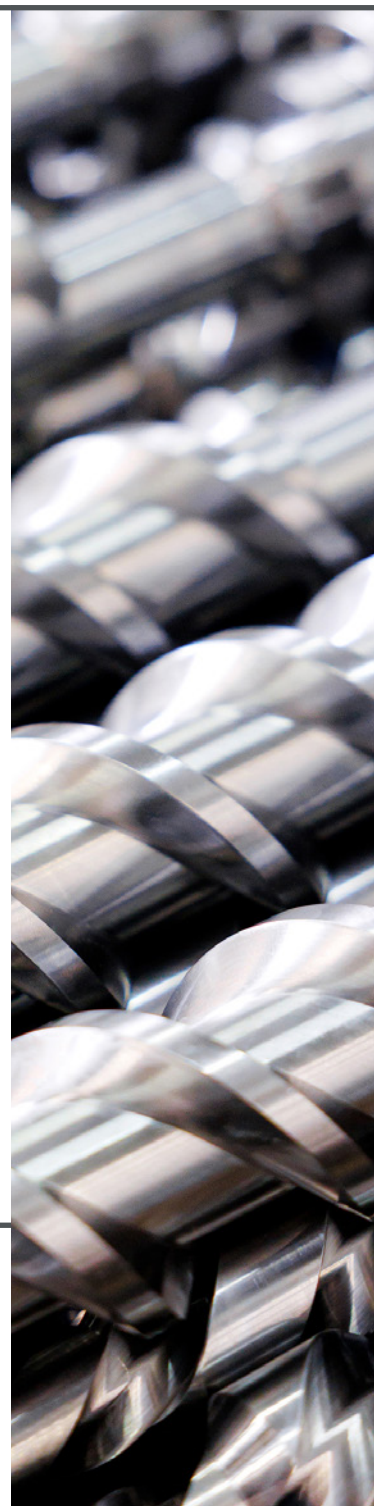




SEIM MARINE Products & applications



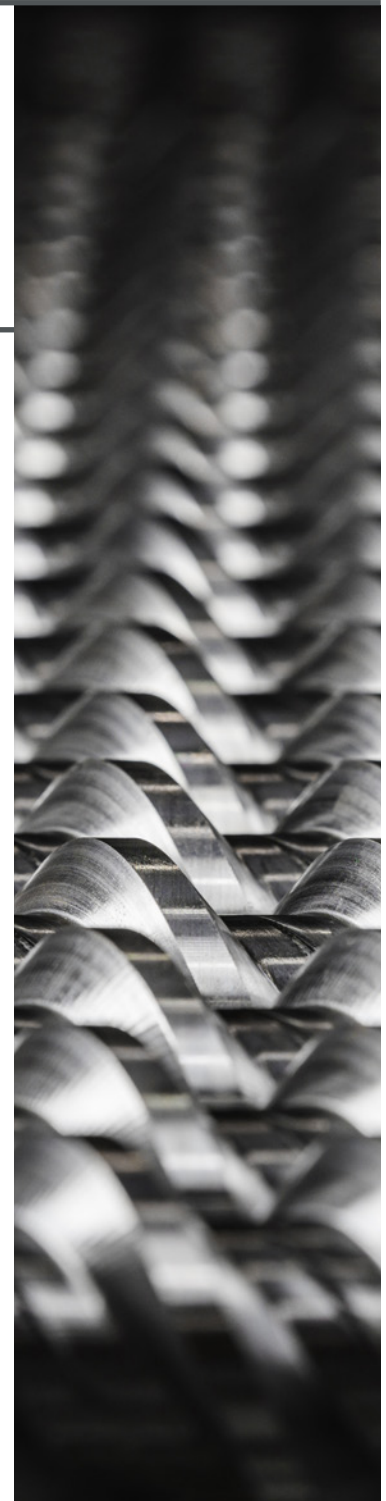
MADE IN ITALY



www.seim.it

Index

| | |
|---|----|
| About Us | 3 |
| Applications | 4 |
| Complete Range of Screw Pumps & Accessories - FOR MARINE MARKET | 5 |
| Technical Details | 12 |
| Digital Panel Available as Optional | 20 |
| Marine Product Certifications Available | 21 |





