F.P.T. / HAND PUMPS

FROM 700 TO 4.000 bar

02/

INDEX

HAND PUMPS

	Oiltank capacity (litres)	cm³/stroke	Series		PAGE
Single speed	0,7-4	3	PMSA		66
Two speed	1-9	122-4,8	PDSA		68
Two speed for double acting cylinder	1,8-9	122-4,8	PDSA DE		70
Very high pressure 1600 - 3000 - 4000 bar	1,8	40-1	PMSA PDSA		72

F.P.T. / HAND PUMPS

FROM 700 TO 4.000 bar

High pressure hand pumps produced in light aluminum alloy of aeronautics grade to minimize weight. Operating pressure from 700 to 4.000 bar.

Used in multiple fields of application, they represent an important tool, essential wherever there is no source of energy.

ALUMINUM ALLOY OF AERONAUTICS GRADE
LIGHTWEIGHT AND EXTREMELY TOUGH

The use of this type of material reduces weights of the pump and the fatigue of the operator to their lowest increasing the handling and portability, even in environments that are difficult to reach. Designed to withstand critical conditions of work, fast and with low effort on the lever. The ideal tool.

CUSTOM HAND PUMPS
ON CUSTOMER'S REQUEST

On request:
- Viton - Ethylene propylene special gaskets
- Various oiltank capacities available
- Customizable with additional relief valves.
- For hydrostatic tests with fluids different from oil.
- Dimensions, fixing holes, valve blocks to customer specification.

$H_2$0 HAND PUMPS – WATER FLUID USE

FPT produces a range of hand pumps that can be used with water. This choice is a solution that protects the environment and can be used anywhere as the water is an eco-friendly fluid. It can therefore be operated in any environment. The $H_2$0 series is very popular in laboratories for pressure testing, on-site tests and in all those situations where contamination with oil is not allowed.

PUMP CODE DESCRIPTION

The coding table of the hand pumps shows the various possibilities of range, choice of materials, type of drive and tank capacities available. This table, in addition to the request for costum pumps, may be useful to identify an F.P.T. hand pump in your possession and request spare parts or a new one.

	A – ALUMINIUM $H_2$0 – STAINLESS STEEL		DE – DOUBLE ACTING FC – FOOT CONTROL		V – VITON EP – ETHYLENE PROPYLENE
PMS	**A**	**40**	**DE**	**L4**	**V**
PMS – SINGLE SPEED PUMP PDS – DOUBLE SPEED PUMP PS – SINGLE PISTON		OIL FLOW cm^3/STROKE		OIL TANK CAPACITY (litres)	FOR SPECIAL PUMPS costumer identification

HAND PUMPS

Series
PMSA | Single speed hand pump aluminium

PRODUCT PAGE

Compact and light weight

CUSTOM PUMPS ON REQUEST

- High pressure hand pumps manufactured in light alloy aluminum of aeronautical grade to minimize the weight.
- Single stage version with a maximum flow rate of 3 cc per stroke suitable for single acting applications.
- Pressure relief valve integrated in the pump body for maximum operator safety.
- High performance, low weight and excellent ergonomics.
- Integrated pressure gauge connection for direct assembly of measuring instrument.
- Oil filler cap with integrated breather. Tough pins with trough-holes for attachment to machinery or structures.
- Surface treatments to guarantee total reliability in the most difficult environments and maximum duration.

PMSA

700 bar
3 cm³ oil flow
0,7 - 4 l capacity

PMSA-2

PMSA-3

PMSA-3/L3

MODEL	PRESSURE max	OIL DISPLACEMENT STROKE	RESERVOIR CAPACITY	USABLE OIL	DIMENSIONS (mm)										WEIGHT
	bar	cm³	litres	litres	A	B	C	D	E	F	G	H	M	P	kg
PMSA - 2	700	2	0,7	0,5	367	362	328	175	124,5	110	90	3/8" NPT	11	1/4" NPT	3,5
PMSA - 3	700	3	1,3	1	555	522	488	195	135	110	90	3/8" NPT	11	1/4" NPT	4,6
PMSA - 3/L3	700	3	4	3	556	544	485,5	233	90	170	145	3/8" NPT	13	1/4" NPT	8,5

