

# Applications and Products



## Pumping Solutions

## More than a pump ...



### Competence

SIHI has been providing high quality, liquid and gas, pumping solutions for almost 100 years.

Award winning solutions reinforce the Company-wide vision of liquid pumps, vacuum pumps, compressors and engineered systems for a better future.

### Markets

Extensive application knowledge combined with a highly respected product range, within SIHI, provides our customers with total confidence.

Chemical, industrial, energy, and environmental markets all benefit from SIHI solutions.

### Worldwide

Greater than 1600 employees are strategically located in excess of 60 countries in which to serve our customers.

Our partners can feel secure knowing that support is within easy reach.



**Ongoing innovation** underpins customer satisfaction, continual improvement, and ensures that the strong SIHI client base benefits from the latest proven technology.

**Senior-level project management**, communication, and product excellence from the SIHI team results in simple and timely integration of any engineered systems.

### Liquid Technology

- + End-suction centrifugal pumps
- + Side channel self-priming pumps
- + Multi-stage centrifugal pumps
- + Mixers
- + Vertical centrifugal pumps
- + Hygienic pumps

### Vacuum Technology

- + Vacuum pumps
- + Compressors
- + Lobular (Roots) blowers
- + Gas and steam ejectors
- + Dry vacuum pumps

### Engineered Systems Technology

- + Vacuum systems
- + Compressor systems
- + Membrane recovery systems
- + Liquid systems



### Flexible options

- + Variable speed drive
- + Condition monitoring SIHI<sup>detect</sup>
- + Seal-less
- + Engineered sealant systems
- + Distributed Control System (DCS)
- + ...

### Reducing Life-Cycle Costs ...

#### Capital Investment

- + Highly efficient manufacture
- + Lean process culture
- + Staff development

#### Reducing Power Consumption

- + Enhanced hydraulic efficiencies
- + High efficiency motors

#### Improving Reliability

- + Robust construction
- + Quality manufacture
- + Low NPSH

### Simplifying Maintenance and Operation

- + Ergonomic design
- + ISO/DIN/ASME standards
- + Quality sealing

### Support the Global Market

- + Global Service network

### Preserving the environment

- + Ecological responsibility
- + Reduced effluent and waste





## Chemical Applications

	<div><div>Volute casing pumps End suction</div><div>Side channel pumps</div><div>Combination pumps</div><div>Multi-stage pumps</div><div>Mixers</div><div>Hygienic pumps</div><div>Vacuum pumps and Compressors</div><div>Engineered systems</div></div>																			
	General Liquids	Hot water	Hot oil (Thermal media)	Chemicals, Fuels	Sewage and slurry	Self-priming	Self-priming	Self-priming, LPG & Fuels	High pressure	High flow	Sludge	Sanitary	Liquid ring vacuum	Liquid ring compressor	Roots blower	Gas and steam ejectors	Dry vacuum	Vacuum & compressor systems	Membrane recovery systems	Liquid systems
For detailed information please see page	8	8	8	9	9	9	10	10	10	11	11	11	12	12	12	13	13	14	14	14
Absorption	x			x			x						x	x	x	x	x	x	x	x
Adsorption	x			x			x						x	x	x	x	x	x	x	x
Central vacuum													x		x	x	x	x		
Centrifugal separation	x			x	x															x
Cooling water	x			x						x										x
Crystallisation	x			x																x
Distillation (reaction vessel)	x	x	x	x			x						x			x	x	x	x	x
Distillation (short path)	x	x	x	x			x						x		x	x	x	x	x	x
Distillation (rectification)	x	x	x	x			x						x			x	x	x	x	x
Drum or barrel offloading						x	x													x
Effluent treatment	x			x	x	x			x		x									x
Evaporation (falling film)	x			x			x						x		x	x	x	x	x	x
Evaporation (thin film)	x			x			x						x		x	x	x	x	x	x
Extraction	x			x				x				x	x	x	x	x	x	x	x	x
Filling	x			x			x		x			x								
Freeze drying	x			x									x		x	x	x	x	x	x
Pressure filtration	x			x	x															x
Product transfer	x	x	x	x		x	x	x	x			x	x		x		x			x
Reaction gas-liquid	x	x	x	x		x	x		x				x	x	x	x	x	x	x	x
Reaction liquid-liquid	x	x	x	x		x	x		x			x	x		x	x	x	x	x	x
Reaction solid-liquid	x	x	x	x		x			x											x
Solvent recovery	x			x			x						x	x	x	x	x	x	x	x
Steam and power generation	x			x			x		x				x				x	x		x
Tank farms / storage	x			x		x	x	x	x											x
Thermal control unit (hot oil, hot water)	x	x	x	x																x
Thermal drying	x			x																x
Vacuum drying	x			x									x		x	x	x	x	x	x
Vacuum filtration	x			x									x		x	x		x	x	x
Water purification / demineralised water	x			x					x			x								x