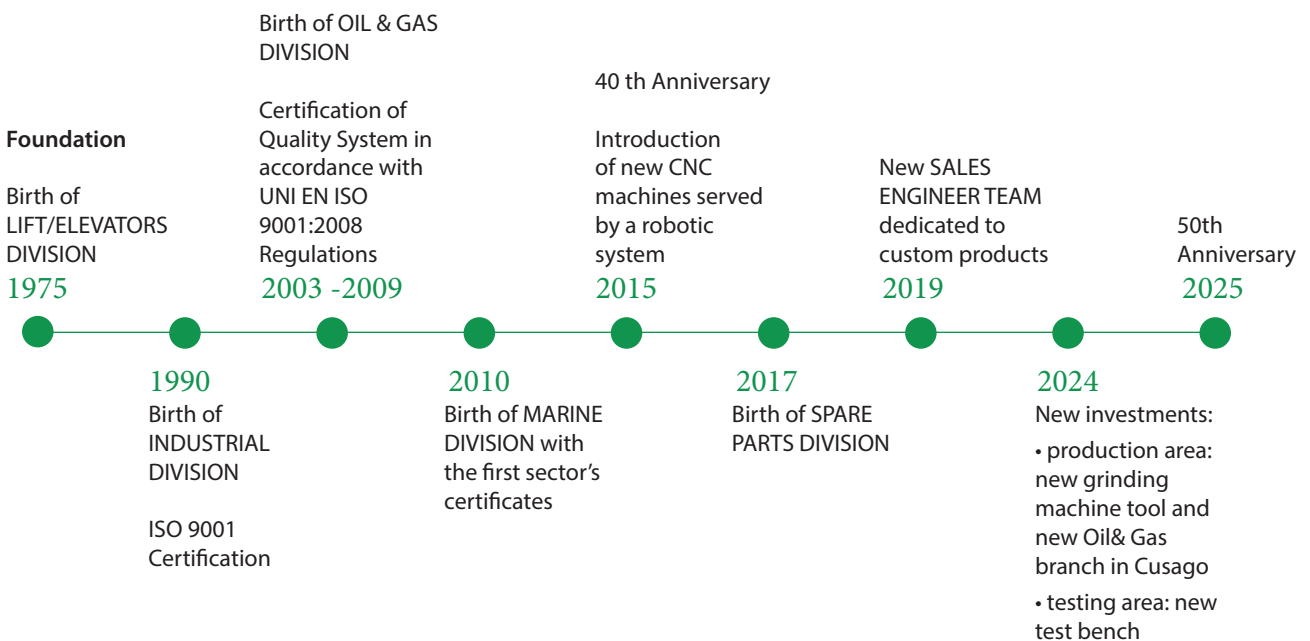
About Us

SEIM is a Made in Italy company which produces Screw Pumps and operates in the market for 50 years, reaching a position of leadership.

SEIM installed World-Wide over three million of screw pumps, heat exchangers and safety valves, developed entirely in-house and based on the know-how gained over the decades, for numerous industrial sectors, such as Energy, Marine, Petrochemical, Oil and Gas, Industrial (Machine Tools, Lubrication and Hydraulics, Mining, Iron and Steel).

Thanks to its high-tech systems and the synergetic collaboration with customers and distributors, the R&D department develops new standard and customized products aimed at satisfying requests for new applications of use.

Milestones



Applications

CARGO and TRANSFER



PZ

ENGINE ROOM: BOOSTER and SEPARATOR



PZ



PCXAO

LUBRICATION: ENGINE, THRUSTER and GEAR BOX



PHS

BOILER & BURNER



PB

PCXAO

CONSUMPTION & CONTROL



MPV2

LOADING, UNLOADING and STRIPPING



2SP

Complete Range of Screw Pumps & Accessories - FOR MARINE MARKET

PZ



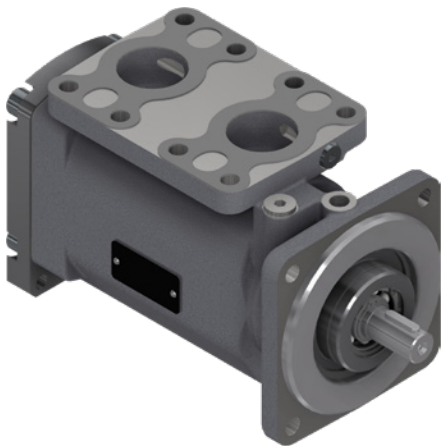
Cargo & Transfer
Engine Room: Booster & Separator
Lubrication: Engine, Thruster & Gear Box

| | |
|-------------------------------------|--------------------------------------|
| Flow Rate | up to 5400 LPM (up to 1425 USGPM) |
| Admissible delivery pressure | up to 16 bar (232 psi) |
| Kinematic viscosity | 1,2 to 1500 cSt |
| Driving speed | 750 to 3600 rpm |

Low-medium pressure triple screw pump
 for marine fuel supply
 and lubricating systems

- In-line suction and delivery DN ports
- Suitable for magnetic coupling
- Built-in relief valve, pressure gauge connections
- Low pulsation and noise
- Long operational life and minimal maintenance
- Very high viscous fluids handling
- Vertical/horizontal installation with integrated foot

PHS



**Engine Room: Booster & Separator
Lubrication: Engine, Thruster & Gear Box**

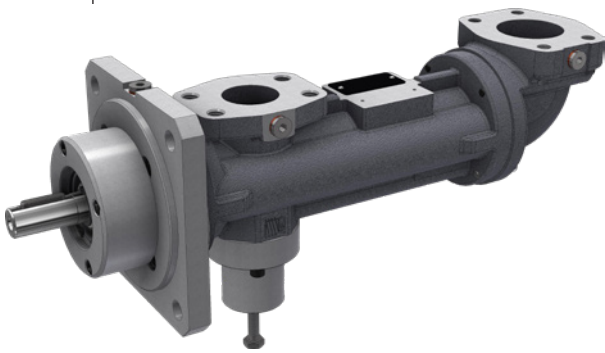
| | |
|-------------------------------------|-----------------------------------|
| Flow Rate | up to 170 LPM (up to 45 USGPM) |
| Admissible delivery pressure | up to 16 bar (232 psi) |
| Kinematic viscosity | 1,2 to 400 cSt |
| Driving speed | 750 to 3600 rpm |

Low-medium pressure triple screw pump
for marine fuel supply
and lubricating systems

- Suitable for magnetic coupling
- Built-on relief valve, pressure gauge connections
- Low pulsation and noise
- Long operational life

