

INDEX

01 ■ AIR OPERATED OIL PUMPS AND KITS

AIR OPERATED OIL PUMPS	6
PUMPMASTER 2 - 1:1 PRESSURE RATIO PUMPS AND PACKAGES	8
PUMPMASTER 2 - 3:1 PRESSURE RATIO PUMPS, PACKAGES AND KITS	10
PUMPMASTER 2 ACCESSORIES	13
OTHER OIL MOBILE DISPENSERS	13
PUMPMASTER 4 - 3:1 PRESSURE RATIO PUMPS	14
PUMPMASTER 4 - 5:1 PRESSURE RATIO PUMPS	15
PUMPMASTER 4 - 8:1 PRESSURE RATIO PUMPS	16
PUMPMASTER 4 - 3:1 AND 5:1 PUMPS INSTALLATION KITS AND ACCESSORIES	17
PUMPMASTER 45 - 3:1 PRESSURE RATIO PUMP	19
PUMPMASTER 45 - 6:1 PRESSURE RATIO PUMP	20
PUMPMASTER 45 - 10:1 PRESSURE RATIO PUMPS	21
PUMPMASTER 60 - 6:1 PRESSURE RATIO PUMP	22
PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP	23
PUMPMASTER 45 AND 60 ACCESSORIES	24
OIL PUMP ACCESSORIES	25

02 ■ AIR OPERATED GREASE PUMPS AND KITS

AIR OPERATED GREASE PUMPS	28
PUMPMASTER 3 - 55:1 PRESSURE RATIO PUMPS AND PACKAGES	30
PUMPMASTER 3+3 - 60:1 PRESSURE RATIO PUMPS AND PACKAGES	32
PUMPMASTER 3 AND PUMPMASTER 3+3 ACCESSORIES	34
PUMPMASTER 45 - 25:1 PRESSURE RATIO PUMP	36
PUMPMASTER 45 - 40:1 PRESSURE RATIO PUMPS	37
PUMPMASTER 45 - 70:1 PRESSURE RATIO PUMPS	38
PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP	39
PUMPMASTER 60 - 80:1 PRESSURE RATIO PUMPS	40
PUMPMASTER 45 & 60 INSTALATION KITS	41
PUMPMASTER 45 & 60 PUMPS ACCESSORIES	43
GREASE PUMP ACCESSORIES	44

03 ■ AIR OPERATED PUMPS FOR OTHER SERVICE FLUIDS

AIR OPERATED DIAPHRAGM PUMPS	48
DIAPHRAGM PUMPS ACCESSORIES	53
AIR OPERATED PISTON PUMPS FOR FLUIDS	54

04 ■ HOSE REELS

HOSE REEL MOUNTING RECOMMENDATIONS	57
RM-12 DOUBLE PEDESTAL DOUBLE ARM HOSE REELS	58
RM-12US ULTRA SLIM ENCLOSED HOSE REELS	59
RM-12S SINGLE ARM ALUMINIUM HOSE REELS	60
RM-12CL INDIVIDUALLY ENCLOSED HOSE REELS	61
RM-12L HEAVY DUTY HOSE REELS	62
RM-34 HEAVY DUTY HOSE REELS	63
RM-100 HEAVY DUTY LARGE CAPACITY HOSE REELS	64
RM-150 HEAVY DUTY LARGE DELIVERY HOSE REELS	65
COMPACT REELS FOR AIR AND CABLE	66
HOSE REEL ACCESSORIES	67

INDEX

05	FLUID DISPENSE GUNS AND METERS	
	CONTROL VALVES FOR OIL	70
	ELECTRONIC METERED CONTROL VALVES FOR OIL	72
	MECHANICAL METERED CONTROL VALVES FOR OIL	74
	MECHANICAL METERED PRESET CONTROL VALVES FOR OIL	75
	IN-LINE METERS	76
	PULSE TRANSMITTERS	77
	OTHER MIETERS AND ACCESSORIES	78
	GREASE GUNS AND ACCESSORIES	79
06	INVENTORY MANAGEMENT SYSTEMS	
	ADVANCED MONITORING SYSTEM	82
	ADVANCED MONITORING SYSTEM. BASIC COMPONENTS.	84
	ADVANCED COMMUNICATION PLATFORM AND ACCESSORIES	85
	TANK LEVEL CONTROL SOLUTIONS.	86
	INVENTORY MANAGEMENT CONSOLE	88
	SPECIAL AMS VERSION	89
	PRESET DOSING MODULE	90
07	WASTE OIL EQUIPMENT	
	USED FLUID COLLECTION UNITS	92
	WASTE OIL SUCTION AND GRAVITY RECEIVERS, 100 AND 70 LITERS.	93
	WASTE OIL GRAVITY RECEIVERS	94
	WASTE OIL EVACUATION PUMP KITS	95
	WASTE OIL EQUIPMENT ACESSORIES	96
08	ELECTRIC PUMPS	
	DC DIESEL PUMPS AND KITS - POLUX SERIES	98
	AC DIESEL PUMPS AND KITS - POLARIS SERIES	99
	DIESEL PUMP ACCESSORIES	101
	ADBLUE®/DEF PUMPS AND KITS - SOLURA SERIES	102
	ADBLUE®/DEF PUMPS ACCESSORIES	103
	OIL PUMPS AND KITS WITH ELECTRIC MOTOR - FLOWSTAR SERIES	104
09	LUBRICATION AND FLUID HANDLING	
	GREASE NIPPLES.	108
	GREASE CONNECTORS	110
	LEVER ACTION GREASE PUMPS	111
	MANUAL HAND HELD GREASE PUMPS	112
	AIR OPERATED AND BATTERY HAND HELD GREASE PUMPS, FILLER PUMPS AND FITTINGS	113
	GREASE COMPRESSORS AND BUCKET PUMPS	114
	DRUM PUMPS FOR OIL	115
	DRUM PUMPS FOR VARIOUS FLUIDS	116
	FUNNELS, MEASURES, GRAVITY COCKS, JERRY CANS AND OIL SUCTION PUMPS	117
	AIR TREATMENT UNITS (FRLS)	118
	AIR COUPLERS AND CONNECTION ADAPTORS FOR COMPRESSED AIR	119
10	PART NUMBER INDEX	
	PART NUMBER INDEX	121

AIR OPERATED OIL PUMPS AND KITS

AIR OPERATED OIL PUMPS 6
PUMPMASTER 2 - 1:1 PRESSURE RATIO PUMPS AND PACKAGES 8
PUMPMASTER 2 - 3:1 PRESSURE RATIO PUMPS, PACKAGES AND KITS 10
PUMPMASTER 2 ACCESSORIES 13
OTHER OIL MOBILE DISPENSERS 13
PUMPMASTER 4 - 3:1 PRESSURE RATIO PUMPS 14
PUMPMASTER 4 - 5:1 PRESSURE RATIO PUMPS 15
PUMPMASTER 4 - 8:1 PRESSURE RATIO PUMPS 16
PUMPMASTER 4 - 3:1 AND 5:1 PUMPS INSTALLATION KITS AND ACCESSORIES 17
PUMPMASTER 45 - 3:1 PRESSURE RATIO PUMP 19
PUMPMASTER 45 - 6:1 PRESSURE RATIO PUMP 20
PUMPMASTER 45 - 10:1 PRESSURE RATIO PUMPS 21
PUMPMASTER 60 - 6:1 PRESSURE RATIO PUMP 22
PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP 23
PUMPMASTER 45 AND 60 ACCESSORIES 24
OIL PUMP ACCESSORIES 25



AIR OPERATED OIL PUMPS

It all starts with the pump; the heart of the system. The choice of a pump requires considering a wide variety of factors so that your system will provide years of dependable service. SAMOA has engineered a broad offering of oil pumps to handle a wide variety of applications. This range of pumps will fit original containers of different sizes and bulk storage tanks; covering applications that range from the transfer of oil to very large centralized systems.

WHY CHOOSE AN AIR OPERATED PUMP?

Compressed air provides the best power source because it allows the pump to stall against fluid back pressure. When the dispense gun is opened, the fluid pressure drops in the system, the pump automatically starts and oil flows. When the dispense gun is closed, back pressure is created in the system. When the fluid back pressure force acting on the pump piston equals the force of the compressed air pushing on the pump air piston, the system stops or stalls. When using other power sources, such as electric or hydraulic, the pump must have pressure sensing switches, bypass loops and relief valves, for controlling the motor and pressure.

PRESSURE AND VOLUME

An important, and often confusing, aspect of selecting a pump is how to determine which pump ratio and what pump size to select. The pump ratio is calculated by dividing the surface area of the air motor piston by the surface area of the fluid piston. The maximum pressure at the pump outlet that the pump is able to develop is determined multiplying the air inlet pressure by the pump pressure ratio. Fluid pressure is required to get the oil from the pump to the furthest dispense point. Restrictions such as the pipe length and diameter, hoses, hose reels, solenoid valves, pulse meters, control handles, and other system components create friction in the system. Sufficient fluid pressure is needed to overcome this friction, in order to get the required volume of oil to each dispense point.

