	355	204	158	513	403	379
PN - 150/250	15-1450	DN 200 - DN 150	476	160	247	280	380	205	159	515	403	380
	18,5-1450		519	160	247	280	380	205	159	515	403	409
	22-1450		519	160	247	280	380	205	159	515	403	417
	30-1450		555	160	247	280	380	205	159	515	403	469
PN - 150/315	22-1450	DN 200 - DN 150	519	160	257	280	400	200	155	560	450	421
	30-1450		555	160	257	280	400	200	155	560	450	473
	37-1450		625	160	287	280	400	200	155	560	450	523
	45-1450		625	160	287	280	400	200	155	560	450	560
PN - 150/400	45-1450	DN 200 - DN 150	625	160	287	315	450	200	154	560	450	472
	55-1450		745	160	287	315	450	200	154	560	450	497

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 32/125	0,37-1450	DN 50 - DN 32	20
PN - 32/160	0,37-1450	DN 50 - DN 32	24
	0,55-1450		
	0,75-1450		
PN - 32/200	0,37-1450	DN 50 - DN 32	35
	0,55-1450		
	0,75-1450		
PN - 32/250	1,1-1450	DN 50 - DN 32	50
	1,5-1450		
	2,2-1450		
	3-1450		
PN - 40/125	0,25-1450	DN 65 - DN 40	30
	0,37-1450		
PN - 40/160	0,55-1450	DN 65 - DN 40	33
	0,75-1450		
	1,1-1450		
PN - 40/200	0,75-1450	DN 65 - DN 40	39
	1,1-1450		
	1,5-1450		
	2,2-1450		
PN - 40/250	1,1-1450	DN 65 - DN 40	52
	1,5-1450		
	2,2-1450		
	3-1450		
PN - 40/315	2,2-1450	DN 65 - DN 40	53
	3-1450		
	4-1450		
	5,5-1450		
PN - 50/125	0,37-1450	DN 65 - DN 50	32
	0,55-1450		
	1,1-1450		
PN - 50/160	0,75-1450	DN 65 - DN 50	33
	1,1-1450		
	1,5-1450		
PN - 50/200	1,1-1450	DN 65 - DN 50	40
	1,5-1450		
	2,2-1450		

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 50/250	2,2-1450	DN 65 - DN 50	55
	3-1450		
	4-1450		
	5,5-1450		
PN - 50/315	4-1450	DN 80 - DN 50	86
	5,5-1450		
	7,5-1450		
	11-1450		
PN - 65/125	0,55-1450	DN 65 - DN 50	34
	0,75-1450		
	1,1-1450		
PN - 65/160	1,1-1450	DN 80 - DN 65	40
	1,5-1450		
	2,2-1450		
PN - 65/200	1,5-1450	DN 80 - DN 65	50
	2,2-1450		
	3-1450		
	4-1450		
PN - 65/250	3-1450	DN 80 - DN 65	76
	4-1450		
	5,5-1450		
	7,5-1450		
PN - 65/315	5,5-1450	DN 80 - DN 65	94
	7,5-1450		
	11-1450		
	15-1450		
PN - 65/400	11-1450	DN 80 - DN 65	96
	15-1450		
	18,5-1450		
	22-1450		
PN - 80/160	1,5-1450	DN 80 - DN 65	45
	2,2-1450		
	3-1450		
PN - 80/200	3-1450	DN 100 - DN 80	80
	4-1450		
	5,5-1450		
PN - 80/250	4-1450	DN 100 - DN 80	81
	5,5-1450		
	7,5-1450		
	11-1450		

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 80/315	7,5-1450	DN 100 - DN 80	100
	11-1450		
	15-1450		
	18,5-1450		
PN - 80/400	18,5-1450	DN 100 - DN 80	147
	22-1450		
	30-1450		
PN - 100/160	3-1450	DN 125 - DN 100	80
	4-1450		
	5,5-1450		
PN - 100/200	3-1450	DN 125 - DN 100	86
	4-1450		
	5,5-1450		
	7,5-1450		
PN - 100/250	5,5-1450	DN 125 - DN 100	90
	7,5-1450		
	11-1450		
	15-1450		
PN - 100/315	11-1450	DN 125 - DN 100	114
	15-1450		
	18,5-1450		
	22-1450		
PN - 100/400	22-1450	DN 125 - DN 100	155
	30-1450		
	37-1450		
	45-1450		
PN - 125/200	7,5-1450	DN 150 - DN 125	91
	11-1450		
	15-1450		
PN - 125/250	11-1450	DN 150 - DN 125	101
	15-1450		
	18,5-1450		
	22-1450		

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 125/315	15-1450	DN 150 - DN 125	148
	18,5-1450		
	22-1450		
	30-1450		
PN - 125/400	37-1450	DN 150 - DN 125	183
	45-1450		
	55-1450		
PN - 150/200	75-1450	DN 200 - DN 150	135
	11-1450		
	15-1450		
PN - 150/250	18,5-1450	DN 200 - DN 150	139
	15-1450		
	22-1450		
	30-1450		
PN - 150/315	37-1450	DN 200 - DN 150	148
	22-1450		
	30-1450		
	45-1450		
PN - 150/400	75-1450	DN 200 - DN 150	207
	45-1450		
	55-1450		
	90-1450		

END SUCTION CENTRIFUGAL PUMPS												
PN Series Horizontal Single Stage Centrifugal Pumps with Motor and Base Plate (2900 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 32/125	1,1-2900	DN 50 - DN 32	317	753	82	367	177	140	220	266	65	58
	1,5-2900		317	753	82	367	177	140	220	266	65	62
	2,2-2900		317	753	82	367	177	140	220	266	65	64
	3-2900		317	773	82	367	177	140	220	266	65	68
PN - 32/160	3-2900	DN 50 - DN 32	357	748	79	366	197	160	240	286	65	70
	4-2900		357	768	79	366	197	160	240	286	65	75
	5,5-2900		357	837	79	366	197	160	240	286	65	85
	7,5-2900		357	848	79	366	197	160	240	286	65	90
PN - 32/200	5,5-2900	DN 50 - DN 32	405	769	80	366	225	180	244	290	65	75
	7,5-2900		405	832	80	366	225	180	244	290	65	80
	11-2900		405	844	80	366	225	180	244	290	65	88
PN - 32/250	7,5-2900	DN 50 - DN 32	485	958	102	386	260	225	320	366	80	138
	11-2900		485	1,104	102	386	260	225	320	366	80	168
	15-2900		485	1,104	102	386	260	225	320	366	80	175
PN - 40/125	2,2-2900	DN 65 - DN 40	317	779	80	376	177	140	210	256	65	64
	3-2900		317	842	80	376	177	140	210	256	65	65
	4-2900		317	779	80	376	177	140	210	256	65	70
	5,5-2900		317	842	80	376	177	140	210	256	65	80
PN - 40/160	4-2900	DN 65 - DN 40	357	776	90	362	197	160	246	292	65	87
	5,5-2900		357	839	90	362	197	160	246	292	65	92
	7,5-2900		357	856	90	362	197	160	246	292	65	100
	11-2900		357	935	90	374	197	160	260	306	65	130
PN - 40/200	7,5-2900	DN 65 - DN 40	405	871	100	368	225	180	270	316	65	102
	11-2900		405	950	100	380	225	180	270	316	65	133
	15-2900		405	950	100	380	225	180	270	316	65	140
PN - 40/250	11-2900	DN 65 - DN 40	485	1,110	114	380	260	225	320	366	80	170
	15-2900		485	1,110	114	380	260	225	320	366	80	177
	18,5-2900		485	1,110	114	380	260	225	320	366	80	192
	22-2900		505	1,199	114	408	280	225	354	400	100	233
	30-2900		525	1,287	114	408	300	225	400	446	100	273
ALF NP - 50/125	3-2900	DN 65 - DN 50	357	862	100	376	197	160	240	286	65	68
	4-2900		357	879	100	376	197	160	240	286	65	76
	5,5-2900		357	958	100	388	197	160	260	306	65	86
	7,5-2900		357	879	100	376	197	160	240	306	65	96
ALF NP - 50/160	5,5-2900	DN 65 - DN 50	305	950	110	370	225	180	268	314	65	62
	7,5-2900		305	950	110	370	225	180	268	314	65	64
	11-2900		420	1,096	110	370	240	180	312	358	80	68

END SUCTION CENTRIFUGAL PUMPS												
PN Series Horizontal Single Stage Centrifugal Pumps with Motor and Base Plate (2900 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PN - 50/200	11-2900	DN 65 - DN 50	440	955	110	375	240	200	269	315	80	133
	15-2900		440	1,101	110	375	240	200	312	358	80	140
	18,5-2900		440	1,101	110	375	240	200	312	358	80	155
	22-2900		440	1,101	110	375	240	200	312	358	80	190
PN - 50/250	18,5-2900	DN 65 - DN 50	485	1,105	101	388	260	225	316	362	80	195
	22-2900		505	1,194	101	416	280	225	354	400	100	236
	30-2900		525	1,282	101	416	300	225	390	436	100	276
	37-2900		525	1,282	101	416	300	225	390	436	100	295
PN - 65/125	4-2900	DN 80 - DN 65	420	779	100	376	240	180	280	326	80	73
	5,5-2900		420	958	100	388	240	180	280	326	80	91
	7,5-2900		420	958	100	388	240	180	280	326	80	101
	11-2900		420	1,104	100	388	240	180	312	358	80	127
PN - 65/160	11-2900	DN 80 - DN 65	440	1,093	108	370	240	200	312	358	80	97
	15-2900		440	1,093	108	370	240	200	312	358	80	110
	18,5-2900		440	1,093	108	370	240	200	312	358	80	119
PN - 65/200	18,5-2900	DN 80 - DN 65	485	1,096	104	376	260	225	323	369	80	173
	22-2900		485	1,096	104	376	260	225	323	369	80	181
	30-2900		505	1,185	104	404	280	225	354	400	100	215
	37-2900		525	1,213	104	404	300	225	390	436	100	250
PN - 65/250	22-2900	DN 80 - DN 65	550	1,272	100	495	300	250	365	411	100	260
	30-2900		550	1,360	100	495	300	250	400	446	100	300
	37-2900		550	1,360	100	495	300	250	400	446	100	319
	45-2900		575	1,393	100	495	325	250	438	484	100	362
	55-2900		620	1,493	100	495	370	250	484	530	120	576
PN - 80/160	11-2900	DN 80 - DN 65	485	1,118	126	376	260	225	331	377	80	157
	15-2900		485	1,118	126	376	260	225	331	377	80	164
	18,5-2900		485	1,118	126	376	260	225	331	377	80	179
	22-2900		505	1,207	126	404	280	225	354	400	100	202
PN - 80/200	22-2900	DN 100 - DN 80	530	1,300	130	494	280	250	354	400	100	228
	30-2900		550	1,388	130	494	300	250	400	446	100	268
	37-2900		550	1,388	130	494	300	250	400	446	100	287
	45-2900		575	1,421	130	494	325	250	438	484	100	331
PN - 80/250	37-2900	DN 100 - DN 80	580	1,389	127	497	300	280	407	453	100	324
	45-2900		605	1,422	127	497	325	280	438	484	100	366
	55-2900		650	1,522	127	497	370	280	484	530	120	581
	75-2900		700	1,655	127	497	420	280	550	596	140	757
PN - 100/160	30-2900	DN 125 - DN 100	580	1,314	120	429	300	280	390	436	100	305
	37-2900		580	1,314	120	429	300	280	390	436	100	324
	45-2900		605	1,347	120	429	325	280	438	484	100	367
PN - 100/200	30-2900	DN 125 - DN 100	580	1,388	127	496	300	280	390	436	100	312
	37-2900		580	1,388	127	496	300	280	390	436	100	331
	45-2900		605	1,421	127	496	325	280	438	484	100	374
	55-2900		650	1,520	127	496	370	280	484	530	120	588
PN - 100/250	45-2900	DN 125 - DN 100	605	1,435	142	495	325	280	438	484	100	380
	55-2900		650	1,538	142	495	370	280	484	530	120	594
	75-2900		700	1,668	142	495	420	280	550	596	140	770
	90-2900		700	1,668	142	495	420	280	550	596	140	829
	110-2900		755	1,726	142	495	475	280	620	666	160	1,058
PN - 125/200	45-2900	DN 125 - DN 100	665	1,437	143	496	350	315	438	484	100	382
	55-2900		685	1,537	143	496	370	315	484	530	120	586
	75-2900		735	1,670	143	496	420	315	550	596	140	762