## Industrial Applications

	<div><div>Volute casing pumps End suction</div><div>Side channel pumps</div><div>Combination pumps</div><div>Multi-stage pumps</div><div>Mixers</div><div>Hygienic pumps</div><div>Vacuum pumps and Compressors</div><div>Engineered systems</div></div>																			
	General Liquids	Hot water	Hot oil (Thermal media)	Chemicals, Fuels	Sewage and slurry	Self-priming	Self-priming	Self-priming, LPG & Fuels	High pressure	High flow	Sludge	Sanitary	Liquid ring vacuum	Liquid ring compressor	Roots blower	Gas and steam ejectors	Dry vacuum	Vacuum & compressor systems	Membrane recovery systems	Liquid systems
For detailed information please see page	8	8	8	9	9	9	10	10	10	11	11	11	12	12	12	13	13	14	14	14
Central vacuum													x		x	x	x	x		
Cleaning	x			x					x											
Component positioning													x			x	x			
Cooling water	x			x	x		x		x							x	x			
Crystal pulling															x		x			
Degassing												x	x		x	x		x		
Demineralised water	x			x		x	x		x			x							x	
Distillation	x			x	x		x	x				x	x			x		x		
Extraction	x			x	x	x	x					x	x		x	x	x	x		
Extrusion / Vacuum forming	x			x			x						x				x	x		
Filling	x			x	x	x	x		x			x								
Freeze drying	x			x		x	x					x	x		x	x	x	x		
Gas compression															x	x	x	x		
Induction furnace melting (Vfm)															x		x			
Irrigation	x			x			x		x											
Liquefied gasses (LPG)							x	x	x											
Mixing	x			x			x					x	x				x			
Packaging / Bottling	x			x			x						x					x		
Photovoltaic															x		x			
Product transfer	x			x	x	x	x	x												
Refrigerant handling	x			x		x	x													
Sterilising	x			x		x	x						x			x				
Tank farms / Storage	x			x		x	x	x	x			x								
Thermal transfer (hot oil)	x		x	x																
Thermal transfer (hot water)	x	x		x																
Thin film evaporation												x	x		x	x	x	x		
Vacuum drying												x	x		x	x	x		x	
Washing	x			x		x	x	x	x			x								