Pump size determines the amount of fluid flowing through the piston pump outlet during each cycle of the pump. Three different sizes of pumps, with the same ratio, will each deliver a different flow rate.

A variety of factors has to be considered to choose the pump size for your system. How many dispense points will be operating simultaneously? What kind of work will you be doing; filling a crankcase or filling a hydraulic reservoir?, what is the effective delivery required?, etc.

PUMP MASTER®



	PUMP MASTER 2 - 1:1	PUMP MASTER 2 - 3:1	PUMP MASTER 4 - 3:1	PUMP MASTER 4 - 5:1
PUMP DESCRIPTION	Utility Transfer Pump	Utility Medium Pressure Pump	Standard Duty Medium Pressure Pump	Standard Duty Medium Pressure Pump
SIMULTANEOUS OPERATION OUTLETS	1 (no reels)	1	1 to 2	1 to 2
MAX. LINE LENGTH	30 m - 100'	60 m - 200'	60 m - 200'	150 m - 490'
APPLICATION	Service shops In-plant oil transfer Agriculture Marine	Auto dealers Service shops Fast lube centres Agriculture Marine	Auto dealers and service shops Fleet service Fast lube centres Lube trucks Mining and construction In-plant	Auto and truck dealers Fleet service Mining and construction Lube trucks Railroad and mass transit vehicles Marine In-plant

Maximum line length and number of simultaneous dispense outlets also depends on the line diameter, fluid viscosity and required delivery.



PUMP MASTER 45 - 3:1	PUMP MASTER 45 - 6:1	PUMP MASTER 45 - 10:1	PUMP MASTER 60 - 6:1	PUMP MASTER 60 - 12:1
Intensive Duty Volume Transfer Pump	Intensive Duty High Flow Pump	Intensive Duty Pressure Flow Pump	Intensive Duty High Delivery Pump	Intensive Duty High Performance Pump
3 to 4	3 to 4	3 to 4	3 to 4	3 to 4
75 m - 245'	160 m - 525'	240 m - 790'	160 m - 525'	250 m - 220'
Construction equipment Mining equipment Large fleets Railroad and mass transit vehicles Marine In-plant oil distribution	Large auto and truck dealers Construction equipment Mining equipment Railroad and mass transit vehicles Large fleets Lube trucks Marine In-plant oil distribution	Large auto and truck dealers Construction equipment Mining equipment Railroad and mass transit vehicles Large fleets Lube trucks Marine In-plant oil distribution	Very large auto and truck dealers Construction equipment Mining equipment Large fleets Railroad and mass transit vehicles Marine In-plant oil distribution	Very large auto and truck dealers Construction equipment Mining equipment Large fleets Railroad and mass transit vehicles Marine In-plant oil distribution

Maximum line length and number of simultaneous dispense outlets also depends on the line diameter, fluid viscosity and required delivery.

351 120

UTILITY TRANSFER PUMPS

Air operated low pressure pumps for transferring lubricants. Pumps include height adjustable bung adaptor 2" BSP (M) for tank or drum bung mounting.


FLUIDS HANDLED

- Synthetic and mineral based lubricants.
- Transmission fluid.
- Hydraulic oil.
- Diesel.

MARKETS SERVED

- Service shops.
- In plant oil transfer.
- Agriculture.
- Marine.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	215 mm	500 mm	2,5 kg	351 120
60 l (16 gal) drum bung mounted	725 mm	1.010 mm	4,8 kg	356 120
205 l (55 gal) drum bung mounted	915 mm	1.200 mm	5,4 kg	352 120

TECHNICAL DATA PRESSURE RATIO 1:1

Air pressure operating range	1,5 - 10 bar (20 to 140 psi)
Air consumption (1)	150 NL/min (5.3 cfm)
Maximum fluid outlet pressure	10 bar (140 psi)
Air motor diameter	51 mm (2")
Air motor effective diameter	35 mm (1.4")
Air motor stroke	75 mm (3")
Delivery at 150 cpm	20 l/min (5.3 US gpm)
Maximum free flow delivery (2)	52 l/min (13,7 US gpm)
Air inlet	1/4" BSP (F)
Fluid inlet (short pump only)	1" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Aluminium / Steel / NBR / Acetal / Polyurethane
Noise level (3)	80 dB

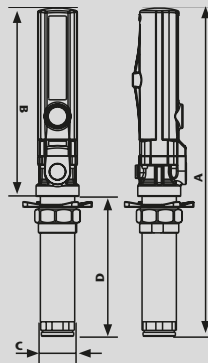
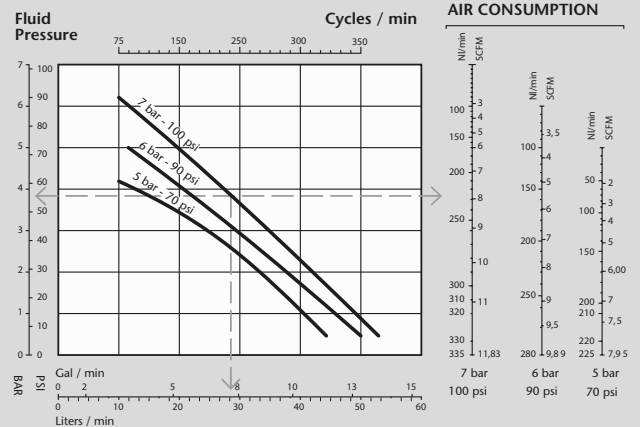
(1) Air consumption with 6 bar air inlet pressure and 150 cycles per minute.

(2) Maximum free delivery at 7 bar.

(3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)

MODEL	351 120	356 120	352 120
A (mm)	500	1.010	1.200
B (mm)	285	285	285
C (mm)	52	52	52
D (mm)	215	725	915


SAE 30 - 20 °C (68 °F) CAPACITY


PUMPMASTER 2 - 1:1 PRESSURE RATIO PUMPS AND PACKAGES
PUMPMASTER 2 - 1:1 PUMP PACKAGES FOR 205 LITRE DRUMS

Packages with air operated low pressure transfer pump. The pump is designed to fit through the 2" bung opening on 50 and 205 l oil drums or to be mounted on a lid for open drums. The pump is fixed using a height adjustable bung adapter.

1:1 ratio pumps are used for a clean and efficient transfer of lubricants, from their original drum to miscellaneous portable grease and oil pumps, buckets, auxiliary tanks, etc., without the risk of lubricant contamination.

An air valve or an optional pressure regulator allows the user to adjust the pump speed and the lubricant flow rate. This is useful when filling open buckets to prevent splashing or to avoid overflow when reaching the top of a container.

454 002

454 003

454 010

454 009



PART No.	DESCRIPTION	APPLICATION	PUMP	HOSE	DELIVERY GUN	AIR INLET ACCESSORY	APPROX. DELIVERY
454 002	1:1 high volume transfer package	205 l DRUMS	352 120	3 m x 3/4" 362 303	High delivery nozzle 361 000	Needle air valve 950 302	30 l/min ⁽¹⁾
454 003	1:1 transfer package	205 l DRUMS	352 120	3 m x 1/2" 362 103	Oil control gun 363 115	–	15 l/min ⁽¹⁾
454 010	1:1 transfer package, metered	205 l DRUMS	352 120	3 m x 1/2" 362 103	Hose end meter 365 535	–	10 l/min ⁽¹⁾
454 009 ⁽³⁾	1:1 grease transfer package	185 kg DRUMS	352 120	3 m x 3/4" 362 303	Ball valve with angled nozzle	Needle air valve 950 302	3,2 kg/min ⁽²⁾

(1) Delivery with SAE30 oil at 7 bar inlet pressure and 20 °C temperature.

(2) Delivery with NLG12 grease at 7 bar inlet pressure and 20 °C temperature.

(3) Model 454 009 also includes drum cover PN 418 006 and follower plate PN 417 004 for 185 kg grease drums.

Not included options:

239 000: 1/4" BSP (MM) connection adaptor.

240 200: Air pressure regulator 0 - 12 bar, 1/4" BSP (FF)

240 500: Air filter and pressure regulator, 0 -12 bar, 1/4" BSP (FF).

354 120

UTILITY MEDIUM PRESSURE PUMPS

Air operated medium pressure pumps for dispensing lubricants from mobile units, oil distribution packages and small systems that do not include simultaneous operation outlets. Pumps include height adjustable bung adaptor 2" BSP (M) for tank or drum bung mounting.


