



SHORT CATALOG NAVAL APPLICATION







CARGO and TRANSFER

ENGINE ROOM: BOOSTER and SEPARATOR

LUBRICATION: ENGINE, THRUSTER and GEAR BOX

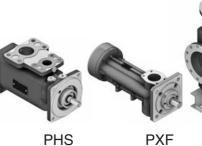
















BOILER / BURNER



Ca

PO/PWO

HYDRAULIC SYSTEMS





POF/PWOF

LOADING, UNLOADING and STRIPPING





2SP/2SP-LS

APPLICATIONS

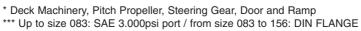


PUMP TYPE

CERTIFICATE

TWIN SCREW PUMPS **THREE** SCREW PUMPS

COMPONENT TYPE			E SCREW PU		
			OW PRESSUF		DVE
COMPONENT MODEL	PB	PHS	PZ	PZD	PXF
MAIN CHARACTERISTICS					
Flow rate up to m3/h [lpm]	2,5 [41]	12 [200]	288 [4.800]	600 [10.000]	288 [4.80
Max operating pressure bar	16	16	16	16	30
Typical Viscosity cSt	1,2 - 5.000	1,2 - 5.000	1,2 - 5.000	1,6 - 5.000	10 - 5.00
Max operating temperature °C	150	150	150	120	120
TYPICAL APPLICATIONS					0.
STRIPPING					
CARGO					
TRANSFER					
SEPARATOR					
FEEDER					
CIRCULATING					
BOILER / BURNER					
LUBE: Diesel Engine, Thruster, Gear Box					
HYDRAULIC *					
TYPICAL FLUIDS					
FUEL OIL: HFO - LFO - MGO - DO - LSMGO	YES	YES	YES	YES	≋ NC
MINERAL OIL / LUBE OIL	✓ YES	W YES	₩ YES	✓ YES	YE YE
Body Materials	GGG40	GGG40	GG25 GGG40	GGG40	GG25 C.S.
Screw Set Materials	Nitrided Steel	Nitrided Steel	Nitrided Steel	Nitrided Steel	Carbon St
Mechanical Seal	✓ YES	✓ YES	✓ YES	✓ YES	₩ YE
Magnetic coupling	✓ YES	✓ YES	✓ YES	₩ YES	₩ YE
Integrated Relief Valve	✓ YES	✓ YES	✓ YES	✓ YES	✓ YE
			DIN PN16	DIN PN16	SAE 3.000p







THREE SCR	EW PUMPS	TWIN SCRE	W PUMPS	DOUBLE	STATION	CONSUI	MPTION
MEDIUM P		LOW PR			ESSURE	& CON	
PO - PWO	POF-PWOF	2SP LS	2SP	PDP	SPB	MPV2	VMP / BVPA
0	CO	7,00	5,0		T.		
34 [560]	34 [560]	600 [10.000]	1.200 [20.000]	12 [200]	2,5 [41]	420 [7.000]	72 [1.200] **
40	120	16 / 40	16 / 40	16	16 / 40	40 / 200	150 **
1 - 15	10 - 5.000	0,7 - 15.000	0,7 - 15.000	1,2 - 5.000	1,2 - 5.000	1 - 5.000	10 - 5.000 **
120	120	300	300	150	150	150	100
			7	Tal			
					10 10		
				·			
✓ YES	≋ NO	✓ YES	✓ YES	✓ YES	₩ YES	₩ YES	₩ YES
≋ NO	✓ YES	✓ YES	✓ YES	✓ YES	✓ YES	✓ YES	✓ YES
GG25	AI	C.S.	C.S.	GGG40	GGG40	C.S.	GG25
GGG40 Nitrided Steel	Nitrided Steel	GGG40 Nitrided Steel	GGG40 Nitrided Steel	Nitrided Steel	Nitrided Steel	GGG40 Nitrided Steel	
						Michael Occi	
YES	YES	YES	YES	YES	YES	N.A.	N.A.
✓ YES	≋ NO	≫ NO	≋ NO	✓ YES	YES YES	N.A.	N.A.
≋ NO	≋ NO	option	option	YES	✓ YES	N.A.	N.A.
SAE 3.000psi	SAE 3.000psi	DIN ANSI - option	DIN ANSI - option	1"1/2 ANSI150	DN32 PN16/40	SAE 3.000psi DN PN	SAE 3.000psi