PB

**Engine Room: Booster & Separator
Lubrication: Engine, Thruster & Gear Box
Boiler & Burner**



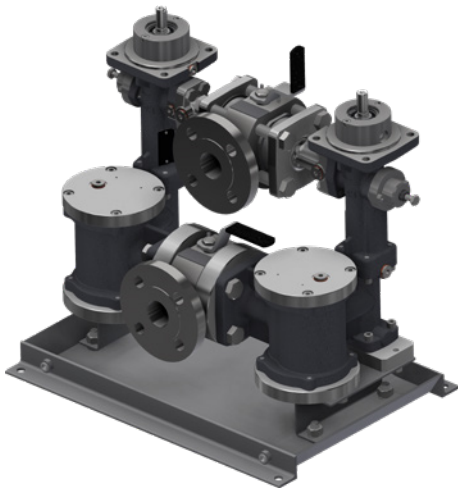
| | |
|-------------------------------------|-------------------------------------|
| Flow Rate | up to 1000 LPM (up to 264 USGPM) |
| Admissible delivery pressure | up to 50 bar (725 psi) |
| Kinematic viscosity | 1,2 to 1500 cSt |
| Driving speed | 750 to 3600 rpm |

Medium pressure triple screw pump
for marine fuel supply
& lubricating system

- Compact shape
- Built-on relief valve, pressure gauge connections
- Standard flange connection (SAE)
- Suitable for magnetic coupling
- Pumps used for SEIM SPB double pump station for Boiler/Burner
- Low pulsation and noise
- Long operational life and minimal maintenance

SPB

Double Station



**Engine Room: Booster & Separator
Boiler & Burner
Circulation**

Delivery flow

up to 43 LPM
(up to 11 USGPM)

**Admissible delivery
pressure**

up to 40 bar
(580 psi)

Kinematic viscosity

1,2 to 1500 cSt

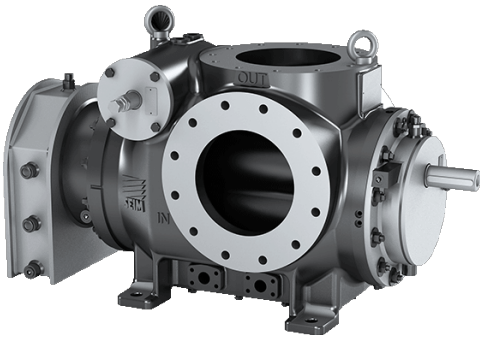
**Driving speed
(pump)**

750 to 3600 rpm

Medium pressure double pump station
for Power diesel engines or burners.
Lubricating systems and cooling

- Compact shape
- With inlet/outlet shut-off valve
- Inlet selector valve (two different fluids)
- Bracket support
- Low pulsation and noise
- Long operational life
- Magnetic coupling available