FLUIDS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS SERVED

- Auto dealers.
- Service shops.
- Fast lube centres.
- Agriculture.
- Marine.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	495 mm	2 kg	353 120
60 l (16 gal) drum bung mounted	700 mm	995 mm	3 kg	358 120
205 l (55 gal) drum bung mounted	905 mm	1.200 mm	3,5 kg	354 120

TECHNICAL DATA PRESSURE RATIO 3:1

Air pressure operating range	1,5 - 10 bar (20 to 140 psi)
Air consumption (1)	180 NL/min (6.4 cfm)
Maximum fluid outlet pressure	30 bar (420 psi)
Air motor diameter	51 mm (2")
Air motor effective diameter	35 mm (1.4")
Air motor stroke	75 mm (3")
Delivery at 200 cpm	10 l/min (2.7 US gpm)
Maximum free flow delivery (2)	35 l/min (9.3 US gpm)
Air inlet	1/4" BSP (F)
Fluid inlet (short pump only)	3/4" BSP (F)
Fluid outlet	1/2" BSP (F)
Wetted and seal materials	Aluminium / Steel / NBR / PTFE
Noise level (3)	80 dB

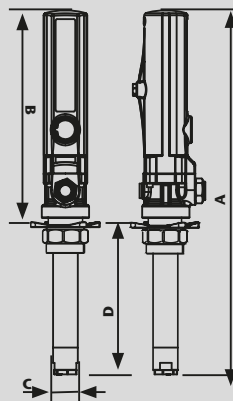
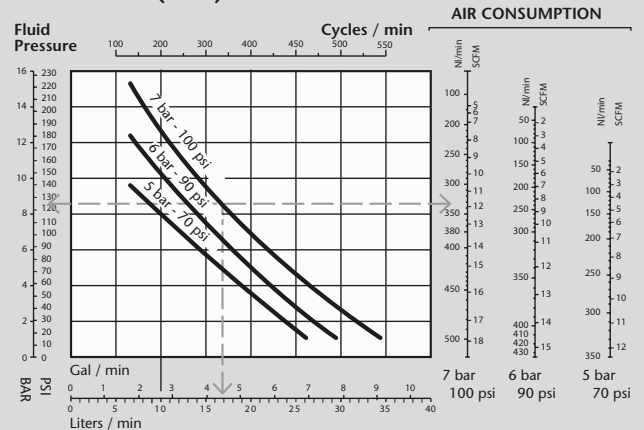
(1) Air consumption with 6 bar air inlet pressure and 200 cycles per minute.

(2) Maximum free delivery at 7 bar.

(3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)

MODEL	353 120	358 120	354 120
A (mm)	495	995	1.200
B (mm)	295	295	295
C (mm)	34	34	34
D (mm)	200	700	905


SAE 30 - 20 °C (68 °F) CAPACITY


Lubricant dispensing and transfer require more than a bare pump. SAMOA offers a range of pump packages and installation kits that include all the accessories needed to efficiently dispense or transfer lubricants. Packages and kits can be used with 205 liter oil drums, 1.000 IBCs and tanks. They provide an easy solution to common applications.


PUMPMASTER 2 - 3:1 OIL PUMP PACKAGES

PART No.	DESCRIPTION	APPLICATION	PUMP	HOSE	DELIVERY GUN	APPROX. DELIVERY
454 110	3:1 transfer metered package	205 l drums	354 120	3 m x 1/2" (362 103)	Hose end meter 365 535	12 l/min ⁽¹⁾
454 111	3:1 transfer package	205 l drums	354 120	3 m x 1/2" (362 103)	Oil control gun 363 115	15 l/min ⁽¹⁾
454 100	Transfer pump with spigot valve	205 l drums	352 220 ⁽³⁾	-	Oil spigot valve 361 100 and tray 736 462	23 l/min ⁽¹⁾
454 150	3:1 transfer pump + IBC side bracket ⁽²⁾	1.000 IBC	353 120	6 m x 1/2" (362 106)	Hose end meter 365 535	12 l/min ⁽¹⁾

(1) Delivery with SAE 30 oil at 7 bar inlet pressure and 20 °C room temperature.

(2) Includes suction hose 745 304 with elbow and connection accessories.

(3) 2:1 pressure ratio pump.


PUMPMASTER 2 - 3:1 OIL PUMP KITS

	PUMPMASTER 2 TANK MOUNTED PUMP KIT	PUMPMASTER 2 WALL MOUNTED PUMP KIT	PUMPMASTER 2 DRUM BUNG MOUNTED PUMP KIT
PART No.	379 003	379 000	379 300
APPLICATION	Tanks	205 l drums	205 l drums
PUMP	353 120	353 120	354 120
SUCTION KIT	1.400 mm suction tube 368 104	367 102	-
HOSE CONNECTION KIT	362 910	362 910	362 910

PUMP PACKAGE AND KIT ACCESSORIES

239 000: 1/4" BSP (MM) connection adaptor.

240 200: Air pressure regulator, 0-12 bar, 1/4" BSP (FF).

240 500: Air filter and pressure regulator, 0-12 bar, 1/4" BSP (FF).

609 007: Pressure relief valve, 1/4" BSP (M) - 60 bar approx. opening pressure. When mounted to the pump body, prevents damage in the system caused by over pressure produced by thermal expansion (1 °C increase in temperature can cause up to 10 bar increase in the system pressure).

950 300: 1/2" BSP (FF) ball valve.

PUMPMASTER 2 - 3:1 PRESSURE RATIO PUMPS, PACKAGES AND MOBILE UNITS

454 605



454 659



454 694


PUMPMASTER 2 - 3:1 OIL PUMP PACKAGES

PART No.	APPLICATION	PUMP	HOSE END METER	HOSE REEL	PUMP CONNECTION KIT	SUCTION KIT	PUMP BRACKET	DRIP POCKET
454 605	205 l drum, drum mounted	354 120	365 535	506 202	362 910	-	-	-
454 600	205 l drum, drum mounted	354 120	365 535	501 200	362 910	-	-	-
454 651	205 l drum, wall mounted	353 120	365 535	506 202	362 910	367 000	360 102	360 127
454 653	205 l drum, wall mounted	353 120	365 535	501 200	362 910	367 000	360 102	360 127
454 659	205 l drum, wall mounted	353 120	365 535	507 202	362 910	367 000	360 102	360 127
454 694	1.000 l IBC, IBC top mounted	353120	365 535	506 202	-	745 300 + 745 301 + 945 572	360 102 + 360 106	-
454 695	1.000 l IBC, IBC top mounted	353 120	365 535	501 200	-	745 300 + 745 301 + 945 572	360 102 + 360 106	-
454 699	1.000 l IBC, IBC side mounted	353 120	365 535	506 202	-	745 301 + 745 302 + 945 572	360 102 + 360 107	-
454 697	1.000 l IBC, IBC side mounted	353 120	365 535	501 200	-	745 301 + 745 302 + 945 572	360 102 + 360 107	-

376 300 - 378 120

MOBILE UNITS WITH PUMPMASTER 3:1 OIL PUMP


PART No.	APPLICATION	PUMP	HOSE END METER	DELIVERY HOSE	TROLLEY	OTHER ACCESSORIES
370 400	50 l drum	358 120	365 535	3 m x 1/2" 362 103	431 000	Drum cover 418 010
328 010	Self contained, 70 l	358 120	365 535	3 m x 1/2" 362 103	373 310	Self contained 70 l tank
376 300	205 l drum	354 120	365 535	3 m x 1/2" 362 103	432 000	-
376 610	205 l drum	353 120	365 535	3 m x 1/2" 362 103	432 814	Suction hose 367 011
378 120	205 l drum	353 120	365 535	10 m hose reel 506 202	432 814	Suction hose 367 011



PUMPMASTER 2 ACCESSORIES

360 102



360 102 Wall bracket
360 120 Floor bracket

360 120



360 001



**BUNG ADAPTORS 2" (M) CONNECTION
FOR DRUM AND TANKS BUNG OPENINGS**

360 000 Bung adaptor for PM2 3:1 pumps
Pump tube o.d.: 34 mm.

360 001 Bung adaptor for PM2 1:1 pumps
Pump tube o.d.: 52 mm.

367 000



SUCTION ASSEMBLIES AND SUCTION HOSES
Suction assemblies for wall mounted stub pumps. Assemblies include Ø 42 suction tube with foot valve, height adjustable 2" bung adaptor and 2 m x 3/4" rubber connection hose.

367 000 Suction assembly for 1.000 l IBC and 205 l drums
1.060 mm suction tube.

367 003 Suction assembly for tanks
1.600 mm suction tube.

367 011 spring reinforced transparent suction hose
For 205 l drums and 1.000 l IBC. 3 m x 3/4".

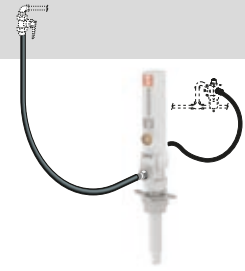
367 012 spring reinforced transparent suction hose with foot valve
For 205 l drums and 1.000 l IBC. 3 m x 3/4", includes foot valve.

367 102 Pump suction kit
Includes suction assemble 367 000 and pump bracket 360 102

367 011



369 910



HOSE CONNECTION KIT
362 910 PM2 pump connection kit
1 m x 1/4" air hose 246 010, one 1/2" BSP (M) x 1/4" BSP (M) connection adapter 945 516, 1 m x 1/2" oil hose with 1/2" BSP (MM) fittings, one automatic quick air coupling 1/4" BSP (F) 253114 and one quick air connector 1/4" BSP (M).

