



HYDRAULIC WATER PUMPS

7 MOTIVES TO PREFER THEM



FOR THE POWER AND PERFORMANCES

The hydraulic pumps have an unbeatable power / weight/ dimension ratio, example an hydraulic motor with power of 15 KW have a weight of only 4 Kg and the dimension of a beer can, which other type of motor either electric, gasoline, pneumatic or other can give such concentrated power? This gives to the hydraulic pumps compactness, lightness, easy handling and unmatched performances.



FOR THE SAFETY

Absence of electricity is an implicit assurance of safety as it is impossible to cause electric shocks, a man can work in all safety with the feet in the same water where the hydraulic pump is submerged and pumping , this will not be allowed by law and can be fatal when working with electric pumps, contacts or accidental rupture of the electric power cable can cause accidents and death.



FOR THE POSSIBILITY TO RUN DRY AND FOR MANY OPERATIONAL ADVANTAGES

A hydraulic pump can run dry without limitation and as long as needed , most the pumps either electric or with engine cannot run dry !!! The submersible pumps have not problem of priming, they pump as they touch the water , so it is possible to place the pumps in difficult access points where the traditional self priming pumps with engines cannot stay and operate or will simply sink in the mud.



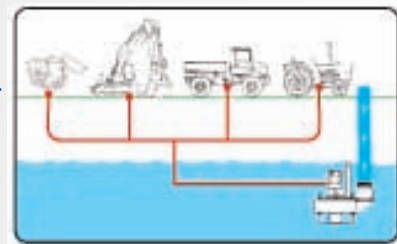
FOR THE ROBUSTNESS AND FOR THE LONG OPERATIVE LIFE

For sure there are no other pumps that can stand impacts and abuses as the hydraulic pumps can!! Pumps are really strong and are made to resist to the more heavy duty use. The hydraulic functioning is assurance of "self lubrication", so the motor is constantly lubricated by the oil. In case of an accidental block of the impellers rotation, due to the entrance in the pumping chamber a solid object or a clog, nothing will happen to the hydraulic water pump, other pump will have serious damages in such conditions



FOR THE VERSATILITY

The hydraulic pumps are really versatile as they can work powered by power packs and by the hydraulic circuits of excavators, back hoe loaders, trucks, mining machinery, tractors, boats and all working machinery equipped with a sufficient hydraulic circuit.



FOR THE EASY MAINTENANCE

The maintenance needed is minimal and simple , pumps are made with many parts that can be sourced on the market at low price. The simplicity of the hydraulic motors and associated components, the absence of the many complicate parts that are on the electric or self priming pumps make the maintenance easy and possible for any mechanic and without the need special tools or equipment.



FOR THE ECONOMY

For all the above advantages, for the economy of purchase, the economy of running, the economy on maintenance costs, the long operative life etc all this guarantee consistent cuts of costs and the maximum economy.

SP20 Trash water pump 2"

SP21 Water pump 2" ATEX



SP 20 is a compact and powerful trash pump with flow capacity up to 800 L/min and water heads up to 35 m, the tool that can pump solid objects with dimension up to 3 cm. The pump body is in hard stainless steel and the impeller is in chromium cast iron, materials that assure high resistance to impacts and abrasivity. Compact, reliable and safe the **SP20** is ideal used in the maintenance of utilities networks and in the urban maintenance in general.

SP21 ATEX has same performance and operational characteristics of SP20 with exception of dimension of pumpable solids and the type of hydraulic motor that on the SP21 is in cast iron.
SP21 is ATEX certified for ZONE 2.