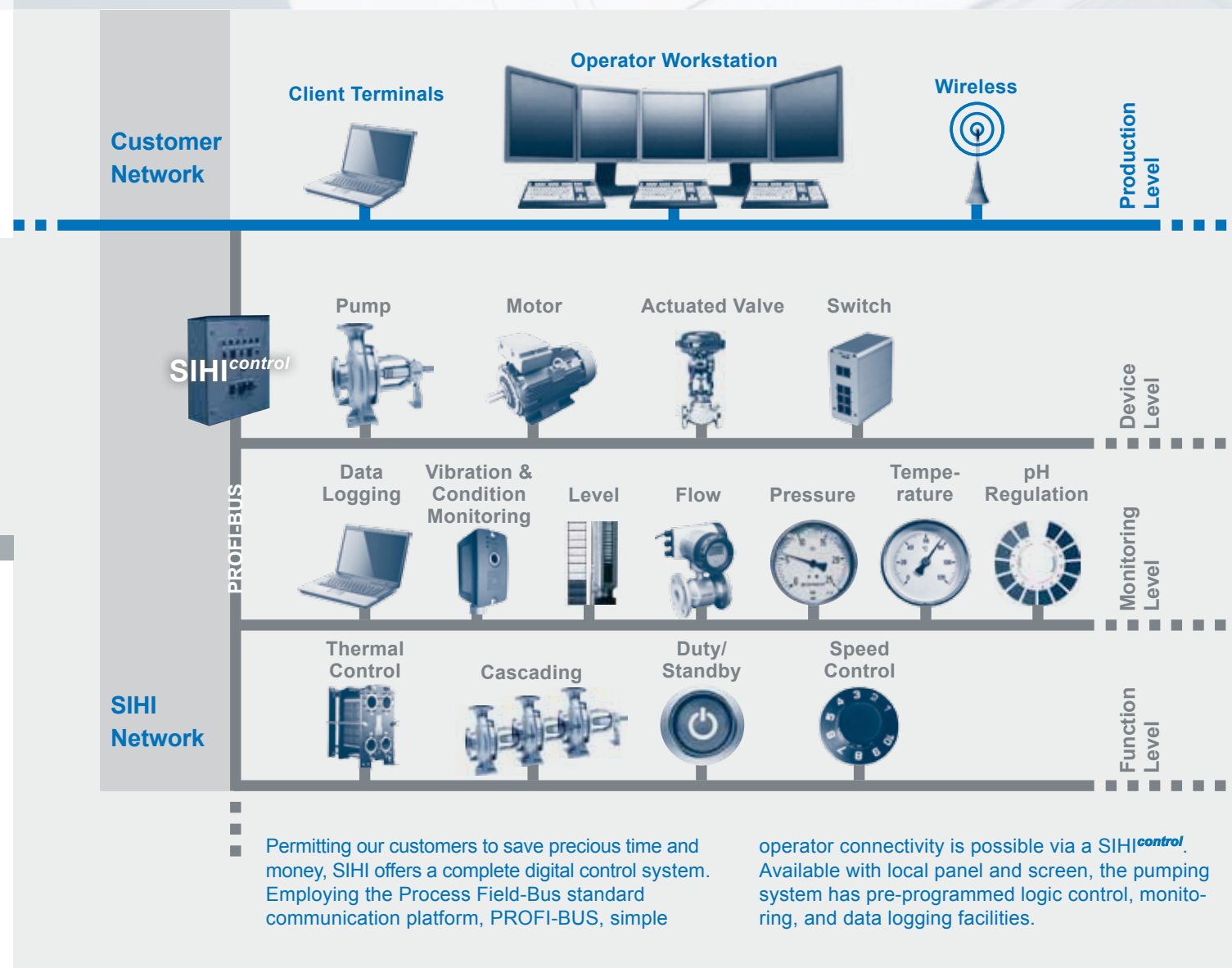




## Energy & Environmental Applications

	Pump and Compressor Selection Guide																		
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Compressor Selection				
	Pump Selection														Com				

## From concept to integration



### Reduce Life Cycle Cost ...

... with SIHI

- Capital Cost
- Energy (Power)
- Installation & Alignment
- Maintenance & Operation
- Down time
- Environmental Cost

## Volute casing pumps – End suction

### General Liquids

#### Performance

Flow rate	1800 m³/h
Head	140 m
Temperature	170 °C
Pressure	16 bar
Speed	3600 rpm

#### Features

- + High efficiency
- + Modular design
- + Highly reliable

#### Configuration

- + Horizontal or vertical
- + Bare shaft or close coupled

#### Standards

EN 733, ISO 9908

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Packed gland

#### Materials

Cast iron, stainless steel

#### SIHI Type

ZLN, ZLK, ZLI

### Hot water

#### Performance

Flow rate	600 m³/h
Head	95 m
Temperature	230 °C
Pressure	40 bar
Speed	3600 rpm

#### Features

- + Uncooled seals
- + High efficiency
- + Secondary vapour separator

#### Configuration

- + Horizontal
- + Bare shaft

#### Standards

EN 733, EN 22858

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal

#### Materials

Nodular cast iron, cast steel

#### SIHI Type

ZHN, ZDN, ZEN

### Hot oil (Thermal media)

#### Performance

Flow rate	1000 m³/h
Head	95 m
Temperature	350 °C
Pressure	16 bar
Speed	3600 rpm

#### Features:

- + Uncooled seals
- + High efficiency
- + Secondary containment

#### Configuration

- + Horizontal or vertical
- + Bare shaft or close coupled

#### Standards

EN 733

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Radial lip seal

#### Materials

Nodular cast iron, cast steel

#### SIHI Type

ZTN, ZTK, ZTI

## Volute casing pumps – End suction

### Chemicals and Fuels

#### Performance

Flow rate	2200 m³/h
Head	150 m
Temperature	400 °C
Pressure	16 bar
Speed	3600 rpm

#### Features

- + High efficiency
- + Highly reliable
- + Modular design

#### Configuration

- + Horizontal
- + Bare shaft or close coupled

#### Standards

EN 22858, EN 25199, ISO 2858, ISO 5199

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Packed gland
- + Magnetic coupling

