

## No Noise Pumps & Flowmeters



**Three screw pumps  
for the EU market**



**Continuum<sup>®</sup> Super silent  
Helical Rotor pumps**



**Three screw pumps  
for the US market**



**Magnetic driven  
leakage free pumps**

## The manufacturer of no noise pumps



## Super silent Continuum® pumps series



Whenever total quietness is a need for your application, **Settima** pumps are the product to choose. Thanks to the **complete abatement of noise emissions** brought by its products, **Settima** represents **the world's leading** manufacturer of **silent pumps**. Noise reduction in the workplace has become a necessity for many companies and is considered as one of the costs weighting on their business. Through **Settima technology**, noise pollution in industrial workplace can be removed at its root, without wasting money/time for alternative solutions, such as dampening equipment. Systems become not only **cheaper**, but also **simpler to install, saving space**.

**Settima** environmental awareness has developed its products placing exceptional care in **energy saving**. One of the most important requests from the industrial world is to create a **better work environment**, which is synonymous of **better efficiency, lower cost of production** and **better quality of life for workers**. The reduction of operation noise goes with no doubt towards that direction.

A special focus goes to **Continuum®**. Designed with the ultimate goal of **no noise**, it can deliver to an astonishing **15dB noise reduction** thanks to the unique & advanced **helical rotors** design, if compared to traditional gear pumps for high pressure. The helical rotors design drastically **reduces the pulsation and vibrations of the pump, avoiding pressure ripples to turn into noise**. The external construction of the pump is standard allowing **easy interchangeability on most machines**. **The design of the Continuum® relies on a sophisticated yet reliable balancing system. This design avoids gear wear while maintaining overall product efficiency.**

With its **no noise** performance at **high speed** and its **high volumetrical efficiency**, **Continuum®** is ideal for very demanding applications such as machines, material handling, agricultural and all applications where special attention to environmental protection from noise pollution is required. This is why we are proud to refer to the **Continuum®** pump as **super silent**.



**Settima three screws pumps** are **priming pumps assembled into a pump body**. The screws rotate inside the body and their design avoids any axial load. The functional pressure develops some tolerances between the main screw balancing piston and the body. This creates a balancing hydrodynamic force on the screws. **The torque** needed to move the lateral screws **is transmitted hydraulically** by the pumped fluid. This means that the screws rotate with no possibility of wearing. The **high quality of screws manufacturing** ensures a **very low level of acoustic emissions and pulsation**.

The **Continuum® no noise helical rotor pump** has been developed by **Settima** in early 2000. Its innovative concept is **patented in many countries** (patents pending and approved). The **Continuum®** pump soon became a point of reference for no-noise, low-pulsations, high pressure applications, **up to 275 bar** in continuous operation and with a maximum **peak of 320 bar**. The **Continuum®** pump is able to operate for a multitude of applications, spacing from industrial to mobile, to environmental industry and in all applications where **low noise emissions** are **mandatory for a safe environment**.



Initially, **Settima** began developing screw pumps for **lifts & elevators**. Over time, the continuous attention to customer needs has led the company to **gain experience in various fields**, increasing the number of models and becoming one of the **most important manufacturers of no noise pumps**, both for low & high pressure applications.

Born from **Settima** traditional capability to make very high precision screws, the **Continuum®** project is the flagship of our ability of research and innovation. Bringing the helical form into the rotors of gear pumps we got **Continuum®**, a unique mechanical component, able to provide incomparable performance and silent operation.

## Our company & Products



## About us



**Settima** designs and manufactures hydraulic **three screw pumps**, **Continuum® helical rotor pumps** and **flowmeters**. **Settima** pumps run **quietly** and with **no pulsations**, and they are used in hydraulic applications and systems in a wide range of industrial sectors.

**Settima** three screw pumps are **positive displacement rotary pumps with axial flow design**, with only three moving parts. The power rotor is the only driven part that extends outside the case. The idler screws act as sealing parts and are turned hydraulically by the fluid being pumped. There is only a **rolling action** between the drive screw and the idler ones, which eliminates noise and vibration.

**Settima Continuum®** range is the flagship of **Settima** production. Along with the **helical design of the rotors**, **Settima** was able to provide incomparable performance and silent operation. First and unique on the market for high efficiency, reliability, no noise characteristics, **Continuum®** brought **Settima** to the top, establishing a new standard that all competitors struggle to reach, with no success.

Since 1978 the company main branch and production sites are based in **Settima, Piacenza**. After the increase of the overall production capability and its worldwide market expansion, **Settima** has acquired a **new production plant** in 2013, in **San Giorgio Piacentino**, which is dedicated to the manufacturing of **Continuum®** pumps.

During 2014, **Settima** has moved another important step in its **Global Expansion Plan** with the recent opening of a **Sales Office in Asia**. **Settima Asia Ltd** is strategically located in **Hong Kong**, a natural hub to cover the North and Southeast part of Asia, allowing our staff to concentrate stronger efforts in reaching more thoroughly our customers from that Area. **Settima Asia** staff is strongly specialized in technical support, marketing and sales, either in OEM and in the retail market. **Settima Asia** staff also owns language skills in **Chinese, Japanese and Korean** in order to better support our customers from those countries.



**Settima** is present with direct collaborators in **Italy, Germany, Austria, Switzerland, Asia and USA**.

**Warehouses:** there are **3 main facilities**, one in the headquarter and the others in **China** and in **North America**. **Distributors & after sales:** in every part of the world, our customers can find authorized distributors. Most of our distributors are also **authorized service centers**.

**Production facilities:** **Measurement systems:** two 3D measurement systems. **Pump testing systems:** 15 testing systems. **Tool machines:** more than 40 machines. One department dedicated to the **high precision finishing of the rotors**, including 7 grinding machines. **Air depuration equipment:** **Settima** facility is a healthy place. Every single machine is filtered and the air pollution is strictly monitored.



Established in 1978, **Settima Meccanica** has a long-standing tradition manufacturing three screw pumps and flow meters. In 2004 **Settima Flow Mechanisms** was founded, to launch on the market the revolutionary and innovative no noise high pressure **Continuum®** pump. **Settima Meccanica** and **Settima Flow Mechanisms** reached more than one million pumps installed. The companies have been merged in 2013 to create one stronger entity, **Settima**.

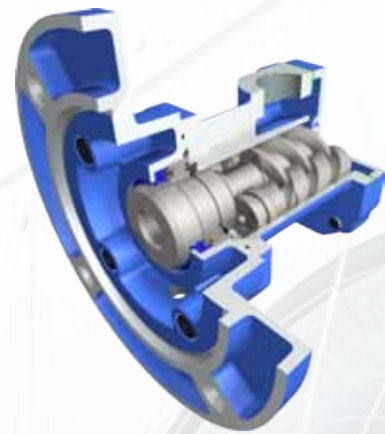
### Facts & Figures:

- Sales 2013: > 20 million EUR (88% export).
- Production facility: 6500m<sup>2</sup>, 3 production sites.
- More than 200.000 no noise pumps sold yearly.
- Active customers: > 1.000
- Employees: > 100
- Pumps fault in field: < 0,1%

## Settima screw and helical rotor pumps

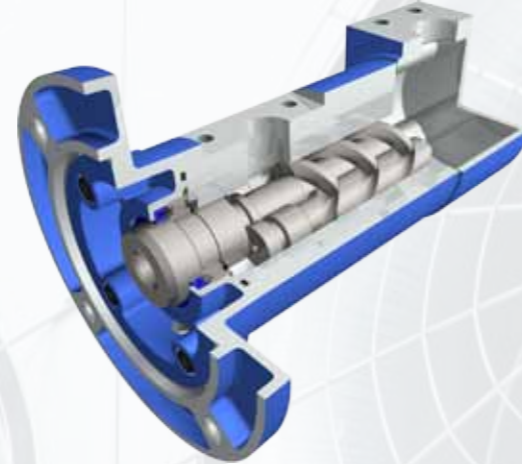


## for Coolers & Chillers



**SMT8B**

Compact cooling and filtration plants and industrial applications up to 15 bar. A version for the US market is available.



**SMT16B**

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar. A version for the US market is available.



**Settima** has addressed the needs of the Cooling applications market, by developing two three-screws pumps, the **SMT8B pump** and the **SMT16B pump**. Both of these pumps are specifically designed to be used in **fan cooler units and in more complex coolant oil refrigeration systems**.

**SMT8B pump**, designed for low-pressure applications, due to an **extremely compact body** is perfect for small fan cooling units as well as for closed-loop circuit chiller units.

**SMT16B**, for medium-pressures, up to 40 bar, is fit to be used both on bigger and more powerful fan cooling units and on chiller units. Due to its greater pressure, it is able to manage multiple coolant nozzles.



**Coolers** are **compact fan refrigeration units**, ideal for small, simple circuits. Coolers are usually preferred when there's a **low amount of heat to dissipate**, for example in pump test benches. **Settima** pumps are used to move the fluid from the source to the fan unit, where the air drains away the heat of the fluid and sends it back to the source.

**Chillers** are utilized when there's a **large quantity of heat to dissipate**. For example, in **tool machines** applications, there are **several coolant circuits** to lubricate and **drain away** the considerable amount of heat generated by the working of the gears and the movement on the rails, and each needs its own **specific fluid and closed-loop circuit**.



Settima pumps can be typically installed in three different ways in fan/air cooler units:

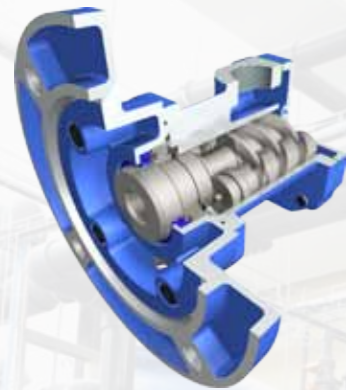
1. Settima pump is installed on one side of a non standard double-shaft electrical motor,
2. Settima double-shaft pump can be installed between the fan element and the electrical motor,
3. Settima pump is installed to a separate electrical motor; this solution is specific for high power fan coolers.