OUTLET MOUTH	2" BSP Female
DIMENSION cm LxH	22 cm x H 30 cm
WEIGHT Kg	8
FLOW L/min	800 L/min
WATER HEAD max	35 m
SP20 PUMPABLE SOLIDS DIM.	3 cm
SP21 PUMPABLE SOLIDS DIM.	1 cm
IMPELLER MATERIAL	Chromium cast iron
VOLUTE MATERIAL	Stainless steel - INOX
MOTOR TYPE	Gear type group 2
OIL FLOW	15 - 30 L/min
IDEAL FLOW	20 L/min
OIL PRESSURE	100 - 210 Bar
BACKPRESSURE	17 Bar max

WP25 Water pump 3"



WP 25 is a professional water pump with hydraulic motor designed for pumping clear and muddy water with suspended solids with dimensions up to mm 20. The performances are very high: flow up to 1.600 L/min with water head up to 45 meters. Thanks to its characteristics **WP 25** is ideal in the professional use, in the maintenance of utility networks, in large dewatering intervents, in the civil protection, in road maintenance works. Extremely robust and reliable can be powered from small hydraulic power packs or from the hydraulic circuits of earth moving machines, trucks, tractors etc.

OUTLET MOUTH	3" BSP Female
DIMENSION cm LxH	30 cm x H 30 cm
WEIGHT Kg	9,5
FLOW L/min	1600 L/min
WATER HEAD max	45 m
PUMPABLE SOLIDS DIM.	2 cm
IMPELLER TYPE	Centrifugal open
IMPELLER MATERIAL	Hard aluminium alloy
VOLUTE MATERIAL	Stainless steel - INOX
MOTOR TYPE	Gear type group 2
OIL FLOW	15 - 38 L/min
IDEAL FLOW	30 L/min
OIL PRESSURE	100 - 210 Bar
BACKPRESSURE	17 Bar max

SP35 Water pump 3"

SP36 Water pump 3" ATEX



Detail of the mono canal stainless steel impeller

SP35 is a modern 3" submersible trash water pump with impeller and body in stainless steel. The exclusive monocanal closed impeller and the hydraulic functioning give very high efficiency: flows up to 1600 L/min, water head up to 50 mt and possibility to pump loaded fluids with suspended solids up to 35 m size. The pump is available on request with hydraulic motor in cast iron and ATEX Certification (=) for pumping flammable liquids or for uses in mines or explosive ambients. The possible applications are many thanks to the versatility and performances, can be powered by the hydraulic circuit of power packs, trucks, mini excavators, boats, fire fighting trucks and various working machinery. Thanks to its characteristics **SP35** is ideal in the professional use, in the maintenance of utility networks, in large dewatering intervenes, in the civil protection, in road maintenance works

SP36 ATEX has same performance and operational characteristics of **SP35** with exception of dimension of pumpable solids and the type of hydraulic motor that on the **SP36** is in cast iron. **SP36** is ATEX certified for ZONE 2.



DISCHARGE MOUTH	3" BSP Female
DIMENSION cm LxH	35 cm x H 37 cm
WEIGHT Kg	10
FLOW L/min	1600 L/min
WATER HEAD max	35 m
PUMPABLE SOLIDS DIM.	5 cm SP35
PUMPABLE SOLIDS DIM.	3 cm SP36
IMPELLER TYPE	Mono canal closed
IMPELLER MATERIAL	Stainless steel - INOX
VOLUTE MATERIAL	Stainless steel - INOX
MOTOR TYPE	Gear type group 2
OIL FLOW	15 - 38 L/min
IDEAL FLOW	30 L/min
OIL PRESSURE	100 - 210 Bar
BACKPRESSURE	17 Bar max

SP45 Trash water pump 4"

SP46 Trash water pump 4" ATEX



Available the accessory SG4 fluid mixer to pump thick fluids



SP 45 is a professional trash pump designed for pumping slurries, trash waters and thick liquids with density concentration in the fluid up to 25% and suspended solids with dimensions up to 70 mm. Can be powered by power packs or by the hydraulic circuits of excavators, back hoe loaders, trucks, tractors, and all machines equipped with a sufficient circuit. THE PUMP BODY IS FABRICATED IN STAINLESS STEEL WITH URETHANE WEAR PLATES, materials that assure hardness, resistance to abrasivity, impacts and rust. The hydraulic functioning assure intrinsic safety and impossibility to cause electric shock. Performances are very high: flow up to 3000 L/min and water head up to 16 m. **SP 45** is ideal in large movements of water, in the emergencies after floods, for sewage treatment facilities, manhole dewatering.