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (2900 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 32/125	1,1-2900	DN 50 - DN 32	25
	1,5-2900		
	2,2-2900		
	3-2900		
PN - 32/160	3-2900	DN 50 - DN 32	28
	4-2900		
	5,5-2900		
	7,5-2900		
PN - 32/200	5,5-2900	DN 50 - DN 32	35
	7,5-2900		
	11-2900		
PN - 32/250	7,5-2900	DN 50 - DN 32	50
	11-2900		
	15-2900		
PN - 40/125	2,2-2900	DN 50 - DN 32	26
	3-2900		
	4-2900		
	5,5-2900		
PN - 40/160	4-2900	DN 65 - DN 40	30
	5,5-2900		
	7,5-2900		
	11-2900		
PN - 40/200	7,5-2900	DN 65 - DN 40	38
	11-2900		
	15-2900		
PN - 40/250	11-2900	DN 65 - DN 40	52
	15-2900		
	18,5-2900		
	22-2900		
	30-2900		
PN - 50/125	3-2900	DN 65 - DN 50	29
	4-2900		
	5,5-2900		
	7,5-2900		
PN - 50/160	5,5-2900	DN 65 - DN 50	31
	7,5-2900		
	11-2900		
PN - 50/200	11-2900	DN 65 - DN 50	40
	15-2900		
	18,5-2900		
	22-2900		
PN - 50/250	18,5-2900	DN 65 - DN 50	68
	22-2900		
	30-2900		
	37-2900		

END SUCTION BARE SHAFT PUMPS			
PN Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (2900 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PN - 65/125	4-2900	DN 80 - DN 65	34
	5,5-2900		
	7,5-2900		
	11-2900		
PN - 65/160	11-2900	DN 80 - DN 65	40
	15-2900		
	18,5-2900		
PN - 65/200	18,5-2900	DN 80 - DN 65	44
	22-2900		
	30-2900		
	37-2900		
PN - 65/250	22-2900	DN 80 - DN 65	76
	30-2900		
	37-2900		
	45-2900		
PN - 80/160	11-2900	DN 80 - DN 65	47
	15-2900		
	18,5-2900		
	22-2900		
PN - 80/200	22-2900	DN 100 - DN 80	80
	30-2900		
	37-2900		
	45-2900		
PN - 80/250	37-2900	DN 100 - DN 80	80
	45-2900		
	55-2900		
	75-2900		
PN - 100/160	30-2900	DN 125 - DN 100	80
	37-2900		
	45-2900		
PN - 100/200	30-2900	DN 125 - DN 100	86
	37-2900		
	45-2900		
	55-2900		
PN - 100/250	45-2900	DN 125 - DN 100	90
	55-2900		
	75-2900		
	90-2900		
PN - 125/200	110-2900	DN 125 - DN 100	91
	45-2900		
	55-2900		
	75-2900		

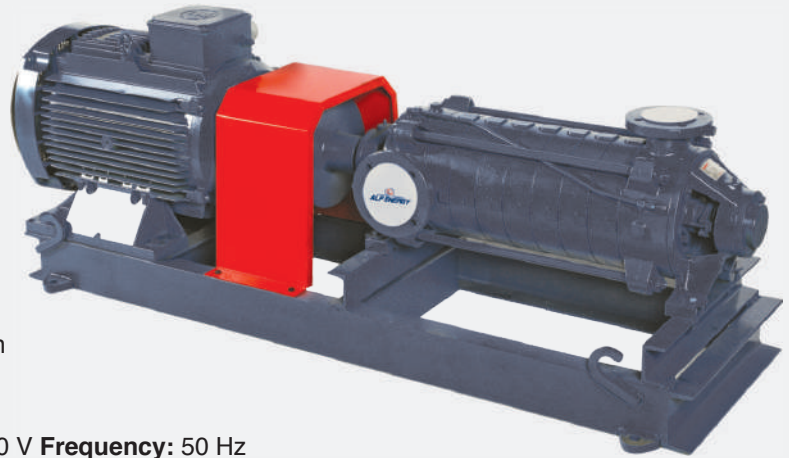
General

Multi stage pumps with radial suction and discharge ports, suitable for use in heating systems conforming to VDI 2035, hot and cold domestic water systems, cooling/condense water systems, water/glycol mixtures. Pump shaft is sealed by soft packing (mechanical seals as an option), pumps require very low maintenance and they possess good cavitation free operation. Stage, suction and discharge bodies are assembled together by bolts outside pump body. Produced in PN40 nominal pressure class, they may be used in ambient temperatures up to 40°C and fluid temperatures between -10°C and 110°C. (140°C as optional)

Pump stage, suction and discharge bodies and impellers are manufactured from GG25, pump shaft from X20Cr13, shaft packing sleeves from stainless steel. Pump and motor shafts are coupled by a coupling. Coupling protection provides complete protection and conforms to equipment operational safety standard EN294 and DIN 31001 norm. Drive motor is a standard motor with insulation class of F and protection class of IP55.

Advantages of multi stage pumps

- Easy installation, low space requirements.
- Does not require any special maintenance during operation.
- Long operational life.
- High efficiency.
- Saves electricity in operation.



Technical Specifications

- Horizontal, multistage, centrifugal type
- Closed type impellers are situated between bearing and are balanced dynamically.
- **Seal:** Soft package
- **Motor Efficiency Class:** IE-2 **Voltage:** 380 V **Frequency:** 50 Hz

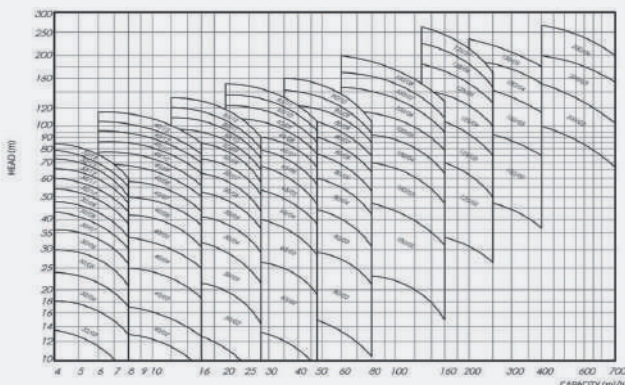
Material

- **Pump Body:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM) - A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

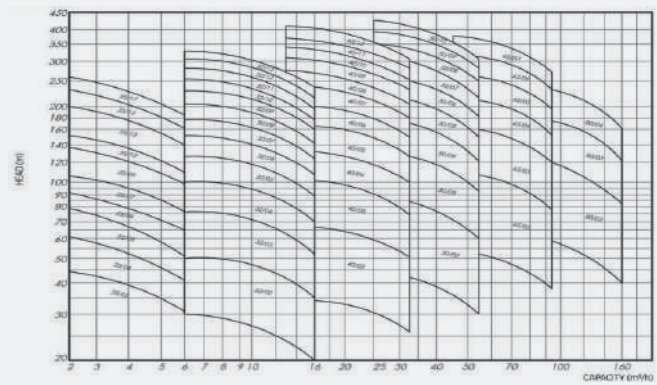
Optional

- Frequency controlled panel,
- Mechanical seal for high temperature and various fluids,
- Nodular Cast Iron GJS-400-15 (GGG-40) sphero for pump body,
- Cast Bronze G-CuSn10 for pump body,
- G-CuSn10 bronze / GJS-400-15 sphero / stainless steel for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material
- **Motor Efficiency Class:** IE-3

General Curves (1500 rpm)



General Curves (3000 rpm)



HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS										
PY 32 - PY 40 - PY 50 Series Horizontal Multistage Centrifugal Pumps (1450 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	2	4	6	8	9	
PY 32-02	0,55 - 1450	DN 40 - DN 32	mWc	15	14	13	12	10	9	81
PY 32-03	0,75 - 1450			21	20	19	18	15	13	88
PY 32-04	1,1 - 1450			27	27	26	23	20	18	95
PY 32-05	1,1 - 1450			34	34	32	30	25	22	101
PY 32-06	1,5 - 1450			41	41	39	36	30	26	109
PY 32-07	1,5 - 1450			48	47	45	42	35	31	114
PY 32-08	2,2 - 1450			51	54	52	48	40	35	126
PY 32-09	2,2 - 1450			62	61	58	53	45	39	131
PY 32-10	2,2 - 1450			69	68	64	59	50	44	137
PY 32-11	3 - 1450			76	74	71	65	55	48	145
PY 32-12	3 - 1450			82	81	77	71	60	53	151
PY 32-13	3 - 1450			89	88	84	77	65	57	156
PY 32-14	4 - 1450			96	95	90	83	70	62	168

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	6	12	15	18	21	
PY 40-02	1,1 - 1450	DN 50 - DN 40	mWc	18	17	15	13	12	9	108
PY 40-03	1,5 - 1450			27	26	23	20	18	14	120
PY 40-04	2,2 - 1450			36	35	30	27	24	18	136
PY 40-05	3 - 1450			45	44	38	33	30	23	148
PY 40-06	3 - 1450			54	53	45	40	36	27	158
PY 40-07	4 - 1450			63	62	53	47	42	32	174
PY 40-08	4 - 1450			72	69	61	53	48	36	183
PY 40-09	5,5 - 1450			81	78	68	60	54	41	207
PY 40-10	5,5 - 1450			90	87	76	67	60	45	217
PY 40-11	5,5 - 1450			99	95	83	73	66	51	227
PY 40-12	7,5 - 1450			108	104	91	80	72	56	258

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	8	16	20	24	28	
PY 50-02	2,2 - 1450	DN 65 - DN 50	mWc	24	23	21	19	17	14	152
PY 50-03	3 - 1450			36	34	31	29	26	22	167
PY 50-04	4 - 1450			48	45	41	38	34	29	184
PY 50-05	5,5 - 1450			60	56	51	48	43	36	209
PY 50-06	5,5 - 1450			71	68	62	57	51	43	220
PY 50-07	7,5 - 1450			83	79	72	67	60	51	253
PY 50-08	7,5 - 1450			95	90	82	76	68	58	264
PY 50-09	11 - 1450			107	102	93	86	77	65	292

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS										
PY 65 - PY 80 - PY 100 Series Horizontal Multistage Centrifugal Pumps (1450 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	20	30	40	45	55	
PY 65-02	4 - 1450	DN 80 - DN 65	mWc	28	28	26	22	20	13	183
PY 65-03	5,5 - 1450			42	41	39	34	30	20	208
PY 65-04	7,5 - 1450			56	55	52	45	40	27	247
PY 65-05	11 - 1450			70	69	65	56	50	34	280
PY 65-06	15 - 1450			84	83	77	67	60	41	312
PY 65-07	15 - 1450			98	96	90	79	70	47	329
PY 65-08	18,5 - 1450			112	110	103	90	80	54	356
PY 65-09	18,5 - 1450			126	124	116	101	90	60	410
PY 65-10	22 - 1450			140	138	129	112	100	67	428
PY 65-11	22 - 1450			154	151	142	124	110	74	463

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	20	40	60	70	88	
PY 80-02	11 - 1450	DN 100 - DN 80	mWc	36	35	32	27	24	19	282
PY 80-03	15 - 1450			54	52	48	41	36	28	319
PY 80-04	18,5 - 1450			72	70	64	54	48	36	379
PY 80-05	22 - 1450			90	87	80	68	60	47	410
PY 80-06	30 - 1450			108	105	96	82	72	56	480
PY 80-07	37 - 1450			126	122	112	95	84	66	563
PY 80-08	37 - 1450			144	140	128	109	96	75	584
PY 80-09	45 - 1450			162	157	144	122	108	84	645
PY 80-10	45 - 1450			180	175	160	136	120	94	750
PY 80-11	37 - 1450			198	192	176	150	132	103	790
PY 80-12	37 - 1450			216	210	192	163	144	113	930
PY 80-13	45 - 1450			234	227	208	177	156	122	970
PY 80-14	45 - 1450			252	245	224	190	168	131	1150

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	40	80	120	150	180	
PY 100-02	22 - 1450	DN 125 - DN 100	mWc	55	52	47	40	34	26	426
PY 100-03	37 - 1450			82	78	70	60	51	40	564
PY 100-04	45 - 1450			109	104	94	80	68	53	637
PY 100-05	55 - 1450			137	130	117	100	85	66	699
PY 100-06	75 - 1450			164	156	141	120	102	79	987
PY 100-07	75 - 1450			191	182	164	140	119	93	1023
PY 100-08	90 - 1450			219	208	187	160	136	106	1154

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS										
PY 125 - PY 150 - PY 200 Series Horizontal Multistage Centrifugal Pumps (1450 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	100	200	225	250	300	
PY 125-02	55 - 1450	DN 150 - DN 125	mWc	85	78	70	60	50	37	802
PY 125-03	75 - 1450			127	116	105	91	75	56	1205
PY 125-04	110 - 1450			170	155	140	121	100	74	1611
PY 125-05	132 - 1450			212	194	175	152	125	93	1754
PY 125-06	160 - 1450			255	233	210	182	150	111	1879