**Did you know?** Settima designed and built, for an Australian company specialized in refrigeration units, four custom pumps for a cooling system able to manage an inlet pressure up to 20 bar. The pumps were installed in a propane-compressor lube oil cooling system.

## Settima screw and helical rotor pumps

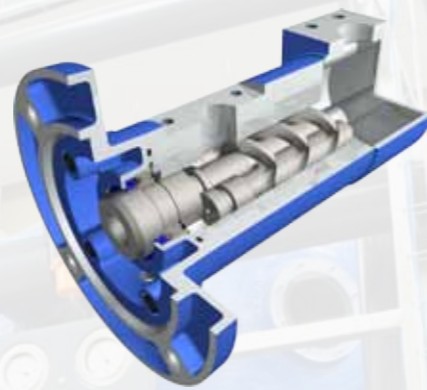


## for Filtration



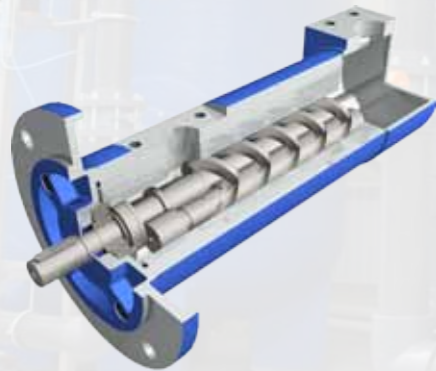
**SMT8B**

Compact cooling and filtration plants and industrial applications up to 15 bar.



**SMT16B**

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



**SMT**

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar. A version for the US market is available.



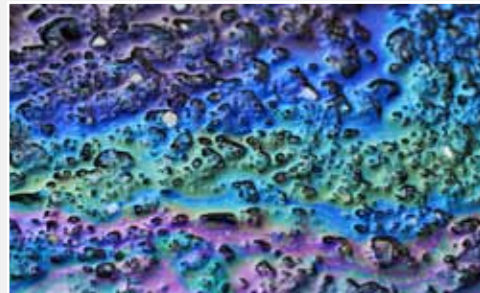
**SLN**

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



**Settima** is constantly involved in research and development of innovative solutions to be applied to **hydraulic systems** used in industrial applications. After 30 years of activity, **Settima** offers a very wide range of products, in order to meet industrial requirements for **filtration**.

Settima has addressed the needs of filtration applications by proposing its three-screws pumps models: the **SMT**, the **SMT16B** and the **SMT8B**. The **SMT** pump is able to manage high pressures, the **SMT16B** is perfect for medium pressures, and the **SMT8B**, with its extremely compact design, is perfect for low pressures and small plants. The three pumps also offer a range of flow capacity so wide to meet any request for any type and dimension of filtration plant.



**Fine Filters** and **Oil Purifiers** incorporate circulating pumps. **Settima pumps** are recognized around the world as **highly efficient components for purification systems involving hydraulic oil, lubrication oil, gear oil** and more and are widely used in equipment for **controlling oil contamination levels** from particles, water and other degradation products.

**Settima** screw pumps are suitable for **Off-line filtration equipment**. Off-line filtration units include both **stationary** and **mobile** versions. During off-line filtration the filter is in a circuit separated from the main operation stream. By separating the streams, off-line filtration can function as long as it takes for the operating fluid to reach the necessary cleanliness.



Settima three-screw pumps are ideal for **filtration systems**. A standard gear pump generates a certain level of pulsation that pushes repeatedly the impurities against the filter, widening its mesh, until they will be able to slip off. The **continuous, non-pulsating flow** generated by three-screw pumps enables the filter to function at optimal capacity.

**Did you know?** Settima pumps can be manufactured with **non standard materials and options**, such as: cast iron body, steel and cast iron screw set (normal or hardened), normal lip seal or mechanical seal. Optionally, Settima pumps can be equipped with **internal bypass** for filtration elements protection.

# Settima screw and helical rotor pumps



for Lube Oil



### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar. A version for the US market is available.



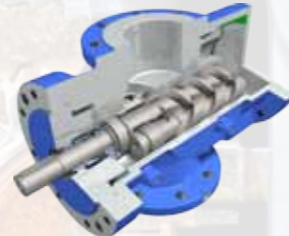
### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar. A version for the US market is available.



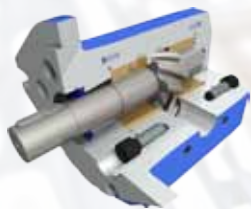
### SMAPI

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



### SLN

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### Flow Meters

Metering of viscous fluids. It can operate up to a viscosity of 40.000 cSt.



### Magnetic Coupling

high technology seals, with extremely high reliability and high performances, guaranteed to be totally leakage free.



### SMTU

designed for the USA market only and it's used in lift and elevators applications up to 1.160 PSI.



**Lubrication systems** are a critical part of all industrial machinery. To protect the gears from wear and corrosion, to reduce friction and to transfer heat from the moving parts of the machines, **Settima** offers both three-screw and helical rotor pumps. The three-screw traditional ones are the **SMT** pump and the **SMT16B** pump, while the helical rotor is the **Continuum®** pump.

The **Continuum®** helical rotor pumps are designed for loading, stripping, moving and transferring fluids with good lubrication properties, medium and high viscosity fluids such as lubricating oils, and all of this with the lowest noise emissions on the market, also at a very high pressure (up to 250 bar).



**Settima** has more than 35 years of experience in the design and manufacture of hydraulic three screw pumps suitable for **lubricating systems** in a wide range of industrial sectors. **Settima** experience and capability supplying pumps for **lube oil services, seal oil services** and in **oil jacking** is proven by thousands of installation all over the world.

**Lube oil** application requires a pump with characteristics of **reliability** and **extended service life** with the **minimum maintenance**. The typical **Lube Oil Pump** must also be capable of operation over a **wide range of temperature** and **liquid viscosity**. **Lubrication pumps** feed the lubricant from the reservoir into the tubing system of centralized lubrication systems.



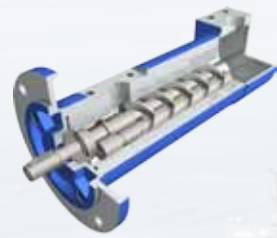
An efficient lubrication is of critical importance for machine tools. Closed-loop circuits where oils and emulsions of different viscosities are needed to lubricate, clean & drain heat from the tools, the pieces being grinded, milled or cut, the linear guides and several other functions.

Did you know? Settima Meccanica has become a strategic partner of the Chinese company Nan Tong South Hydraulic Lubrication Equipment Co., Ltd., manufacturing Lubrication Systems for Cement Plants and Power Generation applications.

# Settima screw and helical rotor pumps



# for Marine Hydraulics



**SMT**

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar.



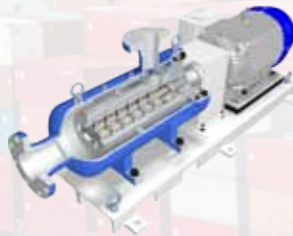
**SMT16B**

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



**SLN**

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



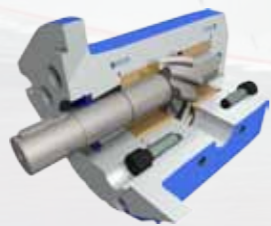
**SMAPI**

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



**Flow Meters**

Metering of viscous fluids. It can operate up to a viscosity of 40.000 cSt.



**Continuum®**

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



**NO SEAL - Magnetic Coupling**

high technology seals, with extremely high reliability and high performances, guaranteed to be totally leakage free.



**Settima** is able to cover the **needs of ships of different types and sizes**, up to the biggest cargo container ship, with products tested for a long life cycle, **low running costs and maintenance**. For the marine sector **Settima** offers a wide range of three screw pumps, also compliant with **API676 international regulations**, and helical rotor pumps.

**Settima** also ensures the **ready availability of spare parts** as the sector requires, by maintaining a constant availability of products in stock to guarantee prompt and fast deliveries. **Settima** pumps are widely used for transfer, filtration, cooling and control of the oil for diesel engines, gas turbines and reducers.



**Settima Continuum®** helical gear pumps are specifically used in the **yacht building industry** where the noise reduction represents an important feature. **Settima Continuum®** pumps are available for onboard automatic systems, such as rudder actuators, propeller pitch controls, propeller drive, mini power packs, lifting equipment, walkways, automatic dive stairs, automatic boarding ladders and more.



In the **Marine** field, **Settima** pumps are not only used in engine and fuel oil transfer applications, but also **onboard** and **harbors machinery**. The **winches** onboard of the ships, and the great **cranes** used to load and unload containers from cargo ship, from the small vessels to the largest cargo containers ships, **Settima** pumps can be installed to power the hydraulic systems of all of them.

**Did you know?** **Settima** pumps have been chosen by **MacGregor**, global leading manufacturer of integrated cargo flow solutions for maritime transportation and offshore industries. They are using **Settima** pumps for hatch covers, cranes, RoRo cargo and passenger access equipment, self-unloading systems, lashing systems, steering gears and compressors, on board deck machinery.

# Settima screw and helical rotor pumps



# for Marine Boilers



**SFO**

Lubrication and circulation of diesel oil engines, hydro turbines up to 40 bar.



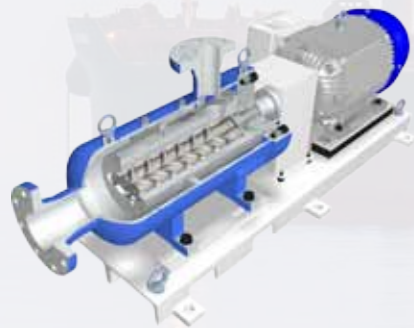
**FOTP**

Tandem units designed under ISO8217 for marine, power generation and filtration up to 80 bar.