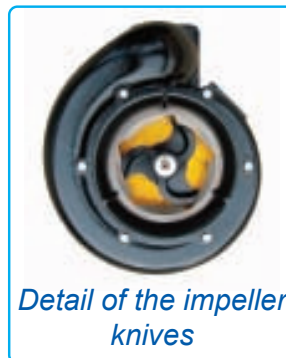
ATEX VERSION OF SP45 IS THE MODEL SP46



DISCHARGE MOUTH	4" BSP Female
DIMENSION cm LxH	40 cm x H 50 cm
WEIGHT Kg	28
FLOW L/min	3000 L/min
WATER HEAD max	16 m
PUMPABLE SOLIDS DIM.	7 cm SP45
PUMPABLE SOLIDS DIM.	3 cm SP46
IMPELLER TYPE	Centrifugal open
IMPELLER MATERIAL	Chromium cast iron
VOLUTE MATERIAL	Stainless steel - INOX
MOTOR TYPE	Gear type group 2
OIL FLOW	30 - 45 L/min
IDEAL FLOW	38 L/min
OIL PRESSURE	140 - 210 Bar
BACKPRESSURE	17 Bar max

SP55 - SP65 TRASH WATER PUMPS

For large water movements and installation on excavators arm



SP55 and **SP65** are high performance submersible trash pump with hydraulic piston motor ideal in large dewatering works, in the rental activity, as “well point” pump, in the civil protection and military sector, in the sewage treatment plants and in all interventions where is necessary to move quickly large volumes of water and heavy loaded fluids.

SP55 maximum flow is 5.500 L/min (330 cm/h) with water head up to 29 mt – pumpable solids cm 5,5

SP65 maximum flow is 8.000 L/min (480 cm/h) with water head up to 39 mt – pumpable solids cm 6,5

The main characteristics are the high power and the impeller that has knives and can cut suspended solids like sea weeds, strow, rags, ropes, sediments and various linear fibers.

The hydraulic functioning gives a long series of operational and performance advantages not obtainable from traditional self priming pumps.

A typical application is with pumps featuring the bracket that allows installation on excavators arm , this version allows to use the machines as incredibly powerful pumps exploiting the hydraulic circuits of machines themselves , many are the advantages in this use : performances, quick operations, operativity in any conditions, can work in muddy terrains and difficult access points where normal pumps cannot be placed, long operative life, minimal maintenance

	SP55	SP65
DISCHARGE MOUTH	5,5” BSP	6” BSP
DIMENSION cm LxH	50 x H 75	55 x H 90
WEIGHT Kg	95	135
FLOW L/min	5500 L/min	8000 L/min
WATER HEAD max	29 m	39 m
PUMPABLE SOLIDS DIM.	5,5 cm	6 cm
IMPELLER TYPE	Centrifugal open with knives	
IMPELLER MATERIAL	Stainless steel	
VOLUTE MATERIAL	Spheroidal cast iron	
MOTOR TYPE	Piston type	
OIL FLOW	60 - 100 L/min	
OIL PRESSURE	150 - 350 Bar	
BACKPRESSURE	17 Bar max	
QUICK COUPLERS	3/4 BSP flush face	



Available also with mounting bracket for installation on excavators arm. In this configuration the excavators and backhoe loaders become very powerfull and efficient water pumps ideal in moving large water volumes
IDEAL IN EMERGENCY SITUATIONS IN CIVIL PROTECTION INTERVENTIONS



SG4

SLURRY GATE VALVE

ACCESSORY FOR PUMPS SP45 - SP55 - SP65



SG4 Slurry gate valve



SG4 installed on SP45 pump



Imagine of the pump discharge mouth with windows closed

SG4 is a accessory for trash pumps DOA models SP45 - SP55 - SP65. The accessory is a set formed by:

- **SG4 body and cylinder**, this element to be installed on the pump outlet mouth
- **Hydraulic control valve and hoses** that can control the opening/ closing action of the gate

SG4 transforms the pumps in "mixers" to allows to shake and reduce to a more fluid state liquids that can be thick, loaded and viscous like those that can be found in waste water treatment plants, anaerobic digesters, API separators, petrochemical plants and refineries, environmental operations, and for moving all liquids not easy to pump.

