



PDP

DOUBLE PUMPING STATION



THE COMPANY



SEIM, after 35 years of production, have achieved a leading position in the screw pump market world wide. Our high volume production of market leading products (more than one million screw pumps installed) including heat exchangers and relief valves (over 50.000 each) has placed us in a dominant position in many different fields of application (to name but a few: Power Generation, Petrochemical, Oil and Gas, Paper and Steel industry, Automotive, Marine).

Our wide range of Products grant capability to satisfy demand in all fields of application, whose can be summarized in three big groups:

- LUBRICATION
- DRIVING
- COOLING AND FILTERING

SEIM Products are fully developed in our Company, thank to know-how achieved during more than thirty years experience in manufacturing screw pumps.

R&D Department follow criteria like "answer to demands by the market", developing new Products to satisfy world-wide Customer's requests (then including customization) thanks to high tech apparatus at its own disposal and synergic collaboration both with customers and distributors, implementing performances for existing Products introducing latest news in terms of materials, machining process, analysis and control systems (both during parts manufacturing and on "ready to delivery" products).

All Products manufactured by SEIM are 100% tested and data concerning pumps are stored in our files.

Thanks to Products identification achievable by model code and serial number is possible:

- find out product performance, also "after sale"
- to issue certificates for pump performances (both SEIM standard test conditions or customer's requested conditions).

SEIM Quality System, recognised since November 1995 by **ISO 9000** certification (according to ISO 9001 and extended to UNI EN ISO 9001:2000 in October 2003), rules all activities in the Company, with the aim to fully satisfy customer's expectation in terms of Products Quality, reliability in delivery and stock availability for finished Products.



SEIM pumps are available ATEX certified and ABS type approved for marine industry: refer to our Sales Dept. for full details.

SEIM Sales Network is extended throughout all Continents, and it is in continuous development: it is capable to grant qualified technical support in selecting our Products and to handle directly a wide portfolio of international leading Customers.



SEIM S.r.l.

Via A. Volta, 17 - 20090 Cusago (MI) Italy

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mail to: seim@seim.it | SHORT-FORM CATALOGUE

In January 2010 Company SEIM achieve

ABS type approval

for the pumps and double stations devoted to use in the Marine market.

	CERTIFICATE NUMBER 10-QA 1829-X	DATE 15-Feb-2010
	PLANT LOCATION Cusago - Milano	
	PORT OFFICE Milano - Italy	

CERTIFICATE OF PRODUCT QUALITY ASSURANCE

**This is to certify that a representative of ABS did, at the request of
SEIM S.R.L.**

attend its facilities on the date and location stated, in order to carry out an audit of its quality system procedures. The system is considered to be in compliance with the ABS Quality Assurance Certificate criteria, subject to continued compliance with the most recent ISO 9000 Standard based on semi-annual audits by a representative of ABS, and periodic review and renewal of this Certificate after five (5) years.

	PRODUCT DESCRIPTION Pump
	SIGNATURE 
	NAME Robert J. Vienneau

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned manufacturing process without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

AB-QA-1(0115)-A4

All other final approval are available for Marine inspection Bodies, like but not limited to:

