LOWARA

Vertical Multistage Centrifugal Electric Pumps SV2-4-8-16 Series

NEW LASER TECHNOLOGY

Lowara

ITT Industries
Engineered for life

TYPICAL APPLICATIONS

Water supply
- Transfer and distribution from water systems
- Pressure boosting in apartment buildings and hotels
- Packaged booster sets

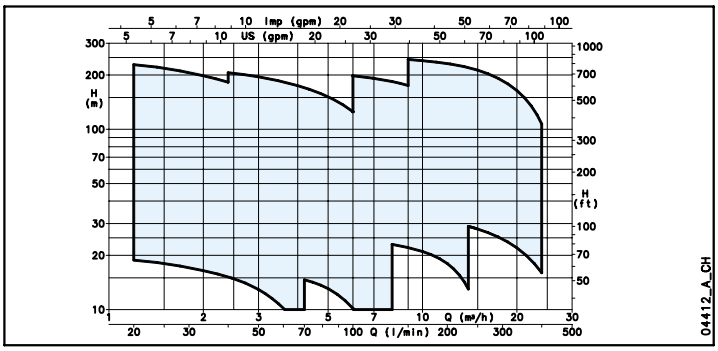
Water treatment
- Filtration
- Reverse osmosis systems
- Ultrafiltration

Light industry and machine tools
- Parts washing
- Degreasing
- Heat treatment

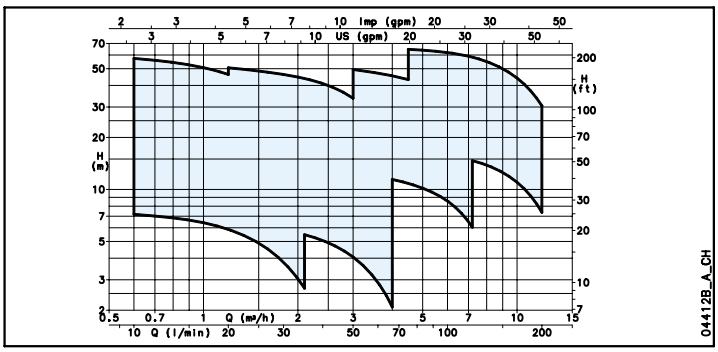
Agriculture
- Irrigation systems
- Greenhouses
- Humidifiers

Heating, Ventilating & Air conditioning (HVAC)
- Boiler feed
- Heat exchangers
- Cooling towers and systems
- Chillers