The **SG4** is a "retrofit accessory" that can be installed on pumps after the purchase, its action as mixer is necessary when the liquid to pump is very thick and have suspended solids (like sediments, mud balls or oil balls or other agglomerate of semi solid/ pasty liquids) the "balls" must be disintegrated to become more fluid and be pumped, the balls neutralisation is needed also to avoid that may choke the pump inlet.

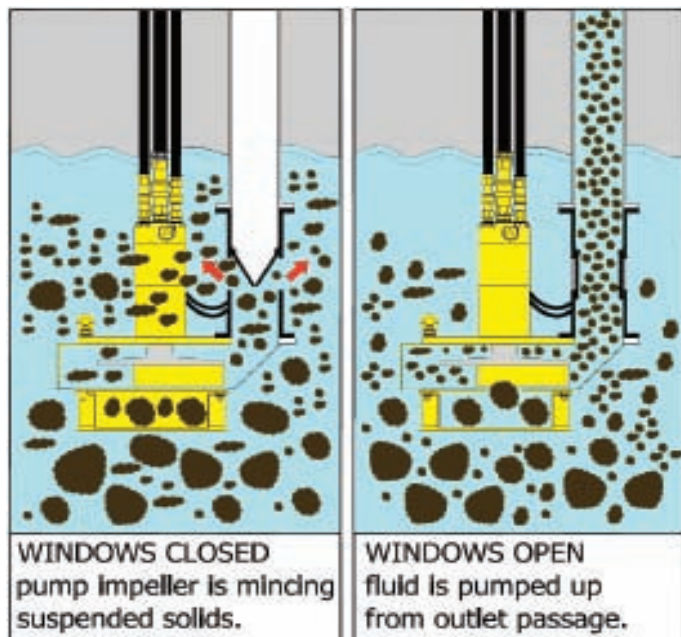
After some minutes of this treatment the liquid can be pumped better and the pump will be used in its natural function.

TECHNICAL CHARACTERISTICS

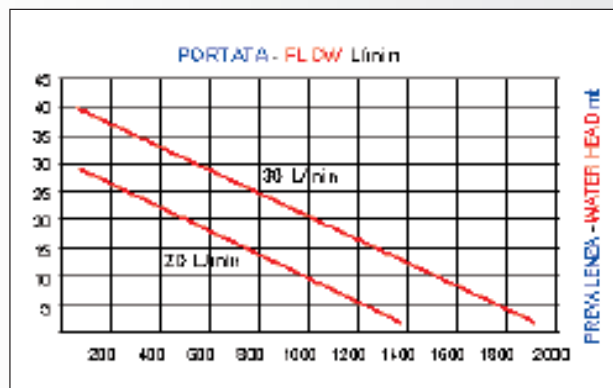
FLUID PASSAGE	<i>equals to 6"</i>
TOTAL HEIGHT	<i>370 mm</i>
WEIGHT	<i>9 kg</i>
CYLINDER TYPE	<i>double effect</i>
CONTROL VALVE	<i>3 position open centre</i>



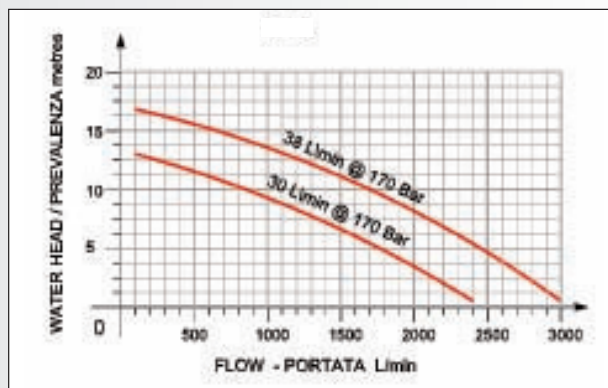
HYDRAULIC VALVE 3 POSITION
controls opening / closing action of SG4 windows