609 007



PRESSURE RELIEF VALVE
609 007 Pressure relief valve
1/4" BSP (M) 60 bar approx. opening pressure. When mounted to the pump body, prevents damage in the system caused by over pressure produced by thermal expansion (1°C increase in temperature can cause up to 10 bar increase in the system pressure). Possibility to connect either a 1/4" hose with a clamp or a hose with 1/8" BSP (F) fitting as return line to the tank or drum.

OTHER MOBILE OIL DISPENSERS



PRESSURIZED LUBRICANT DISPENSERS 25 LITERS
Mobile unit for dispense viscous lubricants. Includes a 25 l container that must be pressurized using a tire inflator at maximum 7 bar (100 psi). Includes safety valve and 1,5 m delivery hose with oil gun.

324 000 Pressurized lubricant dispenser, 25 liters.

324 010 Pressurized lubricant dispenser, 25 liters with meter.



SELF CONTAINED AIR OPERATED LUBRICANT DISPENSER 25 LITERS
Mobile unit to dispense viscous lubricants. Includes a 25 l capacity tank, a 2:1 pneumatic pump, oil meter at pump outlet, 1,5 m delivery hose and oil gun with non-drip tip.

327 020 Self contained air operated lubricant dispenser with meter, 25 liters.



SELF CONTAINED HAND OPERATED LUBRICANT DISPENSERS 25 LITERS
Mobile unit to dispense viscous lubricants. Includes a 25 l capacity tank, a hand pump and a 1,5 m delivery hose with angled spout.

325 000 Self contained hand operated lubricant dispenser, 25 liters.

325 010 Self contained hand operated lubricant dispenser with meter, 25 liters. Includes in line meter at the pump outlet.



SELF CONTAINED HAND OPERATED LUBRICANT DISPENSERS 70 LITERS
Mobile unit to dispense viscous lubricants. Includes a 70 l capacity tank, a hand pump and a 1,5 m delivery hose with angled spout.

326 000 Self contained hand operated lubricant dispenser, 65 liters.

326 010 Self contained hand operated lubricant dispenser with meter, 65 l
Includes in line meter at the pump outlet.

Air operated medium pressure and high volume pumps for dispensing lubricants in medium size installations, that include multiple outlets with simultaneous operation. Pumps include height adjustable bung adaptor 2" BSP (M) for drum and tank bung mounting and a built in port for connecting a pressure relief valve (PN 609 007).



FLUIDS HANDLED

- Synthetic and mineral based lubricants.
- Gear oil.
- Hydraulic oil.
- Transmission fluid.

MARKETS SERVED

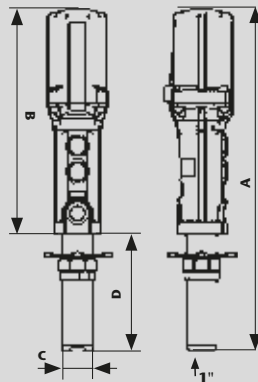
- Vehicle maintenance centres and auto dealers.
- Fleet service.
- Fast lube centres.
- Lube trucks.
- Mining and construction.
- In-plant.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	585 mm	5,7 kg	340 120
205 l (55 gal) drum bung mounted	910 mm	1.295 mm	7,7 kg	341 120

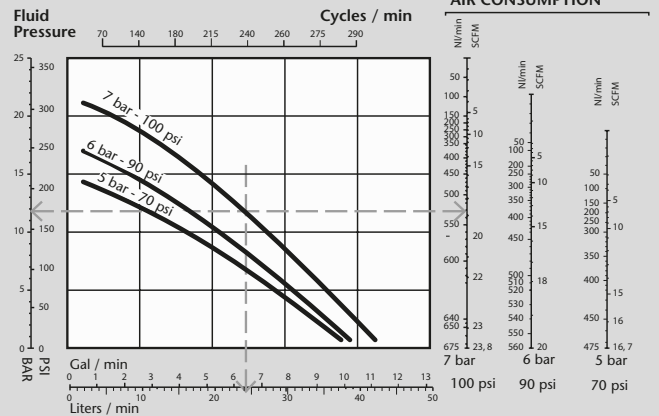
TECHNICAL DATA PRESSURE RATIO 3:1	
Air pressure operating range	1,5 - 10 bar (20 to 140 psi)
Air consumption (1)	285 NL/min (10 cfm)
Maximum fluid outlet pressure	30 bar (420 psi)
Air motor diameter	88 mm (3.5")
Air motor effective diameter	60 mm (2.4")
Air motor stroke	100 mm (4")
Delivery at 85 cpm	10 l/min (2.7 US gpm)
Maximum free flow delivery (2)	42 l/min (11.1 US gpm)
Air inlet	3/8" BSP (F)
Fluid inlet (short pump only)	1" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Aluminium / Steel / Polyurethane / NBR / PTFE
Noise level (3)	93 dB

(1) Air consumption with 6 bar air inlet pressure and 10 l/min delivery.
 (2) Maximum free delivery at 7 bar.
 (3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)		
MODEL	340 120	341 120
A (mm)	585	1.295
B (mm)	385	385
C (mm)	52	52
D (mm)	200	910



SAE 30 - 20 °C (68 °F) CAPACITY



PUMPMASTER 4 - 5:1 PRESSURE RATIO PUMPS

347 120

STANDARD DUTY MEDIUM PRESSURE PUMPS



Air operated medium pressure pumps for dispensing lubricants in medium to large size installations, that include multiple outlets with simultaneous operation. Pumps include height adjustable bung adaptor 2" BSP (M) for drum and tank bung mounting and a built in port for connecting a pressure relief valve (PN 609 007).

FLUIDS HANDLED

- Synthetic and mineral based lubricants.
- Gear oil.
- Hydraulic oil.
- Transmission fluid.

MARKETS SERVED

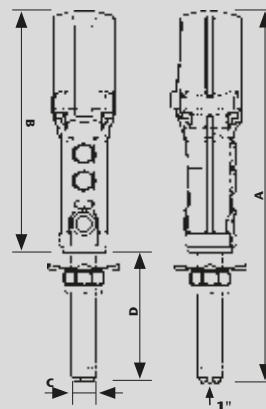
- Auto and truck dealers.
- Fleet service facilities.
- Mining and construction.
- Lube trucks.
- Marine.
- Railroad and mass transit vehicles.
- In-plant.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	278 mm	663 mm	5,6 kg	347 120
205 l (55 gal) drum bung mounted	915 mm	1.300 mm	7,4 kg	348 120

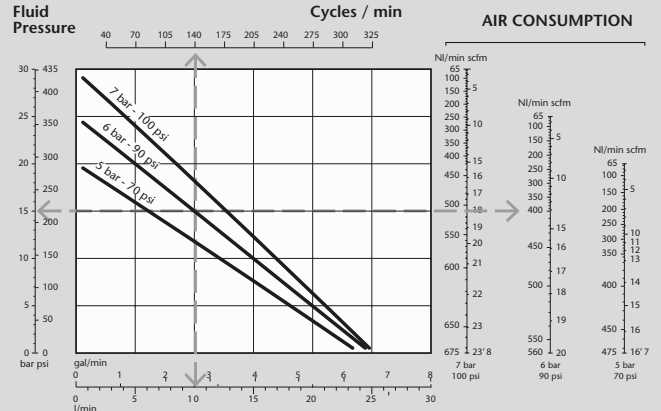
TECHNICAL DATA PRESSURE RATIO 5:1	
Air pressure operating range	1,5 - 10 bar (20 to 140 psi)
Air consumption (1)	400 NL/min (14 cfm)
Maximum fluid outlet pressure	50 bar (700 psi)
Air motor diameter	88 mm (3.5")
Air motor effective diameter	60 mm (2.4")
Air motor stroke	100 mm (4")
Delivery at 125 cpm	10 l/min (2.7 US gpm)
Maximum free flow delivery (2)	25 l/min (6.6 US gpm)
Air inlet	3/8" NPSM
Fluid inlet (short pump only)	1" BSP
Fluid outlet	3/4" NPSM
Wetted and seal materials	Aluminium / Steel / Polyurethane / NBR / PTFE
Noise level (3)	95 dB

- (1) Air consumption with 6 bar air inlet pressure and 10 l/min delivery.
 (2) Maximum free delivery at 7 bar.
 (3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)		
MODEL	347 120	348 120
A (mm)	663	1.300
B (mm)	385	385
C (mm)	42	42
D (mm)	278	915



SAE 30 - 20 °C (68 °F) CAPACITY



Air operated high pressure pumps for dispensing lubricants in applications requiring higher pressure and moderate flow rates, such as medium to large size installations including multiple outlets with no simultaneous use. Pumps include height adjustable bung adaptor 2" BSP (M) for drum or tank bung mounting and a built in port for connecting a pressure relief valve (PN 609 007).