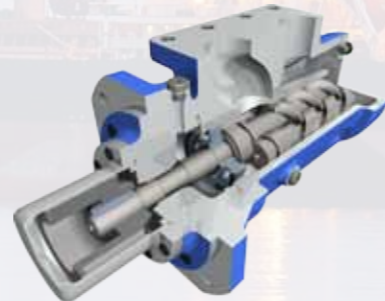
**SLN**

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



**SMAPI**

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



**NO SEAL - Magnetic Coupling**

high technology seals, with extremely high reliability and high performances, guaranteed to be totally leakage free.



**Boilers on ships and offshore platforms** are used for generating steam in a multitude of operations: pumping, power generation, cleaning, heating and much more. **Settima** range includes three pumps series specifically designed to meet the needs of the **Marine Boiler Sector**: the **FOTP**, the **SFO** and the **SMAPI (designed in accordance with API676 regulations)**. They all share the trademark features of every **Settima** product: competitive price, high quality, low noise emissions. All of them follow the **ISO8217** requirements for **low sulphur-MGO/DMX** fuels for marine diesel engines and boilers and all can be provided with a **Magnetic Coupling**, to ensure no leakage of fluid. They are used in tandem solutions (usually, the **FOTP**) for marine boilers, in the filtration and feeding of fuel of engines, in the feeding systems of burners, in the injection and feeding of diesel engines, for biodiesel plants and applications and systems for off-line filtration.



**Settima** three screw pumps series for Marine Boilers are ready to handle **all kinds of marine fluids**, such as: **Marine Fuels** (fuel oils, heavy fuels HFO, MDO, LFO, DMA, DMB, DMC, DMZ), **Marine Gas Oil (MGO)**, **Marine Residual Fuels**, **DMX fuels**, **Oils** (bunker oils, furnace oils, mineral oils). **Other Fluids**: ecologic fluids, synthetic fluids or emulsions.

**Settima FOTP** tandem pump units include **filters** ready for installation. The main advantage of **FOTP pumps** is to be composed by two pumps driven alternatively, in order to have the system **always running**, also in case of failure of one pump, or to have the possibility to handle two **different types of fuel** with one hydraulic device.



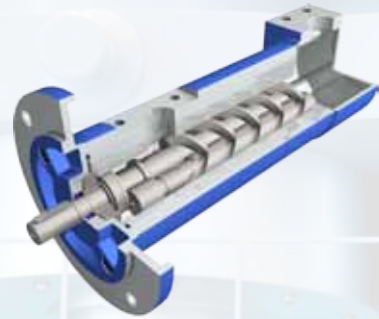
**Did you know?** **Settima** pumps aided a project of an italian society in the top ten Oil & Gas producers worldwide: **Settima SMAPI API676** pumps were utilized for diesel oil transfer during to only voyage of the **FSRU Toscana**, the colossal floating gas storage/production facility offshore Livorno. All the previous pumps were unable to manage the extreme stress of fuel injection and power generation onboard, and they failed.



## Settima screw and helical rotor pumps

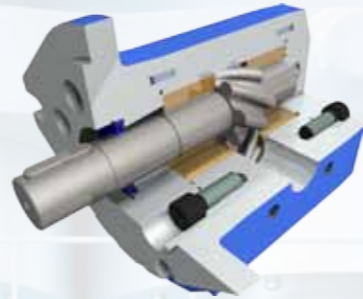


for **Presses**



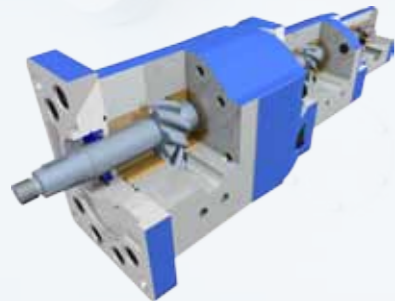
### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar.



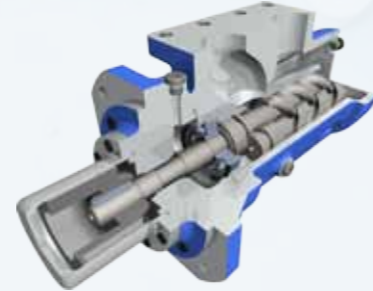
### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



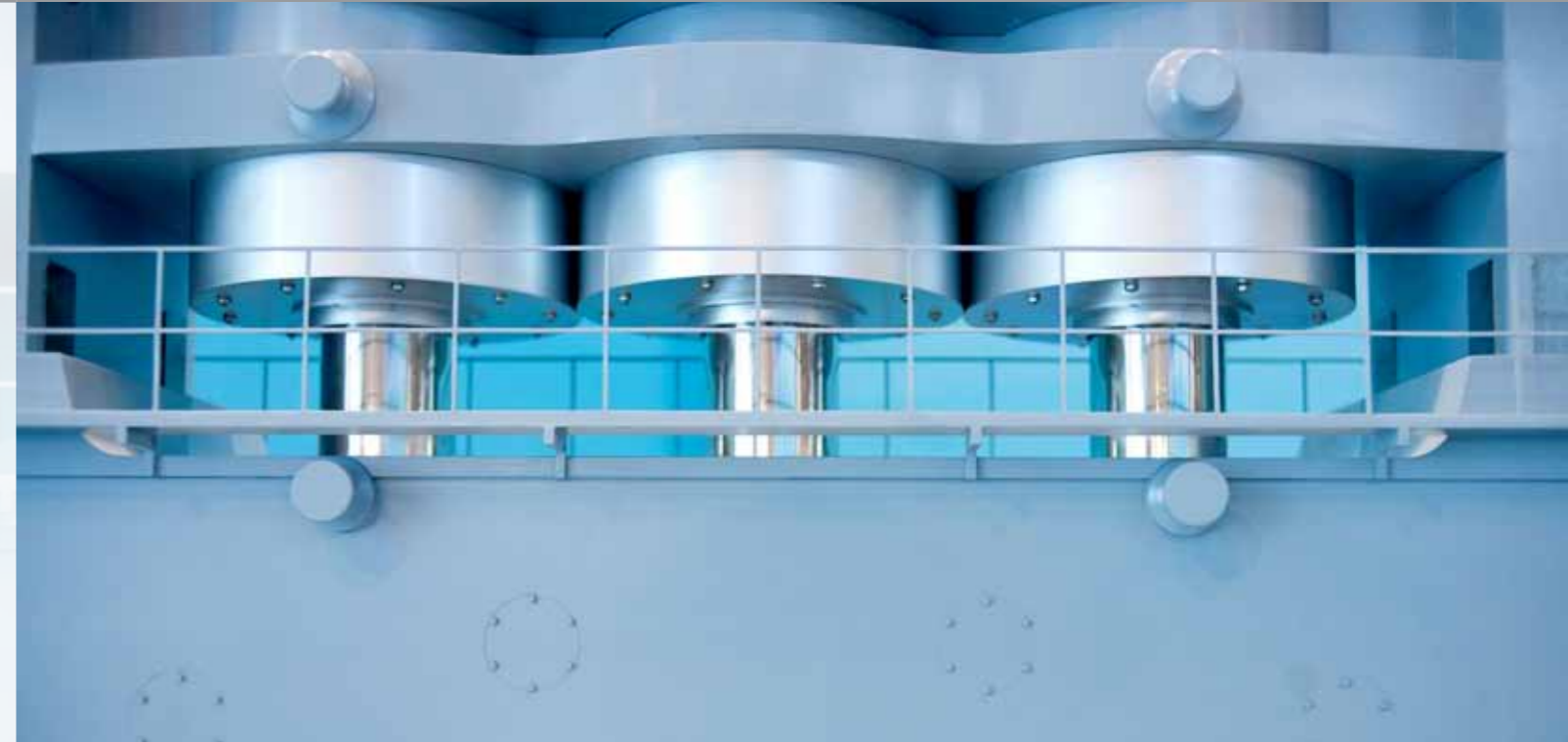
### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



### NO SEAL - Magnetic Coupling

A hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals. In case of critical media the magnetic coupling is a reliable seal and prevents any serious leaking.



For this sector **Settima** proposes its most advanced and revolutionary product: **the Continuum®**. Presses need to operate at very high pressures and possibly high flows, in large places without noise barriers. It is therefore of the utmost importance to have pumps that not only provide adequate performances, but also that reduce noise emissions to a minimum, to ensure a safer, less chaotic and more comfortable workplace, thus magnifying efficiency and productivity.

The revolutionary **no-noise low-pulsations helical rotor** is ideal where noise pollution abatement is of critical importance. Furthermore, if there should be the need to heighten the flow, or of a more accurate control of the flows in certain operations, **multiple Continuum® pumps** can be combined in a single group. With **Continuum®** pump, industrial workplaces can be no more synonymous of dangerously high noise levels.



**Continuum® servo pump** is used in the market of presses since 2008, enabling the press designers to reach wide speed dynamics in **heavy duty** pressing cycles **without noise**. **Settima** package is suitable for **press modernization** and **revamping**. It's possible to remove all of the old and noisy hydraulic components and to replace them with our **electronic systems**, making the old machines more flexible and quieter.

**Hydraulic presses** can apply the full power for which they are programmed at any point of the stroke, without damaging themselves or the piece being worked, because of **several built-in relief valves**. Maintenance is usually cheap and can be done without stopping the machine. Hydraulic presses are **less noisy than all other kind of presses** and, thanks to **Settima** pumps, they can become **truly silent**.



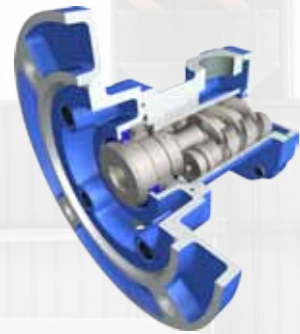
Unlike their mechanical counterparts, **hydraulic presses** can compress **any material** to a full extent. Also, hydraulic presses take only **half of the space** that the mechanical ones. For this reasons, hydraulic presses see extremely growing widespread use in industry.