^{**}Depends from valve model and size

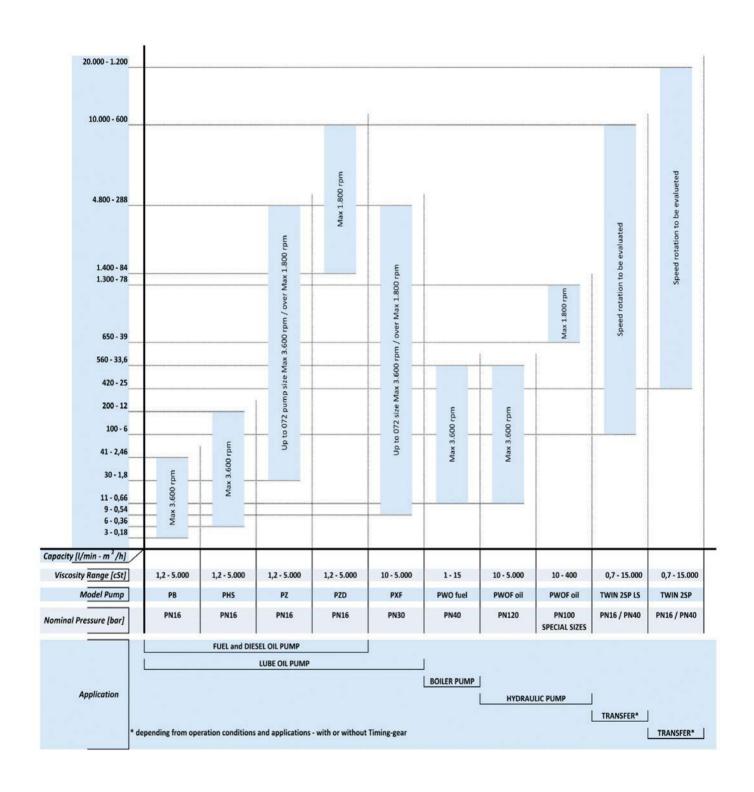




	1975	S.E.I.M. S.r.I. was FOUNDED
	1	Industrial LIFT: Three screw pumps
	1990	Was born the concept of CORPORATE DIVISION: LIFT and INDUSTRIAL DIVISION
	1995	ISO 9001 Quality System Certification
J	1999	Officially born SEIM FRANCE: Located in ANNECY
,	2004	Start the project about OIL & GAS market
	2004	WIND GENERATOR: FIRST LUBE OIL PUMPS installed
and S.E.I.M. HISTORY DATES	2005	THERMOELECTRIC POWER PLANT and REFINERY: FIRST LUBE OIL PUMPS installed PC and PCX pumps (API676 compliant): turbine lubrication system
2	2006	Officially born the OIL & GAS DIVISION
<u> </u>	2006	PETROLEUM EXTRACTION OFFSHORE PLATFORM: FIRST LUBE OIL PUMPS installed PCX pumps (API676 compliant): turbine lubrication system
	2007	OBTAINED ATEX approval for PCX Series
3.E	2009	RO-PAX VESSEL - PHS pumps: FIRST FUEL OIL PUMP installed: booster modul
2	2010	OBTAINED ABS Type Approval Certification
	2010	FIRST TWIN SCREW PUMP DESIGNED
EVENIS	2011	Officially born the NAVAL DIVISION
	2011	Officially born SEIM KOREA: Located in SEOUL and BUSAN
	2011	Officially born SEIM U.S.A.: Located in NEW JERSEY
	2011	S.E.I.M. and SEIM KOREA for the FIRST TIME EXHIBITED at the KORMARINE exhibition
	2012	WAREHOUSE ENLARGEMENT (+ 2.000 m ²)
	2012	Officially born SEIM GERMANY: Located in BERLIN
	2013	MILITAR NAVY: FIRST TRANSFER FUEL OIL AND LUBE OIL PUMPS installed (4 Ships)
	2013	OBTAINED BUREAU VERITAS: BV MODE II