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	150	250	300	350	450	
PY 150-02	132 - 1450	DN 150 - DN 125	mWc	103	98	91	87	81	66	1903
PY 150-03	185 - 1450			154	147	137	131	122	100	2174
PY 150-04	250 - 1450			207	197	184	176	163	134	2469

Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	150	300	500	600	700	
PY 200-02	315 - 1450	DN 250 - DN 200	mWc	145	143	137	123	112	98	x
PY 200-03	400 - 1450			223	216	205	183	168	145	x
PY 200-04	560 - 1450			300	287	275	245	224	199	x

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS										
PY 32 Series Horizontal Multistage Centrifugal Pumps (2900 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	6	10	12	15	18	
PY 32-02	4 - 2900	DN 40 - DN 32	mWc	52	50	44	40	33	24	101
PY 32-03	5,5 - 2900			78	76	66	60	49	36	114
PY 32-04	5,5 - 2900			105	101	88	80	65	48	112
PY 32-05	7,5 - 2900			131	126	110	100	81	60	131
PY 32-06	11 - 2900			156	151	132	120	98	72	174
PY 32-07	11 - 2900			183	177	154	140	114	84	179
PY 32-08	11 - 2900			209	202	177	160	131	96	147
PY 32-09	15 - 2900			235	227	199	180	147	108	197
PY 32-10	15 - 2900			261	252	221	200	164	120	203
PY 32-11	18,5 - 2900			288	278	243	220	180	132	224
PY 32-12	18,5 - 2900			314	303	265	240	196	144	230
PY 32-13	22 - 2900			340	328	288	260	213	156	246

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS										
PY 40 Series Horizontal Multistage Centrifugal Pumps (2900 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	15	25	30	35	41	
PY 40-02	7,5 - 2900	DN 50 - DN 40	mWc	72	68	60	54	47	36	151
PY 40-03	11 - 2900			108	102	89	81	71	54	180
PY 40-04	15 - 2900			143	136	119	107	91	71	230
PY 40-05	18,5 - 2900			179	170	148	134	114	89	270
PY 40-06	22 - 2900			215	204	178	161	137	107	320
PY 40-07	30 - 2900			251	238	208	187	160	125	395
PY 40-08	30 - 2900			287	272	237	214	183	143	408
PY 40-09	37 - 2900			323	306	267	241	206	161	450
PY 40-10	45 - 2900			359	340	296	268	229	178	573
PY 40-12	55 - 2900			431	407	355	322	275	214	700
PY 40-14	75 - 2900			503	474	414	376	321	249	885

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

PY 50 Series Horizontal Multistage Centrifugal Pumps (2900 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	20	30	40	50	70	
PY 50-02	18,5 - 2900	DN 65 - DN 50	mWc	94	91	88	83	75	54	270
PY 50-03	30 - 2900			141	136	131	123	112	80	351
PY 50-04	37 - 2900			188	181	175	164	149	106	414
PY 50-05	45 - 2900			235	228	220	207	188	133	468
PY 50-06	55 - 2900			282	274	264	248	225	160	594
PY 50-07	75 - 2900			329	319	308	289	265	187	720
PY 50-08	75 - 2900			375	365	354	331	302	214	883
PY 50-10	90 - 2900			469	456	442	414	378	268	980
PY 50-12	110 - 2900			563	547	530	497	454	322	1114

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

PY 65 Series Horizontal Multistage Centrifugal Pumps (2900 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	40	60	80	100	110	
PY 65-02	30 - 2900	DN 80 - DN 65	mWc	114	111	104	91	72	60	338
PY 65-03	45 - 2900			171	167	156	136	108	90	442
PY 65-04	75 - 2900			228	223	208	181	143	120	824
PY 65-05	75 - 2900			285	279	260	226	179	150	851
PY 65-06	90 - 2900			342	334	312	271	215	180	1077
PY 65-07	110 - 2900			399	390	364	317	251	210	1097
PY 65-08	132 - 2900			456	446	416	362	287	240	1193
PY 65-09	132 - 2900			513	502	468	407	323	270	1319
PY 65-10	160 - 2900			570	557	520	452	359	299	1543

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

PY 80 Series Horizontal Multistage Centrifugal Pumps (2900 rpm)										
Pump Model	Power (kW) Speed(RPM)	Inlet & Outlet	Head	Dimensions (mm)						Weight (kg)
				0	40	60	80	120	140	
PY 80-02	55 - 2900	DN 100 - DN 80	mWc	146	140	134	126	108	96	471
PY 80-03	90 - 2900			220	210	201	189	162	144	870
PY 80-04	110 - 2900			293	280	268	252	216	194	1104
PY 80-05	160 - 2900			366	350	335	317	270	243	1302
PY 80-06	185 - 2900			439	420	403	379	323	291	1531
PY 80-07	200 - 2900			512	490	470	442	377	340	1563
PY 80-08	250 - 2900			584	560	538	506	432	389	1784

General

Single stage pumps with axial suction port, suitable for use in heating systems conforming to VDI 2035, hot and cold domestic water systems, cooling/condense water systems, water/glycol mixtures. Pump shaft is sealed by mechanical seal, pumps require very low maintenance and they possess good cavitation free operation.

Produced in PN10 and PN16 nominal pressure class, they may be used in ambient temperatures up to 40°C and fluid temperatures between -10°C and 110°C. (140°C as optional)

Pump body, bearing bracket and impeller are manufactured from GG25, pump shaft from X20Cr13. Drive motor is a standard motor with insulation class of F and protection class of IP55. Suction and discharge flanges, main pump dimensions and hydraulic performances conform to DIN 24255/EN 733.

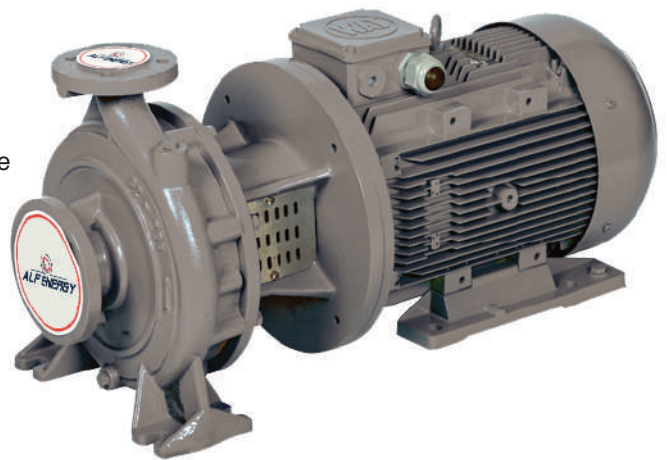
Advantages of axial suction pumps

- May easily be replaced regardless of the pump manufacturer since the main dimensions and hydraulic performances conform to international standards.
- Easy installation, low space requirements.
- Long operational life.
- High efficiency.
- Saves electricity in operation.
- Shaft sealing can be accomplished by mechanical seal.

The mechanical seal does not require adjustment, may operate regardless of the rotational direction and of self cooling type.

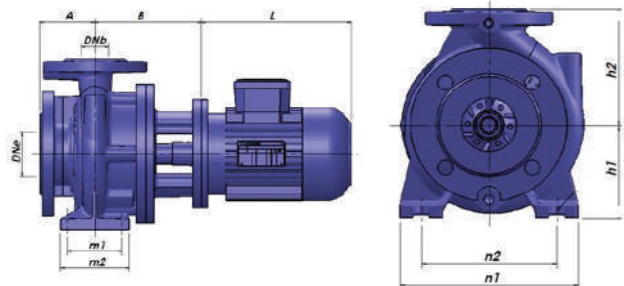
Material

- **Pump Body:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM) - A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

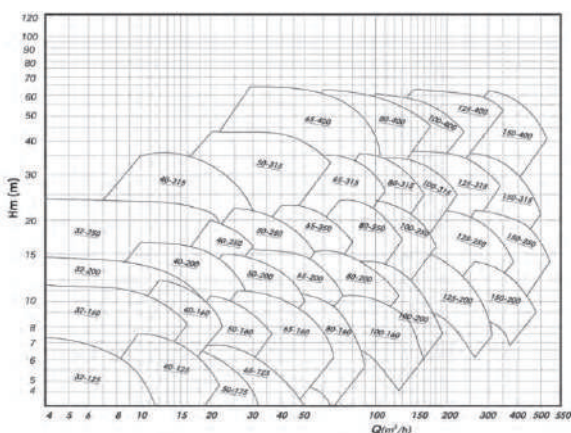


Optional

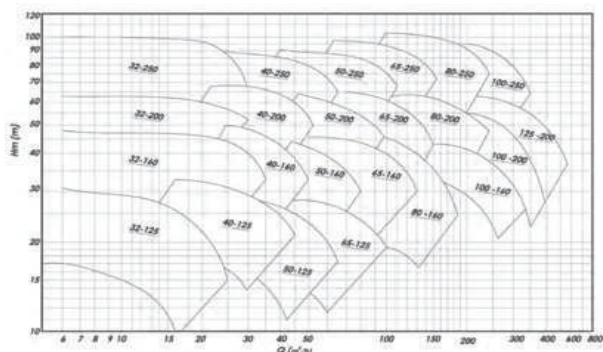
- Frequency controlled panel,
- Mechanical seal for high temperature and various fluids,
- Nodular Cast Iron GJS-400-15 (GGG-40) sphero for pump body,
- Cast Bronze G-CuSn10 for pump body,
- G-CuSn10 bronze / GJS-400-15 sphero / stainless steel for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material
- **Motor Efficiency Class:** IE-3



General Curves (1500 rpm)



General Curves (3000 rpm)



CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 32/125	0,37-1450	DN 50 - DN 32	223	82	146	112	140	105	81	220	160	28
PM - 32/160	0,37-1450	DN 50 - DN 32	223	79	140	132	160	103	79	240	190	32
	0,55-1450		244	79	175	132	160	103	79	240	190	35
	0,75-1450		244	79	175	132	160	103	79	240	190	37
PM - 32/200	0,75-1450	DN 50 - DN 32	223	80	141	160	180	102	79	244	190	40
	1,1-1450		244	80	176	160	180	102	79	244	190	43
	1,5-1450		244	80	176	160	180	102	79	244	190	44
PM - 32/250	1,1-1450	DN 50 - DN 32	267	102	183	180	225	126	100	320	260	94
	1,5-1450		267	102	183	180	225	126	100	320	260	96
	2,2-1450		292	102	183	180	225	126	100	320	260	104
	3-1450		292	102	183	180	225	126	100	320	260	107
PM - 40/125	0,25-1450	DN 65 - DN 40	223	80	154	112	140	100	79	208	160	31
	0,37-1450		244	80	164	112	140	100	79	208	160	32
	0,55-1450		254	80	154	112	140	100	79	208	160	39
PM - 40/160	0,55-1450	DN 65 - DN 40	244	90	172	132	160	103	78	246	190	35
	0,75-1450		244	90	172	132	160	103	78	246	190	38
	1,1-1450		244	90	172	132	160	103	78	246	190	39
PM - 40/200	0,75-1450	DN 65 - DN 40	244	100	178	160	180	102	77	270	214	50
	1,1-1450		267	100	178	160	180	102	77	270	214	53
	1,5-1450		267	100	178	160	180	102	77	270	214	57
	2,2-1450		267	100	178	160	180	102	77	270	214	65
PM - 40/250	1,1-1450	DN 65 - DN 40	267	114	178	180	225	128	99	320	255	103
	1,5-1450		267	114	178	180	225	128	99	320	255	105
	2,2-1450		292	114	178	180	225	128	99	320	255	113
	3-1450		292	114	178	180	225	128	99	320	255	116
PM - 40/315	2,2-1450	DN 65 - DN 40	292	100	185	200	250	127	100	348	280	91
	3-1450		292	100	185	200	250	127	100	348	280	94
	4-1450		336	100	185	200	250	127	100	348	280	101
	5,5-1450		396	100	198	200	250	127	100	348	280	111
PM - 50/125	0,37-1450	DN 65 - DN 50	223	100	154	132	160	100	77	240	190	35
	0,55-1450		244	100	164	132	160	100	77	240	190	38
	0,75-1450		244	100	164	132	160	100	77	240	190	39
PM - 50/160	0,75-1450	DN 65 - DN 50	244	110	167	160	180	100	75	268	214	41
	1,1-1450		267	110	167	160	180	100	75	268	214	42
	1,5-1450		267	110	167	160	180	100	75	268	214	44
PM - 50/200	1,1-1450	DN 65 - DN 50	267	110	172	160	200	108	80	269	216	53
	1,5-1450		267	110	172	160	200	108	80	269	216	56
	2,2-1450		292	110	172	160	200	108	80	269	216	62
	3-1450		292	110	172	160	200	108	80	269	216	68

CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 50/250	2,2-1450	DN 65 - DN 50	292	101	186	180	225	124	97	316	248	116
	3-1450		292	101	186	180	225	124	97	316	248	119
	4-1450		336	101	186	180	225	124	97	316	248	126
	5,5-1450		396	101	199	180	225	124	97	316	248	136
PM - 50/315	4-1450	DN 80 - DN 50	336	125	193	225	280	126	99	348	280	157
	5,5-1450		396	125	206	225	280	126	99	348	280	167
	7,5-1450		396	125	206	225	280	126	99	348	280	188
	11-1450		476	125	246	225	280	126	99	348	280	213
PM - 65/125	0,55-1450	DN 65 - DN 50	244	100	164	160	180	125	102	280	215	39
	0,75-1450		244	100	164	160	180	125	102	280	215	42
	1,1-1450		244	100	164	160	180	125	102	280	215	46
PM - 65/160	1,1-1450	DN 80 - DN 65	267	108	167	160	200	127	100	282	214	50
	1,5-1450		267	108	167	160	200	127	100	282	214	53
	2,2-1450		292	108	167	160	200	127	100	282	214	59
PM - 65/200	1,5-1450	DN 80 - DN 65	267	104	174	180	225	136	109	323	255	65
	2,2-1450		292	104	174	180	225	136	109	323	255	67
	3-1450		292	104	174	180	225	136	109	323	255	70
	4-1450		336	104	174	180	225	136	109	323	255	77
PM - 65/250	3-1450	DN 80 - DN 65	292	100	194	200	250	160	125	365	278	138
	4-1450		336	100	194	200	250	160	125	365	278	145
	5,5-1450		396	100	207	200	250	160	125	365	278	155
	7,5-1450		396	100	207	200	250	160	125	365	278	176
PM - 65/315	5,5-1450	DN 80 - DN 65	396	128	204	225	280	160	125	405	315	165
	7,5-1450		336	128	204	225	280	160	125	405	315	176
	11-1450		476	128	244	225	280	160	125	405	315	201
	15-1450		476	128	244	225	280	160	125	405	315	215
PM - 65/400	11-1450	DN 80 - DN 65	476	125	244	260	355	160	130	435	355	208
	15-1450		476	125	244	260	355	160	130	435	355	222
	18,5-1450		519	125	244	260	355	160	130	435	355	251
	22-1450		519	125	244	260	355	160	130	435	355	259
	30-1450		555	125	244	260	355	160	130	435	355	311
PM - 80/160	1,5-1450	DN 80 - DN 65	267	126	174	180	225	126	99	331	263	60
	2,2-1450		292	126	174	180	225	126	99	331	263	67
	3-1450		292	126	174	180	225	126	99	331	263	70
PM - 80/200	3-1450	DN 100 - DN 80	292	130	194	180	250	126	102	345	280	103
	4-1450		336	130	194	180	250	126	102	345	280	112
	5,5-1450		396	130	207	180	250	126	102	345	280	122
PM - 80/250	4-1450	DN 100 - DN 80	336	127	197	200	280	160	125	405	317	161
	5,5-1450		396	127	210	200	280	160	125	405	317	171
	7,5-1450		396	127	210	200	280	160	125	405	317	192
	11-1450		476	127	250	200	280	160	125	405	317	217

CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 80/315	7,5-1450	DN 100 - DN 80	396	126	206	250	315	160	125	404	315	218
	11-1450		476	126	246	250	315	160	125	404	315	243
	15-1450		476	126	246	250	315	160	125	404	315	257
	18,5-1450		519	126	246	250	315	160	125	404	315	286
PM - 80/400	18,5-1450	DN 100 - DN 80	519	125	257	280	355	160	125	440	355	274
	22-1450		519	125	257	280	355	160	125	440	355	282
	30-1450		555	125	257	280	355	160	125	440	355	334
	37-1450		625	125	287	280	355	160	125	440	355	384
PM - 100/160	3-1450	DN 125 - DN 100	292	120	199	200	280	160	125	363	278	108
	4-1450		336	120	199	200	280	160	125	363	278	115
	5,5-1450		396	120	212	200	280	160	125	363	278	125
PM - 100/200	3-1450	DN 125 - DN 100	292	127	196	200	280	163	130	360	285	175
	4-1450		336	127	196	200	280	163	130	360	285	182
	5,5-1450		396	127	124	200	280	163	130	360	285	192
	7,5-1450		396	127	124	200	280	163	130	360	285	213
PM - 100/250	5,5-1450	DN 125 - DN 100	396	142	207	225	280	160	126	395	315	201
	7,5-1450		396	142	207	225	280	160	126	395	315	222
	11-1450		476	142	247	225	280	160	126	395	315	247
	15-1450		476	142	247	225	280	160	126	395	315	261
PM - 100/315	11-1450	DN 125 - DN 100	476	140	247	250	315	160	124	401	315	271
	15-1450		476	140	247	250	315	160	124	401	315	285
	18,5-1450		519	140	247	250	315	160	124	401	315	314
	22-1450		519	140	247	250	315	160	124	401	315	322
	30-1450		555	140	247	250	315	160	124	401	315	374
PM - 100/400	22-1450	DN 125 - DN 100	519	147	254	280	355	200	155	505	399	442
	30-1450		555	147	254	280	355	200	155	505	399	497
	37-1450		625	147	284	280	355	200	155	505	399	535
	45-1450		625	147	284	280	355	200	155	505	399	580
	55-1450		745	147	284	280	355	200	155	505	399	665
PM - 125/200	7,5-1450	DN 150 - DN 125	396	143	208	250	315	160	130	400	315	237
	11-1450		476	143	248	250	315	160	130	400	315	262
	15-1450		476	143	248	250	315	160	130	400	315	276
PM - 125/250	11-1450	DN 150 - DN 125	476	137	250	250	355	160	125	400	315	278
	15-1450		476	137	250	250	355	160	125	400	315	292
	18,5-1450		519	137	250	250	355	160	125	400	315	321
	22-1450		519	137	250	250	355	160	125	400	315	329

CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (1450 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 125/315	15-1450	DN 150 - DN 125	476	140	257	280	355	200	155	506	401	329
	18,5-1450		519	140	257	280	355	200	155	506	401	358
	22-1450		519	140	257	280	355	200	155	506	401	366
	30-1450		555	140	257	280	355	200	155	506	401	418
	37-1450		625	140	287	280	355	200	155	506	401	468
PM - 125/400	37-1450	DN 150 - DN 125	625	144	287	315	400	200	155	502	396	413
	45-1450		625	144	287	315	400	200	155	502	396	450
	55-1450		745	144	287	315	400	200	155	502	396	475
PM - 150/200	11-1450	DN 200 - DN 150	476	162	246	280	355	204	158	513	403	336
	15-1450		476	162	246	280	355	204	158	513	403	350
	18,5-1450		519	162	246	280	355	204	158	513	403	379
PM - 150/250	15-1450	DN 200 - DN 150	476	160	247	280	380	205	159	515	403	380
	18,5-1450		519	160	247	280	380	205	159	515	403	409
	22-1450		519	160	247	280	380	205	159	515	403	417
	30-1450		555	160	247	280	380	205	159	515	403	469
PM - 150/315	22-1450	DN 200 - DN 150	519	160	257	280	400	200	155	560	450	421
	30-1450		555	160	257	280	400	200	155	560	450	473
	37-1450		625	160	287	280	400	200	155	560	450	523
	45-1450		625	160	287	280	400	200	155	560	450	560
PM - 150/400	45-1450	DN 200 - DN 150	625	160	287	315	450	200	154	560	450	472
	55-1450		745	160	287	315	450	200	154	560	450	497

CLOSE COUPLED CENTRIFUGAL PUMPS												
PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (2900 rpm)												
Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 32/125	1,1-2900	DN 50 - DN 32	244	82	156	112	140	105	81	220	160	35
	1,5-2900		247	82	156	112	140	105	81	220	160	37
	2,2-2900		267	82	156	112	140	105	81	220	160	40
	3-2900		267	82	156	112	140	105	81	220	160	40
PM - 32/160	3-2900	DN 50 - DN 32	292	79	175	132	160	103	79	240	190	59
	4-2900		336	79	175	132	160	103	79	240	190	67
	5,5-2900		292	79	175	132	160	103	79	240	190	69
	7,5-2900		336	79	175	132	160	103	79	240	190	74
PM - 32/200	5,5-2900	DN 50 - DN 32	396	80	189	160	180	102	79	244	190	77
	7,5-2900		396	80	176	160	180	102	79	244	190	81
	11-2900		396	80	176	160	180	102	79	244	190	125
PM - 32/250	7,5-2900	DN 50 - DN 32	396	102	197	180	225	126	100	320	260	91
	11-2900		476	102	237	180	225	126	100	320	260	135
	15-2900		476	102	237	180	225	126	100	320	260	142
PM - 40/125	2,2-2900	DN 65 - DN 40	247	80	164	112	140	100	79	208	160	53
	3-2900		267	80	164	112	140	100	79	208	160	60
	4-2900		292	80	186	112	140	100	79	208	160	68
	5,5-2900		292	80	186	112	140	100	79	208	160	70
PM - 40/160	4-2900	DN 65 - DN 40	336	90	172	132	160	103	78	246	190	45
	5,5-2900		396	90	185	132	160	103	78	246	190	53
	7,5-2900		396	90	185	132	160	103	78	246	190	60
	11-2900		396	90	185	132	160	103	78	246	190	72
PM - 40/200	7,5-2900	DN 65 - DN 40	396	100	191	160	180	102	77	270	214	84
	11-2900		476	100	231	160	180	102	77	270	214	128
	15-2900		476	100	231	160	180	102	77	270	214	135
PM - 40/250	11-2900	DN 65 - DN 40	476	114	231	180	225	128	99	320	255	141
	15-2900		476	114	231	180	225	128	99	320	255	148
	18,5-2900		476	114	231	180	225	128	99	320	255	163
	22-2900		519	114	231	180	225	128	99	320	255	186
	30-2900		555	114	231	180	225	128	99	320	255	223
PM - 50/125	3-2900	DN 65 - DN 50	292	100	186	132	160	100	77	240	190	61
	4-2900		336	100	186	132	160	100	77	240	190	69
	5,5-2900		396	100	198	132	160	100	77	240	190	71
	7,5-2900		396	100	198	132	160	100	77	240	190	76
PM - 50/160	5,5-2900	DN 65 - DN 50	396	110	181	160	180	100	75	268	214	74
	7,5-2900		396	110	181	160	180	100	75	268	214	79
	11-2900		476	110	221	160	180	100	75	268	214	123

CLOSE COUPLED CENTRIFUGAL PUMPS

PM Series Horizontal Single Stage Closed Coupled Centrifugal Pumps (2900 rpm)