2SP

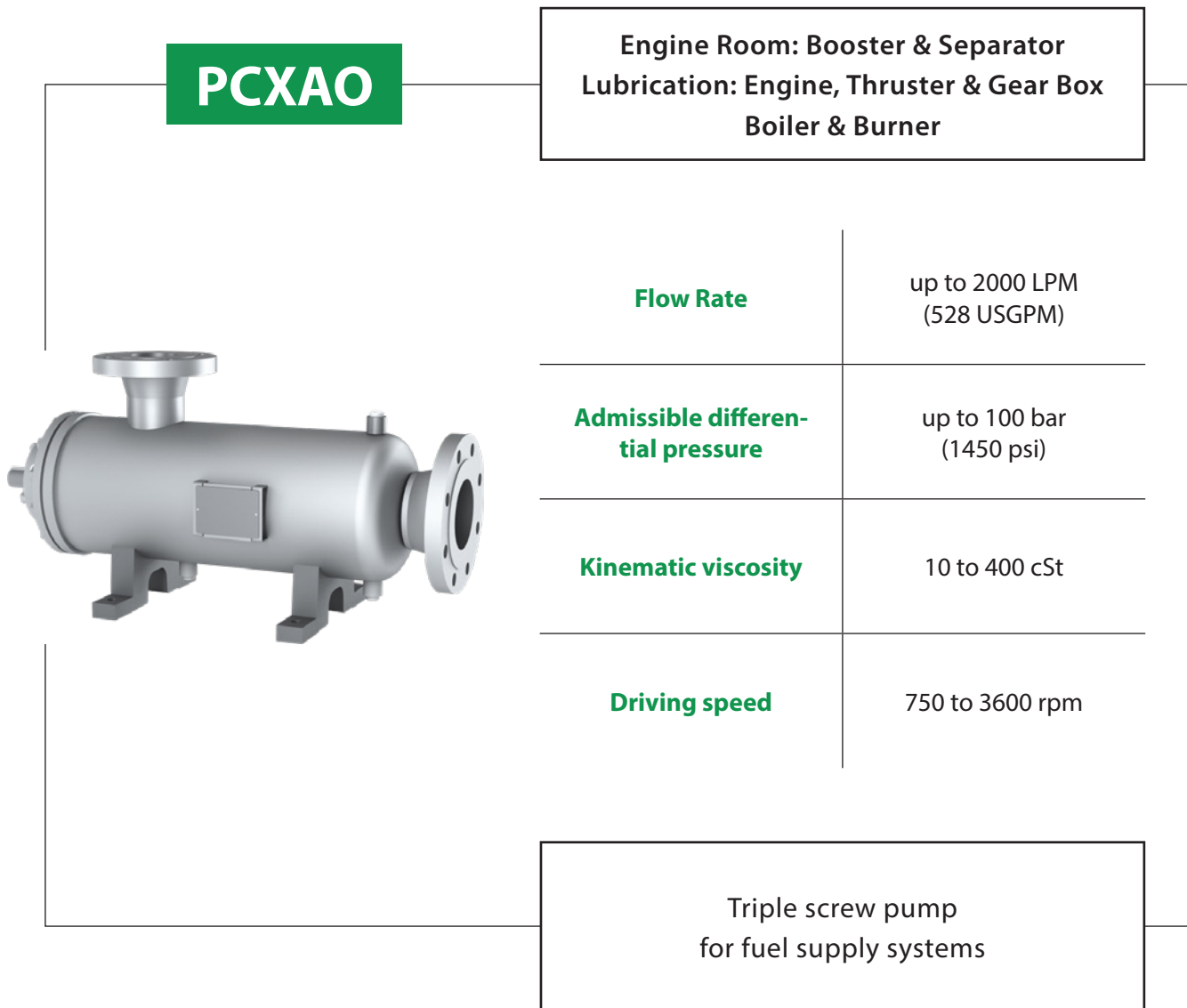


**Loading/Unloading
Cargo & Transfer**

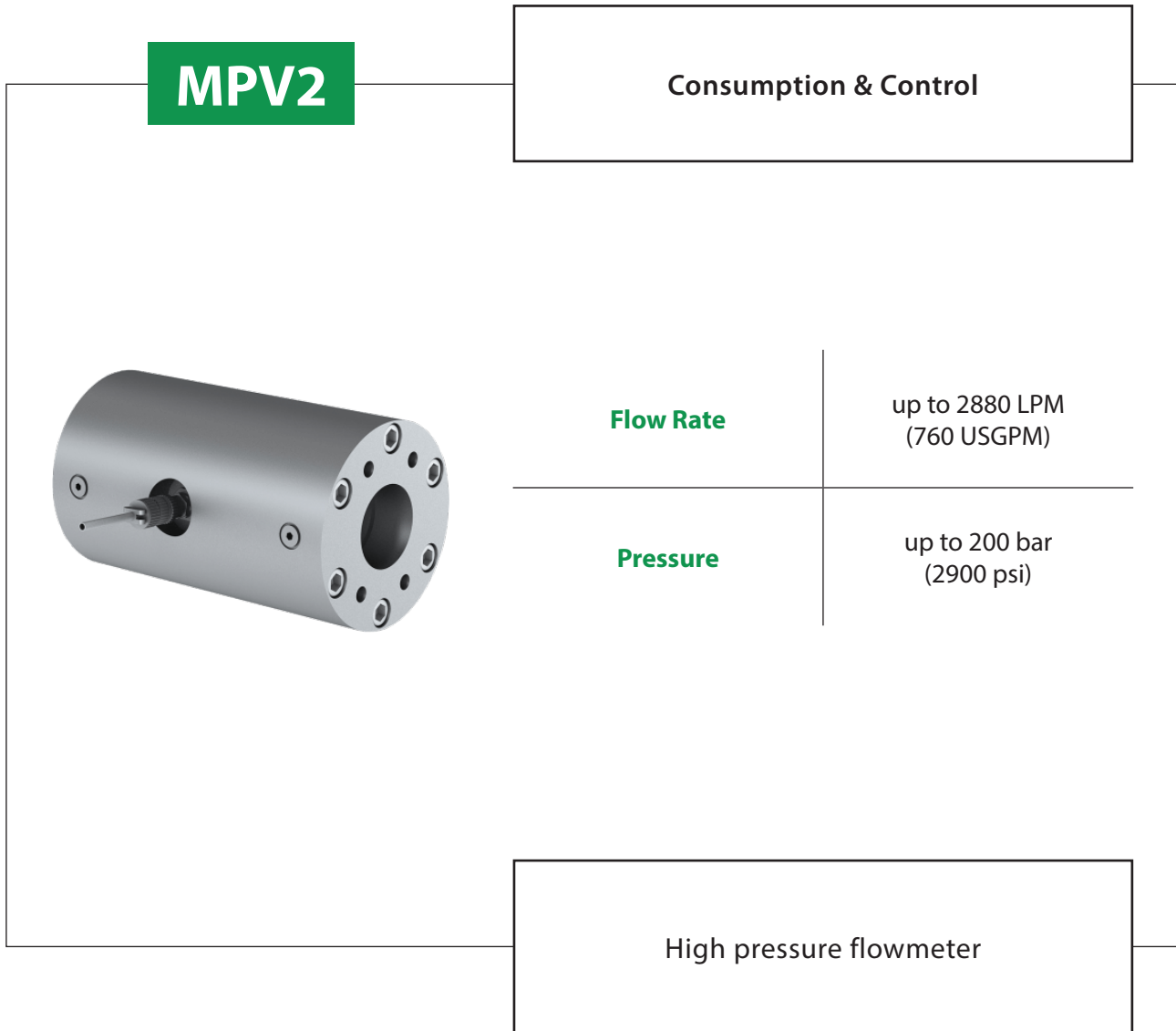
| | |
|---|----------------------------------|
| Flow Rate | up to 19.000 LPM (5020 USGPM) |
| Admissible differential pressure | up to 16 bar (232 psi) |
| Kinematic viscosity | 1,2 to 5000 cSt |
| Driving speed | 750 to 3600 rpm |