**Did you know?** **Settima Continuum® No noise pump** has become the pump of choice for many industrial presses producers. Presses applications are widely used in all manufacturing plants and process, from metallurgy to plastic to chemicals and this vast field of uses represents a very large portion of Continuum® installations!

## Settima screw and helical rotor pumps



for PIM Machines



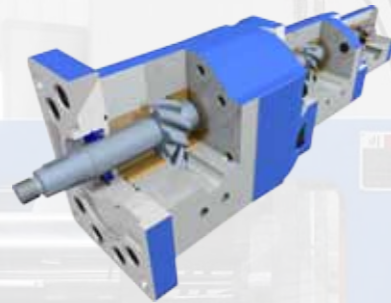
### SMT8B

Compact cooling and filtration plants and industrial applications up to 15 bar.



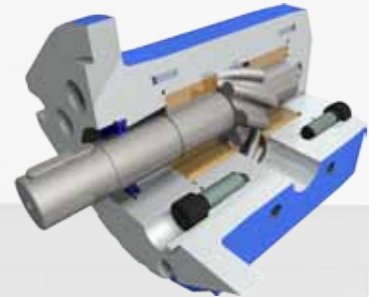
### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### NO SEAL - Magnetic Coupling

A hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals. In case of critical media the magnetic coupling is a reliable seal and prevents any serious leaking.



Settima proposes several pumps models for **Plastic Injection Molding Machines (PIMMs)**. The **SMT8B** pump, designed for low-pressure applications, due to an extremely compact body is perfect for closed-loop circuit chiller units as well as low-pressure filtration units. The **SMT16B**, for medium-pressures, up to 40 bar, is fit to be used both on bigger filtration systems and on more powerful chiller units, pumping the low-temperature coolant oil from the reservoir tank to the connected machine, and due to its greater pressure is able to manage multiple coolant nozzles. The **Continuum®** pump, able to manage pressures up to 300 bar, due to the patented no-noise low-pulsations helical rotor, it drastically lowers the noise pollution. Thus, it is perfect for applications where noise pollution abatement is an irreplaceable quality, such in an industrial environment, where lower noise means better quality of work.

Settima pumps for PIMM brings the following advantages: **No noise** operations because of the special profile of the rotors; **No leakage**: magnetic driven pumps are warranted against any leakage; **Compactness**: the hollow shaft solution or **SMT8B series** allow a very compact installation, saving system space means saving money; **Energy saving**: Settima pumps are suitable to build energy saving systems.

By using **variable speed pump**, it is possible to create **energy-efficient hydraulic drives** where, depending on the machine cycle, the **energy saving can be as much as 30%**. **Continuum® driven by servo-motor**, where shaft speed is controlled by a frequency converter is able to supply a flow proportional to pump speed, the result is a **variable flow** from a **fixed displacement pump**.



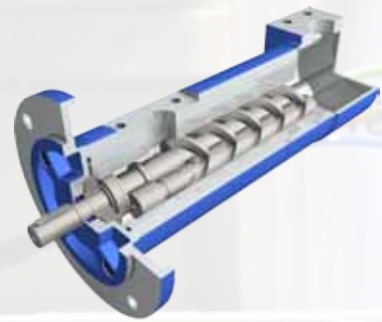
Did you know? Settima **SEAL-LESS MAGNETIC COUPLING PUMPS** have been chosen by one of the world's leader in plastic injection molding machines as the safety measure of choice. Settima magnetic coupling pumps are installed over the PIM machines used to produce one of the most loved toys for children all over the world, the LEGO® blocks, to prevent any fluid leakage that could possibly contaminate the products. Settima scores another point in ensuring safer conditions at work and home, and a cleaner world!

(LEGO® is a registered trademark of LEGO® Group, and it is reported here for information purposes only)

## Settima screw and helical rotor pumps

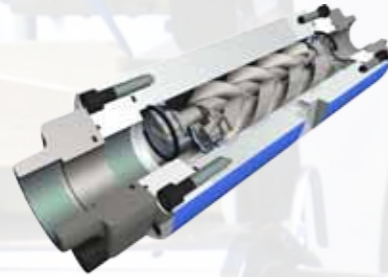


## for Machine Tools



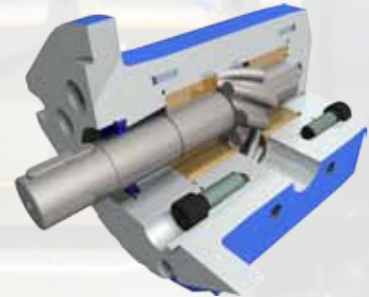
### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar.



### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.

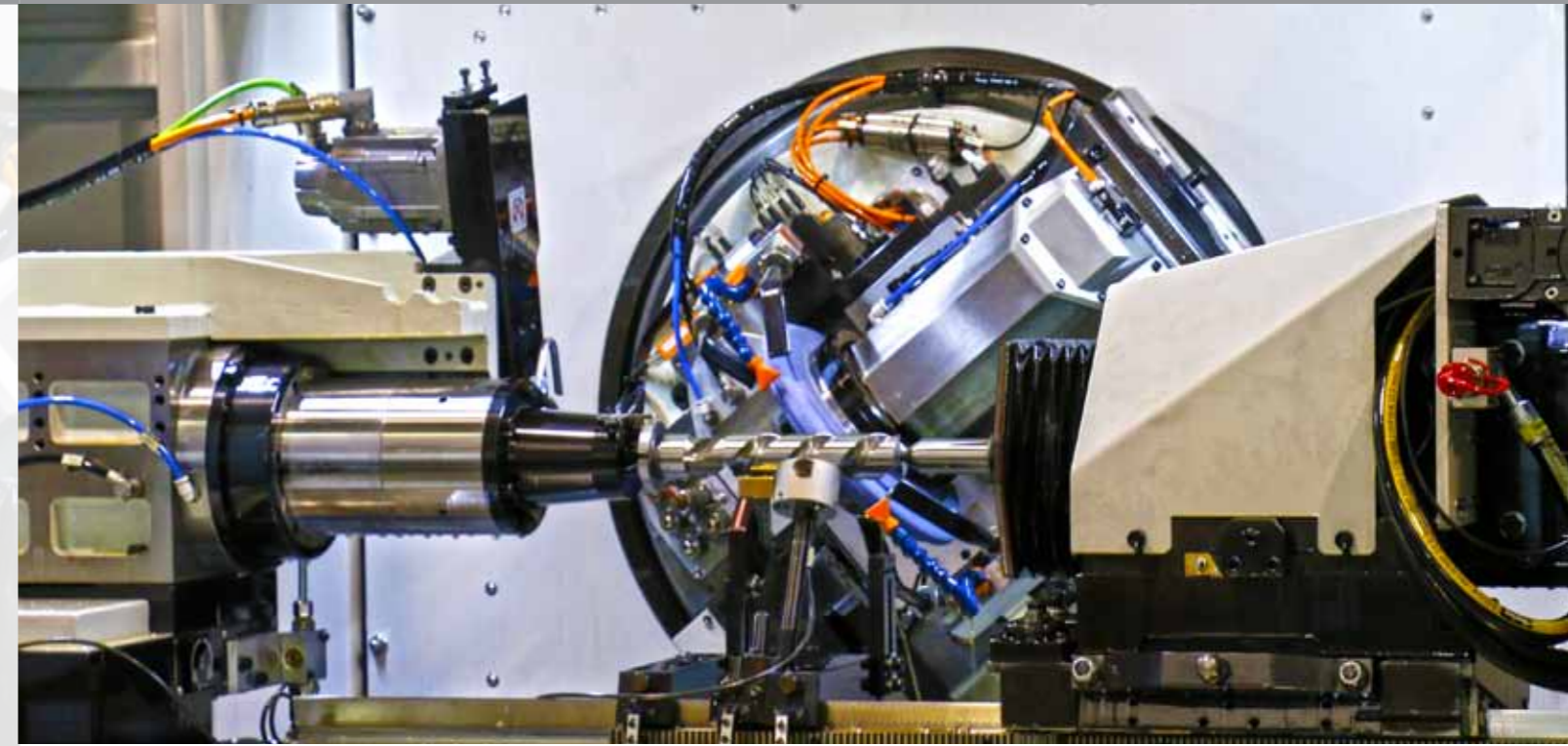
### Flow Meters

Especially designed for the metering of viscous fluids. The unit works volumetrically according to the principle of screw transmitters with high accuracy. It can operate up to a viscosity of 40.000 cSt.



### NO SEAL - Magnetic Coupling

A hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals. In case of critical media the magnetic coupling is a reliable seal and prevents any serious leaking.



**Settima range of products** includes pumps needed for satisfying the several needs of **Machine Tools hydraulic systems**: for Tool cooling and Butts cleaning, we propose the **SMT HA G TMK**, suited for dirty water/glycol emulsions and cutting oil. For the cooling and lubrication of Mandrels and Linear Guides, we can supply both **SMT8B**, **SMT16B** and **Continuum®** pumps, able to manage very clean water/glycol emulsions and hydraulic oil in a pressure range from 0 up to 120 bar. For Pedestal cooling we propose **SMT8B & SMT16B** pumps, perfect for handling cutting oils and water/glycol emulsions, both clean and dirty. Finally, for hydraulic Power Jaws, **SMT** and **Continuum®** are the perfect pumps, able to manage clean hydraulic oils at high pressures.



**Settima pumps** ensure a high level of availability and contribute to excellent **surface quality** of the machined parts. Their major advantages are **compact design, low costs, long service life, virtually pulsation-free operation and low energy consumption**. **Settima** has earned a very good reputation among plant builders, original equipment manufacturers (OEMs) and end customers as a supplier of screw & gear pumps for cooling-lubricant systems.

**PID control variable-flow frequency inverter system** has been designed for **saving energy**. With **Settima** system, that can be installed on any machine tool without any alteration, the operator only needs to input a desirable pressure level on the Motor Control Unit. The **Pressure Transducer** checks the pressure and automatically adjusts the pressure by modifying the rpm of the motor, to keep the pump providing the correct amount of fluid power.