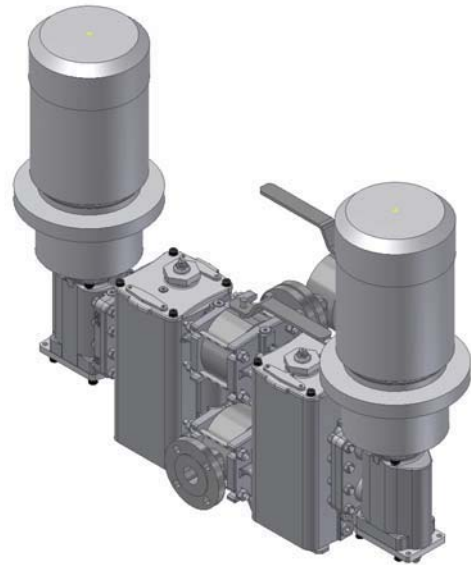


PDP & SD Series

Double & Single pump station for Fuel Oils

Main Characteristics for PDP & SD Series

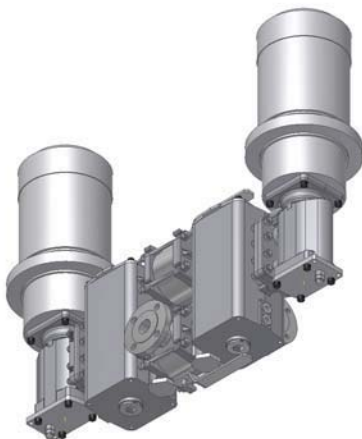
Suitable for: LFO, MDO, HFO
Flow rate: up to 10,2 m³/h (170 l/min, 45 USGPM)
Pressure: up to 16 bar (232 psi)
Casing: EN-GJS-400-15
Temperature: up to 160°C
Magnetic coupling: available, on request
Type approved: ABS
Accepted by: BV, CCS, RINA, GL, LRS, KR



WHY SEIM'S CONDITIONING MODULES?

SEIM double pump station PDP Series represent the best solution

- reliability
 - pricing
 - technical choice
 - room saving execution
- "close to customer" development



THE ONLY ONE

PDP Series is THE ONLY ONE for the following reasons

- **LEAKAGE FREE**
- **EASILY INSPECTION CHECK VALVES and REGULATION PRESSURE VALVES**
- **STANDARD VALVES USED** ¹
- **FLEXIBILITY** ²

¹ (easy traceability on the market)

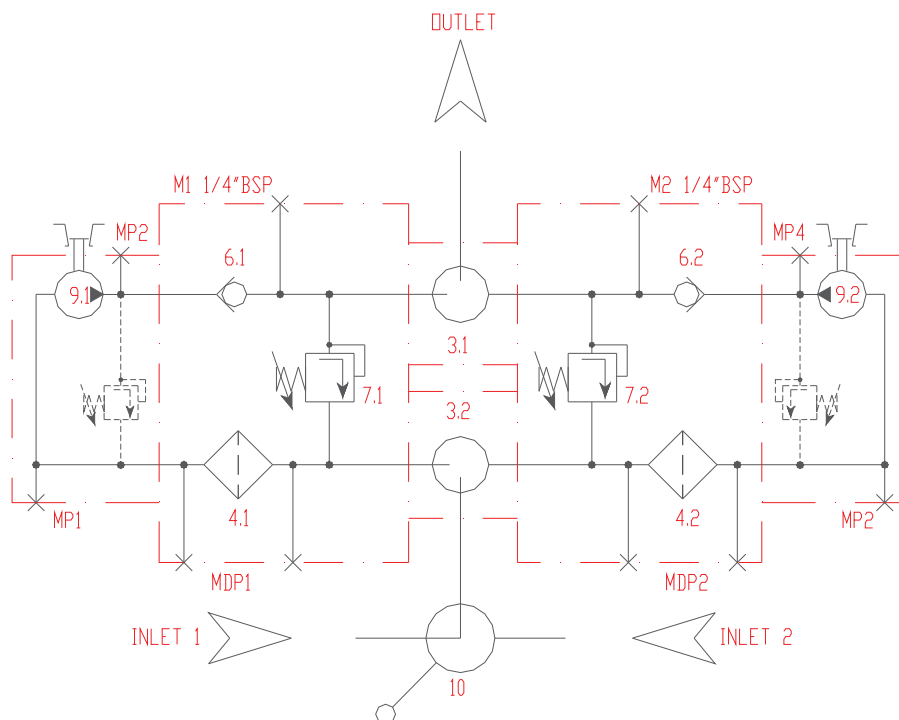
² (single and double modules with same components):

PDP & SD Series - PART LIST (double & single conditioning modules):

#	Part	Material	Qty.
1	Body	GGG40	1
2	Body	GGG40	1
3	Shut-off valve IN/OUT DN32/40 ANSI150	A216WCB+AISI304+AISI410+R-PTFE	2
4	Filter Cartridge 500micron / 340cm ²	AISI304	2
5	Filter Cover	GGG40	2
6	Check Valve Cartridge		2
7	Pressure Relief valve		2
8	Support		2
9	SEIM Screw Pumps ³ (see Performance Table)	GGG40	2
10	Manual fluid changeover valve	A216WCB+AISI304+AISI410+R-PTFE	1

³ Standard equipped with Mechanical seal.