#### Materials

Cast iron, nodular cast iron, cast steel, stainless steel, special alloys

#### SIHI Type

CBS, CBM, CBE, CBT, RBS, EO, SZ

### Sewage and slurry

#### Performance

Flow rate	800 m³/h
Head	100 m
Temperature	120 °C
Pressure	10 bar
Speed	3600 rpm

#### Features

- + Free flow impeller
- + Non-clogging
- + High efficiency

#### Configuration

- + Horizontal
- + Bare shaft

#### Standards

EN 22858, ISO 2858

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Packed gland

#### Materials

Cast iron, stainless steel

#### SIHI Type

DBS

### Self-priming

#### Performance

Flow rate	300 m³/h
Head	90 m
Temperature	120 °C
Pressure	16 bar
Speed	3000 rpm

#### Features

- + Gas handling
- + Solids handling
- + Highly reliable

#### Configuration

- + Horizontal
- + Bare shaft

#### Standards

EN 733

#### Priming

- + Self-priming

#### Shaft Sealing

- + Mechanical seal

#### Materials

Cast iron, bronze, special alloys

#### SIHI Type

UHL, UPL, ULN



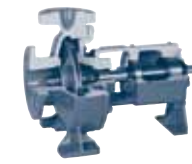
ZLND



ZENC



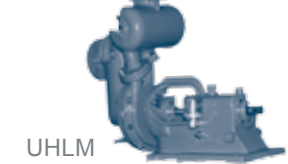
ZTNC



CBSD



DBS



UHLM



## Side channel pumps

## Combination pumps

## Multi-stage pumps

## Mixers

## Hygienic pumps

### Self-priming

#### Performance

Flow rate	35 m³/h
Head	354 m
Temperature	180 °C
Pressure	40 bar
Speed	3600 rpm

#### Features

- + Low NPSH
- + Modular design
- + Secondary containment

#### Configuration

- + Horizontal or vertical
- + Bare shaft or close coupled

#### Standards

EN 734

#### Priming

- + Self-priming, gas handling

#### Shaft Sealing

- + Mechanical seal
- + Packed gland
- + Magnetic coupling

#### Materials

Cast iron, nodular cast iron, bronze, stainless steel, special alloys

#### SIHI Type

AOH, AKH, ASH, AKL, AKV, CEH, CEB, SC

### Self-priming, LPG & Fuels

#### Performance

Flow rate	350 m³/h
Head	200 m
Temperature	120 °C
Pressure	40 bar
Speed	3600 rpm

#### Features

- + High efficiency
- + High reliable
- + Modular design

#### Configuration

- + Horizontal
- + Bare shaft

#### Standards

ANSI or ISO

#### Priming

- + Flooded, self-priming

#### Shaft Sealing

- + Mechanical seal
- + Packed gland
- + Magnetic coupling

#### Materials

Cast iron, nodular cast iron, bronze, stainless steel

#### SIHI Type

UEA, TKH

### High pressure

#### Performance

Flow rate	450 m³/h
Head	1600 m
Temperature	180 °C
Pressure	160 bar
Speed	3600 rpm

#### Features

- + High efficiency
- + Patented balancing device
- + Low NPSH

#### Configuration

- + Horizontal
- + Bare shaft

#### Standards

EN 25199, ISO 5199

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Packed gland

#### Materials

Cast iron, nodular cast iron, bronze, stainless steel, special alloys

#### SIHI Type

MSL, MSM, MSC, MSH

### High flow

#### Performance

Flow rate	100000 m³/h
Head	150 m
Temperature	80 °C
Pressure	16 bar
Speed	1800 rpm