Twin screw pump
for high flow transfer
with timing gears

- High capacity
- Very low NPSH required, also < 2 mWc
- Large viscosity range, from 1 to over 10.000 cSt
- Option for heating chamber
- Built-on PRV



- Versatile pump who can be installed in horizontal or vertical position, both pedestal or submerged in the tank
- According to the project specifications can be customized with different materials of construction and features
- Low pulsation and noise
- Long operational life and minimal maintenance



- Flow measurement also bidirectional (it is possible to dismount the sensor without fluid leakage)
- Only a sensor to measure flow rate and flow direction
- Evidence of the difference in flow rate between two flowmeters of the same size
- PLC Remote control possibility
- Versions with optional dedicated digital Display available

Technical Details

**Series
PZ**



INSTALLATION DATA

| | |
|--------------|---|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Cargo, Separator, Transfer, Booster, Feeder, Fuel supply, Lubricating |

OPERATING DATA

| | |
|-------------------------------------|--|
| Handled fluid | Fuel oil HFO - DO - LSMGO - Jetfuel - HVO - FAME - Hydraulic and Lube oils |
| Viscosity range | From 1,2 to 1500 cSt (<5000 cSt special configuration on request) |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

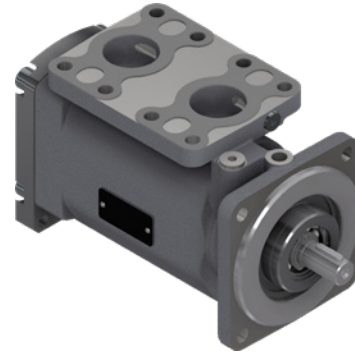
| | |
|-----------------------------|--|
| Flow rate | Up to 5400 LPM - 1425 USGPM |
| Suction pressure | From - 0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | Up to 16 bar - 232 psi |
| Operating temperature range | From 0 to 150 °C (*) |
| Seal | Mechanical seal |
| Bearing type | Radial ball on main shaft |
| Bearing lubrication | Lubricated for life |
| Mounting arrangement | Horizontal or vertical mounting (foot on demand) |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | Nodular Cast Iron EN-GJS-400-15 EN 16482 |
| Screws | Nitrided steel |
| O-rings | Viton [®] |
| Surface protection | Only on demand |

(*) For different values contact Seim

Series PHS



INSTALLATION DATA

| | |
|--------------|--|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Separator, transfer, booster, feeder, fuel supply, lubricating |

OPERATING DATA

| | |
|-------------------------------------|---|
| Handled fluid | Fuel oil HFO - DO - FO - GO - LSMG0 ULSD - HVO - FAME - Hydraulic and Lube oils |
| Viscosity range | From 1,2 to 400 cSt |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

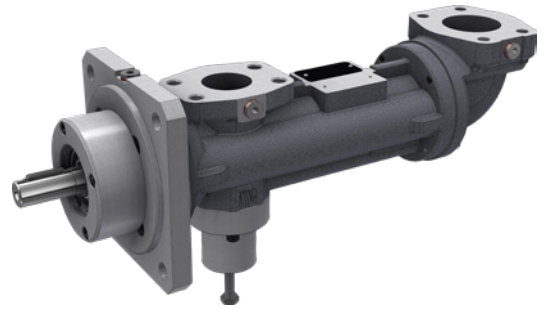
| | |
|-----------------------------|---------------------------------------|
| Flow rate | Up to 170 LPM - 45 USGPM |
| Suction pressure | From -0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | Up to 16 bar - 232 psi |
| Operating temperature range | From 0 to 150 °C (*) |
| Seal | Mechanical seal |
| Bearing type | Radial ball on main shaft |
| Bearing lubrication | Lubricated for life |
| Mounting arrangement | Horizontal or vertical mounting |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | Nodular Cast Iron EN-GJS-400-15 EN 16482 |
| Screws | Nitrided steel |
| O-rings | Viton [®] |
| Surface protection | Only on demand |

(*) For different values contact Seim

Series PB



INSTALLATION DATA

| | |
|--------------|--|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Transfer, fuel supply, lubricating, boiler |

OPERATING DATA

| | |
|-------------------------------------|--|
| Handled fluid | Fuel oil HFO - DO - FO - LSMG0 - ULSD - Jetfuel - HVO - FAME - Hydraulic and Lube oils |
| Viscosity range | From 1,2 to 1500 cSt |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

| | |
|-----------------------------|--|
| Flow rate | Up to 1000 LPM - 264 USGPM |
| Suction pressure | From - 0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | Up to 50 bar - 725 psi |
| Operating temperature range | From 0 to 150 °C (*) |
| Seal | Mechanical seal |
| Bearing type | Radial ball on main shaft |
| Bearing lubrication | Lubricated for life |
| Mounting arrangement | Horizontal or vertical mounting |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | Nodular Cast Iron EN-GJS-400-15 EN 16482 |
| Screws | Nitrided steel |
| O-rings | Viton [®] |
| Surface protection | Only on demand |

(*) For different values contact Seim

Series SPB

DOUBLE PUMP STATION FOR FUEL OIL



INSTALLATION DATA

| | |
|--------------|--------------------|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Boiler, Burner |