**FLUIDS HANDLED**

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.
- Corrosion protection fluids.

MARKETS SERVED

- Vehicle maintenance centres.
- Fleet service facilities.
- Marine.
- Mining and construction.
- Lube trucks.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	242 mm	627 mm	5,7 kg	349 120
205 l (55 gal) drum bung mounted	932 mm	1.317 mm	7,4 kg	349 121

TECHNICAL DATA PRESSURE RATIO 8:1

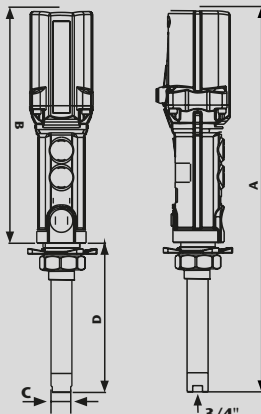
Air pressure operating range	3 -10 bar (40 to 140 psi)
Air consumption (1)	450 NL/min (16 cfm)
Maximum fluid outlet pressure	80 bar (1,120 psi)
Air motor diameter	88 mm (3.5")
Air motor effective diameter	60 mm (2.4")
Air motor stroke	100 mm (4")
Delivery at 200 cpm	10 l/min (2.7 US gpm)
Maximum free flow delivery (2)	22 l/min (5.8 US gpm)
Air inlet	3/8" BSP (F)
Fluid inlet (short pump only)	3/4" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Aluminium / Steel / NBR / PTFE
Noise level (3)	95 dB

(1) Air consumption with 6 bar air inlet pressure and 10 l/min delivery.

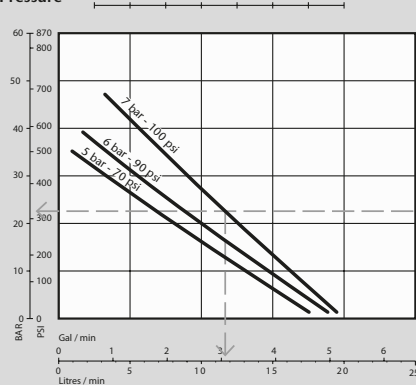
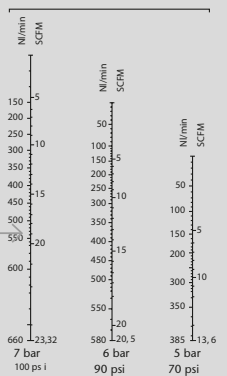
(2) Maximum free delivery at 7 bar.

(3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)		
MODEL	349 120	349 121
A (mm)	627	1.317
B (mm)	385	385
C (mm)	34	34
D (mm)	242	932

**SAE 30 - 20 °C (68 °F) CAPACITY**

Fluid Pressure Cycles / min

**AIR CONSUMPTION**

PUMPMaster 4 - 3:1 AND 5:1 PUMPS INSTALLATION KITS AND ACCESSORIES

Installing an oil pump in a distribution system requires more than a bare pump. SAMOA offers a range of installation kits that include all the accessories needed to efficiently dispense or transfer lubricants. Kits can be used with 205 liter oil drums, 1.000 liter IBCs and tanks and they provide an easy solution to common applications.

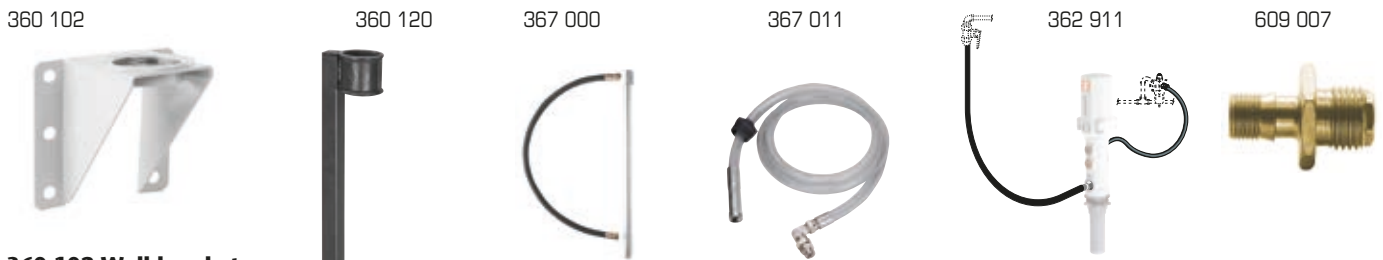


	TANK MOUNTED PUMP KIT		WALL MOUNTED PUMP KIT		205 l DRUM MOUNTED PUMP KIT	
PUMP RATIO	PM4 - 3:1	PM4 - 5:1	PM4 - 3:1	PM4 - 5:1	PM4 - 3:1	PM4 - 5:1
KIT PART NUMBER	379 403	379 503	379 400	379 500	379 404	379 504
PUMP	340 120	347 120	340 120	347 120	341 120	348 120
SUCTION KIT	368 105 1.400 mm suction tube	368 105 1.400 mm suction tube	367 105	367 105	-	-
HOSE CONNECTION KIT	362 911	362 911	362 911	362 911	362 911	362 911

PUMP KIT ACCESSORIES

- 239 004:** 1/2" BSP (MM) connection adaptor
- 241 201:** Air pressure regulator, 0-12 bar, 3/8" BSP (F) - 1/2" BSP (F)
- 241 501:** Air filter and pressure regulator, 0-12 bar, 3/8" BSP (F) - 1/2" BSP (F)
- 609 007:** Pressure relief valve, 1/4" BSP (M) - 60 bar approx. opening pressure. When mounted to the pump body, prevents damage in the system caused by over pressure produced by thermal expansion (1 °C increase in temperature can cause up to 10 bar increase in the system pressure).
- 950 303:** 3/4" BSP (FF) ball valve.

PUMPMaster 4 PUMP ACCESSORIES



360 102 Wall bracket
360 120 Floor bracket

360 002



BUNG ADAPTOR 2" (M) CONNECTION FOR DRUM AND TANKS BUNG OPENINGS

- 360 001 Bung adaptor for PM4 - 3:1 pump**
Pump tube o.d.:52 mm.
- 360 002 Bung adaptor for PM4 - 5:1 pumps**
Pump tube o.d.:42 mm.

SUCTION ASSEMBLIES AND SUCTION HOSES

Suction assemblies for wall mounted stub pumps. Assemblies include Ø 42 suction tube with foot valve, height adjustable 2" bung adaptor and 2 m x 3/4" rubber connection hose.

- 367 000 Suction assembly for 1.000 liter IBC and 205 liter drums**
1.060 mm suction tube.
- 367 003 Suction assembly for tanks**
1.600 mm suction tube.
- 362 400 1 m x 1" connection hose.** For connecting a PM4 pump to tank 1" BSP (M) connection on both sides, with a 90° connection on one side.
- 945 670 1" BSP (M) x 3/4" BSP (M) connection adaptor**
Required for connecting the suction assemblies to a PM4 pump.

HOSE CONNECTION KIT

362 911 PumpMaster 4 pump connection kit
Includes 1 m x 3/8" air hose 247 710 with 1/2" and 3/8" BSP (M) fittings, 1,5 m x 3/4" oil hose with 3/4" BSP (MM) fittings 362301, one automatic quick air coupling 3/8" BSP (F) 253 138 and one quick air connector 3/8" BSP (M) 259 038.