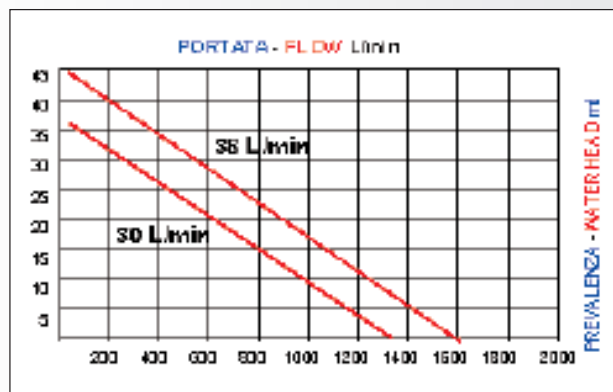
WATER PUMPS CHARACTERISTICS



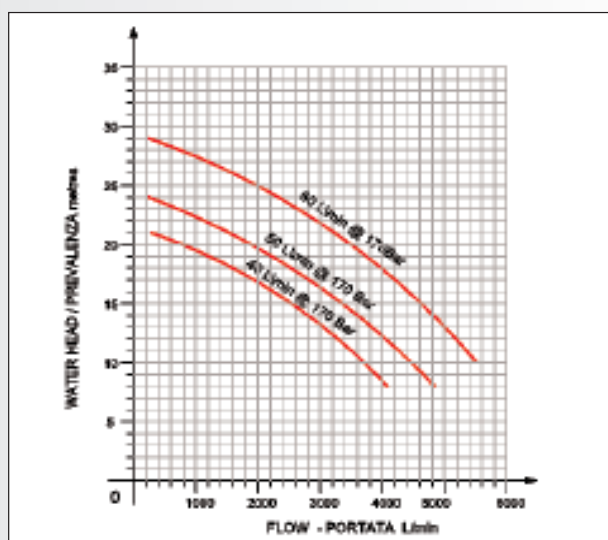
SP20 - SP21



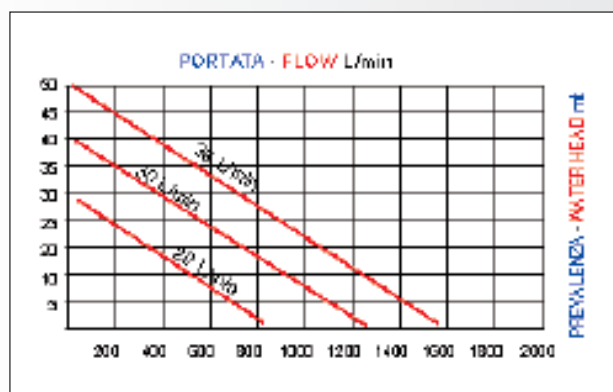
SP45



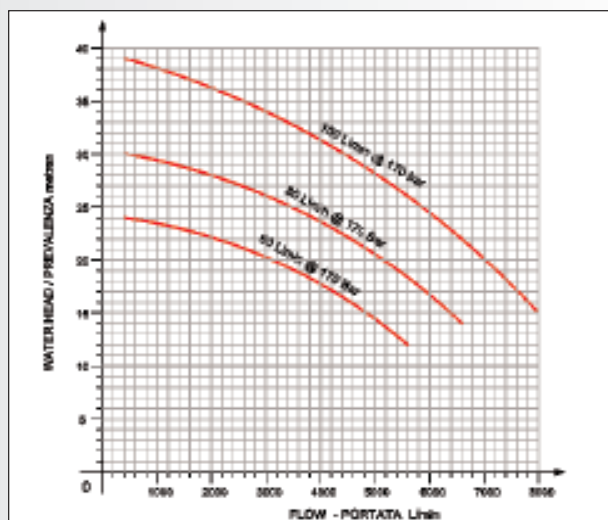
WP25



SP55



SP35 - SP36 ATEX



SP65