OPERATING DATA

| | |
|-------------------------------------|--|
| Handled fluid | Fuel oil HFO - DO - FO - LSMG0 - ULSD - Jetfuel - HVO - FAME - Hydraulic and Lube oils |
| Viscosity range | From 1,2 to 1500 cSt |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

| | |
|--------------------------------|--|
| Flow rate | Up to 43 LPM - 11 USGPM |
| Suction pressure | From - 0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | 16/40 bar - 580 psi |
| Operating temperature range | From 0 to 150 °C (*) |
| Cartridge filtration / surface | 100 micron / 150 cm ² |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | Nodular Cast Iron EN-GJS-400-15 EN 16482 |
| O-rings | Viton [®] |
| Surface protection | Only on demand |

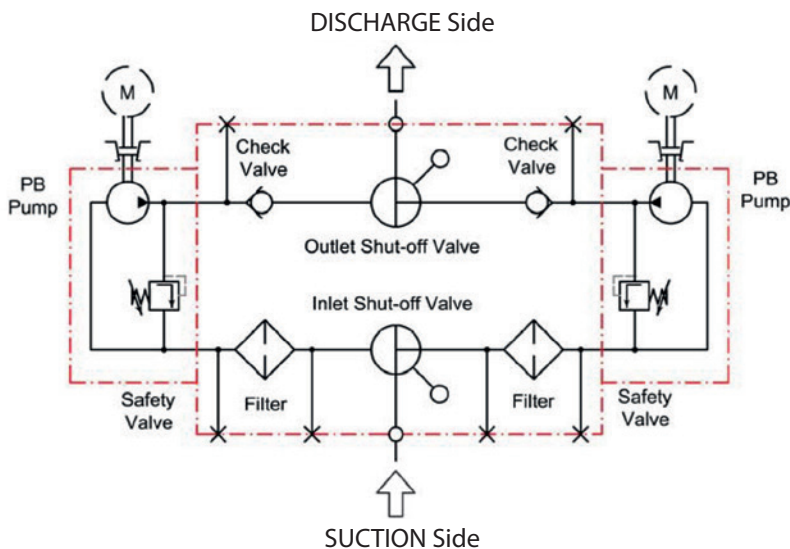
(*) For different values contact Seim

Series SPB

DOUBLE PUMP STATION FOR FUEL OIL

Advantages & Solutions

| Sections & Components | MAIN PUMP | STAND-BY PUMP | Size & Performance |
|---|-----------|---------------|---|
| DISCHARGE Side Safety Valve Check Valve Outlet Shut-off Valve | | | PB Pump Port: 1" SAE3000 Flow Rate: 3 • 41 lpm Op. Pressure: 16 / 40 bar Op. Viscosity: 1.2 - 5.000cSt |
| SUCTION Side Inlet Shut-off Valve Filter | | | Check Valves Type: DISC Port: DN32 PN16 / 40 |
| | | | Filter Cartridge Filtration: 100 micron Filtering Surface: 150 cm ² |
| | | | SHUT -OFF Valves Type: ball-3 way-T version Port: DN32 PN16 / 40 |



- OPTIONS:**
- MAGNETIC DRIVEN
 - FLOW METER SYSTEM CONTROL
 - CUSTOMIZED PEDESTAL
 - CUSTOMIZED Oil Retention Base
 - TEMPERATURE CONTROL:
 - Pressure gauge
 - Pressure Switch
 - Pressure Transmitter
 - Differential pressure (Filter)

Series 2SP



INSTALLATION DATA

| | |
|--------------|----------------------------|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Cargo, Transfer, Stripping |

OPERATING DATA

| | |
|-------------------------------------|--|
| Handled fluid | Lubricating, Not Lubricating low & medium viscosity and corrosive fluids, Suitable for light chemical and petrolchemical products, Fuel & heavy fuel oils. |
| Viscosity range | From 1,2 to 5000 cSt |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

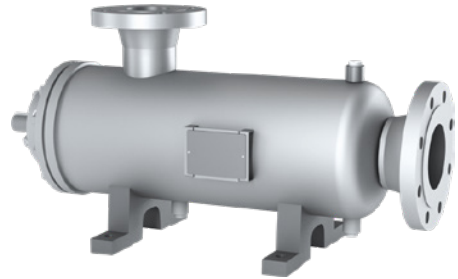
| | |
|-----------------------------|---|
| Flow rate | 19.000 LPM - 5020 USGPM |
| Suction pressure | From - 0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | Up to 16 bar - 232 psi |
| Operating temperature range | From 0 to 150 °C (*) |
| Seal | Mechanical seal |
| Bearing type | Radial ball (dependent on the application) |
| Bearing lubrication | Dependent on the application |
| Mounting arrangement | Horizontal or vertical mounting (with foot) |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | Nodular Cast Iron EN-GJS-400-15 EN 16482 |
| Screws | Nitrided steel |
| O-rings | Viton® |
| Surface protection | Only on demand |

(*) For different values contact Seim

Series PCXAO



INSTALLATION DATA

| | |
|--------------|---|
| Installation | Indoor or Outdoor |
| Environment | Marine, Oil&Gas |
| Application | Cargo, Separator, Transfer, Booster, Feeder, Fuel supply, Lubricating |