PERFORMANCE CHART







SERIES

PB



Installation Environment Application OPERATING DATA Handled fluid Viscosity range Pump speed Rotation (viewed from coupling end) TECHNICAL CHARACTERISTICS Flow rate Suction pressure Delivery pressure Delivery pressure Delivery pressure Departing temperature range From 0,5 to 10 bar Departing temperature range Description of the process of the process of the parallel of the para	
Installation Environment Application Deferating Data Handled fluid Viscosity range Pump speed Rotation (viewed from coupling end) Technical Characteristics Flow rate Suction pressure Delivery pressure Department Indoor or Outdoor Marine, Industrial Transfer, fuel supply, lubricating, boiler Fuel oil HFO - DO - LSMGO - Hydraulic and Lube oils From 1,2 to 5000 cSt From 750 to 3600 rpm (*) CW (Std version; CCW on demand) Technical Characteristics Flow rate Up to 41 LPM - 2,5 m³ /h Suction pressure Up to 40 bar (from 1000 to 3600 rpm) Operating temperature range From 0 to 150 °C (*) Seal Mechanical seal	
Environment Application Marine, Industrial Transfer, fuel supply, Iubricating, boiler Puel oil HFO - D0 - LSMG0 - Hydraulic and Lube 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 Up to 41 LPM - 2,5 m³ /h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar (from 1000 to 3600 rpm) Operating temperature range From 0 to 150 °C (*) Seal Mechanical seal	
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Operating temperature range From 0 to 150 °C (*) Seal Mechanical seal	
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	
Inlet & Outlet connection Special version	
MATERIALS	
Casing/Flanges Modular cast Iron GGG40	
Screws Nitrided steel	
0-rings Viton ®	
Surface protection Only on demand	



SERIES

PHS



Indoor or Outdoor
Marine, Industrial
Separator, transfer, booster, feeder, fuel supply, lubricating
Fuel oil HFO - DO - LSMGO - Hydraulic and Lube oils
From 1,2 to 5000 cSt
From 750 to 3600 rpm (*)
CW (Std version; CCW on demand)
Up to 200 LPM - 12 m ³ /h
From - 0,5 to 10 bar
Up to 16 bar (from 1000 to 3600 rpm)
From 0 to 150 °C (*)
Mechanical seal
Radial ball on main shaft
Lubricated for life
Horizontal or vertical mounting
Special version
Modular cast Iron GGG40
Nitrided steel
Viton ®
Only on demand



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 - Hydraulic and Lube oils
Viscosity range	From 1,2 to 5000 cSt (specific configuration may apply)
Pump speed	From 750 to 3600 rpm (*)
Rotation (viewed from coupling end)	CW (Std version; CCW on demand)
TECHNICAL CHARACTERISTICS	
Flow rate	Up to 4800 LPM - 288 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 16 bar (from 1000 to 3600 rpm)
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)
Inlet & Outlet connection	DIN standard (ANSI on demand)
MATERIALS	
Casing/Flanges	Cast Iron GG25 or GGG40
Screws	Nitrided steel
O-rings	Viton ®
Surface protection	Only on demand



SERIES

PZD





INSTALLATION DATA	
Installation	Indoor or Outdoor
Environment	Marine, Industrial
Application	Cargo, transfer, lubricating
- Taphouton	ourge, number, numbering
OPERATING DATA	
Handled fluid	Fuel oil HFO - DO - LSMG0 - Hydraulic and Lube oils
Viscosity range	From 1,2 to 5000 cSt (specific configuration may apply)
Pump speed	From 750 to 1750 rpm (*)
Rotation (viewed from coupling end)	CW (Std version; CCW on demand)
TECHNICAL CHARACTERISTICS	2
Flow rate	Up to 10.000 LPM - 600 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 16 bar (from 1000 to 3600 rpm)
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)
Inlet & Outlet connection	DIN standard (ANSI on demand)
MATERIALS	
Casing/Flanges	Modular cast Iron GGG40
Screws	Nitrided steel
O-rings	Viton ®
Surface protection	Only on demand
r	



SERIES

PXF





INSTALLATION DATA	
Installation	Indoor or Outdoor
Environment	Marine, Industrial
Application	Lube system
- Приношний	Lube system
OPERATING DATA	
Handled fluid	Hydraulic and Lube oils
Viscosity range	From 10 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	Up to 4800 LPM - 288 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 30 bar (from size 102 to 156 up to 16 bar)
Operating temperature range	From 0 to 120 °C (*)
Seal	Mechanical seal
Bearing type	Radial ball on main shaft
Bearing lubrication	By pumped fluid
Mounting arrangement	Horizontal or vertical mounting (foot on demand)
Inlet & Outlet connection	SAE up to size 083, DIN from size 102 to 156
MATERIALS	
Casing/Flanges	Cast Iron GG25 (standard), carbon steel on demand
Screws	Nitrided steel
O-rings	Viton ®
Surface protection	Only on demand