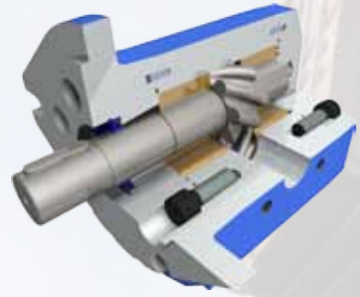


**Did you know?** Noise emission in a machine tool is the by-product of vibration. A vibrating machine tool can be less accurate in manufacturing and/or grinding metal parts. A **no-pulsation pump** generates trascurably low levels of vibration, thus magnifying the precision of the work processes. Further, a **silent pump** can reduce noise emission by an average of 15 dB than standard gear pumps and provide a more silent and comfortable work environment, thus maximizing productivity!

## Settima screw and helical rotor pumps



for **Industrial Mobile**



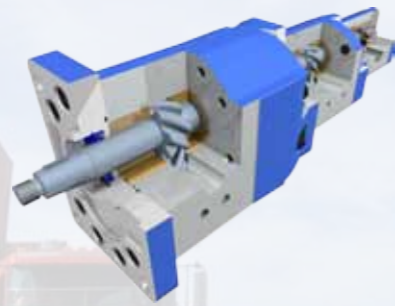
### Continuum®

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### SMT8B

Compact cooling and filtration plants and industrial applications up to 15 bar.



### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



For the **Mobile and Material Handling industry**, Settima has developed two concepts among the most innovative and revolutionary on the market: **SMT8B** and **Continuum®**. The operations of **cooling, filtration and low-pressure recirculation** of machinery, are entrusted to a pump, which is unique both for its compact size and for the efficiency of performance: the series **SMT8B**. The technical features of **Continuum®** pump, high pressure, low noise, compact design, are ideally suited for application in **power units, tilting, lifting and steering units**. The **Continuum®** pump is also fully interchangeable with gear or vane pumps, and particularly suited for applications where noise pollution abatement is an irreplaceable quality, especially taking into account that protecting the quality of the work has become increasingly synonymous of cost control and productivity improvement.



**Lifting Tailgates** are widely used in transport and logistic vehicles. Therefore, it is of great importance to reduce noise during goods loading and unloading operations. **Settima** proposes the **Continuum®**. Thanks to its internationally patented design and the innovative rotors profile, the **Continuum®** pump ensures no-noise and no-pulsation operations, reducing the noise pollution. Silent work operations mean more efficiency, less noise pollution and a better quality of life.



In the **Material Handling and Mobile** sector, there are two main issues to solve: the need of **high pressure pumps** for movement, storage, control and protection of materials and the need to keep the **workplace as safe and as comfortable as possible**. This is a fundamental characteristics in those machineries working in residential areas, such as refuse collection vehicles and street sweepers, where low noise level will benefit both operators and people in the surroundings.

**Products Innovations: Continuum®** The world's most silents gear pumps  
Settima was the first on the market with a real innovation into the high pressure pumps market. In 2004 Settima put on the market a special and innovative low noise pump, patented in many countries (approved and pending). This new type of pump is using a revolutionary concept that goes beyond any other low noise pump solution.

**Did you know?** Settima Continuum® no noise pump has been adopted by a material handling equipment manufacturer for a low-noise forklift model series. The company, with offices and production facilities in both Italy and Ireland, received a specific request by some of its clients. They had to manage very large warehouses, with many forklifts operating in closed spaces, and the noise level was a serious issue. The Continuum® pump on a specifically designed forklift series solved their problems!

## Settima screw and helical rotor pumps

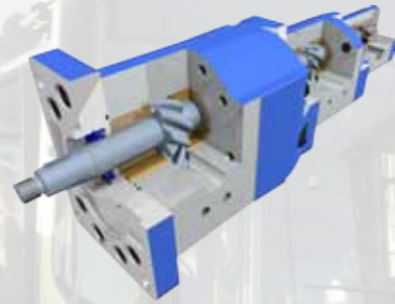


for **People's Mobile**



### Continuum®

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



For the **People's Mobile industry**, Settima offers its most innovativative and revolutionary product, the **Continuum®**. The operations of **oil recirculation** and **lubrication of steering units**, are entrusted to hydraulic pumps, selected both for their **compact size**, **minimal weight** and efficiency. The **Continuum®** pump series is able to respond to the needs of this sector of application. But the most important advantage of the **Continuum®** is to be no noise and thus particularly suited for applications where noise pollution abatement is an irreplaceable quality, especially for passenger and commercial vehicles such as buses servicing in residential and densely inhabited areas.



**Settima Continuum®** pumps are now seeing use in another Mobile application quite common in the North American market, being utilized to **power the hydraulic stabilizing jacks for motor-homes**. When a motor home stops, for the night or for a rest, it uses the stabilizing jacks to level the floor plain. Now this operation can be done with an hydraulic system with no noises.

**Settima Continuum®** pumps are used in the hydraulic circuits of **steering systems on buses and other passenger vehicles**. Compact dimensions and low weight, make of **Continuum®** the ideal pump to obtain the best performance, **saving living space** for people. The **no noise technology** of **Continuum®** contributes to build the **maximum comfort experience** for passenger and the environment.



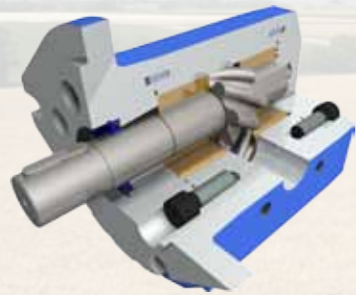
**Continuum®** pumps are suitable for **multiple setups**, whereby the drive shaft of the first pump is extended to a second, third or fourth **Continuum®** pump. Each pump is connected to another by means of coupling. Each pump has its own suction port and can **manage fluids from different tanks**. This is extremely useful particularly in places where space is extremely scarce and at a premium, for example in Mobile applications.

**Did you know?** Settima Continuum® no noise pump has been installed in a dark ride present in several DISNEY amusement parks, in Los Angeles, Orlando and Hong Kong. The rail of the dark ride was running along the control unit, in which was installed a very noisy gear pump. The operators unsuccessfully tried to solve the problem by raising the background music volume. They found a solution installing a **Continuum®**.

## Settima screw and helical rotor pumps

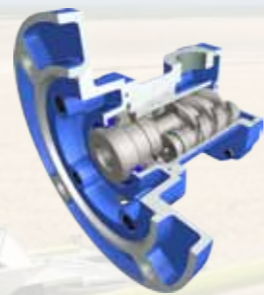


for Agriculture



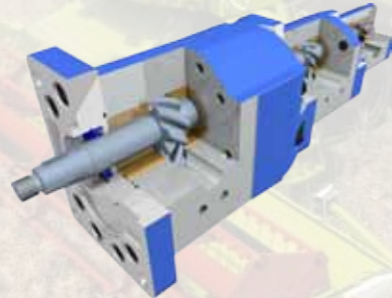
### Continuum®

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### SMT8B

Compact cooling and filtration plants and industrial applications up to 15 bar.



### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



For the **Agricultural Industry**, **Settima** offers its most innovativative and revolutionary product, the **Continuum®** and a special series of three screw pumps, the **SMT8B**. The operations of **cooling, chillin, filtration, circulation, power units, tilting, lifting & steering units** are entrusted to hydraulic pumps, selected both for their **compact size, minimal weight** and efficiency. The **Continuum®** pump series is able to respond to the needs of this sector of application thanks to its high pressure and high speed performance also at heavy duty.



Such as for **Waste Baling Presses**, **Settima** proposes the **Continuum® pumps** also for to specific applications such as: tractors, **cattle feeder mixers, self moving loader, harvesting machines, bale handlers, self propelled sprayers, telehandlers in general and windrowers.**

In the **Agricultural** sector, there are several issues that **Settima** pumps can profitable solve. Agricultural equipment need the support of hydraulics for cooling, filtration, oil circulation, power packs and for all of those **automatism**s such as lifting, tilting & steering.

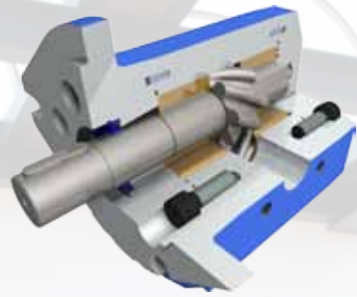


**Did you know?** **Settima Continuum® no noise pump** has been adopted by several European and Worldwide agricultural equipment manufacturers. **Settima Continuum®** pumps are profitably utilized for combined hydraulics applications and installed on different kind of agricultural machines.

Applying a **magnetic coupling**, the drive and the driven sides are hermetically separated. In case of **pollutant media** the magnetic coupling is a reliable seal and prevents any serious leaking. The magnetic coupling therefore is used to ensure no media leaking or if pumps are used in sensible environments, **avoiding possible contamination of harvest and fields.**

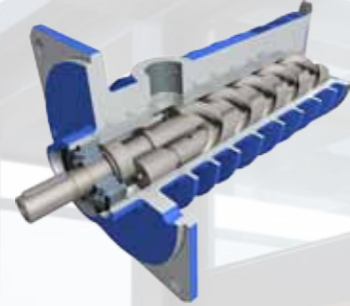
# Settima screw and helical rotor pumps

# for Lift & Elevators



### Continuum®

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



### SM - SMU

lifts and freight elevators. A model for USA market (SMU) is available.



### SM AC - SMU AC

The SM AC pump is a model of the SM pump with hollow shaft. A model for USA market (SMU) is available.