OPERATING DATA

| | |
|-------------------------------------|--|
| Handled fluid | Hydraulic oils, Lube oils - Diesel - Fuel Oil low viscosity and minium lubricating properties - HVO - FAME |
| Viscosity range | From 10 to 400 cSt - Typical |
| Pump speed | From 750 to 3600 rpm (*) |
| Rotation (viewed from coupling end) | CW (Std version; CCW on demand) |

TECHNICAL CHARACTERISTICS

| | |
|-----------------------------|--|
| Flow rate | 2000 LPM (528 USGPM) |
| Suction pressure | From - 0,5 to 10 bar (-7,5 to 145 psi) |
| Delivery pressure | Up to 100 bar (1450 psi) |
| Operating temperature range | From 0 to 100 °C (*) |
| Seal | Mechanical seal |
| Bearing type | Radial ball on main shaft |
| Bearing lubrication | Grased for life |
| Mounting arrangement | Horizontal or vertical mounting |

MATERIALS

| | |
|--------------------|--|
| Casing/Flanges | AISI Stainless Steel or Carbon Steel |
| Screws | Alloyed Carbon Steel Nitred (PVD Treatment Optional) |
| O-rings | (FVK M) Viton ® |
| Surface protection | Only on demand |

(*) For different values contact Seim

Series MPV2



INSTALLATION DATA

| | |
|--------------|---|
| Installation | Indoor or Outdoor |
| Environment | Marine, Industrial |
| Application | Fuel consumption, control cargo and transfer flow |

TECHNICAL CHARACTERISTICS

| | |
|------------------------|--|
| Delivery flow | Up to 1350 LPM - 356 USGPM (standard version) |
| Pressure | Versions nominal pressure 40bar or 200bar (2900 psi) |
| Admissible temperature | -15 to +120°C |
| Precision | Class 0,3% / 0,5% |
| Type of O/P | Square wave signal in frequency, direct function of flow rate* |

MATERIALS

| | |
|--------------------|--|
| Casing | Nodular Cast Iron EN-GJS-400-15 EN 16482, Carbon Steel, Aluminum |
| Flanges | Carbon Steel |
| Screws | Nitrided steel |
| O-rings | Viton [®] |
| Surface protection | Only on demand |

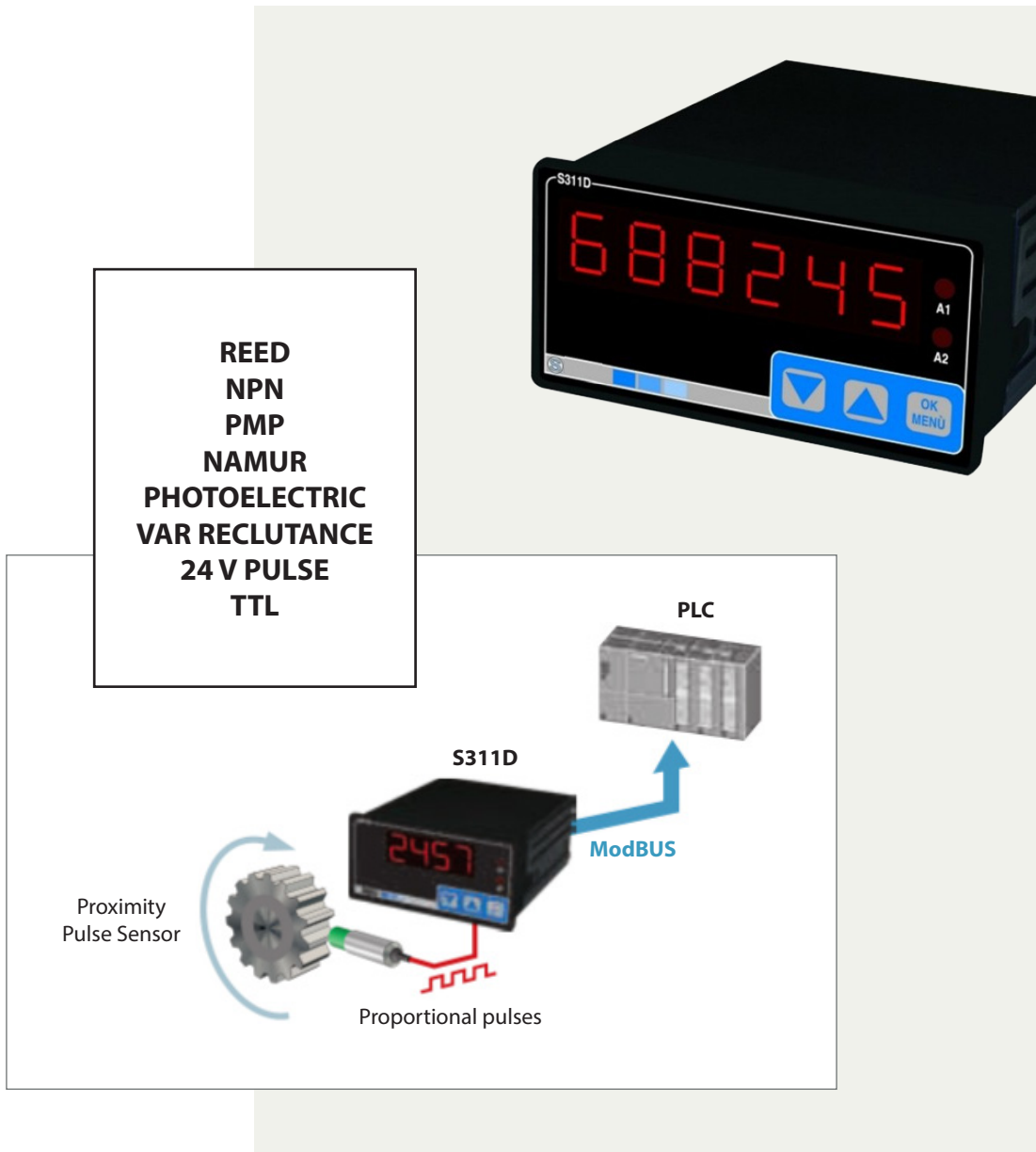
| Size | Q min. | Q nom. | Q max. | Connection Size | |
|------|--------|--------|--------|-----------------|----------|
| | lpm | lpm | lpm | Flange | Threaded |
| 28 | 0,2 | 60 | 90 | SAE 3000- 1" | G 3/4" |
| 50 | 1.0 | 300 | 450 | SAE3000 - 2" | G 1 1/2" |
| 75 | 3.4 | 900 | 1350 | SAE3000 - 3" | * |