Series
PDSA | Two speed hand pump aluminium

PRODUCT PAGE

For the maximum speed during operations

CUSTOM PUMPS ON REQUEST

- High pressure hand pumps manufactured in light alloy of aeronautical grade aluminum to minimize the weight.
- Two speed version first stage 40 cc flow rate for rapid approach and 3 cc at the second stage. For maximum speed during operations.
- Pressure relief valve integrated in the pump body for maximum operator safety.
- High performance, low weight and excellent ergonomics.
- Integrated pressure gauge connection for direct assembly of measuring instrument.
- Oil filler cap with integrated breather. Tough pins with trough-holes for attachment to machinery or structures.
- Surface treatments to guarantee total reliability in the most difficult environments and maximum duration.

PDSA

700 bar
122 - 2,6 cm³ oil flow
1 - 9 l capacity

PDSA 40C
PDSA-40

PDSA-40 L4/L8

PDS-120-SE

MODEL	PRESSURE 1ST/2ND STAGE	OIL FLOW 1ST/2ND STAGE	RESERVOIR CAPACITY	USABLE OIL	DIMENSIONS (mm)										WEIGHT
	bar	cm³	litres	litres	A	B	C	D	E	F	G	H	M	P	kg
PDSA-40C	25/700	40/1	1	0,9	392,5	378	240	190	130	130	102	3/8"NPT	13	G 1/2"	5,5
PDSA - 40	25/700	40/3	1,8	1,6	590	477	435	200	130	130	102	3/8" NPT	13	G 1/2"	7,8
PDSA - 40 L4	25/700	40/2,6	4	3,2	578	588	471,5	201	102	170	145	3/8" NPT	13	G 1/2"	11
PDSA - 40 L8	25/700	40/2,6	8	6,3	578	588	471,5	201	102	290	265	3/8" NPT	13	G 1/2"	16,5
PDS - 120 - SE	20/700	122/4,8	9	7,5	702	617	326	269	253	220	-	3/8" NPT	-	G 1/2"	22,5

HAND PUMPS

Series
PDSA DE

Two speed hand pump aluminium, for double acting cylinders

PRODUCT PAGE

For double acting cylinders

CUSTOM PUMPS ON REQUEST

- High pressure hand pumps manufactured in light alloy of aeronautical grade aluminum to minimize the weight.
- Double stage version for double acting cylinders, with first stage 40 cc flow rate for rapid approach and 3 cc at the second stage. For maximum speed during operations.
- Pressure relief valve integrated in the pump body for maximum operator safety.
- High performance, low weight and excellent ergonomics.
- Integrated pressure gauge connection for direct assembly of measuring instrument.
- Oil filler cap with integrated breather. Tough pins with trough-holes for attachment to machinery or structures.
- Surface treatments to guarantee total reliability in the most difficult environments and maximum duration

PDSA DE

700 bar
40 - 3 cm³ oil flow
1,8 - 9 l capacity

PDSA-40-DE

PDSA-40-DE L4/L8

PDS-120-DE

MODEL	PRESSURE 1ST/2ND STAGE	OIL FLOW 1ST/2ND STAGE	RESERVOIR CAPACITY	USABLE OIL	DIMENSIONS (mm)										WEIGHT
	bar	cm³	litres	litres	A	B	C	D	E	F	G	H	M	P	kg
PDSA-40-DE	25/700	40/3	1,8	1,6	590	477	435	200	207	130	102	3/8" NPT	13	G 1/2"	9
PDSA-40-DE L4	25/700	40/2,6	4	3,2	578	588	471,5	201	102	170	145	3/8" NPT	13	G 1/2"	12
PDSA-40-DE L8	25/700	40/2,6	8	6,3	578	588	471,5	201	102	290	265	3/8" NPT	13	G 1/2"	17,5
PDS-120-DE	20/700	122/4,8	9	7,5	702	617	326	269	253	220	-	3/8" NPT	-	G 1/2"	22,5