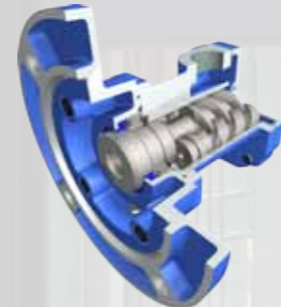
### SMTU

USA lifts and freight elevators



### Settima MicroLiv

a micro-levelling motor pump unit that is compact and with very low noise emissions. The system integrates a safety bypass and can be installed in any place due to its very compact size designed to save space.



### SMT8B

Compact cooling and filtration plants and industrial applications up to 15 bar.



**Settima** was born in 1978 with the production of three screw hydraulic pumps for **hydraulic lifts**, and over the years has become the European leader in this field. The result of years of experience is the **SM** series, volumetric pumps designed with axial transfer of the pressure, for both external and submersed use, and the **Continuum®**, a high-pressure helical rotor pump internationally patented, first in the world to be no-noise and no-pulsation. They both share the trademark features of every **Settima** product: competitive price, high quality, low noise emissions. **Settima** also provides the **MicroLiv**, a micro-levelling motor pump unit that is compact and with very low noise emissions. The system integrates a safety bypass and can be installed in any place due to its very compact size designed to save space.



To complete the range of pumps for lift industry, **Settima** designs two screw pump series ideal for **home lift heat exchangers**, to limit the oil overheating in heavy duty hydraulic systems such as for home lift:

- **SMT16B** medium size, high pressures three-screws pump,
- **SMT8B** compact size, low pressures three-screws pump.

**Settima Continuum®** pumps have been installed on the hi-tech gondola railway on the «**Ponte della Costituzione**» in **Venice**, better known worldwide as the «**Calatrava's Bridge**». The engineers working on the structure chose **Continuum®** as a comfortable and reliable mean to let disabled tourists and citizens have access on the bridge.



**Settima** pump series for home lift & elevators should be used both as **submersible** pumps (**horizontal installation, vertical installation**) and/or as **semi-submersible**. All with no maintenance. **Settima**, as a service to the customers, can supply **submersible motors and pump assembly**, letting the our customer save time and money in the assembly phase.

**Did you know?** **Settima SM** is the 1st pump designed by **Settima** in 1978. As a statement of its sound and reliable design, the **SM** pump has changed little over its almost 40 years of service. In 2013 **Settima** received a request for a new **SM** pump to replace the old one, which just broke up. The original **SM** pump was installed in 1982, and worked perfectly for more than 30 years before malfunctioning.

## Settima screw and helical rotor pumps



## for Parking Systems



### Continuum®

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.

### Settima MicroLiv

a micro-levelling motor pump unit that is compact and with very low noise emissions. The system integrates a safety bypass and can be installed in any place due to its very compact size designed to save space.



The concept for the **automated parking system** was driven by two factors: the constant increase of the number of vehicles needing parking spaces and a scarcity of available land. An **automated car parking system** is a mechanical system designed to **minimize the area and volume required for parking cars**. Like a multi-story parking garage it provides parking for cars on multiple levels stacked vertically to maximize the number of parking spaces while minimizing land usage. The ideal **Settima pump** for car lift, car parking & elevator applications is **Continuum®**.



**Hydraulic Car Parking Systems** aren't used just to save space. Another concern may be the **safety** of the car, or to keep it indoor without altering the local architecture. In similar cases, a hydraulic parking lift can help. It meets the requirements of safety, keeping the car safe from bad weather, accidental or intentional damage from other sources.

The technical features of **Continuum®** make it perfectly suited for application in **parking systems**. Thus, it is perfect for applications where noise pollution abatement is an irreplaceable quality, such as parking systems in hotels or in densely-populated areas, in particular during the night time.



Amongst Settima products **Innovations**, **Hollow Shaft three screw pumps** are surely noteworthy. In 1995 Settima was the **first company** developing a very compact screw pump with the possibility to be **connected directly to an electrical motor** (IEC or NEMA). This enables our customer to save space and money within their systems, due to lower maintenance required and the reduced number of components. SM AC three screw pumps are profitably used in lifting equipment from several sectors, further to parking systems.

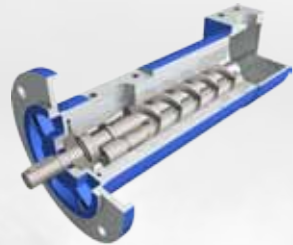
**Did you know?** By using variable speed pump like **Continuum®**, it is possible to create **energy-efficient hydraulic drives** where, depending on the machine cycle, **energy saving can be as much as 30%** when compared to a metering-controlled drive. Losses are largely eliminated when the supply flow is matched to demand. An optimum solution is provided by **Continuum®** pump driven by servo-motor where shaft speed is controlled by a frequency converter.



# Settima screw and helical rotor pumps

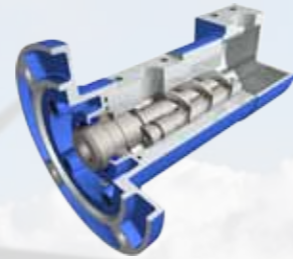


# for Windmill



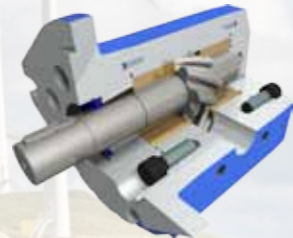
**SMT**

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar.



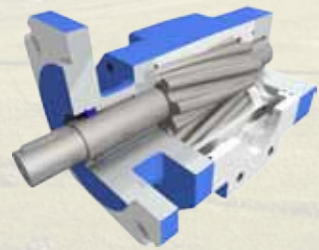
**SMT16B**

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



**Continuum®**

no-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



**2VHL Continuum®**

no-noise low-pulsation helical rotor pump is especially designed for use in extreme environments, for windmill plants, marine and industrial low-pressure applications up to 40 bar.



**NO SEAL - Magnetic Coupling**

A hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals. In case of critical media the magnetic coupling is a reliable seal and prevents any serious leaking.



The **Windmill** application is a very demanding one for the hydraulic pumps industry. Many of the utility grade wind turbines incorporate the use of **hydraulics for braking** or utilize a **forced lubrication system**. Since maintenance costs are very high and turbines can be quite difficult to reach, it is expected from all parts to run without maintenance, all year round, with a Medium Time Before Failure (MTBF) in excess of 100.000 hours. For the Windmill application **Settima** has faced the many challenges posed by these difficult parameters by developing a range of pumps particularly able to withstand the rigors of windmill installation, both on the ground and in open sea: the **SMT SN** pump, the **SMT16B** pump, and the **2VHL Continuum®** pump.



The latest trend in the wind industry is to develop more **offshore wind turbine parks**, due to the favorable weather conditions found in open sea. This has naturally changed the **maintenance strategy**, moving from a reactive to a proactive one, ensuring that the pump is able to withstand the **very low temperatures** and the **high increment in viscosity** of the fluid used as a lubricant. **Settima** designs its dedicated gearbox lubricant pumps with this concept in mind.

**Settima** pumps are of the **highest quality**: they can manage a **viscosity of up to 100.000 cSt**, all parts are sourced from first class certified suppliers, built with **stainless steel fixing screws and hard anodic oxidation (MIL A-8625F and UNI 7796 compliant)** to avoid corrosion damage. Additionally, a **Magnetic Coupling** can be provided for every **Settima** pump, thus increasing the lifespan of the windmill and minimizing the chance of a failure.



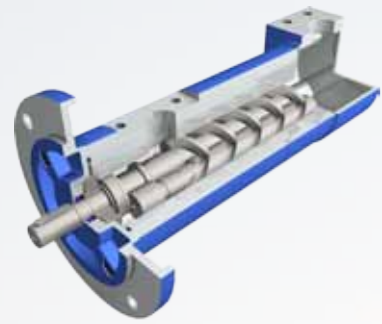
**Quality first.** And quality means also fast and high technical customer service. **Settima** has always been serving every customer in the world in the same way of the customer we have here, near us, in Italy. **Settima supports your integration needs.** Custom design and integration with other components and pre-existing systems is always available as per customer request.

**Did you know?** **Settima 2VHL Continuum®** is the most durable pump on the market. With its body made of cast iron and its helical rotors manufactured with high-strength hardened steel, the **2VHL Continuum®** can easily manage a fluid viscosity of 100.000 cSt and remain fully operational from -50°C up to 150°C, even in the most extreme conditions.

# Settima screw and helical rotor pumps

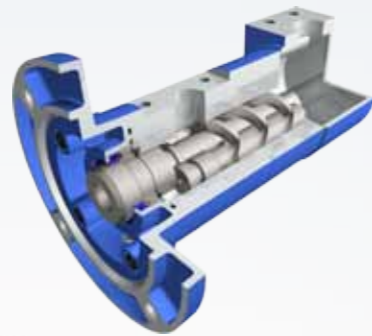


for Oil&Gas



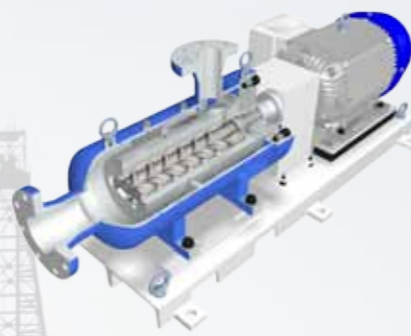
### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar.



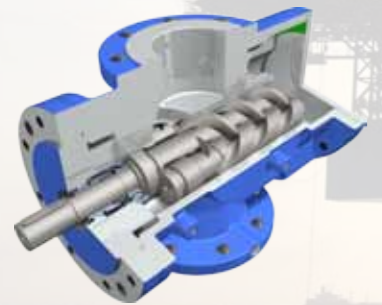
### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar.



### SMAPI

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



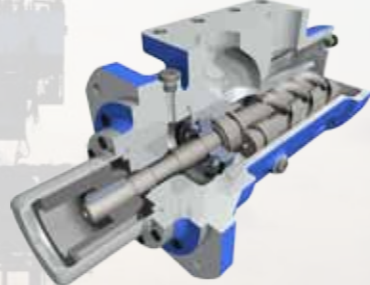
### SLN

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



### Flow Meters

Especially designed for the metering of viscous fluids. The unit works volumetrically according to the principle of screw transmitters with high accuracy. It can operate up to a viscosity of 40.000 cSt.