PDP Series - HYDRAULIC DIAGRAM



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PDP & SD Series - TECHNICAL DATA

Delivery Range:

Minimum @ 6bar, 39cSt, 1450RPM:	12.5 Lpm
Maximum @ 6bar, 39cSt, 2900RPM:	158 Lpm

System Nominal Pressure: 16bar

Recommended Speed Rotation : 950...3500 RPM

Viscosity Range:

- Minimum:	1,4 mm ² /s
- Maximum:	1.500 mm ² /s

Fluid Temperature Range:

- Minimum:	10°C
- Maximum:	160°C

Seals: FKM + Mechanical Seal

Single Cartridge Filtration Surface: 450cm²

Weights Double system:

- Single body :	21Kg
- Filter Cover + Relief valve:	5.5Kg
- Shut-off valves IN/OUT group:	18Kg
- Manual Fluid Changeover valve:	9Kg
- SEIM Pump 025...032 / 040:	10Kg / 14Kg
- Single Support:	3Kg
- TOTAL WEIGHT DRY GROUP (lateral / rear):	109...117Kg

Delivery @ 2900RPM:

025#3A @ 6bar, 39cSt, 2900RPM:	24.4 Lpm
025#3B @ 6bar, 39cSt, 2900RPM:	30.2 Lpm
025#3C @ 6bar, 39cSt, 2900RPM:	35.9 Lpm
032#3A @ 6bar, 39cSt, 2900RPM:	58.9 Lpm
032#3B @ 6bar, 39cSt, 2900RPM:	78.6 Lpm
040#3A @ 6bar, 39cSt, 2900RPM:	110.2 Lpm
040#3B @ 6bar, 39cSt, 2900RPM:	133.8 Lpm
040#3C @ 6bar, 39cSt, 2900RPM:	157.4 Lpm

PDP & SD Series - PERFORMANCE DATA

SEIM size	6 bar - 2900 rpm								12 bar - 2900 rpm							
	2 cSt		39 cSt		110 cSt		1500 cSt		2 cSt		39 cSt		110 cSt		1500 cSt	
	lpm	kW	lpm	kW	lpm	kW	lpm	kW	lpm	kW	lpm	kW	lpm	kW	lpm	kW
025#3A	19,5	0,44	24,4	0,54	25,8	0,67	27,2	1,40	16,1	0,72	23,1	0,83	25,0	0,96	27,0	1,72
025#3B	24,1	0,54	30,2	0,67	31,9	0,83	33,6	1,74	19,8	0,89	28,5	1,02	30,8	1,19	33,4	2,12
025#3C	28,7	0,65	35,9	0,79	37,9	0,99	40,4	2,07	23,6	1,06	33,9	1,21	36,7	1,42	39,7	2,53
032#3A	51,0	0,97	58,9	1,16	61,1	1,43	63,4	2,89	45,5	1,62	56,7	1,83	59,8	2,10	63,0	3,61
032#3B	68,0	1,29	78,6	1,55	81,4	1,91	84,5	3,85	60,7	2,16	75,6	2,43	79,7	2,80	84,0	4,81
040#3A	99,9	1,70	110,2	2,01	113,0	2,44	116,0	4,79	92,7	2,89	107,3	3,22	111,3	3,67	115,5	6,11
040#3B	121,3	2,06	133,8	2,44	137,2	2,97	140,8	5,81	112,6	3,51	130,6	3,91	135,1	4,45	140,3	7,42
040#3C	142,6	2,42	157,4	2,87	161,4	3,49	165,7	6,84	132,4	4,13	153,3	4,60	158,9	5,24	165,0	8,73

PDP & SD Series - OPTIONS

PDP and SD Series comes with a wide range of options, suitable to match customer's demand in all the applications where the safety provided by a second std by pump is required.