PO-PWO





Installation Indoor or Outdoor Environment Marine, Industrial Application Boiler / Burner OPERATING DATA Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids Rotation (viewed from coupling end) CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)		
Installation Indoor or Outdoor Environment Marine, Industrial Application Boiler / Burner OPERATING DATA Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids Rotation (viewed from coupling end) CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)		
Environment Application Boiler / Burner Deferating Data Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids Rotation (viewed from coupling end) CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	INSTALLATION DATA	
Application Boiler / Burner DPERATING DATA Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Bearing type Radial ball on main shaft Bearing lubrication Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Installation	Indoor or Outdoor
OPERATING DATA Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed Rotation (viewed from coupling end) TECHNICAL CHARACTERISTICS Flow rate Suction pressure Up to 650 LPM - 40 m³/h Suction pressure Up to 40 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Bearing type Bearing type Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Environment	Marine, Industrial
Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Application	Boiler / Burner
Handled fluid Light fuel oils LFO, LSMGO - heavy fuel oils (HFO) Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)		
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Viscosity range From 1 to 15 cSt Pump speed From 2900 to 3500 rpm (*) low lubricity fluids Rotation (viewed from coupling end) CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	OPERATING DATA	
Pump speed From 2900 to 3500 rpm (*) low lubricity fluids CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Handled fluid	Light fuel oils LFO, LSMGO - heavy fuel oils (HFO)
Rotation (viewed from coupling end) CW (Std version; CCW on demand) TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement CW (Std version; CCW on demand)	Viscosity range	From 1 to 15 cSt
TECHNICAL CHARACTERISTICS Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Pump speed	From 2900 to 3500 rpm (*) low lubricity fluids
Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Up to 650 LPM - 40 m³/h From 0 to 120 °C (*) Mechanical seal Radial ball on main shaft Lubricated for life	Rotation (viewed from coupling end)	CW (Std version; CCW on demand)
Flow rate Up to 650 LPM - 40 m³/h Suction pressure From - 0,5 to 10 bar Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Up to 650 LPM - 40 m³/h From 0 to 120 °C (*) Mechanical seal Radial ball on main shaft Lubricated for life		
Suction pressure Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	TECHNICAL CHARACTERISTICS	
Suction pressure Delivery pressure Up to 40 bar Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Flow rate	Up to 650 LPM - 40 m ³ /h
Operating temperature range From 0 to 120 °C (*) Seal Mechanical seal Bearing type Radial ball on main shaft Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Suction pressure	
Seal Mechanical seal Bearing type Radial ball on main shaft Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Delivery pressure	Up to 40 bar
Bearing typeRadial ball on main shaftBearing lubricationLubricated for lifeMounting arrangementHorizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Operating temperature range	From 0 to 120 °C (*)
Bearing lubrication Lubricated for life Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Seal	Mechanical seal
Mounting arrangement Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)	Bearing type	Radial ball on main shaft
	Bearing lubrication	Lubricated for life
Inlet & Outlet connection Suction port: BSP thread - Delivery port: SAE 3000	Mounting arrangement	Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)
	Inlet & Outlet connection	Suction port: BSP thread - Delivery port: SAE 3000
MATERIALS	MATERIALS	
Casing/Flanges Cast Iron GG25, GGG-40 on demand (*)	Casing/Flanges	Cast Iron GG25, GGG-40 on demand (*)
	Screws	
	0-rings	
Surface protection Only on demand	Surface protection	Only on demand



SERIES

POF-PWOF



INSTALLATION DATA Installation	Indoor or Outdoor
Environment	Marine, Industrial
Application	Hydraulic
тррпоацоп	Tyuruuno
OPERATING DATA	
Handled fluid	Lube oils, mineral and synthetic types
Viscosity range	From 10 to 5000 cSt
Pump speed	From 2900 to 3500 rpm (*)
Rotation (viewed from coupling end)	CW (Std version; CCW on demand)
TECHNICAL CHARACTERISTICS	
Flow rate	Up to 650 LPM - 40 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 40 bar
Operating temperature range	From 0 to 120 °C (*)
Seal	Mechanical seal
Bearing type	Radial ball on main shaft
Bearing lubrication	Lubricated for life
Mounting arrangement	Horizontal, or vertical (also vertical semi-submerged, thanks to the intermediate flange)
Inlet & Outlet connection	Suction port: BSP thread - Delivery port: SAE 3000
MATERIALS	
Casing/Flanges	Light alloy, GGG-40 on demand (*)
Screws	Nitrided steel (*)
<u>O-rings</u>	Viton ®
Surface protection	Only on demand