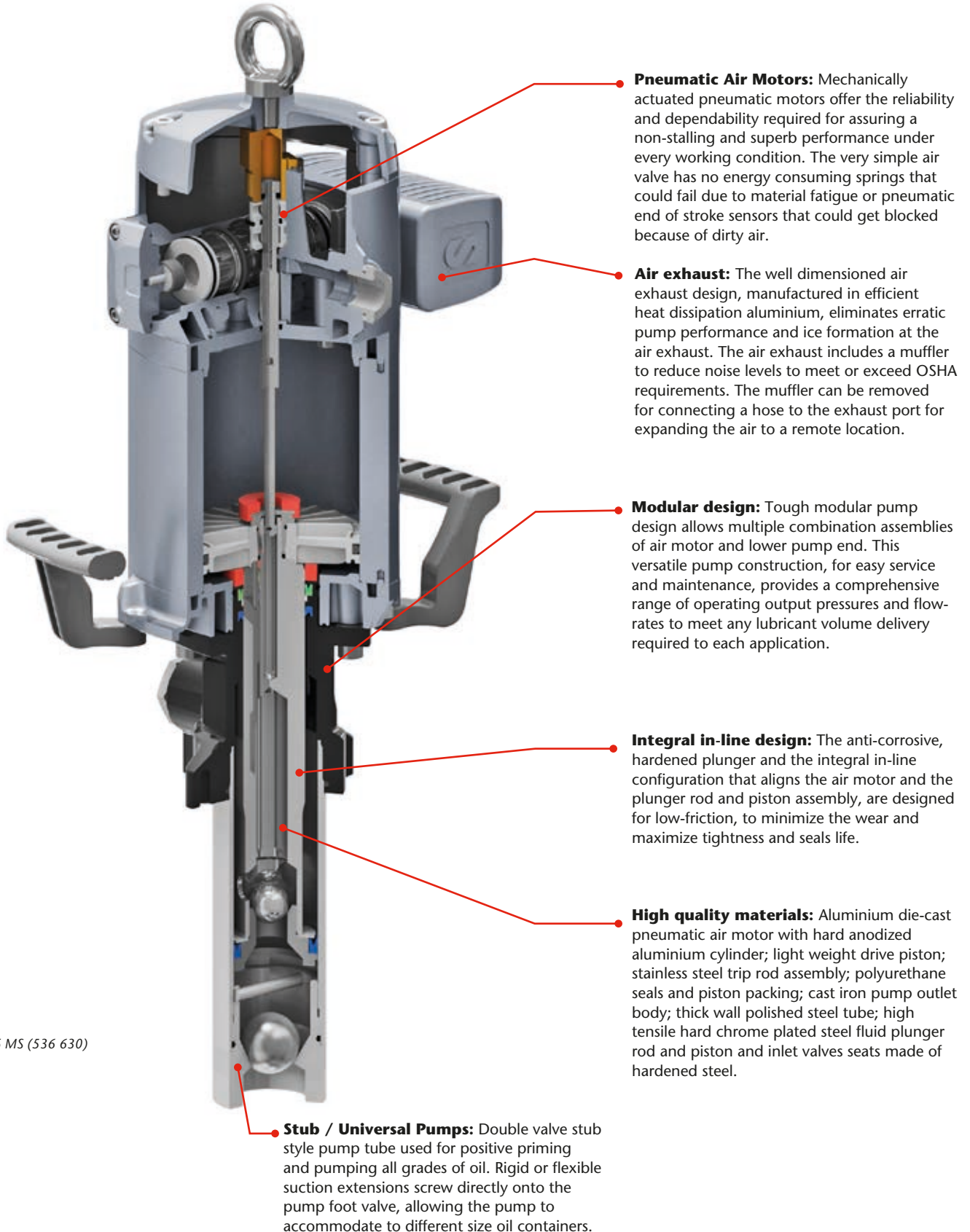
PRESSURE RELIEF VALVE

609 007 Pressure relief valve
1/4" BSP (M) 60 bar approx. opening pressure. When mounted to the pump body, prevents damage in the system caused by over pressure produced by thermal expansion (1°C increase in temperature can cause up to 10 bar increase in the system pressure). Possibility to connect either a 1/4" hose with a clamp or a hose with 1/8" BSP (F) fitting as return line to the tank or drum.

INTENSIVE DUTY PISTON PUMPS: THE HEART OF A LUBRICATION SYSTEM

SAMOA Intensive Duty pumps are designed to deliver through long distribution lines even with multiple outlets with simultaneous operation all kind of synthetic and petroleum based lubricants at continuous-duty and high flow rates under extreme and intensive working conditions.

These double acting, high efficiency, air powered, positive displacement piston, pumps provide the necessary confidence to offer a solution for fast moving large volumes of oil in very large distance applications.



PM 45 - 06 MS (536 630)

PUMPMASTER 45 - 3:1 PRESSURE RATIO PUMP

536 330

INTENSIVE DUTY VOLUME TRANSFER PUMP

Air operated medium pressure and high delivery pump for large volume transfer applications.



FLUIDS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS SERVED

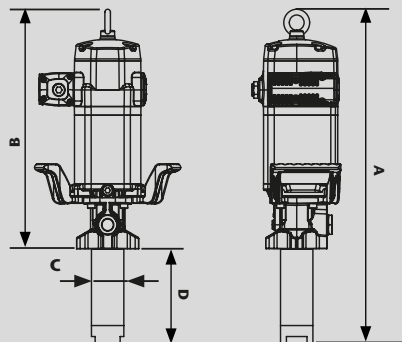
- Construction equipment.
- Mining equipment.
- Large fleets.
- Railroad and mass transit vehicles maintenance.
- Marine.
- In plant oil distribution and transfer.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	702 mm	17 kg	536 330

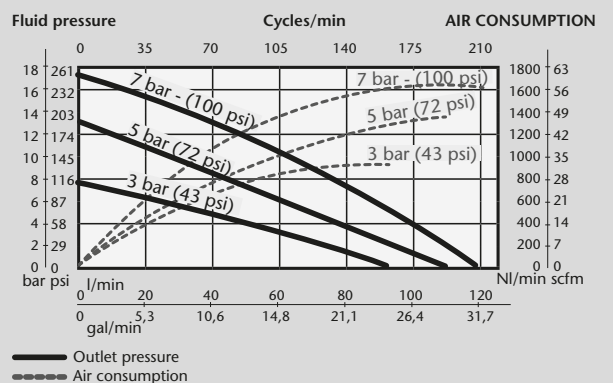
TECHNICAL DATA PRESSURE RATIO 3:1	
Air pressure operating range	1,5 to 12 bar (20 to 170 psi)
Air consumption (1)	800 NI/min (28 cfm)
Maximum fluid outlet pressure	36 bar (510 psi)
Air motor effective diameter	115 mm (4 1/2")
Air motor stroke	100 mm (4")
Delivery at 80 cpm	45 l/min (11.88 gal/min)
Maximum free flow delivery	120 l/min (31.70 gal/min)
Air inlet	1/2" BSP (F)
Fluid inlet	1 1/2" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Cast iron / Nickel / Aluminium / Steel / Polyurethane / NBR
Noise level (2)	80 dB

(1) Maximum air consumption with 5 bar air inlet pressure and 80 cpm.
 (2) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)	
MODEL	536 330
A (mm)	702
B (mm)	502
C (mm)	90
D (mm)	200



SAE 10, 21 °C (70 °F) CAPACITY



536 630

INTENSIVE DUTY HIGH FLOW PUMP

Air operated medium pressure and high delivery pump for large system with simultaneous operation outlets that require a high delivery pump.


PRODUCTS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS

- Large auto and truck dealers.
- Construction equipment maintenance.
- Mining equipment maintenance.
- Large fleets.
- Railroad and mass transit vehicles maintenance.
- Marine.
- In plant oil distribution.

MODELS

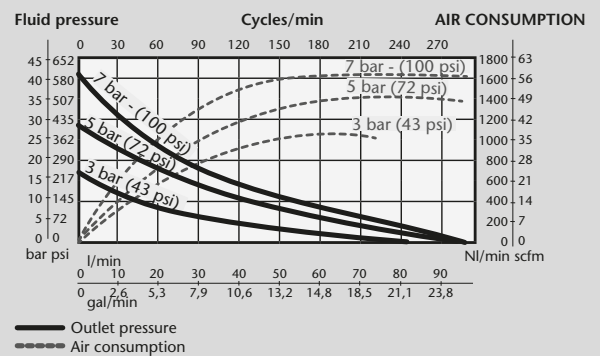
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	702 mm	17 kg	536 630

TECHNICAL DATA PRESSURE RATIO 6:1

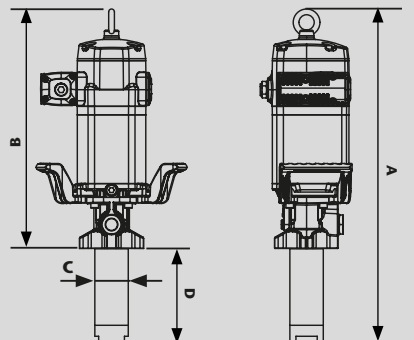
Air pressure operating range	1,5 to 12 bar (20 to 170 psi)
Air consumption (1)	830 NI/min (29 cfm)
Maximum fluid outlet pressure	72 bar (1,020 psi)
Air motor effective diameter	115 mm (4 1/2")
Air motor stroke	100 mm (4")
Delivery at 80 cpm	25 l/min (6.60 gal/min)
Maximum free flow delivery	95 l/min (25.09 gal/min)
Air inlet	1/2" BSP (F)
Fluid inlet	1 1/2" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Cast iron / Hard chromed steel / Steel / Polyurethane / NBR
Noise level (2)	80 dB

(1) Maximum air consumption with 5 bar air inlet pressure and 80 cpm.

(2) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

SAE 10, 21 °C (70 °F) CAPACITY

DIMENSIONS (mm)

MODEL	536 630
A (mm)	702
B (mm)	502
C (mm)	70
D (mm)	200



PUMPMASTER 45 - 10:1 PRESSURE RATIO PUMPS

536 010

INTENSIVE DUTY PRESSURE FLOW PUMPS

Air operated moderate pressure pump for very large oil systems or when a low air pressure or cold temperatures would limit pump performance.