Options are:

1. Fluid Changeover valve with Electrical actuator.
2. Fluid Changeover valve with Double effect pneumatic actuator.
 - 1.2.1 Solenoid valve IP65 to control double effect pneumatic actuator.
 - 1.2.2 Box micro-switch 2xSPDT to monitor double effect pneumatic actuator.
 - 1.2.3 Manual safety with hand-wheel.
2. Pressure gauges to monitoring system.
3. Pressure transducers to monitoring system.
4. Thermometers to monitoring system.
5. Temperature transducers to monitoring system.
6. Filter Differential Pressure gauge.
7. SEIM Flowmeter directly flanged on outlet port.
8. Magnetic Coupling.
9. Customized tank leaks.
10. Customized support.

PUMPING STATION DOUBLE / SINGLE



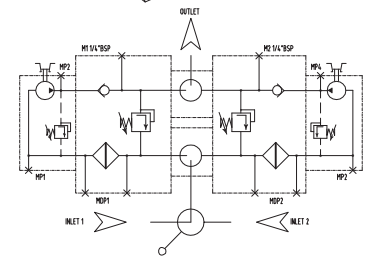
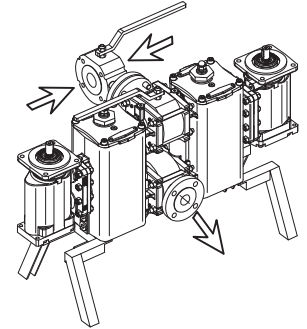
Application: Heavy fuel, hydraulic or lubricating oils.
 Admissible delivery pressure (continuous) =16 bar from 1000 to 3600 giri/min.

Main field of application

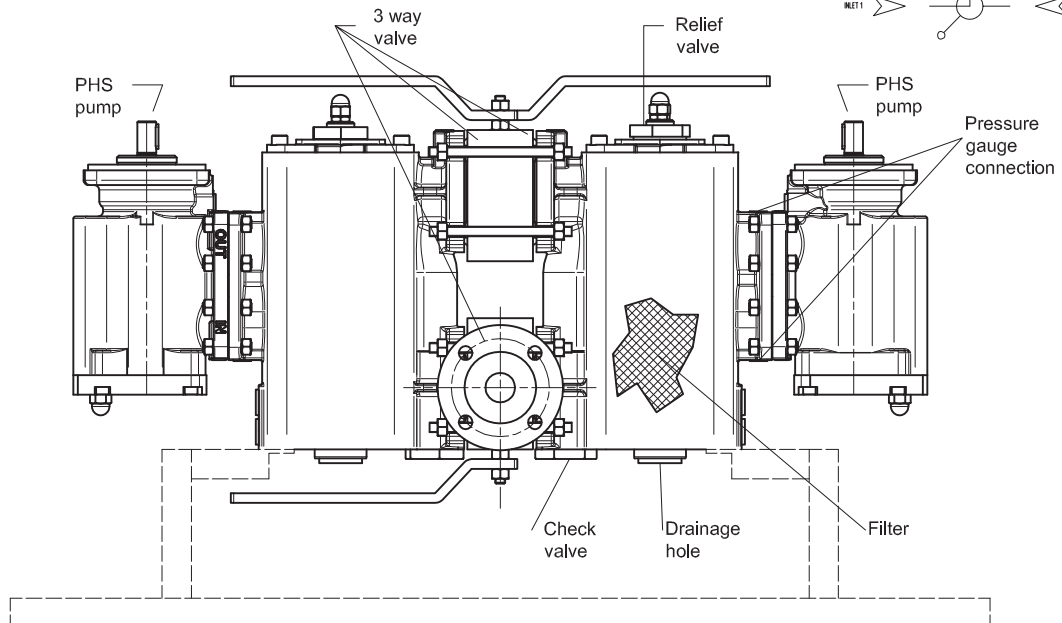
Power diesel engines or burners.
 Lubrication systems and cooling.
 With internal relief valve.