Pump Type	Power (kW) Speed(RPM)	Inlet & Outlet	Dimensions (mm)									Weight (kg)
			H	L	A	B	H1	H2	N	M	G	
PM - 50/250	11-2900	DN 65 - DN 50	476	110	226	160	200	108	80	269	216	131
	15-2900		476	110	226	160	200	108	80	269	216	138
	15-2900		476	110	226	160	200	108	80	269	216	153
	18,5-2900		476	110	226	160	200	108	80	269	216	176
PM - 50/250	18,5-2900	DN 65 - DN 50	476	101	239	180	225	124	97	316	248	166
	22-2900		519	101	239	180	225	124	97	316	248	189
	30-2900		555	101	239	180	225	124	97	316	248	226
	37-2900		555	101	239	180	225	124	97	316	248	245
PM - 65/125	4-2900	DN 80 - DN 65	336	100	186	160	180	125	102	280	215	64
	5,5-2900		396	100	198	160	180	125	102	280	215	76
	7,5-2900		396	100	198	160	180	125	102	280	215	86
	11-2900		476	100	238	160	180	125	102	280	215	112
PM - 65/160	11-2900	DN 80 - DN 65	476	108	221	160	200	127	100	282	214	127
	15-2900		476	108	221	160	200	127	100	282	214	134
	18,5-2900		476	108	221	160	200	127	100	282	214	149
PM - 65/200	18,5-2900	DN 80 - DN 65	476	104	227	180	225	136	109	323	255	159
	22-2900		519	104	227	180	225	136	109	323	255	182
	30-2900		555	104	227	180	225	136	109	323	255	219
	37-2900		555	104	227	180	225	136	109	323	255	235
PM - 65/250	22-2900	DN 80 - DN 65	519	100	247	200	250	160	125	365	278	201
	30-2900		555	100	247	200	250	160	125	365	278	238
	37-2900		555	100	247	200	250	160	125	365	278	257
	45-2900		625	100	247	200	250	160	125	365	278	299
	55-2900		745	100	277	200	250	160	125	365	278	333
PM - 80/160	11-2900	DN 100 - DN 80	476	126	227	180	225	126	99	331	263	134
	15-2900		476	126	227	180	225	126	99	331	263	141
	18,5-2900		519	126	227	180	225	126	99	331	263	156
	22-2900		519	126	227	180	225	126	99	331	263	179
PM - 80/200	22-2900	DN 100 - DN 80	519	130	247	180	250	126	102	345	280	205
	30-2900		555	130	247	180	250	126	102	345	280	245
	37-2900		555	130	247	180	250	126	102	345	280	264
	45-2900		625	130	247	180	250	126	102	345	280	315
PM - 80/250	37-2900	DN 100 - DN 80	555	127	250	200	280	160	125	405	317	268
	45-2900		625	127	250	200	280	160	125	405	317	310
	55-2900		745	127	280	200	280	160	125	405	317	344
PM - 100/160	30-2900	DN 125 - DN 100	555	120	252	200	280	160	125	363	278	305
	37-2900		555	120	252	200	280	160	125	363	278	324
	45-2900		625	120	252	200	280	160	125	363	278	367
PM - 100/200	37-2900	DN 125 - DN 100	555	127	249	200	280	163	130	360	285	268
	45-2900		625	127	249	200	280	163	130	360	285	310
	55-2900		745	127	279	200	280	163	130	360	285	344
PM - 100/250	45-2900	DN 125 - DN 100	625	142	247	225	280	160	126	395	315	319
	55-2900		745	142	277	225	280	160	126	395	315	353

General

From the hydraulic point of view, PH pumps are centrifugal single stage, horizontal, volute type pumps. With regards to the mechanical design, the main concept of the series is to a maximum, the mechanical seal and ball bearings from the source of heat that constitutes the pump casing, placing between both a thermal barrier and cooling the mechanical seal housing and bearing support by natural convection. Pump and motor are fitted on a common baseplate connected to each other by a flexible coupling. Main pump dimensions are compatible with DIN 24256 (ISO 2858).

Application

- Transfer of heat transfer fluid.
- Chemical installations and refineries.
- Paper and sugar industry
- Food and pharmaceutical industries
- Leather industry
- Plastic and synthetic fiber industries.
- Vulcanizing and heating industry
- Textile industry.

Technical Specifications

- Horizontal, single stage, end suction, centrifugal type
- **Seal:** Mechanical

Material

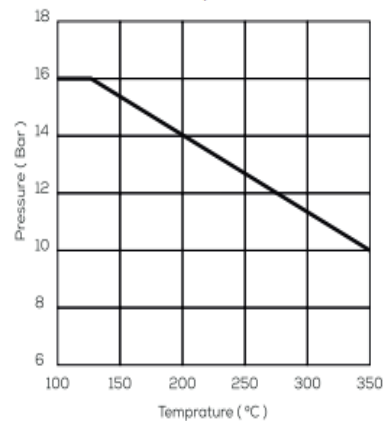
- **Pump Body:** Nodular Cast Iron GJS-400-15 (ASTM) (GGG 40)-A536 Gr. 60-40-18
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM) - A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

Optional

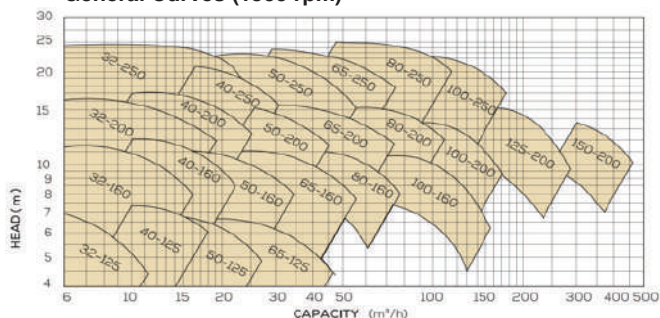
- Frequency controlled panel,
- Mechanical seal for high temperature and various fluids,
- Cast Steel G-X5 CrNiMo 19-11-2 for pump body,
- Cast Steel G-X5 CrNiMo 19-11-2 for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material



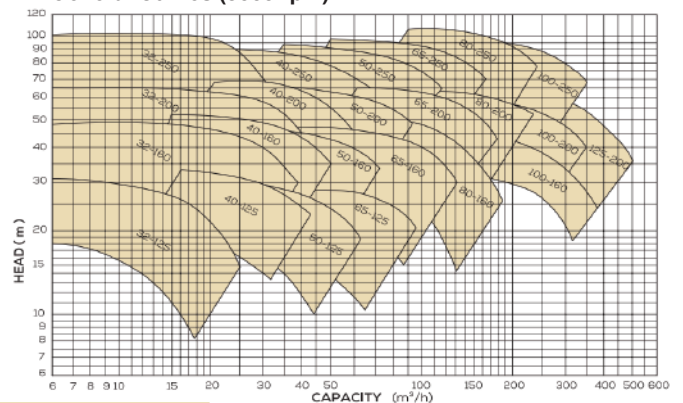
Pressure & Temperature Limits



General Curves (1500 rpm)



General Curves (3000 rpm)



HOT OIL SINGLE STAGE CENTRIFUGAL BARE SHAFT PUMPS			
PH Series Hot Oil Horizontal Single Stage Centrifugal Bare Shaft Pumps (2900 rpm)			
Pump Type	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PH - 32/125	1,1-2900	DN 50 - DN 32	30
	1,5-2900		
	2,2-2900		
	3-2900		
PH - 32/160	3-2900	DN 50 - DN 32	34
	4-2900		
	5,5-2900		
	7,5-2900		
PH - 32/200	5,5-2900	DN 50 - DN 32	39
	7,5-2900		
	11-2900		
PH - 32/250	7,5-2900	DN 50 - DN 32	50
	11-2900		
	15-2900		
PH - 40/125	2,2-2900	DN 65 - DN 40	32
	3-2900		
	4-2900		
	5,5-2900		
PH - 40/160	4-2900	DN 65 - DN 40	35
	5,5-2900		
	7,5-2900		
	11-2900		
PH - 40/200	7,5-2900	DN 65 - DN 40	40
	11-2900		
	15-2900		
PH - 40/250	11-2900	DN 65 - DN 40	53
	15-2900		
	18,5-2900		
	22-2900		
	30-2900		
PH - 50/125	3-2900	DN 65 - DN 50	35
	4-2900		
	5,5-2900		
	7,5-2900		
PH - 50/160	5,5-2900	DN 65 - DN 50	38
	7,5-2900		
	11-2900		
PH - 50/250	11-2900	DN 65 - DN 50	43
	15-2900		
	18,5-2900		
	22-2900		
PH - 50/250	18,5-2900	DN 65 - DN 50	56
	22-2900		
	30-2900		
	37-2900		

HOT OIL SINGLE STAGE CENTRIFUGAL BARE SHAFT PUMPS			
PH Series Hot Oil Horizontal Single Stage Centrifugal Bare Shaft Pumps (2900 rpm)			
Pump Type	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PH - 65/125	4-2900	DN 80 - DN 65	39
	5,5-2900		
	7,5-2900		
	11-2900		
PH - 65/160	11-2900	DN 80 - DN 65	42
	15-2900		
	18,5-2900		
PH - 65/200	18,5-2900	DN 80 - DN 65	47
	22-2900		
	30-2900		
PH - 65/250	37-2900	DN 80 - DN 65	76
	22-2900		
	30-2900		
	37-2900		
PH - 80/160	45-2900	DN 80 - DN 65	47
	55-2900		
	11-2900		
	15-2900		
PH - 80/200	18,5-2900	DN 80 - DN 65	73
	22-2900		
	30-2900		
PH - 80/250	37-2900	DN 100 - DN 80	80
	45-2900		
	55-2900		
	75-2900		
PH - 100/160	30-2900	DN 125 - DN 100	68
	37-2900		
	45-2900		
PH - 100/200	30-2900	DN 125 - DN 100	72
	37-2900		
	45-2900		
	55-2900		
PH - 100/250	45-2900	DN 125 - DN 100	85
	55-2900		
	75-2900		
	90-2900		
PH - 125/200	110-2900	DN 125 - DN 100	89
	45-2900		
	55-2900		
	75-2900		

HOT OIL SINGLE STAGE CENTRIFUGAL BARE SHAFT PUMPS			
PH Series Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Model	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PH - 32/125	0,37-1450	DN 50 - DN 32	30
PH - 32/160	0,37-1450	DN 50 - DN 32	34
	0,55-1450		
PH - 32/200	0,37-1450	DN 50 - DN 32	39
	0,75-1450		
PH - 32/250	1,1-1450	DN 50 - DN 32	50
	1,5-1450		
	2,2-1450		
	3-1450		
PH - 40/125	0,25-1450	DN 65 - DN 40	32
	0,37-1450		
PH - 40/160	0,55-1450	DN 65 - DN 40	35
	0,75-1450		
	1,1-1450		
PH - 40/200	0,75-1450	DN 65 - DN 40	40
	1,1-1450		
	1,5-1450		
	2,2-1450		
PH - 40/250	1,1-1450	DN 65 - DN 40	53
	1,5-1450		
	2,2-1450		
	3-1450		
PH - 50/125	0,37-1450	DN 65 - DN 50	35
	0,55-1450		
	1,1-1450		
PH - 50/160	0,75-1450	DN 65 - DN 50	38
	1,1-1450		
	1,5-1450		
PH - 50/200	1,1-1450	DN 65 - DN 50	43
	1,5-1450		
	2,2-1450		
PH - 50/250	2,2-1450	DN 65 - DN 50	56
	3-1450		
	4-1450		
	5,5-1450		
PH - 65/125	0,75-1450	DN 65 - DN 50	39
	1,1-1450		
	1,5-1450		

HOT OIL SINGLE STAGE CENTRIFUGAL BARE SHAFT PUMPS			
PH Series Hot Oil Horizontal Single Stage Centrifugal Bare Shaft Pumps (1450 rpm)			
Pump Type	Power (kW) Speed (RPM)	Inlet & Outlet	Weight (kg)
PH - 65/160	1,1-1450	DN 80 - DN 65	42
	1,5-1450		
	2,2-1450		
PH - 65/200	1,5-1450	DN 80 - DN 65	47
	2,2-1450		
	3-1450		
PH - 65/250	3-1450	DN 80 - DN 65	76
	4-1450		
	5,5-1450		
	7,5-1450		
PH - 80/160	1,5-1450	DN 80 - DN 65	47
	2,2-1450		
	2,2-1450		
PH - 80/200	3-1450	DN 100 - DN 80	73
	4-1450		
	5,5-1450		
PH - 80/250	4-1450	DN 100 - DN 80	81
	5,5-1450		
	7,5-1450		
	11-1450		
PH - 100/160	3-1450	DN 125 - DN 100	68
	4-1450		
	5,5-1450		
PH - 100/200	3-1450	DN 125 - DN 100	72
	4-1450		
	5,5-1450		
	7,5-1450		
PH - 100/250	5,5-1450	DN 125 - DN 100	85
	7,5-1450		
	11-1450		
	15-1450		
PH - 125/200	7,5-1450	DN 150 - DN 125	89
	11-1450		
	15-1450		
PH - 150/200	11-1450	DN 150 - DN 125	135
	15-1450		
	18,5-1450		

General

Single stage pumps with radial suction and discharge ports on the same axis (inline), suitable for use in heating systems conforming to VDI 2035, hot and cold domestic water systems, cooling/condense water systems, water/glycol mixtures. Pump shaft is sealed by soft packing (mechanical seals as an option), pumps require very low maintenance and they possess good cavitation free operation. Pump shaft is horizontal and pump body is constructed in two halves that may be split horizontally at shaft axis. This design provides ease of maintenance on pump's hydraulic parts without disassembling the pump or the driver motor. Produced in PN16 and PN25 nominal pressure classes, they may be used in ambient temperatures up to 40°C and fluid temperatures between -10°C and 90°C. Pump body and impeller are manufactured from GG25, pump shaft from X20Cr13, shaft packing sleeves from AISI 304 stainless steel, wearing rings from bronze. Pump and motor shafts are coupled by a coupling. Coupling protection provides complete protection and conforms to equipment operational safety standard EN294 and DIN 31001 norm. Drive motor is a standard motor with insulation class of F and protection class of IP55.