PRODUCTS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS

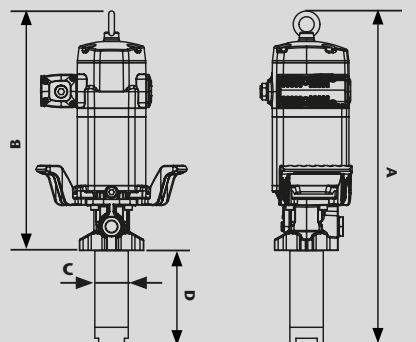
- Large auto and truck dealers.
- Construction equipment maintenance.
- Mining equipment maintenance.
- Railroad and mass transit vehicles maintenance.
- Large fleets.
- Lube trucks.
- Marine.
- In plant oil distribution.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	702 mm	16,5 kg	536 030
205 l drum bung mounted	855 mm	17 kg	536 010	

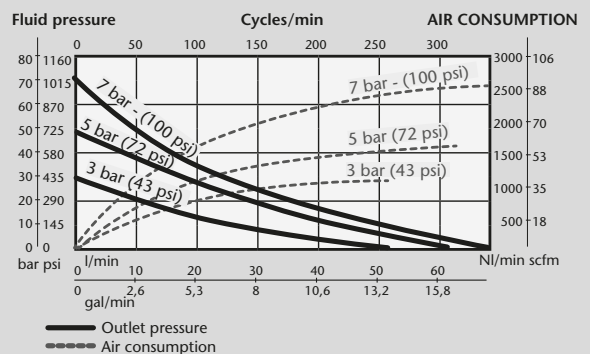
TECHNICAL DATA PRESSURE RATIO 10:1	
Air pressure operating range	1,5 to 12 bar (20 to 170 psi)
Air consumption (1)	850 NI/min (30 cfm)
Maximum fluid outlet pressure	120 bar (1,700 psi)
Air motor effective diameter	115 mm (4 1/2")
Air motor stroke	100 mm (4")
Delivery at 80 cpm	15 l/min (4 gal/min)
Maximum free flow delivery	65 l/min (17.17 gal/min)
Air inlet	1/2 " BSP (F)
Fluid inlet	1 1/2 " BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Cast iron / Hard chromed steel / Steel / Polyurethane / NBR
Noise level (2)	80 dB

(1) Maximum air consumption with 5 bar air inlet pressure and 80 cpm.
 (2) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)		
MODEL	536 030	536 010
A (mm)	702	1.357
B (mm)	502	502
C (mm)	54	54
D (mm)	200	855



SAE 10, 21 °C (70 °F) CAPACITY



537 630

INTENSIVE DUTY HIGH DELIVERY PUMP

Air operated medium pressure and high delivery pump, for large installations with simultaneous operation outlets and applications that require large, constant delivery rates.


PRODUCTS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS

- Very large auto and truck dealers.
- Construction equipment maintenance.
- Mining equipment maintenance.
- Large fleets.
- Railroad and mass transit vehicles maintenance.
- Marine.
- In plant oil distribution.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	716 mm	19 kg	537 630

TECHNICAL DATA PRESSURE RATIO 6:1

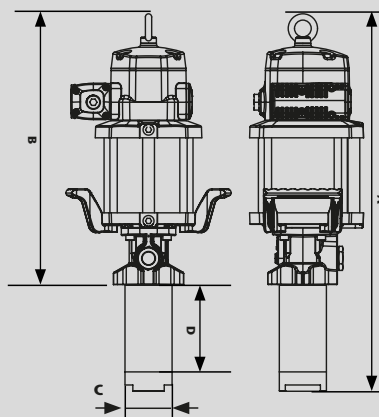
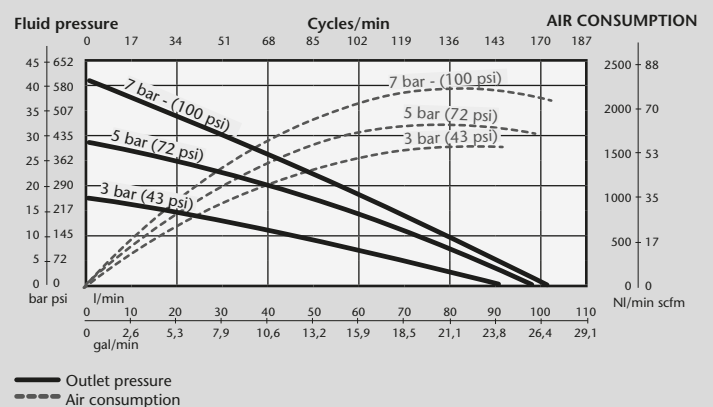
Air pressure operating range	1,5 to 12 bar (20 to 170 psi)
Air consumption (1)	1.100 NI (39 cfm)
Maximum fluid outlet pressure	72 bar (1,020 psi)
Air motor effective diameter	150 mm (6")
Air motor stroke	100 mm (4")
Delivery at 60 cpm	35 l/min (9.25 gal/min)
Maximum free flow delivery	100 l/min (26.42 gal/min)
Air inlet	1/2 " BSP (F)
Fluid inlet	1 1/2" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Cast iron / Aluminium / Nickel / Steel / Polyurethane / NBR
Noise level (2)	80 dB

(1) Maximum air consumption with 5 bar air inlet pressure and 60 cpm.

(2) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)

MODEL	537 630
A (mm)	716
B (mm)	516
C (mm)	90
D (mm)	200


SAE 10, 21 °C (70 °F) CAPACITY


PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP

537 130

INTENSIVE DUTY HIGH PERFORMANCE PUMP

Air operated moderate pressure and high delivery for very large installation with simultaneous operation outlets or when low air pressure would limit pump performances.



PRODUCTS HANDLED

- Synthetic and mineral based lubricants.
- Hydraulic oil.
- Gear oil.
- Transmission fluid.

MARKETS

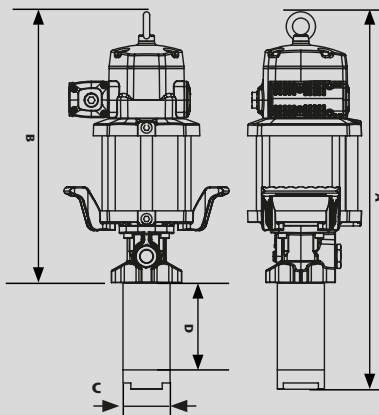
- Very large auto and truck dealers.
- Construction equipment maintenance.
- Mining equipment maintenance.
- Large fleets.
- Railroad and mass transit vehicles maintenance.
- Marine.
- In plant oil distribution.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Universal stub pump	200 mm	716 mm	19 kg	537 130

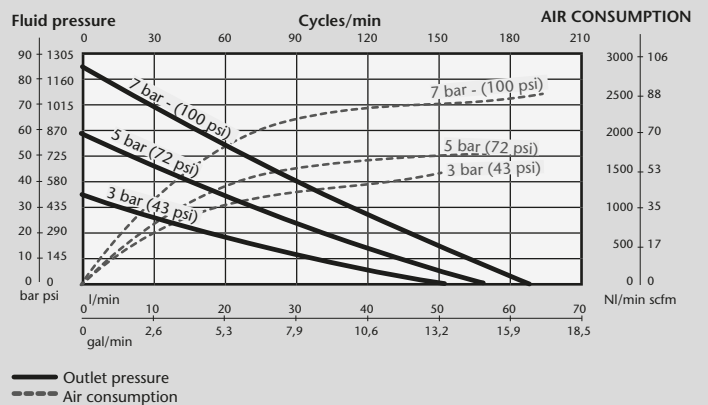
TECHNICAL DATA PRESSURE RATIO 12:1	
Air pressure operating range	1,5 to 12 bar (20 to 170 psi)
Air consumption (1)	1.150 NI (41 cfm)
Maximum fluid outlet pressure	144 bar (2,040 psi)
Air motor effective diameter	150 mm (6")
Air motor stroke	100 mm (4")
Delivery at 60 cpm	20 l/min (5.30 gal/min)
Maximum free flow delivery	65 l/min (17 gal/min)
Air inlet	1/2 " BSP (F)
Fluid inlet	1 1/2" BSP (F)
Fluid outlet	3/4" BSP (F)
Wetted and seal materials	Cast iron / Hard chromed steel / Steel / Polyurethane / NBR
Noise level (2)	80 dB

(1) Maximum air consumption with 5 bar air inlet pressure and 60 cpm.
 (2) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)	
MODEL	537 130
A (mm)	716
B (mm)	516
C (mm)	70
D (mm)	200



SAE 10, 21 °C (70 °F) CAPACITY



PUMPMASTER 45 AND 60 ACCESSORIES

539 009

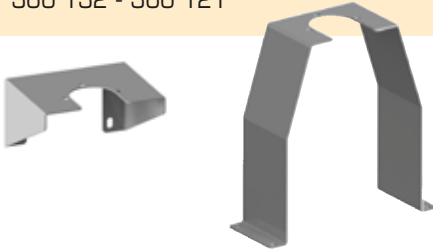


HOSE CONNECTION KIT

539 009 Hose Connection kit for PM45 and PM60 oil pumps

Includes 1 m x 1/2" air hose (PN 248 018) with swivel elbow (PN 239 352), quick air coupler (PN 251 412), air nipple (PN 255 312), and 2 m x 3/4" oil hose (PN 362 302) with swivel elbow (PN 945 738).