SERIES

2SP LS



INSTALLATION DATA	
Installation	Indoor or Outdoor
Envirooment	Marine, Industrial
Application	Cargo, Transfer, Lube system, Stripping
OPERATING DATA	
Handled fluid	Fuel oil HFO - DO - LSMGO hydraulic and Lube oils
Viscosity range	From 0,7 to 15.000 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 10.000 LPM - 600 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 40 bar
Operating temperature range	From 0 to 300 °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)
Inlet & Outlet connection	Din standard (ANSI on demand)
MATERIALS	
Casing/Flanges	GGG40 or carbon steel
Screws	Nitrided steel
<u>O-rings</u>	Viton ®
Surface protection	Only on demand



SERIES

2SP



INSTALLATION DATA	
Installation	Indoor or Outdoor
Envirooment	Marine, Industrial
Application	Cargo, Transfer, Stripping
OPERATING DATA	
Handled fluid	Fuel oil HFO - DO - LSMGO (*)
Viscosity range	From 0,7 to 15.000 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 20.000 LPM - 1200 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 40 bar
Operating temperature range	From 0 to 300 °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)
Inlet & Outlet connection	Din standard (ANSI on demand)
MATERIALS	
Casing/Flanges	GGG40 or carbon steel
Screws	Nitrided steel
O-rings	Viton ®
Surface protection	Only on demand



MPV2





INSTALLATION DATA	
Installation	Indoor or Outdoor
Envirooment	Marine, Industrial
Application	Fuel consumption, control cargo and transfer flow
TECHNICAL CHARACTERISTICS	
Delivery flow	up to 7.000 LPM - 420 m ³ /h (standard version
Pressure	Versions nominal pressure 40bar or 200bar
Admissible temperature	-15 to +150°C
Precision	class 0,2%
Type of O/P	square wave signal in frequency, direct function of flow rate*
MATERIALS	
Casing	Nodular Cast Iron (GGG40) , Carbon Steel, Aluminum
Flanges	Carbon Steel
Screws	Nitrided steel
0-rings	Viton ®
Surface protection	Only on demand

(*) For different values contact Seim

	Q min.	Q nom.	Q max.	Connection Size		
Size	lpm	lpm	lpm	Flange	Threaded	Version
22	0,4	48,8	73,0	SAE3000 - 1"1/4	G 1"	Standard
40	2,9	291,0	436,5	SAE3000 - 2"	G 1" 1/2	Standard
62	10,8	1.078,0	1.617,0	SAE3000 - 3"	G 2" 1/2	Standard
80	20,8	2.082,0	3.124,0	DN100 - PN40	G 4"	Standard
120	47,0	4.695,0	7.043,0	DN150 - PN40	X	Standard
240	197,0	19.690,0	29.534,0	On Request	Х	On Request

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)

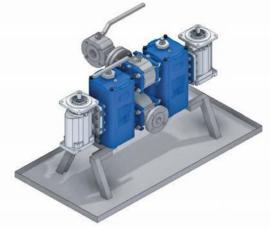
- Remote Display (Control Room) via Ethernet, Wi-Fi
- Data transmission to the Control Room
- Data transmission to Land Office (Internet, GSM, satellite)
- Warning Service (SMS, E-mail)





DOUBLE PUMP STATION FOR FUEL OIL





INSTALLATION DATA Installation	Indoor or Outdoor
	Indoor or Outdoor
IIIStanation	HIGOOF OF CULCOOF
Envisorment	Marina Industrial
Environment	Marine, Industrial
Application	Booster, Feeder, Fuel supply
ODERATING DATA	
OPERATING DATA	Find all UFO DO LOMOO This work and take all-
Handled fluid	Fuel oil HFO - DO - LSMGO - Hydraulic and Lube 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	Up to 200 LPM - 12 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	Up to 16 bar (from 1000 to 3600 rpm)
Operating temperature range	From 0 to 150 °C (*)
Inlet & Outlet connection	DN40 ANSI 150
Cartridge filtration / surface	500 micron / 500 cm ²
MATERIALS	
Casing/Flanges	Modular cast Iron GGG40
O-rings	Viton ®
Surface protection	Only on demand