Advantages of split case pumps

- Easy installation, low space requirements.
- Does not require any special maintenance during operation. Long operational life.
- High efficiency. Saves electricity in operation
- Easy installation, low space requirements.
- Shaft sealing can be accomplished by mechanical seal. The mechanical seals does not require adjustment, may operate regardless of the rotational direction and of self cooling type.

Technical Specifications

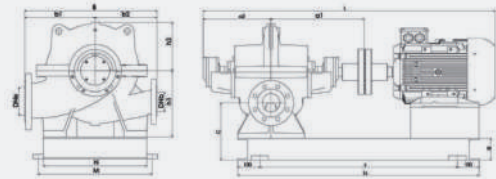
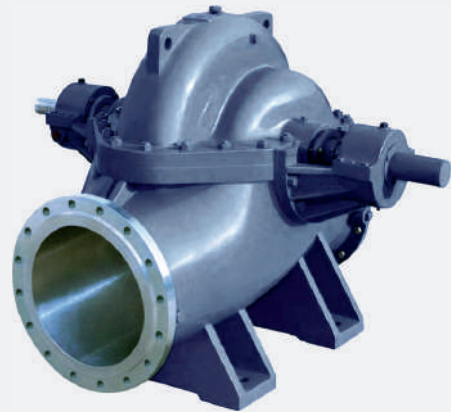
- Horizontal, single stage, split case, centrifugal type
- **Seal:** Soft package

Material

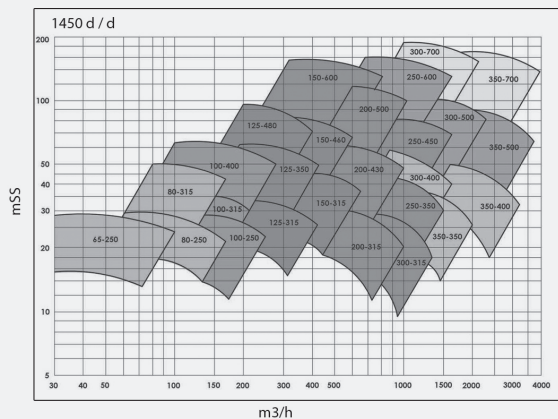
- **Pump Body:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Impeller:** Cast Iron GJL-250 (ASTM)(GG 25) - A48 Class 40-B (EN-DIN) - 0.6025 (DIN17007)
- **Shaft:** Stainless steel X20Cr13 (ASTM) - A 276 TYPE 420 (EN-DIN) 1.4021 (DIN17007)

Optional

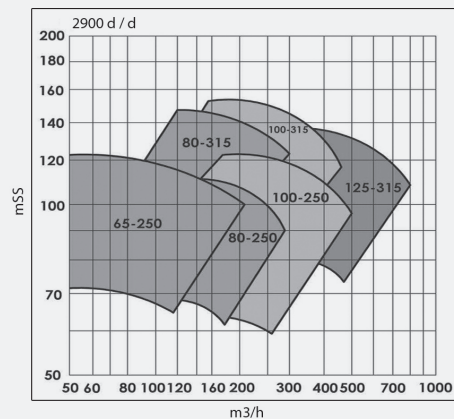
- Frequency controlled panel,
- Mechanical seal for high temperature and various fluids,
- Nodular Cast Iron GJS-400-15 (GGG-40) sphero for pump body,
- G-CuSn10 bronz / GJS-400-15 sphero / stainless steel for impeller,
- XS CrNiMo 17-12-2 (316) / XS CrNiMo 17-12-2 (316L) stainless steel shaft material.



General Curves (1500 rpm)



General Curves (3000 rpm)



SPLIT CASE CENTRIFUGAL PUMPS																
PA Series Split Case Bare Shaft Centrifugal Pumps (2900 rpm)																
Model	Motor Power (kW)	Inlet/Outlet	Dimensions (mm)													Weight (kg)
			a1	a2	A	C	L	Is	N	M	g	b1	b2	h1	h3	
PA 65/250	37	DN 100	400	310	710	300	1,380	1,163	460	510	140	320	280	300	200	440
	45	-	400	310	710	300	1,450	1,185	460	510	140	320	280	300	200	479
	55	DN 65	400	310	710	300	1,601	1,287	460	510	140	320	280	300	200	605
	75	-	400	310	710	300	1,740	1,377	460	510	140	320	280	300	200	798
PA 80/250	55	DN 125	400	310	710	300	1,601	1,287	460	510	140	320	280	300	200	616
	75	-	400	310	710	300	1,740	1,377	460	510	140	320	280	300	200	809
	110	DN 80	400	310	710	300	1,740	1,377	460	510	140	320	280	300	200	847
PA 80/315	110	DN 125	400	310	710	260	1,740	1,377	460	510	140	360	300	300	260	1,009
	132	-	400	310	710	260	1,835	1,482	620	670	140	360	300	300	260	1,102
	160	DN 80	400	310	710	260	1,835	1,482	620	670	140	360	300	300	260	1,174
PA 100/250	75	DN 150	450	350	800	325	1,830	1,447	480	530	140	360	310	355	235	858
	90	-	450	350	800	325	1,830	1,447	480	530	140	360	310	355	235	897
	132	DN 100	450	350	800	325	1,925	1,552	620	670	140	360	310	355	235	1,128
PA 100/315	90	DN 150	450	350	800	325	1,830	1,447	1,247	530	140	360	310	355	250	908
	160	-	450	350	800	325	1,925	1,552	1,352	670	140	360	310	355	250	1,210
	200	DN 100	450	350	800	325	1,995	1,573	1,373	670	140	360	310	355	250	1,298

SPLIT CASE CENTRIFUGAL PUMPS																
PA Series Split Case Bare Shaft Centrifugal Pumps (1450 rpm)																
Model	Motor Power (kW)	Inlet/Outlet	Dimensions (mm)													Weight (kg)
			a1	a2	A	C	L	Is	N	M	g	b1	b2	h1	h3	
PA 65/250	4	DN 100	400	310	710	260	1,111	861	460	510	100	320	280	300	200	214
	5,5	-	400	310	710	260	1,191	900	460	510	100	320	280	300	200	225
	7,5	DN 65	400	310	710	260	1,191	900	460	510	100	320	280	300	200	234
	11	-	400	310	710	260	1,291	1,028	460	510	100	320	280	300	200	263
PA 80/250	7,5	DN 125	400	310	710	260	1,191	900	460	510	100	320	280	300	200	245
	11	-	400	310	710	260	1,291	1,028	460	510	100	320	280	300	200	274
	15	DN 80	400	310	710	260	1,291	1,072	460	510	100	320	280	300	200	347
PA 80/315	15	DN 125	400	310	710	260	1,291	1,072	460	510	100	360	300	300	200	371
	18,5	-	400	310	710	260	1,344	1,072	460	510	100	360	300	300	200	382
	30	DN 80	400	310	710	260	1,380	1,163	460	510	100	360	300	300	200	476
PA 100/250	7,5	DN 150	450	350	800	285	1,281	970	480	530	100	360	310	355	235	294
	15	-	450	350	800	285	1,381	1,142	480	530	100	360	310	355	235	396
	22	DN 100	450	350	800	285	1,434	1,180	480	530	100	360	310	355	235	429
PA 100/315	15	DN 150	450	350	800	285	1,381	1,142	480	530	100	360	310	355	250	407
	22	-	450	350	800	285	1,434	1,180	480	530	100	360	310	355	250	440
	30	DN 100	450	350	800	285	1,470	1,233	480	530	100	360	310	355	250	512

General

DR-R / S / SL pump is designed for clean or moderately dirty fluids. It uses to pump drain water, infiltration water, and domestic waste water and to remove water from flooded rooms in emergency conditions. It is also used to transfer between tanks and cisterns, emptying ponds, decorative waterfalls, pool and elevator pits. DR-R / S / SL pump is designed for clean or moderately dirty fluids that even under the float switch. It has a cooling jacket so it can work with very low water level even don't pass pump height.

Technical Specifications

- **Maximum liquid temperature:** 0-40 °C
- **Maximum immersion depth:** 7m
- Equipped with float switch as standard

Material

- **Pump Body:** Hardening Thermoplastic
- **Pump Delivery Body:** Hardening Thermoplastic
- **Pump Shaft:** Stainless Steel
- **Impeller:** Hardening Thermoplastic



DR Series Drainage Pumps with Plastic Body

Model	Power (kW)	Outlet	m ³ /h					Voltage	
			0	2.7	4.3	5.6	7.0		
DR-R 50S MF	0.4	1 1/4"	m S S	6	4	3	3	2	230 V
DR-R 70S MF	0.5			8	6	5	4	3	
DR-R 80S MF	0.55			9	7	6	5	3	

Model	Power (kW)	Outlet	m ³ /h					Voltage	
			0	3.7	5.6	7.5	8.5		
DR-R 50SL MF	0.4	1 1/2"	m S S	5	3,5	3	2,5	2	230 V
DR-R 70SL MF	0.55			8	7,2	6,8	6	5	
DR-R 80SL MF	0.75			8,5	7,8	7,2	6,5	6	

General

DR-R / X / XL pumps series are designed for clean or moderately dirty fluids. It uses to pump drain water, infiltration water, and domestic waste water and to remove water from flooded rooms in emergency conditions. It is also used to transfer between tanks and cisterns, emptying ponds, decorative waterfalls, pool and elevator pits. DR-FX series are designed fully made of stainless steel for dirty and phoseptic, sewage, and rainwater, for liquids which are compatible with the pump materials. It is for both domestic and professional use.

Technical Specifications

- Recessed vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: B**
- **Maximum liquid temperature: 0-40 °C**
- **Maximum immersion depth: 7m**
- Equipped with float switch as standard

Material

- **Pump Body:** Stainless Steel
- **Pump Delivery Body:** Stainless Steel
- **Pump Shaft:** Stainless Steel
- **Impeller:** Hardening Thermoplastic for DR-X&DR-XL series, Stainless Steel for DR-FX series.



DR Series Drainage Pumps with Stainless Steel Body

Model	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	2.7	4.3	5.6	7.0	
DR-X 50 MF	0.4	1 1/4"	mWc	6	4	3	2.5	1.7	230 V 50 Hz
DR-X 75 MF	0.5			8	6	4.9	4	3	
DR-X 100 MF	0.55			8.5	6.8	5.5	4.7	3.3	

Pompa Tipi	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	3.7	5.6	7.5	8.5	
DR-XL 50 MF	0.55	1 1/2"	mWc	5	3.5	3	2.5	2	230 V 50 Hz
DR-XL 75 MF	0.75			8	7.2	6.8	6	5	
DR-XL 100 MF	1			8.5	7.8	7.2	6.5	6	

DR Series All Stainless Steel Submersible Pumps

Model	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	12	18	24	31	
DR-FX 150 MF	1.1	2"	mWc	9	7.5	5.7	3		230 V 50 Hz
DR-FX 200 MF	1.5			13	11	10	8	7	
DR-FX 200 T	1.5	2"	mWc	13	11	10	8	7	230 V 50 Hz
DR-FX 300 T	2.2			17	16	15	13	10	

General

DR-R series pump is designed for heavy-duty applications with soiled biological waste waters, sewage, rain waters for liquids which are compatible with the pump materials. They are suitable for both domestic and professional use. It uses to pump drain water and ground water from installations in or around industrial plants, farms and buildings. They are also suitable for use in applications such as draining flooded areas (garages, cellars, basements, warehouses, parking lots) to transfer water between tanks, emptying ponds, decorative waterfalls, fountains and elevator pits.