### NO SEAL - Magnetic Coupling

A hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals. In case of critical media the magnetic coupling is a reliable seal and prevents any serious leaking.



For the Oil & Gas applications **Settima** offers several three screw pumps series such as **SMT**, **SMT16B** & **SMAPI**. **Settima** three screw pumps are suitable for **transfer, circulation and mixing of clean fluids with lubricating power, at low and high viscosity**, such as oil, crude oil and fuel oil, but also for the lubrication at medium viscosity, with lubricating oil, fuel or paraffin. A special highlight goes to **Settima SMAPI** series, designed in compliance with **API676 regulations**. **SMAPI** is a three screw pump fitted into an external case. Matching all of the possible applications, it can be manufactured with different structural shapes, installation possibilities and materials. **Settima SMAPI** pumps can always ensure flow and pressure matching to your current requirements, thanks to the possibility of customization.



### A SMAPI pump is composed by:

#### External body:

The part which is installed into the system. The external body can be delivered in **ASME carbon steel and inox**, in accordance to **API International Regulations**.

#### Internal cartridge:

The internal cartridge can be a **SMT** or a **SMT16B** pump. In case of maintenance, it can be easily removed from the case, without dismantling the system.

**API614, Fourth Edition, chapter 3 (1999)**, defines the **requirements of components for general purpose lube oil systems**. It also sets an industry accepted standard for oil-type shaft-sealing systems and dry gas face-type shaft-sealing systems used for petroleum, chemical, gas and other industries. The latest edition states that in order to be **compliant with API614 norms**, positive displacement screw pumps must be designed to **follow the API676 standards**.



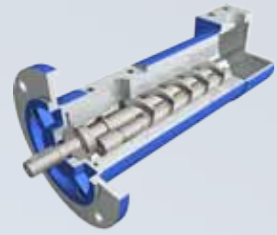
**Seal less magnetic drive pumps:** a hermetically sealed magnetic coupling is available (as option) for all pump models to replace standard seals in all of those applications where a full warranty of non-leakage is mandatory. In case of **critical media**, the magnetic coupling is the most reliable and durable seal and **prevents any serious fluid leaking**, protecting the environment against oil pollution for a very long time.

**Did you know?** Settima built several SMAPI 100% API676 compliant and supplied them to the **Shin Nippon Project**. Those SMAPI, thanks to a high-reliability mechanical seal, were fully complying with the **API 682 requirements** and so they were certified by the **American Petroleum Institute**.

# Settima screw and helical rotor pumps



# for Power Generation



### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar. A version for the US market is available.



### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar. A version for the US market is available.



### SLN

Compact, long life pumps for in-line plants, cooling, filtration, lube and fuel oil up to 40 bar.



### SMAPI

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



### Flow Meters

Metering of viscous fluids. It can operate up to a viscosity of 40,000 cSt.



### Magnetic Coupling

high technology seals, with extremely high reliability and high performances, guaranteed to be totally leakage free.

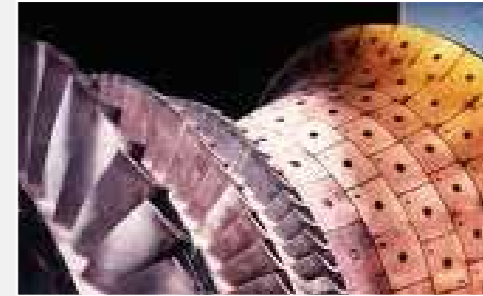


The success of **Settima** in the **Power generation** sector is the result of a technological design that is renewed every day, to provide quality products and **high energy savings**. **Settima** has developed pumps for the **transfer and loading** of various types of oils and lubricant fluids, covering the requirements of lubrication, filtration and cooling of turbines and compressors. In particular, **Settima** products are used in **lube oil cooling services and applications and in oil jacking systems**, where the jacking oil pumps ensure there is no direct metal contact between a journal and the bearing of the huge shafts of steam turbines, thus greatly reducing friction and bearing wear.



**Settima is partner of many leading engineering firms, major equipment manufacturers (OEMs) and end-users**, being a well-known name in the Power Generation Industry. **Settima** three screw pumps are operating in **Gas, Steam&Nuclear power plants, Hydro power plants, Engine driven power plants**.

**Settima** pumps are widely used in **tandem solutions** for feeding and injection systems for **burners, for corrosive liquids and oil at high temperature, or in Seal Oil systems**, diverting a portion of lubrication oil to hermetically close the seals ensuring no gas leakage.



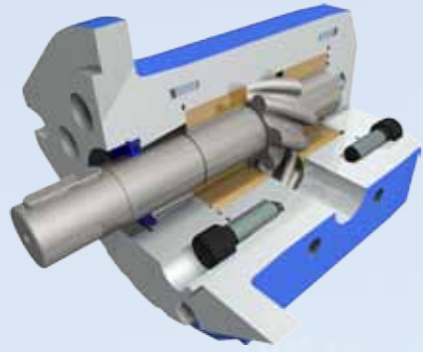
**Did you know?** Settima SMAPI (API676) GR180, the largest three-screws pump ever built in Settima, with a total motor pump unit length of 3 meters and a weight just short of 2 tons, able to manage a flow of 250L m3/hour at 1.800 rpm, has been specifically designed and manufactured to be used in a very large power plant in South Korea.

Settima SFO three screw pumps series represent the ideal pump for Power Generation applications. It is utilized for lubrication, circulation and transfer lubrication of diesel engines, hydro turbines, paper machines and other machine tools, gears, gas and steam turbines.

## Settima screw and helical rotor pumps

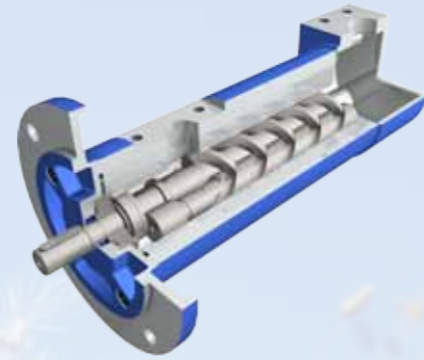


## for Energy Saving Systems



### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.

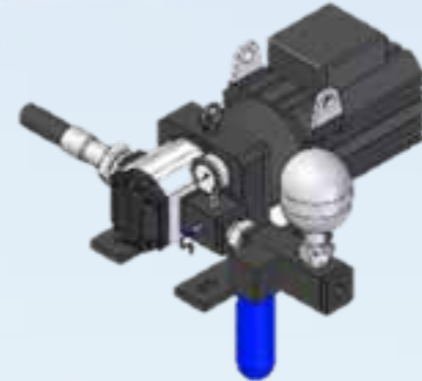


### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar. A version for the US market is available.



**PID control variable-flow frequency inverter system** has been designed with the goal of saving energy, thus lower costs while being eco-friendly.



**The Continuum® servo pump** is used in the market of presses since 2008. Easy to install, it enables the press designers to reach wide speed dynamics in heavy duty pressing cycles without noise, and with real energy savings.



**Hydraulic servo drives** have been on the market since many years. The usage of **variable servo drive motors** and **fixed displacement pumps**, like external gear, vane or internal gear pumps enables **energy savings up to 65%** when compared to conventional drive systems (fixed speed motor and variable displacement hydraulic pumps). This kind of systems, while reaching real energy savings, also enables **huge simplifications** of the hydraulic circuits: no more proportional valves or complicated hydraulic pressure feedback are needed to control the press actions and cycles. Servo pump systems use motor speed between nearly 0 and 3.000 RPM, to enable **very fast movement** and a **high cycle dynamics**, with very **low levels of acoustic emissions**.



**PID control variable-flow frequency inverter system** has been designed for saving energy. With **Settima** system, that can be installed on any tool machine without any alteration, the operator only needs to input a desirable pressure level on the Motor Control Unit. The **Pressure Transducer** checks the pressure and automatically adjusts the pressure by modifying the rpm of the motor, to keep the pump providing the correct amount of fluid power.



The **real innovation** in hydraulics for energy saving is **Continuum®**. Introduced on the market in early 2004 the **Continuum® servo pump** is used on **presses** since 2008, enabling the designers to reach **wide speed dynamics in heavy duty pressing cycles without noise**. The **Continuum® servo drive pump** can be equipped with: accumulator, pressure line filter, non return valve, inline pressure and temperature sensor, servo drive and motor.

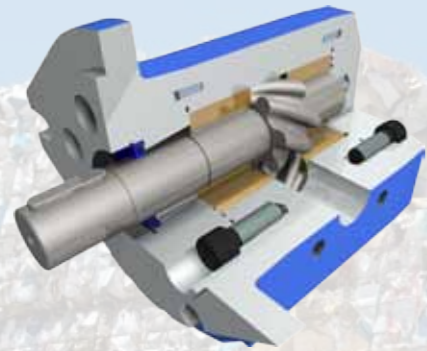
Settima Energy Saving Systems are specifically suitable for **press and tools machines modernization and re-vamping**. It's possible to remove all of the old and noisy hydraulic components and to replace them with our system, making the old machines more **flexible and quieter than ever**.

Did you know? Settima Energy Saving Systems are designed to be extremely easy to install on a pre-existing system. They can be mounted on any tool machine or system, without any re-engineering or modification needed thanks to their full compatibility.