Series
PDSA PMS

Hand pumps for very high pressures: 1.600 - 3.000 - 4.000 bar, aluminium

PRODUCT PAGE

For very high pressure

CUSTOM PUMPS ON REQUEST

- High pressure hand pumps manufactured in light alloy of aeronautical grade aluminum to minimize the weight.
- Two-stage versions 1.600 bar and 3.000 bar with first stage 40 cc oilflow for rapid approach and second stage 0.5 and 1 cc.
And 0.5 cc per stroke 4,000 bar single-stage version.
- Pump body integrated pressure relief valve for maximum operator safety.
- Very high pressure, high performance, reduced effort on the handle, excellent weight and ergonomics.
- Integrated pressure gauge connection for direct mounting of the measuring tool.
- Oil filler cap with integrated breather. Tough pins with trough-holes for attachment to machinery or structures.
- Surface treatments to guarantee total reliability in the most difficult environments and maximum duration.

PDSA PMS

1.600 - 3.000 - 4.000 bar
1,8 l capacity

PDSA PMS 1600-1300-4000

PUMP	MODEL	PRESSURE 1ST/2ND STAGE	OIL FLOW 1ST/2ND STAGE	RESERVOIR CAPACITY	USABLE OIL	DIMENSIONS (mm)										WEIGHT
		bar	cm³	litres	litres	A	B	C	D	E	F	G	H	M	P	kg
TWO-SPEED	PDSA-1600	25/1600	40/1	1,8	1,6	577	588,5	436	200	130	130	102	1/4" GAS	13	1/2" GAS	7,8
TWO-SPEED	PDSA-3000	16/3000	40/0,5	1,8	1,6	577	588,5	436	200	130	130	102	3/4"-16 UNF	13	9/16"-18 UNF	7,8
SINGLE-SPEED	PMS-4000	4000	0,5	1,8	1,6	577	588,5	436	200	130	130	102	9/16"-18 UNF	13	9/16"-18 UNF	7,8

Configuration No.1 – Quick coupler on pump
Configuration No.2 – Flex hose directly assembled on the pump

	1500 Bar - Config.1	1500 Bar - Config.2	1600 Bar - Config.1	1600 Bar - Config.2	2500 Bar - Config.1	2500 Bar - Config.2	3000 Bar - Config.1	3000 Bar - Config.2	4000 Bar - Config.1	4000 Bar - Config.2
ITEM	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE
1	01PDSA1600	01PDSA1600	01PDSA1600	01PDSA1600	01PDSA3000	01PDSA3000	01PDSA3000	01PDSA3000	01PMS4000	01PMS4000
2	-	-	-	-	0922225016	0922225016	0922225016	0922225016	0922225016	0922225016
3	01MD200G	01MD200G	01MD200G	01MD200G	01MD300G	01MD300G	01MD300G	01MD300G	01MD400G	01MD400G
4	0925613265	-	0925613265	-	09299199501611	0929112241	0922225257	0922225482	0922225016	-
5	07GR15F	-	07GR20F	-	07GR25F	-	07GR30F	-	07GR40F-M16	-
6	07GR15M	-	07GR20M	-	07GR25M	-	07GR30M	-	07GR40M-M16	-
7	01TFR#/1800	01TFR#/1800	01TFR#/1800	01TFR#/1800	01TFR#/2500	01TFR#/2500	01TFR#/3000M16D	01TFR#/3000M16G	01TFR#/4000M16D	01TFR#/4000M16H
8	07GR15F	07GR15F	07GR20F	07GR20F	07GR25F	07GR25F	07GR30F	07GR30F	07GR40F-M16	07GR40F-M16
9	Utilization	Utilization	Utilization	Utilization	Utilization	Utilization	Utilization	Utilization	Utilization	Utilization

insert length of the hose expressed in meters.

F.P.T. / HYDRAULIC HAND PUMPS

Custom made hydraulic hand pumps

FPT production is able to satisfy particular needs not only in the choice of construction materials, but also in the type of fluid to be pumped. On request we can build non magnetic steel hand pumps for nuclear uses or for installation on military vehicles. Hand pumps that can be used with water, various types of phosphoric esters, naphtha and other hydrocarbons.

The operating pressure can reach up to 4.000 bar. The manual pumps can be made in single stage or double stage for greater speed during the phases of approaching the load. With reduced capacity tanks to be more compact or up to 8 liters to manage more cylinders contemporary.