Standard version: - pressure control valve
 - shut-off valves in inlet and outlet
 - selector valve in inlet
 - spheroidal graphite iron GGG40

Special version: - with magnetic coupling
 - pumping station single



Section and components



Functional characteristics standard version

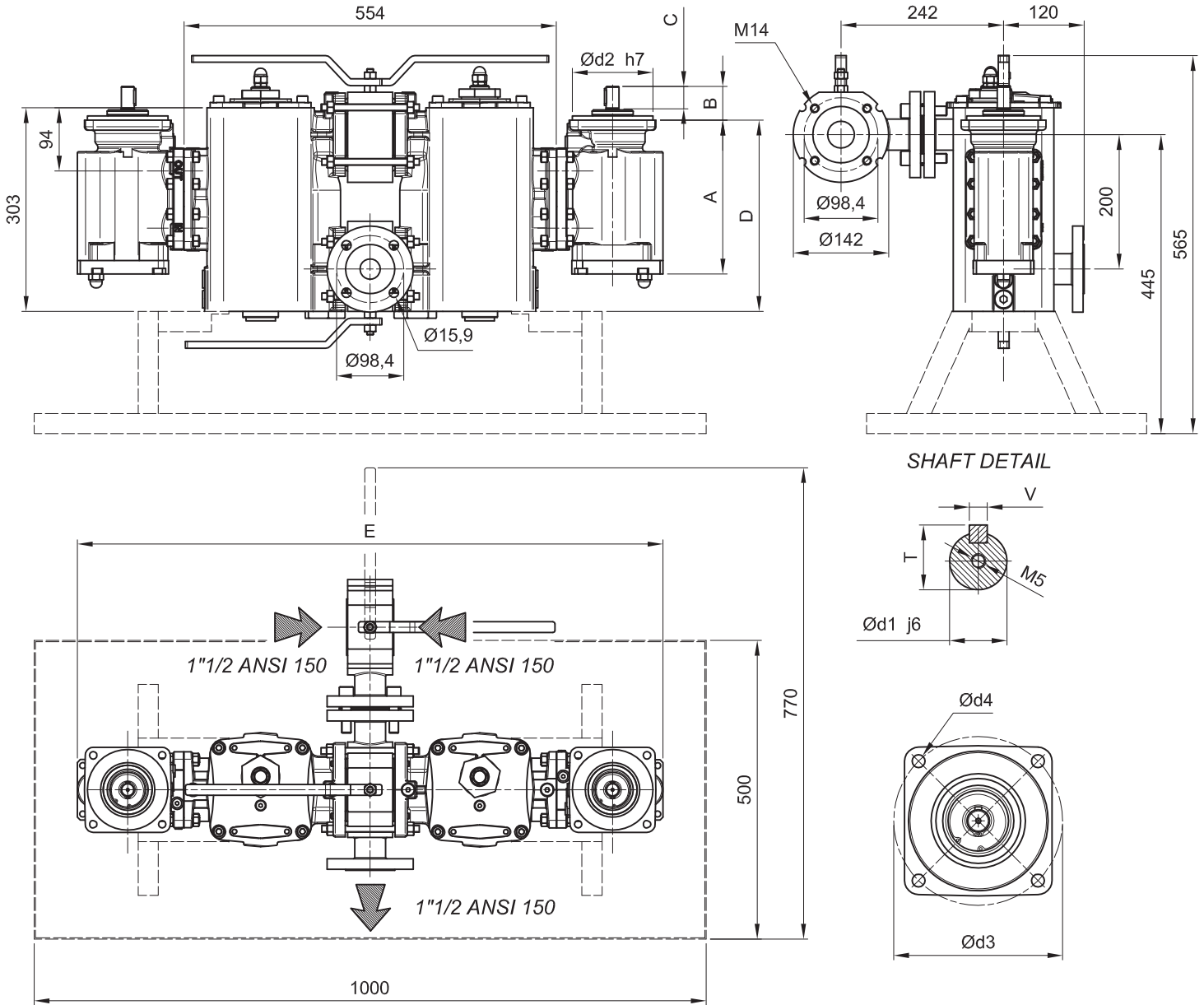
Delivery flow	up to 180 l/min (up to 48 USGPM)	
Admissible delivery pressure *	up to 16 bar (232 psi) from 1000 to 3600 giri/min	
Admissible suction pressure	from -0,7 to 10 bar (from -10 to 145 psi)	For different values contact SEIM
Kinematics viscosity	standard 1,2 - 5000 cSt	For different values contact SEIM
Admissible temperature	from 0 to 120 °C (32 a 248 °F)	For different values contact SEIM
Driving speed (pump)	from 1000 to 3600 giri/min	
Average noise level	60 - 75 dB(A) at 3600 giri/min according to pump dimension	
Filter	500 µm, filtering surface 500 cm ²	
Direction of rotation	clockwise, as seen from driving side	