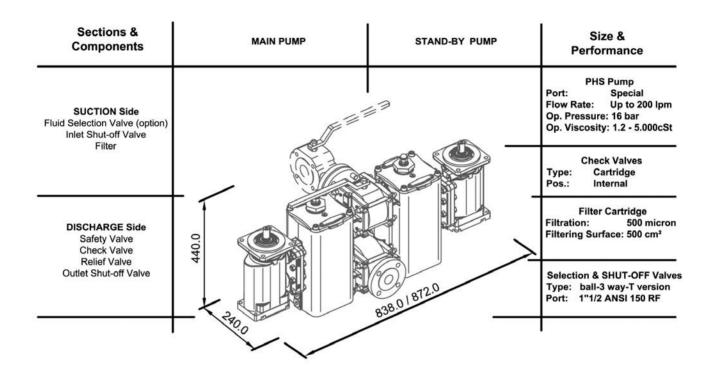
ADVANTAGES & SOLUTIONS

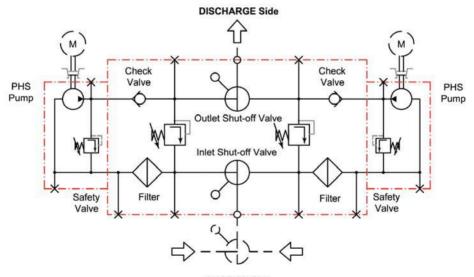


SERIES



DOUBLE PUMP STATION FOR FUEL OIL





SUCTION Side

OPTIONS:

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





SERIES



DOUBLE PUMP STATION FOR FUEL OIL



INSTALLATION DATA	
Installation	Indoor or Outdoor
Envirooment	Marine, Industrial
Application	Boiler, Burner
OPERATING DATA	
Handled fluid	Fuel oil HFO - DO - LSMGO - Hydraulic and Lube 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	Up to 41 LPM - 2.5 m ³ /h
Suction pressure	From - 0,5 to 10 bar
Delivery pressure	16/40 bar (from 1000 tp 3600 rpm)
Operating temperature range	From 0 to 150 °C (*)
Inlet & Outlet connection	DN32 PN40
Cartridge filtration / surface	100 micron / 150 cm ²
MATERIALS Outlier ("Florings")	Maddle and has 00040
Casing/Flanges	Modular cast Iron GGG40
O-rings	Viton ®
Surface protection	Only on demand

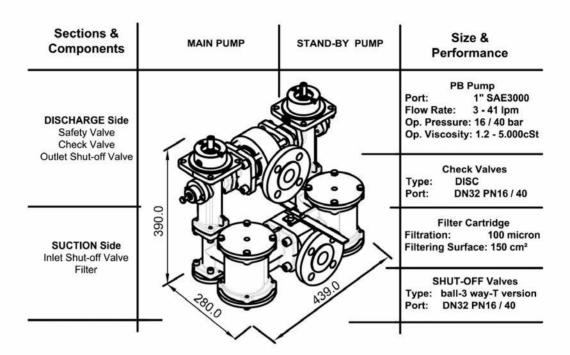
ADVANTAGES & SOLUTIONS

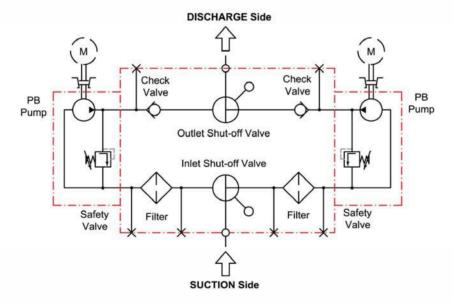


SERIES

SPB

DOUBLE PUMP STATION FOR FUEL OIL





OPTIONS:

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

SOLUTIONS FOR GREEN APPLICATIONS MAGNETIC COUPLING DRIVE



SERIES

MPB - MPHS & MPZ

INSTALLATION DATA	
Applicable to all PUMPS SIZE:	PB series (from 3 to 41 lpm) at 16 / 40 bar PHS series (from 6 to 200 lpm) at 16 bar PZ series (from 30 to 4.800 lpm) at 16 bar
More usual applications :	FUEL SUPPLY: Cargo, Transfer, Separator, Feeder, Circulating, Boiler/Burner
OPERATING DATA	
Handled Fluids:	HFO, DO, GO, LSMGO (all fluids with some lubricant properties but dangerous in case of leakage)
Minimum viscosity:	From 1,2cS

(*) For different values contact Seim

WHERE and WHEN we propose the GREEN SOLUTION

- Where we must pump a fluid dangerous for the ENVIRONMENT
- When the RULES COMPLIANCE is fundamental
- Where there is a RISK of FIRE
- When the maintenance become dangerous for the HEALTH
- Where a LEAKAGE is also a COST
- When the MAINTENANCE COST* is higher than pump cost'

*Maintenance Cost = [SK + (TC + TCM) x HC] x N

SK= Seal Kit Cost

TC= Time for change all components of Seal Kit

(Mechanical seal + ball bearing + gasket and O.R.)

TCM= Time for cleaning Area after Maintenance

HC= Operators Hourly Cost (Electrician + maintenance operator)

N= seal kit number changed during pump life



WHAT MEANS GREEN SOLUTION

NO MECHANICAL SEAL



NO PARTS IN CONTACT



SEALED SYSTEM:



ADVANTAGES & SOLUTIONS MAGNETIC COUPLING DRIVE



SERIES

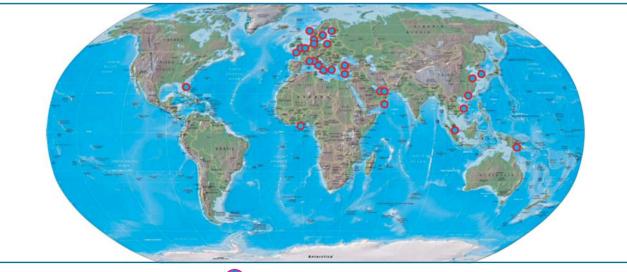
MPB - MPHS & MPZ

WHICH and HOW CHANGES with the GREEN SOLUTION

- SHIP SAFETY
- System EFFICENTY
- RULES COMPLIANCE
- REALIABILITY
- PERFORMANCE with Low Sulfur and Low viscosity FLUID



- RISK OF FIRE (Leakeage FREE PUMP)
- ENVIRONMENT IMPACT (also: less Packaging materials, less additional transport
- HEALTH IMPACT (less Skin contact and Inhalation during the Maintenance)
 - SPARE PARTS NUMBER and WEIGHT to MANAGE on EACH SHIP
 - SPARE PARTS COST
 - MAINTENANCE COST



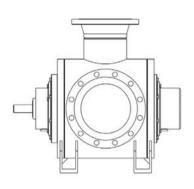
Precence of our components

2SP



SEIM Twin Screw Pumps 2SP Series

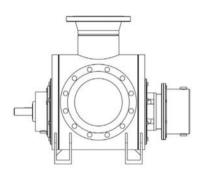
Are available in four different arrangements suitable to match most of the applications. On demand, custom versions are available.



L1

Lube oil Fuel oil Hydraulic Oil Every fluid with lubricant characteristics

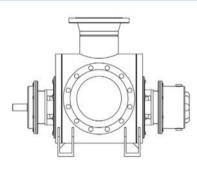
Self priming, double entry design, with internal bearings and sincronism timing gear. One mechanical or packing seal.



L2

Non lubricating low and medium viscosity and corrosive fluid

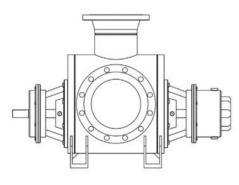
Self priming, double entry design, with external bearings separated by seals. Compact design for a simple maintenance and cheapest solution. Shaft seal shall be single or double.



L3

Non lubricating low and medium viscosity, corrosive and dangereous fluids.

Self priming, double entry design, with external bearings separated by seals. Long shaft design suitable for a wide range of seals configuration. Possibility to install a cartridge design.



L4

Non lubricating low and medium viscosity, corrosive and dangereous fluids in heavy duty service with operating more than 3 year.