HYDRAULIC PERFORMANCE RANGE SV2-16 SERIES, 50 HZ, 2 POLES



HYDRAULIC PERFORMANCE RANGE SV2-16 SERIES, 50 HZ, 4 POLES



For higher flow rates, refer to technical catalogue

PRESSURE BOOSTING

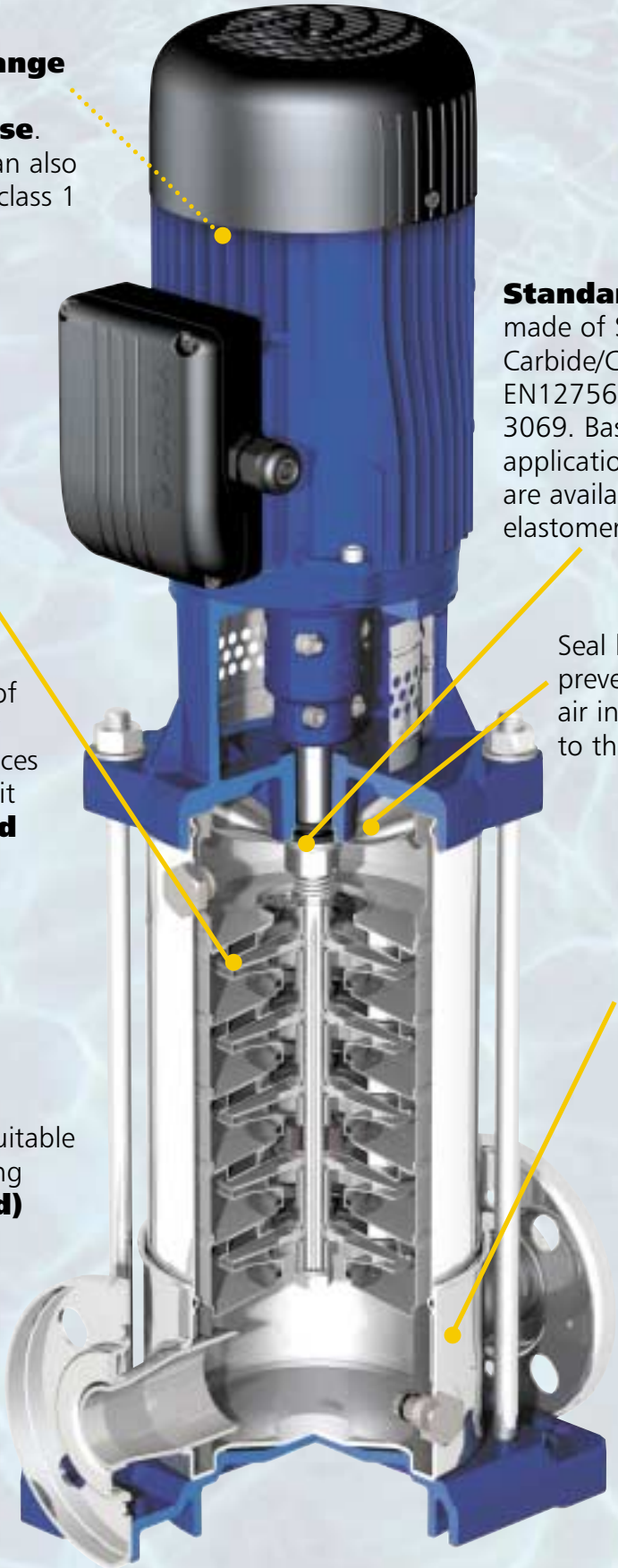
IRRIGATION SYSTEMS

COOLING SYSTEMS

LOWARA SV SERIES ELECTRIC PUMPS

Vertical multistage centrifugal electric pumps - metal parts in contact with pumped liquid are made of AISI 304 or AISI 316 stainless steel

The Lowara motor range is designed to ensure **high efficiency** and **low noise**. On request, the SV series can also be supplied with efficiency class 1 motors.



Standard mechanical seal made of Silicon Carbide/Carbon/EPDM according to EN12756 (ex DIN 24960) and ISO 3069. Based on the type of application, alternative materials are available for the seal and the elastomers.

Liquid end made entirely of stainless steel
The special impeller design enables the compensation of the axial thrust without any intermediate balancing devices being required. This makes it possible to use a **standard motor, without any oversized bearings.**

Seal housing designed to prevent the accumulation of air in the critical area adjacent to the mechanical seal.

Stainless steel pump body welded using **LASER technology**

- Improved quality and resistance of welds
- Higher mechanical resistance to torsional stress and vibrations
- Improved chemical resistance in the weld area

All the materials used are suitable for applications with drinking water **(WRAS approved)**

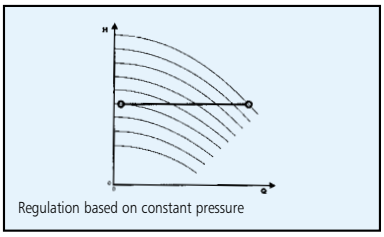
Lowara
ITT Industries

SVH SOLUTION FOR ENERGY SAVINGS AND OPTIMIZED PERFORMANCES

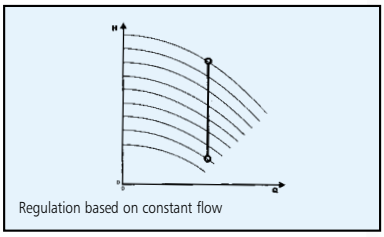
The Lowara SV electric pumps can be equipped (SVH Series) with the Hydrovar® control device. Thus, the SV electric pump becomes an effective pumping solution for applications such as:

- Maintaining a constant pressure (irrigation or pressure boosting)
- Maintaining a constant flow rate (water supply)
- Flow resistance compensation in a system

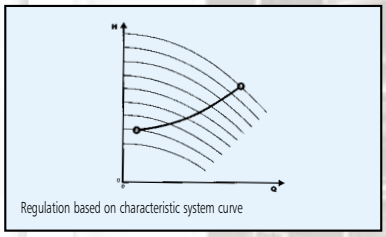
Hydrovar® uses a 4-20 mA input signal to control the motor rpm and adjust the pump performance according to system demands. This enables significant energy savings compared to conventional constant speed systems



Regulation based on constant pressure



Regulation based on constant flow



Regulation based on characteristic system curve

TYPICAL EXAMPLE OF ENERGY SAVINGS

System: SV1608F75T vertical multistage electric pump with 7.5 kW motor equipped with Hydrovar®, 80 m head. 12 hour/day operation.
Application: maintaining a constant pressure as the flow rate varies.

FLOW	ABSORBED POWER		POWER SAVING	OPERATING TIME	TOTAL
	CONSTANT SPEED PUMP	VARIABLE SPEED PUMP			
m^3/h	kW	kW	kW	hours	kWh
9	5,50	3,09	2,41	1095	2639
14	6,71	4,81	1,90	2190	4161
21	7,30	7,21	0,09	1095	99
YEARLY ENERGY SAVINGS (kWh)					6899

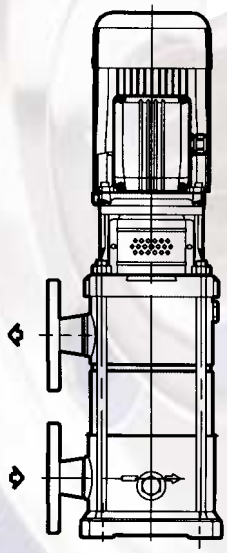
AVAILABLE VERSIONS SV 2-4-8-16

- SV F, AISI 304, PN 25, in-line ports, round flanges
- SV N, AISI 316, PN 25, in-line ports, round flanges

- SV T, AISI 304, PN 16, in-line ports, oval flanges

- SV V, AISI 316, PN 25, Victaulic Couplings

- SV C, AISI 316, PN 16 and PN 25, Clamp Couplings



- SV R, AISI 304, PN 25, discharge above suction, round flanges

THE LASER TECHNOLOGY

For cutting operations

- High flexibility
- Precision

For welding operations

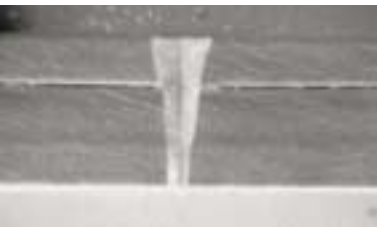
- High resistance
- Low presence of altered material

The Lowara laser technology used on the SV series vertical multistage electric pumps offers considerable advantages:

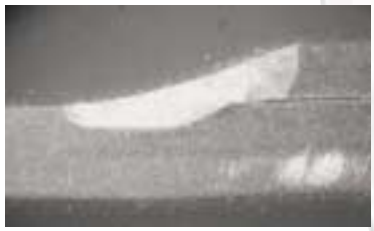
- high welding speed
- reduced weld sean thickness
- reduced deformation of welded parts
- improved resistance of welded areas to chemical or aggressive agents

The energy required for welding each single component is much less compared to the TIG technology. This reduces the deformation of the welded parts caused by the heat generated during the welding operation.

WELDING SYSTEM	POWER REQUIRED	WELDING TIME	EFFICIENCY	ENERGY PER PIECE
TIG	750 W	45 seconds	38%	38 kJ
Laser	1500 W	4.7 seconds	60%	7 kJ



Laser weld on AISI 304 steel plates. Detail of area altered by the heat.



TIG weld on AISI 304 steel plates. Detail of area altered by the heat.

WATER TREATMENT

LIGHT INDUSTRY

Lowara

ITT Industries