* Reduced pressure limits apply due to fluid viscosity and driving speed.
 Consult the performance charts for the individual pump size.
 For different functional characteristics, please contact our sales department.

PUMPING STATION DOUBLE

Application: Heavy fuel, hydraulic or lubricating oils.

Admissible delivery pressure (continuous) = 16 bar from 1000 to 3600 giri/min.



Dimensional chart (mm)

MODEL	A	B	C	D	E	T	V	d1 Ø	d2 Ø	d3 Ø	d4 Ø
PDP025	204	50	29	269	838	16	5	14	110	130	9
PDP032	218	50	29	277	838	16	5	14	110	130	9
PDP040	227	50	34	284	872	21,5	6	19	120	145	11

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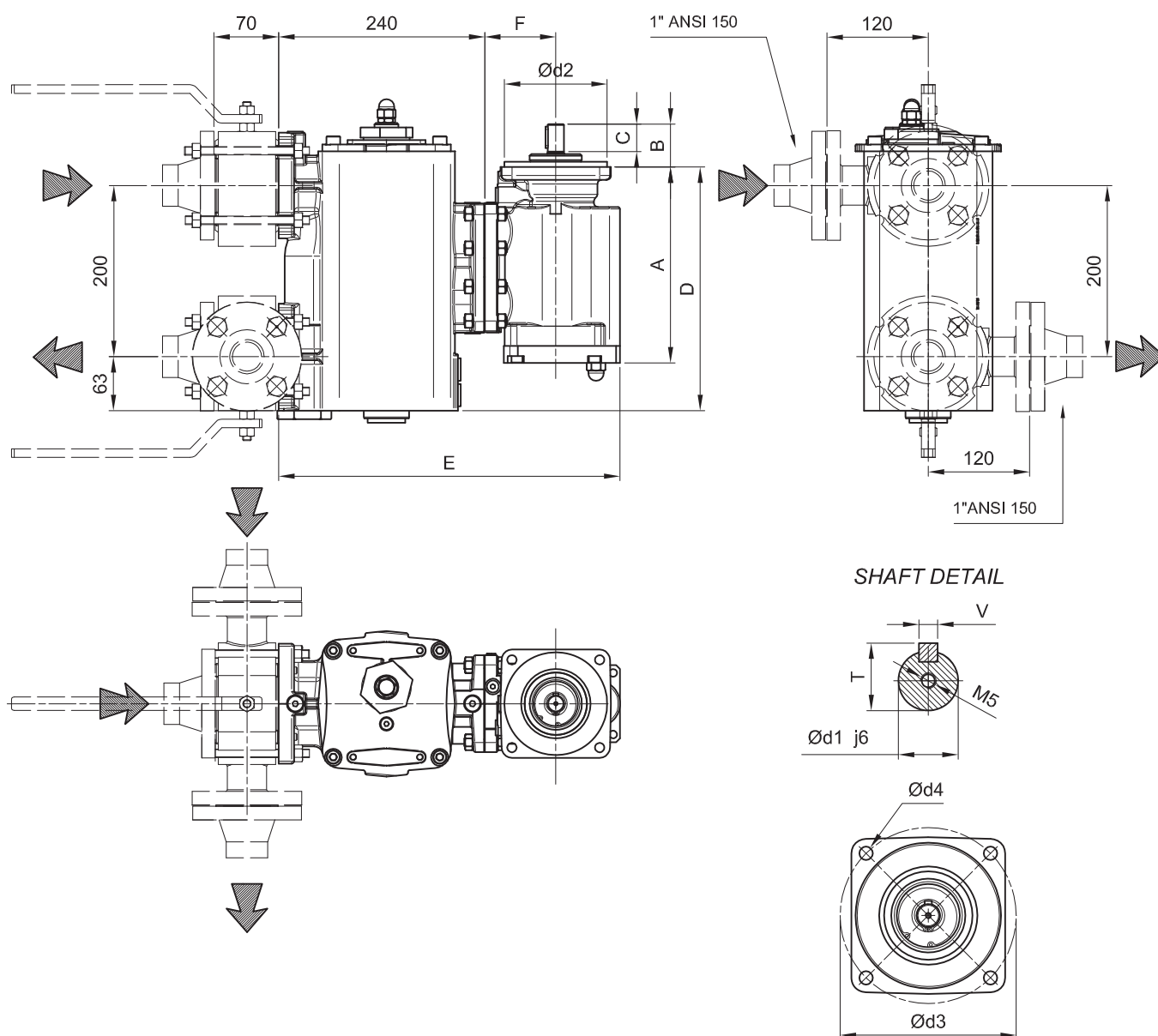
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SD - STE - PDP - ENG - 05-10 - 0