Technical Specifications

- Recessed vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: B**
- **Maximum liquid temperature: 0-40 °C**
- **Maximum immersion depth: 10m**
- Equipped with float switch as standard for monophase
- Continuous duty (with submerged motor)
- Control panel and float on request for 380 V

Material

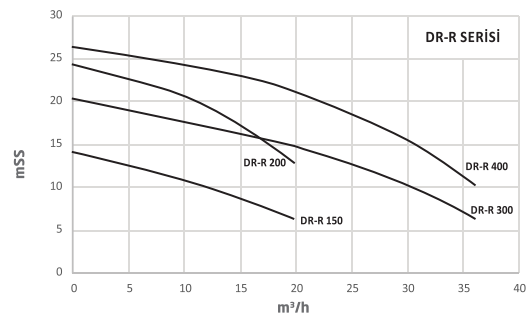
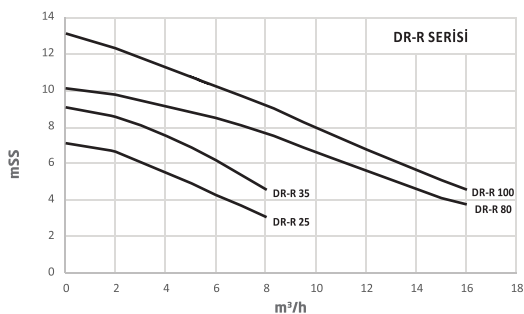
- **Pump Body:** Stainless Steel
- **Pump Delivery Body:** GG-25 Cast iron
- **Pump Shaft:** Stainless Steel
- **Impeller:** GG-25 Cast Iron



DR Series Sewage Pumps

Booster Type	Power (kW)	Vol. (V) Freq.(Hz)	Voltage	Speed
DR-R / 25 MF	0.19	11/2"	230 V 50 Hz	2900 RPM
DR-R / 35 MF	0.25	11/2"		
DR-R / 80 MF	0.6	2"		
DR-R / 100 MF	0.75	2"		
DR-R / 150 MF	1.1	2"		
DR-R / 200 MF	1.5	2"		

DR-R / 100 T	0.75	11/2"	230 V 50 Hz	2900 RPM
DR-R / 150 T	1.1	11/2"		
DR-R / 200 T	1.5	2"		
DR-R / 300 T	2.2	3"		
DR-R / 400 T	3	3"		



General

DR-R / P / PL pump is designed for pumping clean or moderately dirty fluids have no particules It uses to pump drain water, infiltration water, and domestic waste water and to remove water from flooded rooms in emergency conditions. It is also used to transfer between tanks and cisterns, emptying ponds, decorative waterfalls, pool and elevator pits.

- DR-R / PX / PXL series are designed for dirty water has particules like sand, small stones etc. This series have high resistance to solid particular.

Technical Specifications

- Recessed vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: B**
- **Maximum liquid temperature: 0-40 °C**
- Equipped with float switch as standard for monophase
- Continuous duty (with submerged motor)

Material

- **Pump Body:** Stainless Steel
- **Pump Delivery Body:** GG-25 Cast Iron
- **Pump Shaft:** Stainless Steel
- **Impeller:** Hardening Thermoplastic for DR-P, Bronze for DR-PX



DR-R / P / PL / PX / PXL Series Drainage Pumps

Model	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	2	3.2	4.5	5.5	
DR-R 100P MF	0.75	1"	mWc	25	20	12			230 V 50 Hz
DR-R 100PL MF	0.75			30	25	20	14	11	
DR-R 150P MF	0.9			39	33	28	20	14	

Model	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	5	7	10	12	
DR-R 100PX M	0.75	1"	mWc	25	15	8			230 V 50 Hz
DR-R 150PX M	1.1			31	25	21		4	
DR-R 200PX M	1.5			41	36	33	20	13	
DR-R 250PX M	1.8			53	48	45	33	23	

Model	Power (kW)	Outlet	Head	Flow Rate (m ³ /h)					Voltage
				0	5	10	14	16	
DR-R 100PXL M	1.1	1 1/4"	mWc	21	20	16	14	10	230 V 50 Hz
DR-R 150PXL M	1.5			34	30	26	19	15	

General

DR-R / F / FL series pumps designed for pumping fluids which contains large solids like phoseptic and sewage waters. They have large capacity and power range available. Domestic and industrial raw sewage water pumping. Waste water handling plants. Pumping of floating solids in settlement pools. Pumping waste water to active screens. Pumping industrial and chemical waste water. Draining rain water. All kinds of drainage and miscellaneous waters in industrial plants.

Technical Specifications

- Two channel impeller
- Double mechanical seal
- **Voltage:** 380 V - 50 Hz
- 10 m cable
- IP68 Protection,
- **Insulation Class:** B
- **Maximum liquid temperature:** 0-40 °C
- **Maximum immersion depth:** 10m
- Continuous duty (with submerged motor)
- Control panel and float on request for 380 V
- **Maximum allowed particle size:** 30 mm

Material

- **Pump Body:** GG-25 Cast iron
- **Pump Delivery:** GG-25 Cast iron
- **Pump Shaft:** Satainless Steel
- **Impeller:** GG-25 Cast Iron



DR-R / F / FL Series Industrial Type Waste Water Submersible Pumps

Model	Power (kW)	Head	Flow Rate (m ³ /h)											Out.	RPM
			0	15	25	30	35	40	50	55	65	75	100		
DR-R / 200F T	1.5	mWc	20	16	12	10	7							2"	2900
DR-R / 300F T	2.2		21	16	15	13	12	10	6					2 1/2"	
DR-R / 400F T	3		22	18	17	16	15	14	13	12	10	5		3"	
DR-R / 550F T	4		24	20	19	18	17	16	15	14	13	10		3"	
DR-R / 750F T	5.5		39	34	31	29	28	26	20	8				3"	
DR-R / 1000F T	7.5		32	29	27	26	25	24	23	22	20	17	10	4"	

Model	Power (kW)	Head	Flow Rate (m ³ /h)											Out.	RPM
			0	30	40	60	70	75	80	100	120	140	180		
DR-R / 400FL T	3	mWc	22	17	14	12	10	8	7					2"	2900
DR-R / 550FL T	4		22	17	15	13	11	10	8	3				2 1/2"	
DR-R / 750FL T	5.5		26	22	21	19	18	16	15	14	11	7		3"	
DR-R / 1000FL T	7.5		19	18	17	16	15	14	13	12	11	9	5	3"	

General

DR-R / F4 / FL4 / FLB4 series pumps designed for pumping fluids which contents large solids like phoseptic and sewage waters. They have large capacity and power range available. Domestic and industrial raw sewage water pumping. Waste water handling plants. Pumping of floating solids in settlement pools. Pumping waste water to activescreens. Pumping industrial and chemical waste water. Draining rain water. All kinds of drainage and miscallaneous waters in industrial plants.

Technical Specifications

- Two channel impeller
- Double mechanical seal
- **Voltage:** 380 V - 50 Hz
- 10 m cable
- IP68 Protection,
- **Insulation Class:** B
- **Maximum liquid temperature:** 0-40 °C
- **Maximum immersion depth:** 10m
- Continuous duty (with submerged motor)
- Control panel and float on request for 380 V
- **Maximum allowed particle size:** 30 mm

Material

- **Pump Body:** GG-25 Cast iron
- **Pump Delivery:** GG-25 Cast iron
- **Pump Shaft:** Stainless Steel
- **Impeller:** GG-25 Cast Iron



DR-R / F4 / FL4 / FLB4 Series Industrial Type Waste Water Submersible Pumps

Model	Power (kW)	Head	Flow Rate (m ³ /h)											Out.	RPM
			0	60	80	110	120	130	135	140	150	155	165		
DR-R / 750F4 T	5.5	mWc	20	15	12	5								4"	1450
DR-R / 1000F4 T	7.5		23	17	15	10	7								
DR-R / 1500F4 T	11		25	23	22	18	17	16	15	14	13	12	11		
DR-R / 2000F4 T	15		36	32	30	26	24	22	21	20	16	15	10		

Model	Power (kW)	Head	Flow Rate (m ³ /h)											Out.	RPM
			0	100	120	150	180	200	250	320	365	380	400		
DR-R / 750FL4 T	5.5	mWc	14	10.0	9	5								6"	1450
DR-R / 1000FL4 T	7.5		17	12.0	11	9	5	3							
DR-R / 1500FL4 T	11		21	17.0	16	15.0	14	12	9	4					
DR-R / 2000FL4 T	15		25	22.0	21	20	19	18	15	9	4				
DR-R / 2500FL4 T	18.5		27	24	23	22	21	20	19	12	8	6	3		
DR-R / 3000FL4 T	22		30	27	26	25	23	22	20	16	15	10	6		

Model	Power (kW)	Head	Flow Rate (m ³ /h)											Out.	RPM
			0	150	180	220	250	290	320	350	370	400	430		
DR-R / 1500FLB4 T	11	mWc	22	16.0	14	12	11	8	5	2				8"	1450
DR-R / 2000FLB4 T	15		24	18.0	17	15	14	12	9	6	3				
DR-R / 2500FLB4 T	18.5		32	24.0	21	20.0	18	16	12	10	7	6			
DR-R / 3000FLB4 T	22		35	27.0	25	24	22	20	18	16	14	11	5		

General

DR-GR series pumps have grinder bottom of pump's inlet, are designed for septic, sewage and dirty water, operation in septic tanks and purifying installations, for removal of sewage from premises, small houses and buildings located at a distance and below the main sewer system, removal of sewage from basements, removal of sewage from hotels, motels, restaurants, holiday villages and seaside premises, for petrol stations, garages and motorway service stations, for drainage purposes. Removal of fibrous waste from purifying plants. For slaughter houses, paper plants, food processing plants, agricultural and similar fields.

Technical Specifications

- Vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: B**
- **Maximum liquid temperature: 0-40 °C**
- **Maximum immersion depth: 10m**
- Equipped with float switch as standard for monophase
- Continuous duty (with submerged motor)
- Control panel and float on request for 380 V

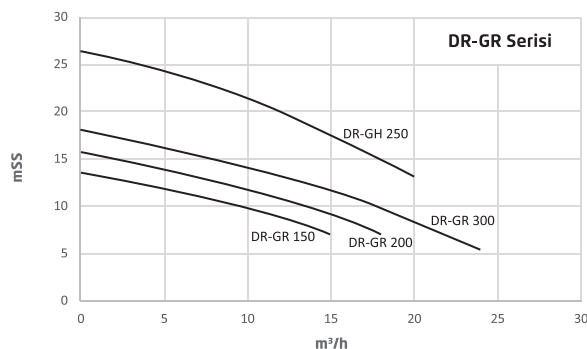
Material

- **Pump Body:** Stainless Steel
- **Pump Delivery Body:** GG-25 Cast iron
- **Pump Shaft:** Satainless Steel
- **Impeller:** GG-25 Cast Iron
- **Grinder Blade:** Hardening Steel



DR-GR Series Grinder Type Submersible Pumps

Model	Power (kW)	Outlet	Voltage	Speed (rpm)
DR-GR / 150 MF	1.1	2"	230 V 50 Hz	2900 d/d
DR-GR / 200 MF	1.5	2"		
DR-GR / 250 MF	1.8	2"		
DR-GR / 300 MF	2.2	2 1/2"		
DR-GR / 150 T	1.1	2"	230 V 50 Hz	2900 d/d
DR-GR / 200 T	1.5	2"		
DR-GR / 250 T	1.8	2"		
DR-GR / 300 T	2.2	2 1/2"		



General

DR-R / FG series pumps have grinder bottom of pump's inlet, are designed phoseptic, sewage and dirty water for removal of sewage from hotels, motels, restaurants, purifying plants, industrial areas etc. They have large capacity and power range available.

Technical Specifications

- Vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: B**
- **Maximum liquid temperature: 0-40 °C**
- Control panel and float on request for 380 V

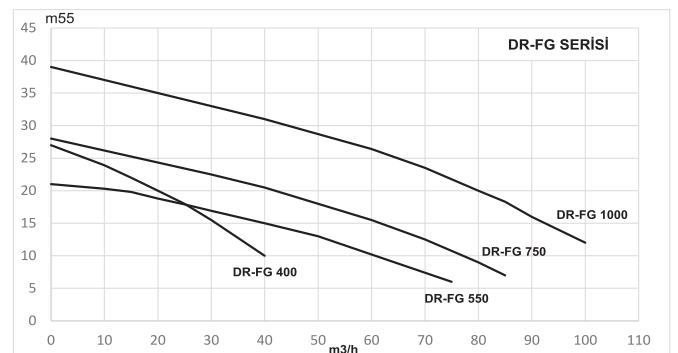
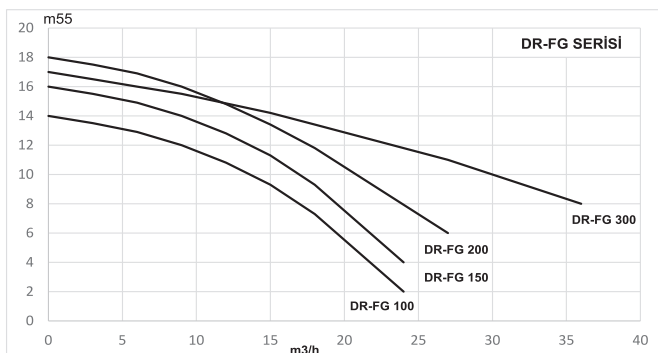
Material

- **Pump Body:** GG-25 Cast iron
- **Pump Delivery Body:** GG-25 Cast iron
- **Pump Shaft:** Satainless Steel
- **Impeller:** GG-25 Cast Iron
- **Grinder Blade:** Hardening Steel



DR-R / FG Series Grinder Type Submersible Pumps

Model	Power (kW)	Outlet	Voltage	Speed (rpm)
DR-R / 200FG T	1.5	2"	380 V 50 Hz	2900 rpm
DR-R / 300FG T	2.2	2"		
DR-R / 400FG T	3	2 1/2"		
DR-R / 550FG T	4	2 1/2"		
DR-R / 750FG T	5.5	2 1/2"		
DR-R / 1000FG T	7.5	3"		



General

DR-R / Z / ZL / ZXL / ZXLB series pumps designed for pumping fluids which contents solids like sands, slurry. DR-ZK series pumps designed for pumping foseptic fluids which contents solids like sands and bottom of the pumps have mixer for mixing the slurry. They have large capacity and power range available. Special design provide to high resistance sands and soils. Outlet of the pumps is on the top thus takes less space. They have a cooling jacket so it can work with very low water level even don't pass pump height.