#### Features

- + High efficiency
- + Variable pitch blades
- + Highly reliable

#### Configuration

- + Vertical
- + Bare shaft or close coupled

#### Standards

ANSI or ISO

#### Priming

- + Flooded

#### Shaft Sealing

- + Mechanical seal
- + Packed gland

#### Materials

Cast iron

#### SIHI Type

RA, RK, RT

### Sludge

#### Performance

Flow rate	7200 m³/h
Digester vol.	20000 m³
Pressure	10 bar
Speed	1500 rpm

#### Features

- + Non-clogging
- + Reverse flow
- + Low maintenance

#### Configuration

- + Vertical
- + Close coupled

#### Standards

ANSI or ISO

#### Priming

- + Flooded

#### Shaft Sealing

- + Lip seal system

#### Materials

Cast iron

#### SIHI Type

MFS

### Sanitary

#### Performance

Flow rate	200 m³/h
Head	85 m
Temperature	130 °C
Pressure	16 bar
Speed	3000 rpm

#### Features

- + Highly reliable
- + Solids handling
- + Surface roughness < 3.2 µm

#### Configuration

- + Horizontal
- + Close coupled

#### Standards

Food great standard 3A1

#### Priming

- + Flooded or self-priming

#### Shaft Sealing

- + Mechanical seal

#### Materials

AISI 316L stainless steel

#### SIHI Type

NHK, SHK



CEHX



TKH



MSL



RT



MFS



NHK



## Vacuum pumps

### Liquid ring vacuum

<b>Performance</b>	
Suction capacity	15000 m³/h
Operating pressure	33 mbar
Temperature	200 °C
Speed	3600 rpm

<b>Features</b>
+ Modular design
+ Highly reliable
+ Cavitation protection

<b>Configuration</b>
+ Horizontal
+ Bare shaft or close coupled

<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ Mechanical seal
+ Packed gland
+ Magnetic coupling

<b>Materials</b>
Cast iron, bronze, stainless steel, special alloys

<b>SIHI Type</b>
LEM, LEMS, LEMS, LEH, LOH, LPHX, LPH, SL



### Liquid ring compressors

<b>Performance</b>	
Suction capacity	15000 m³/h
Operating pressure	33 mbar
Temperature	200 °C
Speed	3600 rpm

<b>Features</b>
+ Highly reliable
+ Cool operation
+ Low maintenance

<b>Configuration</b>
+ Horizontal
+ Bare shaft

<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ Mechanical seal
+ Packed gland

<b>Materials</b>
Cast iron, bronze, stainless steel, special alloys

<b>SIHI Type</b>
LOH, LPHX, LPH, KPH, KSH, KPH



### Roots blower

<b>Performance</b>	
Suction capacity	14000 m³/h
Operating pressure	1 mbar
Temperature	60 °C
Speed	3600 rpm

<b>Features</b>
+ Low leakage rate
+ Highly reliable
+ Low maintenance

<b>Configuration</b>
+ Horizontal
+ Close coupled

<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ Mechanical seal

<b>Materials</b>
Nodular cast iron

<b>SIHI Type</b>
WNM



## Vacuum pumps

### Gas and steam ejectors

<b>Performance</b>	
Suction capacity	7500 m³/h
Operating pressure	4 mbar
Temperature	200 °C

<b>Features</b>
+ No moving parts
+ Low maintenance
+ Highly reliable

<b>Configuration</b>
+ Horizontal or vertical

<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ none

<b>Materials</b>
Grey cast iron, stainless steel, special alloys

<b>SIHI Type</b>
GVP, GOV



### Dry vacuum industrial

<b>Performance</b>	
Suction capacity	1500 m³/h
Operating pressure	0.001 mbar
Temperature	135 °C

<b>Features</b>
+ No effluent
+ Simply service
+ Very quiet

<b>Configuration</b>
+ Vertical

<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ Hermetically sealed

<b>Materials</b>
Nodular cast iron

<b>SIHI Type</b>
Dry V, S



### Dry vacuum chemical

<b>Performance</b>	
Suction capacity	1000 m³/h
Operating pressure	0.01 mbar
Temperature	135 °C