PUMPING STATION SINGLE

Applicazioni: nafta, gasolio, olii idraulici o lubrificanti.

Pressione ammissibile (continua) =16 bar da 1000 fino a 3600 giri/min.



Dimensional chart (mm)

MODEL	A	B	C	D	E	F	T	V	d1 Ø	d2 Ø	d3 Ø	d4 Ø
SD025	204	50	29	269	381	73	16	5	14	110	130	9
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MODULO PER RICHIESTA D'OFFERTA

INQUIRY REQUEST FORM

SEIM S.r.l. – Via A. Volta, 17 – 20090 Cusago (MI) – Italy
 da trasmettere via fax al no. -to be sent by fax at no. +39 02 90392141
 or mail to: seim@seim.it



* campi obbligatori *mandatory fields*

MITTENTE Azienda, Località, Persona da contattare Recapiti – tel/fax/E-mail SENDER Company, Country, Person to be contacted Phone no./Fax no./E-mail	*
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Descrizione dell'applicazione Brief application description	*
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* Installazione – <i>Installation</i> <input checked="" type="checkbox"/> Evidenziare <i>Please tick</i>		Immersa - <i>Submersed</i>
		Esterna, orizzontale - <i>External, horizontal</i>
		Esterna, verticale - <i>External, vertical</i>
		Altro (Treppiede,) - <i>Other (tri-pod,)</i>

Quantità <i>Quantity</i>	n.	*
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Portata richiesta <i>Required flow rate</i>	lpm	*
--	-----	---

Velocità azionamento <i>Driving speed</i>	rpm	*
--	-----	---

Pressione (normale / massima) <i>Pressure (operating / maximum)</i>	bar	*
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Tipo di Fluido e Viscosità <i>Type of Fluid and Viscosity</i>	cSt	*
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Temperatura fluido (min.* / norm.* / max) <i>Oil/medium Temp. (min.*/operating*/ max.)</i>	°C	
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Temperatura ambiente (min.* / norm.* / max) <i>Ambient Temperature (min.*/operating*/ max.)</i>	°C	
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Grado di Filtrazione <i>Degree of filtration</i>	ISO NAS	*
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Classificazione Area, se applicabile <i>Hazardous Area classification, if applicable</i>		
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Accessori richiesti <i>Accessories requested</i> <input checked="" type="checkbox"/> Evidenziare <i>Please tick</i>		Valvola di sicurezza <i>Relief Valve</i>
		Lanterna + giunto <i>Bell-housing + coupling kit</i>
		Kit di ricambio <i>Spares kit</i>
		Motore <i>El. motor</i>

Altre notizie <i>Other information, if any</i>
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