# Settima screw and helical rotor pumps

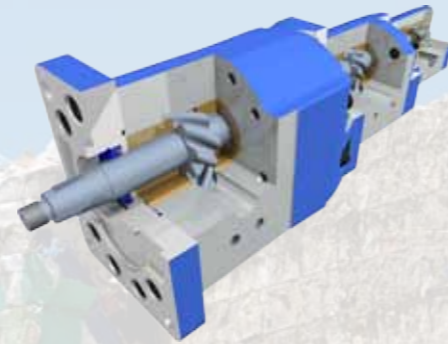


# for Waste Management



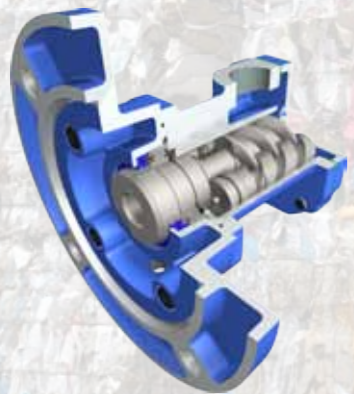
### Continuum®

No-noise low-pulsations helical rotor pump for high-pressure applications (ranging from industrial to mobile and marine), up to 300 bar.



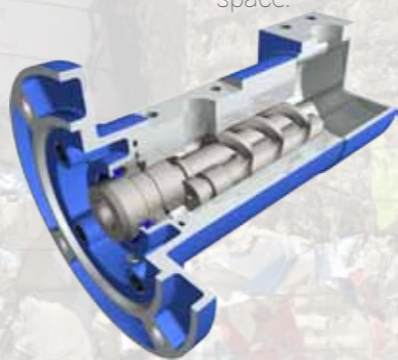
### MULTIPLE STAGE Continuum®

The Continuum® pump can be combined in a multiple configuration system (managing fluids from different tanks if needed), to be used in closed loop circuits, when there's need to drastically heighten the flow or to save space.



### SMT8B

Compact cooling and filtration plants and industrial applications up to 15 bar.



### SMT16B

Cooling, filtration, mineral and synthetic oil plants industrial applications up to 40 bar. A version for the US market is available.



**Continuum®** helical gear pumps are suitable for application in the **auxiliary hydraulic circuits** of most of **waste treatment** and **recycling equipment**, such as **compactors** and **baling presses**. Thanks to the helical design of the rotors, internationally patented, **Continuum®** pumps are able to reduce to the minimum level both **pulsation** and **noise emissions** of about **20%** if compared with standard external gear pumps. This is a fundamental characteristics in all of those machineries working in **residential areas**, such as private and municipal refuse collection vehicles and waste compactors. Low noise level will benefit both operators and people in the surroundings. **Continuum®** are also suitable for **multiple setups**.



Very low noise and more efficient equipment ensure a **cleaner environment**, **no noise pollution** and **considerable energy savings**. **Settima** is able to offer the perfect product to this end, thanks to its high-technology, revolutionary **Continuum®** pump series, **completely no-noise** and **no-pulsation**.



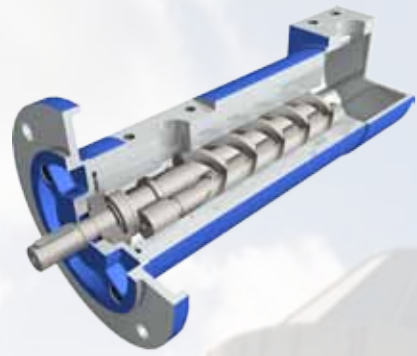
The operations of **cooling**, **filtration** and **low-pressure recirculation of mobile** refuse collection trucks, hooklift-tilt mechanisms, back&front loading containers, lift-dumper containers are entrusted to a three screw pump, which is unique both for its **compact size** and for the **efficiency** of performance: the series **SMT8B**.

**Did you know?** The recent EU Regulation 2014/540 sets a maximum of noise level several decibel lower than before for vehicles, including waste compacting trucks. Those trucks experience the problem of noise generated by the pumps while loading and unloading trash bins and waste compacting. **Continuum®** pump helps meet the new noise levels as defined in the EU Regulation 2014/540 and measured as the CNOSSOS-EU protocol guidelines.

# Settima screw and helical rotor pumps

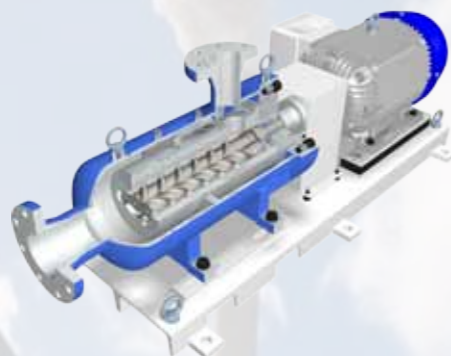


# for Industrial Boilers



### SMT

High viscosity fluids, windmill, oil circulation and industrial use up to 100 bar. A version for the US market is available.



### SMAPI

Manufactured according to API 676 3rd edition for marine applications, boiler ignition/feeding and fuel transfer up to 60 bar.



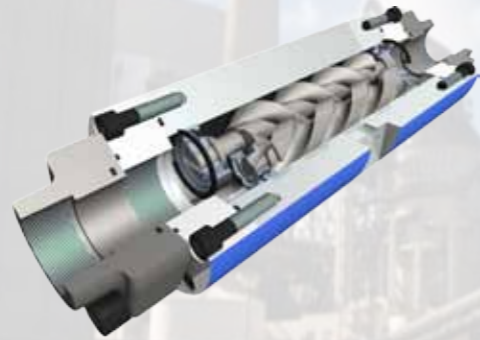
### SFO

Lubrication and circulation of diesel oil engines, hydro turbines up to 40 bar.



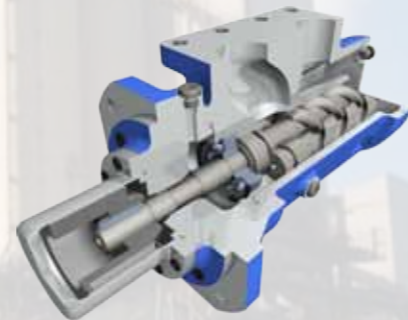
### FOTP

Tandem units designed under ISO8217 for marine, power generation and filtration up to 80 bar.



### Flow Meters

Metering of viscous fluids. It can operate up to a viscosity of 40.000 cSt.



### Magnetic Coupling

high technology seals, with extremely high reliability and high performances, guaranteed to be totally leakage free.



Artificial heating is necessary for many aspects of human's life. In addition to this, there are also **several technical processes** that are only possible through heat, for example, **cooking, boiling** and **cleaning** processes in food & beverage industry and in many other branches such as paper & pulp, building, chemical or textile industry. These processes function only through heat. The required heat for domestic and industrial processes is produced centrally through an **Industrial-Grade Boiler**. The heart of an **Industrial-Grade Boiler System** is a **hot water** or **steam boiler** operated with a fuel. The boiler heats up or evaporates the water, which is then transported to the consumers via pipe systems. The cooled water or the condensed steam returns to the boiler where it can be heated again.



**Industrial-Grade Boilers** are widely used for a **moltitude of applications**, ranging from food & beverage, breweries, automotive, textile, dyeing, chemicals, building materials, paper & pulp, wood processing, greenhouses, hospitals, plastics & rubber, glass fibres, pharmaceutical, metal & steel working, refineries, waste processing and many more.



**Settima** range includes **three-screw pumps** designed to meet the needs of **Industrial Boiler** application: **SMT** and **SMAPI** (API676 Compliant). They share the trademark features of every **Settima** product: competitive price, high quality, low noise emissions. Both of them can be equipped with a **Magnetic Coupling**, to ensure no leakage of fluid.

Pumping heat transfer fluids provides a wide range of challenges. Many problems can be traced back to **mechanical seal failures**, resulting in costly repairs and down time. **By eliminating the mechanical shaft seal, Settima FGM seal-less magnetic driven pumps** provide a more reliable, safer and cost-effective solution for hot fluids and heat transfer applications.

**Did you know?** Settima SMT is one of the most versatile products from Settima range of three-screw pumps. The SMT pump is able to manage high-pressures and therefore it can be utilized for an unrivalled wide range of **high-stress applications** in very demanding sectors, like industrial grade boilers.

# Engineering & Certifications



# Settima Full Range of Products



**SMT** - high pressure industrial, lube and tool machines



**SMT16B** - cooling, filtration and lube oil



**SMT8B** - compact cooling and filtration



**SFO** - shipyards diesel oil handling



**SMAPI (API676)**- wide range of marine and industrial applications



**FOTP** - high reliability boiler ignition/feeding marine application



**SLN**- in-line plants for cooling, filtration, lube and fuel oil



**SM** - lift and freight elevators



**SMTU** - USA lift and freight elevators



**Continuum®** - high pressure, no noise fluid power applications



**2VHL Continuum®** - low pressure no noise lube services



**FLOWMETERS** - high pressure, high precision flow measurement

Settima takes into account the special needs of its customers into the design and manufacturing. Through its **Engineering department**, Settima is able to develop projects that fully incorporate the requests of its customers. So the **quality and flexibility** of Settima production are combined with the ability to provide custom designs, offering **competitive solutions for cost, performances and integration possibilities**. The **High Technical Standard** of our systems is based on **expertise** and it is **certified** by several international institutions. **Settima** products are **100% tested** and **all plants, materials** and the **manufacturing system** are **certified** according to the following **Quality Management Certification Bodies**:



ISO 9001 - Quality System



ATEX (Atmosphères Explosibles)

EN10204 3.1b

EN102043.1b - Material

Several leading **Marine Certifications** are also available, according to the following **International Certification Bodies**:



**Certifications and Engineering** are a **resource** for our **customers, partners** and for the **environment**. If some certification is not available today, it could be available tomorrow. Please, contact **Settima** and we will be glad to answer you.

**Technical Catalogues** are available for each pump model for further specification. Please, do not hesitate to contact us. We would be pleased to send you any additional documentation you may need.

**SETTIMA**

**Settima, Italy**

Headquarter, r&d and production

**SETTIMA**

**USA  
Warehouse**

**SETTIMA**

**Settima Asia Ltd  
Sales Office**



**SETTIMA**<sup>®</sup>  
research & innovation, always

**Settima Meccanica Srl**  
Settima - 29020  
Piacenza Italia

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