<b>Features</b>
+ No effluent
+ Simply service
+ Very quiet

<b>Configuration</b>
+ Vertical

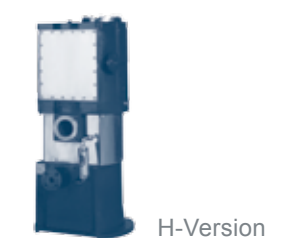
<b>Standards</b>
ANSI or ISO

<b>Priming</b>
Vacuum

<b>Shaft Sealing</b>
+ Hermetically sealed

<b>Materials</b>
Nodular cast iron

<b>SIHI Type</b>
Dry M, H





## Engineered systems

### Vacuum & Compressor systems

**Performance**  
Suction capacity 15000 m³/h  
Operating pressure 0.1 mbar  
Discharge pressure 9 bar

**Features**  
+ Simple integration  
+ Project managed  
+ Highly reliable

**Configuration**  
+ On request

**Standards**  
ANSI, ISO, EN, DIN, NACE

**Shaft Sealing**  
+ Mechanical seal  
+ Packed gland  
+ Magnetic coupling

**Materials**  
Client choice

**SIHI Type**  
PL, PLN, PK, PLG, PN

### Membrane recovery systems

**Performance**  
Suction capacity on request  
Recovery rate 99%  
Outlet concentrations European clean air regulations

**Features**  
+ Regeneration free  
+ Simple & compact  
+ High recovery rates

**Configuration**  
+ On request

**Standards**  
Client choice

**Shaft Sealing**  
+ Mechanical seal  
+ Packed gland  
+ Magnetic coupling

**Materials**  
Client choice

**SIHI Type**  
LPM, PKM, PKLM, PM

### Liquid systems

**Performance**  
Capacity on request  
Discharge pressure: on request

**Features**  
+ Simple integration  
+ Project managed  
+ Highly reliable

**Configuration**  
+ On request

**Standards**  
Client choice

**Shaft Sealing**  
+ Mechanical seal  
+ Packed gland  
+ Magnetic coupling

**Materials**  
Client choice

**SIHI Type**  
UNIP

## Your process partner Committed to engineering excellence

### Understanding the process

+ 100 years of experience  
+ Staff trained to communicate at all levels  
+ Deep application knowledge  
... Solutions with minimal customer effort

### Optimum product range

+ Unique process can be treated with simplicity  
+ Reduced cost of design, manufacture, and documentation  
+ Predictable site testing and commissioning  
... Customised solutions for standard capital costs

### Design

+ Advanced design tools  
+ Highest level of machine efficiency  
+ Long lasting reliability  
... Reduced energy, maintenance, and environmental costs

### Manufacturing

+ Centre of excellence structure  
+ High level of skill and competence  
+ Ongoing people and process development  
... Reduced integration costs

### Testing & Documentation

+ Factory and Site Acceptance Tests  
+ Certified documentation  
+ Witnessed customised testing  
... Reduced validation and commissioning costs

### Quality assurance

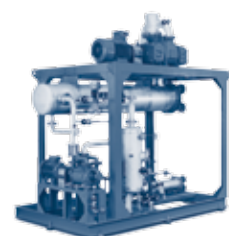
+ Total Quality Management  
+ ISO9000  
+ Rigorous health and safety culture  
... Long term security

### Aftermarket – a local approach

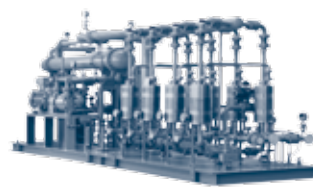
+ Dedication to process uptime  
+ Locally positioned service & technical centres  
+ Easy access to support, on a worldwide level  
... Highest level of customer care

### Competence Centre

+ Centralised design, purchasing, production, compliance, and local support  
+ De-centralised (local) quotation and project management teams



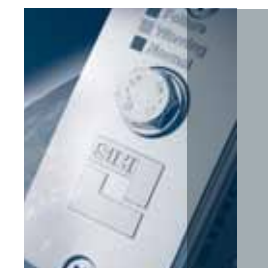
Vacuum



Membrane



Liquid



### SIHI<sup>detect</sup> – Condition Based Monitoring

**Detect wear before damage occurs**  
+ Cavitation and process turbulence  
+ Simple to connect  
+ LED display  
+ Available Ex  
+ All rotating machinery  
+ DCS integration and continual monitoring

Noise **and** Vibration analysis allows this compact device to diagnose the (often hidden) symptoms of longer term damage **even** before vibration occurs.





For further address details please visit:  
[www.sterlingSIHI.com](http://www.sterlingSIHI.com)

150.13001.51.01 E 09/2011 SMH All Rights Reserved – SIHI Group BV

## EUROPE

Sterling Fluid Systems (Austria)  
Wien  
Tel. +43 (0) 1 680 050  
[sales\\_austria@sterlingsihi.de](mailto:sales_austria@sterlingsihi.de)

Sterling Fluid Systems (Belgium)  
Groot-Bijgaarden  
Tel. +32 (0) 2 481 7711  
[sales\\_be@sterlingfluid.com](mailto:sales_be@sterlingfluid.com)

Sterling SIHI (Bulgaria)  
Sofia-Iinden  
Tel. +359 (0) 2 8228311  
[office@sterlingsihi.bg](mailto:office@sterlingsihi.bg)