Technical Specifications

- Open Vortex impeller
- Double mechanical seal
- 10 m cable
- **IP68 Protection, Insulation Class: H**
- **Maximum liquid temperature: 0-40 °C**
- **Maximum immersion depth: 40m**
- Control panel and float on request for 380 V

Material

- **Pump Body:** GG-25 Cast iron
- **Pump Delivery Body:** GG-25 Cast iron
- **Pump Shaft:** Stainless Steel
- **Impeller:** Hardening Steel
- **Mixer:** Sphero cast iron (for DR-ZK)

DR-R / Z / ZL / ZXL / ZXLB Series Waste Water Submersible Pumps with Cooling Jacket

Model	Power (kW)	Head	Flow Rate (m³/h)								Out.	Vol.	RPM
			0	5	10	20	30	50	60	80			
DR-R / 200Z T	1.5	mWc	18	16	15	9	3				2"	380 V 50 Hz	2900
DR-R / 300Z T	2.2		26	23	21	18	10						
DR-R / 500Z T	3.7		28	26	24	19	12						

DR-R / 200ZL T	1.5	mWc	14	13	12	10	7				3"	380 V 50 Hz	2900
DR-R / 300ZL T	2.2		17	16	15	12	10						
DR-R / 500ZL T	3.7		22	21	20	17	14	6					
DR-R / 750ZL T	5.5		32	30	29	27	25	18	13	8			

DR-R / 500ZLX T	3.7	mWc	17	16	15	14	13	10	5		4"	380 V 50 Hz	2900
DR-R / 750ZLX T	5.5		24	23	22	21	20	18	15	10			
DR-R / 1000ZLX T	7.5		40	39	38	37	35	28	22	6			
DR-R / 1500ZLX T	11		49	47	46	43	39	30	25	12			
DR-R / 2000ZLX T	15		55	54	53	51	50	44	42	29			

Model	Power (kW)	Head	Flow Rate (m³/h)								Out.	Vol.	RPM
			0	20	40	60	80	100	120	140			
DR-R / 1000 ZXLB T	7.5	mWc	31	30	27	24	21	15	11	5	6"	380 V 50 Hz	2900
DR-R / 1500 ZXLB T	11		33	32	30	28	25	22	17	8			
DR-R / 2000 ZXLB T	15		41	39	37	35	33	31	27	21			

DR-ZK Series with Cooling Jacket and Mixer

Model	Power (kW)	Head	Flow Rate (m³/h)								Out.	Vol.	RPM
			0	50	70	80	100	120	150	190			
DR-R / 550ZK T	4	mWc	14	11	9	7	4				3"	380 V 50 Hz	1450
DR-R / 800ZK T	6		17	15	14	13	12	9	6	2	4"		
DR-R / 1250ZK T	9.4		22	21	20	19	17	15	12	7	6"		

General

ALF ENERGY series automatic collection and lifting stations suitable for lifting clear and rain water, phoseptic water, as well as water loaded with civil and industrial waste. It consists of a cylindrical polyethylene monobloc, and an appropriately shaped bottom for the housing of the pump and for avolding water stagnation. The upper circle opening has polyethylene covers with locking system and smell prevention seals. The station is ready for the use of sewage water pumps, or non -single-phase draining pumps, or three-phase pumps. The pumps must be ordered separately in combination with the control panel and float switch. As standard delivery, available box, pump connections, lifting chain and non-return valves with ball.



Technical Specifications

- Full sealing
- Small cylindircal size
- One cover for single box, two cover for double box
- 2 pumps using for single box.

Material

- **Box body:** Polyurethane
- **Cover:** Polyurethane
- **Cover Lock:** Plastic
- **Pump(s) Connection:** Reinforced cloth hose



AST Series Waste Water Pump Sations with Single Pump

Model	Volume Lt	Outlet	Inlet (mm)	Cover Dia (mm)	Box Dia (mm)	Box Height (mm)
AST-BOX 40 / 1	40	1 1/4"	50	355	380	380
AST-BOX 50 / 1	50				420	450
AST-BOX 65 / 1	65				480	380
AST-BOX 80 / 1	80				420	600

AST Series Waste Water Pump Stations with Single Pump

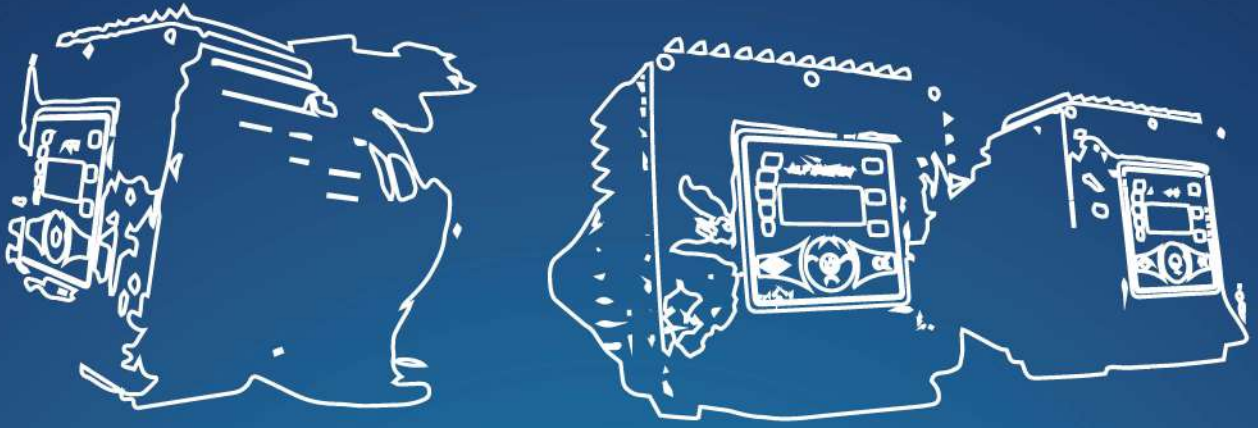
Model	Volume Lt	Outlet	Inlet (mm)	Cover Dia (mm)	Box Dia (mm)	Box Height (mm)
AST-BOX 100 / 1	100	2"	110	450	540	450
AST-BOX 150 / 1	150				540	650
AST-BOX 200 / 1	300				540	850
AST-BOX 300 / 1	300				630	900

AST Series Waste Water Pumps Stations with Double Pump

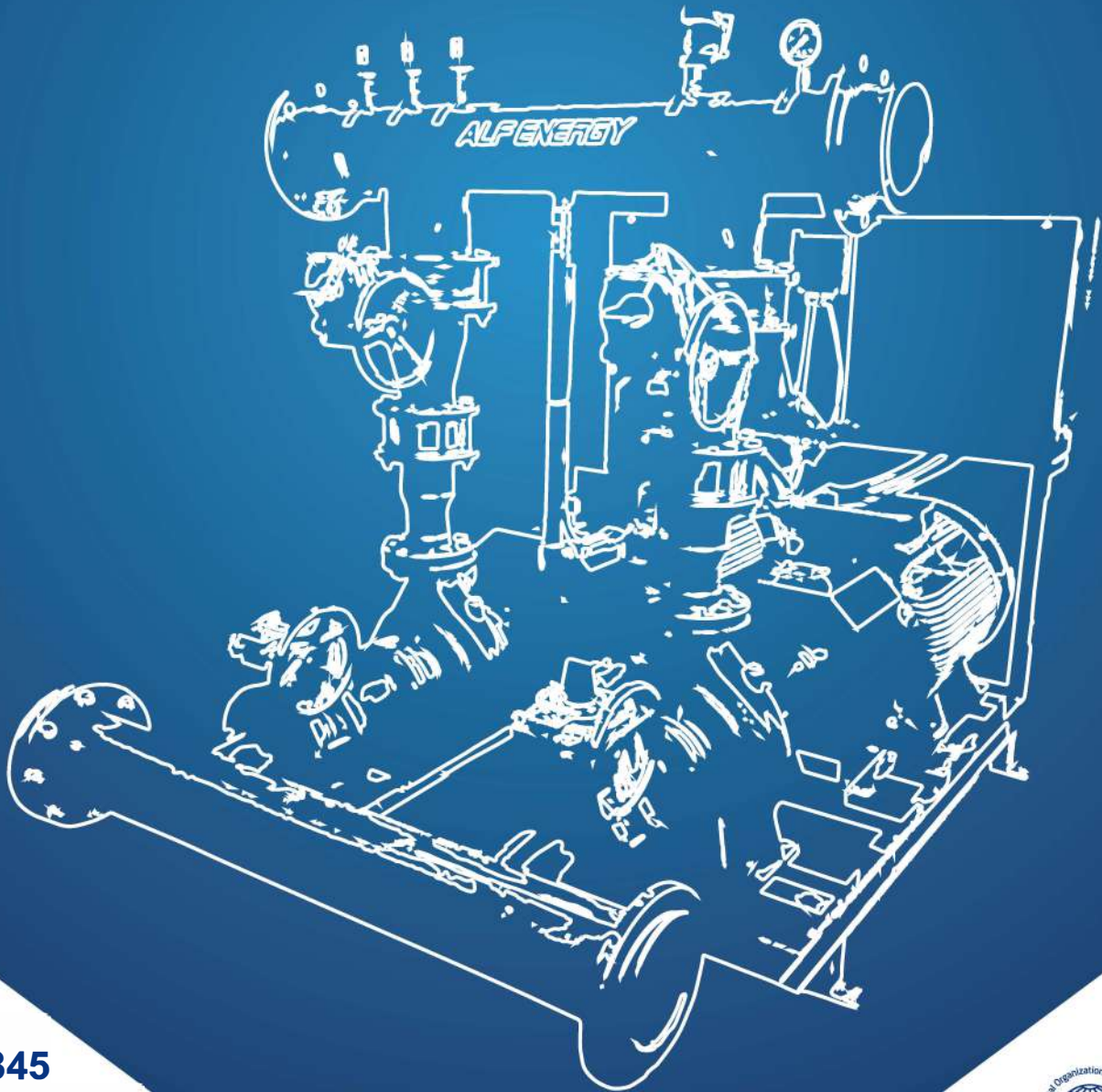
Model	Volume Lt	Outlet	Inlet (mm)	Cover Dia (mm)	Box Dia (mm)	Box Height (mm)
AST-BOX 150 / 2	150	2x2"	110	450	540	650
AST-BOX 150 / 2A	150				630	500
AST-BOX 200 / 2	200				540	850
AST-BOX 300 / 2	300				630	900
AST-BOX 500 / 2	500				800	1000

AST Series Waste Water Pumps Twin Stations with Double Pump

Model	Volume Lt	Outlet	Inlet (mm)	Cover Dia (mm)	Box Dia (mm)	Box Height (mm)
ASTD-BOX 500 / 2	500	2x2"	110	2x450	1.280x600	850
ASTD-BOX 1000 / 2	1000				1.500x700	



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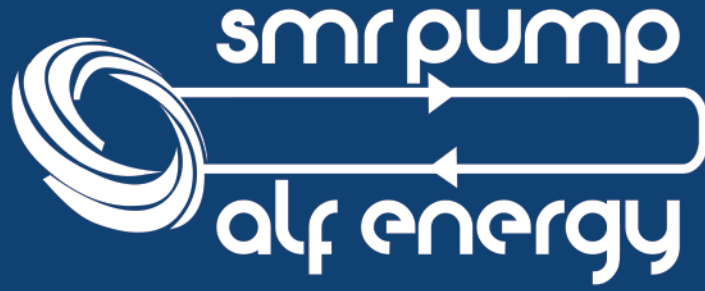


EN 12845

EN 16297

EEI ≤ 0,23





Pump & Booster Systems

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