(*): For different values contact Seim

AVAILABLE COMPLETE SYSTEMS for CUSTOMIZED fuel consumption control complete of:

- Single Control system (after Feeder pump)
- Single Control System for Flow difference (after circulation pump - fuel motor return)
- Control Systems for two or more Diesel Engines
- Local display (Engine Room)
- Remote display (Control Room) via Ethernet, WiFi
- Data trasmission to the Control Room

Digital Panel Available as Optional



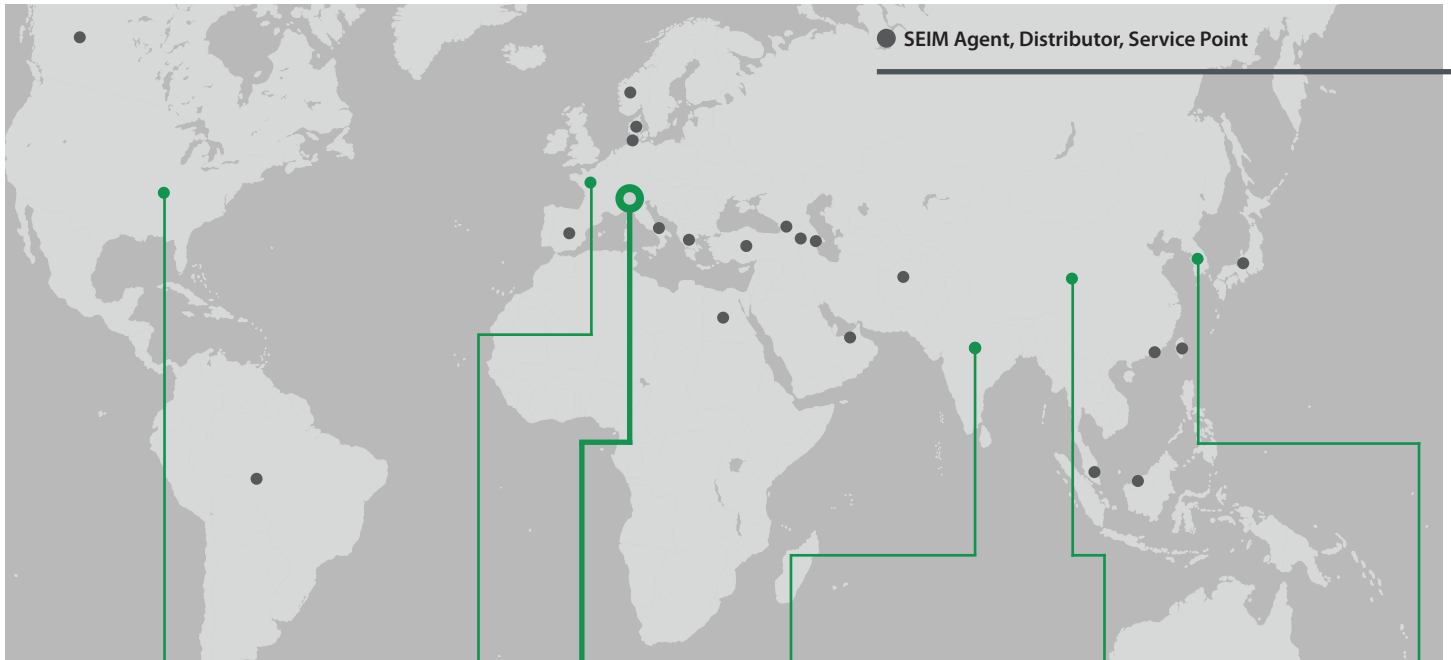
SHOWS THE INSTANTANEOUS FLOW RATE AND TOTALIZE (+1 flowmeter with 1 inductive sensor)

Shows the instantaneous flow rate. The module for signal retransmission is available as an option. The same version can be programmed to show the totalization of flow rate instead of the instantaneous flow rate.



Marine Product Certifications Available





● SEIM Agent, Distributor, Service Point



in USA
Sales
After Sales
Warehouse
Local Test Bench



in France
Sales
After Sales
Warehouse
Local Test Bench



in India
Sales
After Sales
Warehouse
Local Test Bench



in China
Sales
After Sales
Warehouse
Local Test Bench



in Korea
Sales
After Sales
Warehouse
Local Test Bench



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