Sterling Fluid Systems  
(Czech Rep.) Olomouc  
Tel. +420 587 433 651  
[sterling@sterling.cz](mailto:sterling@sterling.cz)

Sterling Fluid Systems (France)  
Trappes  
Tel. +33 (0) 1 34 823 900  
[sales.france@sterlingfluid.com](mailto:sales.france@sterlingfluid.com)

Sterling SIHI (Germany)  
Itzehoe  
Tel. +49 (0) 4821 771 04  
[sales@sterlingsihi.de](mailto:sales@sterlingsihi.de)

Sterling Fluid Systems (Hungary)  
Veszprem  
Tel. +36 (0) 88 406 633  
[info@sterlingsihi.hu](mailto:info@sterlingsihi.hu)

Sterling Fluid Systems (Italy)  
Monza, Milan  
Tel. +39 039 282 41  
[sterlingitaly@sidro.it](mailto:sterlingitaly@sidro.it)

Sterling Fluid Systems  
(Netherlands)  
Beverwijk  
Tel. +31 (0) 251 263 232  
[info@sihi.nl](mailto:info@sihi.nl)

Sterling Fluid Systems (Poland)  
Warszawa  
Tel. +48 (0) 22 335 2480/81  
[sterling@sterling.pl](mailto:sterling@sterling.pl)

Sterling Fluid Systems (Romania)  
Bucuresti  
Tel. +40 (0) 21 610 7188  
[office@sterlingsihi.ro](mailto:office@sterlingsihi.ro)

Sterling Fluid Systems (Spain)  
Madrid  
Tel. +34 91 709 1310  
[sihi@sihi.es](mailto:sihi@sihi.es)

Sterling Fluid Systems (Schweiz)  
Schaffhausen  
Tel. +41 (0) 52 644 0606  
[info@sterling.ch](mailto:info@sterling.ch)

Sterling Fluid Systems (UK)  
Altrincham, Cheshire  
Tel. +44 (0)161 928 6371  
[uksales@sterlingfluid.com](mailto:uksales@sterlingfluid.com)

## ASIA

SIHI Pumps (Singapore)  
International Business Park  
Tel. +65 65 62 83 00  
[info.singapore@sihipumpsasia.com](mailto:info.singapore@sihipumpsasia.com)

SIHI Pumps SDN BHD (Malaysia)  
Selangor Darul Ehsan  
Tel. +60 3 8942 6877  
[info.malaysia@sihipumpsasia.com](mailto:info.malaysia@sihipumpsasia.com)

SIHI Pumps (China)  
Shanghai  
Tel. +86 21 621 88068  
[info.china@sihipumpsasia.com](mailto:info.china@sihipumpsasia.com)

SIHI Pumps & Services Ltd  
(Thailand) Bangkok  
Tel. +66 38 079 877  
[info.thailand@sihipumpsasia.com](mailto:info.thailand@sihipumpsasia.com)

SIHI Pumps (Taiwan) Taipei  
Tel. +886 2 2808 4675  
[info.taiwan@sihipumpsasia.com](mailto:info.taiwan@sihipumpsasia.com)

SIHI Pumps (Korea) Seoul  
Tel.: +82 2 553 2592  
[info.korea@sihipumpsasia.com](mailto:info.korea@sihipumpsasia.com)

## AMERICAS

SIHI Pumps Limited (Canada)  
Guelph Ontario  
Tel. +1 519 824 4600  
[mail@sihi.com](mailto:mail@sihi.com)

SIHI Pumps Inc. (USA)  
Grand Island, New York  
Tel. +1 716 773 6450  
[mail@sihi.com](mailto:mail@sihi.com)

SIHI Ltda. (Chile)  
Quilicura, Santiago  
Tel. +56 2 756 5900  
[ventas@sihichile.cl](mailto:ventas@sihichile.cl)

SIHI do Brazil (Brazil)  
Campinas  
Tel.: +55 19 3773 6057  
[info@sihi.com.br](mailto:info@sihi.com.br)

SIHI Pumps (Colombia)  
Bogota  
Tel.: +57 1 364 92 64  
[info@sihi.com.co](mailto:info@sihi.com.co)

SIHI (Peru) Lima  
Tel.: +51 1 421 7411  
[ventas@sihiperu.com.pe](mailto:ventas@sihiperu.com.pe)

**STERLING**

**HALBERG**

**LaBour**

**DARWINS**