Self priming, double entry design, with external bearings separated by seals. Strong shaft design for all dangereous fluids in all conditions. Design to meet API 676 and all API 682 mechanical seal configurations. Possibility to work in mixed phases.



SERIES

2SP

Working temperature Viscosity range Inlet pressure Differential pressure Speed up to 100°c up to 1500 cst up to 6 Bar up to 16 Bar up to 3500 rpm Working temperature Viscosity range Inlet pressure Differential pressure Speed up to 150°c up to 1500 cst up to 6 Bar up to 16 Bar up to 3500 rpm Working temperature Viscosity range Inlet pressure Differential pressure Speed up to 200°c up to 2500 cst up to 6 Bar up to 16 Bar up to 3500 rpm

Working temperature Viscosity range Inlet pressure Differential pressure Speed up to 300°c up to 15000 cst up to 10 Bar up to 40 Bar up to 3500 rpm



L1 - one mechanical seal package; lubricating fluids only



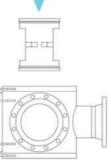
L2 - four "component" mechanical seal packages



L3 - four "cartridge" mechanical seal

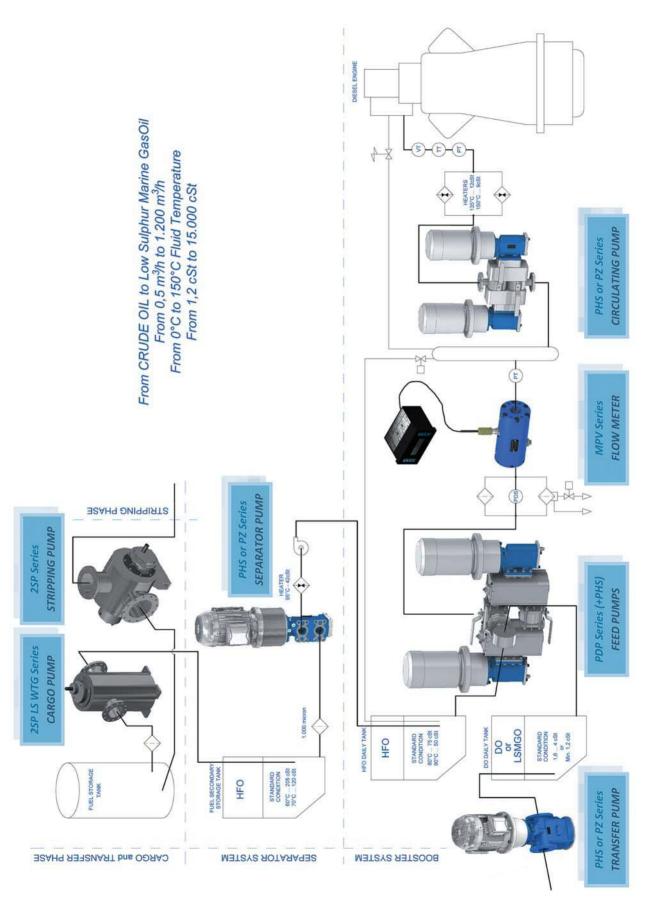


L4 - four API 682 mechanical seal



ADVANTAGES & SOLUTIONS FUEL SUPPLY





SEIM NAVAL MANUFACTORING PROGRAM









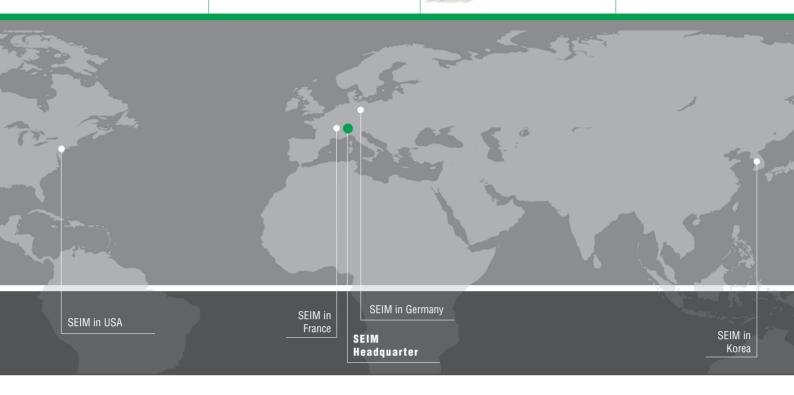














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