360 132 - 360 121



PUMP BRACKETS

360 132 Wall bracket. For PM45 and PM60 universal stub pumps.

360 121 Floor bracket. For PM45 and PM60 universal stub pumps.

360 006



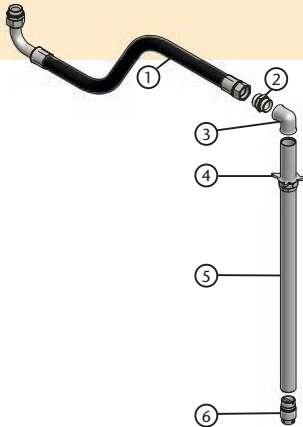
BUNG ADAPTOR

For use with PM45 10:1 pressure ratio pumps only

PM45 10:1 pumps are the only pumps with a 2" pump tube and therefore the only pumps that fit through 2" bung openings in drums and tanks. All other PM45 and PM60 pumps must be wall or floor mounted using an adequate bracket and suction accessories.

360 006 Bung adaptor

For PM45 10:1 pumps only.



SUCTION ACCESSORIES

367 016 Suction assembly for 205 l drums and IBCS

It includes a 42 mm x 2 m suction tube with foot valve and 2 m x 3/4" hose.

For use with PM45 10:1 wall mounted universal stub pumps only.

① 362 402 Suction hose 1.800 mm x 1-1/2" rubber connection hose.

1-1/2" BSP (F) connection elbow on one side and 1-1/2" (M) straight connection on the other.

② 945 724 Connection adaptor, 1-1/2" BSP (MM).

③ 945 737 Elbow, 1-1/2" BSP (FF).

④ 609 104 Bung adaptor

Adaptor for fixing tube 736 771 to a 2" bung opening.

⑤ 736 771 Suction tube

1.000 x 1-1/2", 1-1/2" BSP (MF) connection threads.

⑥ 736 772 Foot valve

For use with suction tube 736 771.

609 007



PRESSURE RELEASE VALVES

Prevent damage caused by overpressure due to oil thermal expansion.

609 007 Pressure release valve. Opening pressure approx. 60 bar.

609 008 Pressure release valve. Opening pressure approx. 100 bar.

OIL PUMP ACCESSORIES

PUMP BRACKETS



360 102



360 120



360 108

PM2 AND PM4 PUMP BRACKETS

360 102 Wall bracket

360 120 Floor bracket

360 106 Bracket for fixing a pump and a hose reel on top of a 1.000 l IBC

Requires pump bracket 360 102 (not included).

360 107 Bracket for fixing a pump and a hose reel laterally on a 1.000 l IBC

Requires pump bracket 360 102 (not included).

360 108 Bracket for fixing a pump laterally on a 1.000 l IBC

Requires pump bracket 360 102 (not included).

PM45 AND PM60 PUMP BRACKETS

360 132 Wall bracket

360 121 Floor bracket

AIR ACCESSORIES



240 200



241 501



241 202

	1/4" CONNECTION THREADS 1/4" BSP (FF)	1/2" CONNECTION THREADS 1/2" BSP (FF) with one 1/2" BSP (M) - 3/8" BSP (F) adaptor	3/4" CONNECTION THREADS 3/4" BSP (FF)
AIR PRESSURE REGULATOR 0 - 12 BAR	240 200	241 201	242 202
COMBINED AIR FILTER AND PRESSURE REGULATOR	240 500	241 501	242 302 (Filter only)
AIR LUBRICATOR	240 400	241 401	242 402



950 303



950 304

Connection adapters

945 590, 1/4" BSP (MM)

945 592, 3/8" BSP (MM)

945 558, 1/2" BSP (MM)

945 551, 3/4" BSP (MM)

945 555, 1" BSP (MM)

945 724, 1 1/2" BSP (MM)

945 681, 1 1/2" BSP (M) - 1" BSP (M)

945 552 1" BSP (M) - 3/4" BSP (M)

945 554, 3/4" BSP (M) - 1/2" BSP (M)

945 557, 1/2" BSP (M) - 3/8" BSP (M)

945 567, 2" BSP (M) - 1 1/2" BSP (M)

945 565, 2" BSP (M) - 1" BSP (F)

945 513, 1 1/4" BSP (M) - 3/4" BSP (F)

945 670, 1" BSP (M) - 3/4" BSP (F)

369 900, 3/4" BSP (M) - 1/2" BSP (F)

945 556, 1/2" BSP (M) - 3/8" BSP (F)

369 601, 1/2" BSP (MM) 45° elbow

945 572, 3/4" BSP (MF) 90° elbow

945 548, 1/2" BSP (MM) 90° elbow

945 738, 3/4" BSP (M) - 3/4" BSP (F) 90° elbow

Low and Medium pressure valves

950 305, 1/4" BSP (FF), 65 bar quarter turn valve

950 320, 3/8" BSP (FF), 65 bar quarter turn valve

950 300, 1/2" BSP (FF), 65 bar quarter turn valve

950 303, 3/4" BSP (FF), 40 bar quarter turn valve

950 306, 1" BSP (FF), 40 bar quarter turn valve

950 312, 1-1/2" BSP (FF), 25 bar quarter turn valve

950 308, 2" BSP (FF), 25 bar quarter turn valve

High pressure valves

950 304, 1/2" BSP (FF), 500 bar quarter turn valve

950 328, 3/4" BSP (FF), 400 bar quarter turn valve

950 329, 1" BSP (FF), 350 bar quarter turn valve

Air line shutoff valves

950 302, Needle air valve 1/4" BSP (FF)

950 321, Air valve 1/4" BSP (FF)

950 318, Air valve 3/8" BSP (FF)

950 319, Air valve 1/2" BSP (FF)

362 104

OIL HOSES



Manufactured in NBR with a steel reinforcement braid. With two swaged nuts and male-male adaptors on both ends.

362 100, 1 m x 1/2". Working pressure: 160 bar. Connection threads: 1/2" BSP (MM)

362 101, 1,5 m x 1/2". Working pressure: 160 bar. Connection threads: 1/2" BSP (MM)

362 102, 2 m x 1/2". Working pressure: 160 bar. Connection threads: 1/2" BSP (MM)

362 103, 3 m x 1/2". Working pressure: 160 bar. Connection threads: 1/2" BSP (MM)

362 104, 4 m x 1/2". Working pressure: 160 bar. Connection threads: 1/2" BSP (MM)

362 300, 1 m x 3/4". Working pressure: 100 bar. Connection threads: 3/4" BSP (MM)

362 301, 1,5 m x 3/4". Working pressure: 100 bar. Connection threads: 3/4" BSP (MM)

362 302, 1,8 m x 3/4". Working pressure: 100 bar. Connection threads: 3/4" BSP (MM)

362 303, 3 m x 3/4". Working pressure: 100 bar. Connection threads: 3/4" BSP (MM)

OIL PUMPS MOUNTING ACCESSORIES QUICK REFERENCE CHART

PUMP	PUMP MASTER 2	PUMP MASTER 2	PUMP MASTER 4	PUMP MASTER 4	PUMP MASTER 45	PUMP MASTER 45	PUMP MASTER 45	PUMP MASTER 60	PUMP MASTER 60
RATIO	1:1	3:1	3:1	5:1	3:1	6:1	10:1	6:1	12:1
BUNG ADAPTOR	360 001	360 000	360 001	360 002	(1)	(1)	360 006	(1)	(1)
CONNECTION HOSE KIT	362 910	362 910	362 911	362 911	539 009	539 009	539 009	539 009	539 009
WALL MOUNTING BRACKET	360 102	360 102	360 102	360 102	360 132	360 132	360 132	360 132	360 132
FLOOR BRACKET	360 120	360 120	360 120	360 120	360 121	360 121	360 121	360 121	360 121
THERMAL RELIEF KIT	Not needed	609 007	609 007	609 007	609 007	609 008	609 008	609 008	609 008
AIR REGULATOR WITH GAUGE	240 200	240 200	241 201	241 201	241 201	241 201	241 201	241 201	241 201
AIR FILTER LUBRICATOR	240 500	240 500	241 501	241 501	241 501	241 501	241 501	241 501	241 501
FRL	240 000	240 000	241 001	241 001	241 001	241 001	241 001	241 001	241 001
AIRLINE SHUTOFF VALVE	950 302	950 321	950 318	950 318	950 319	950 319	950 319	950 319	950 319
FLUID SHUTOFF VALVE	950 303	950 303	950 303	950 303	950 303	950 303	950 328	950 303	950 328
SUCTION KIT (*)	367 000	367 000	367 000	367 000	(2)	(2)	367 000	(2)	(2)
QUICK AIR COUPLER	253 114	253 114	253 138	253 138	251 412	251 412	251 412	251 412	251 412
QUICK AIR CONNECTOR	259 014	259 014	259 038	259 038	255 312	255 312	255 312	255 312	255 312
AIR CONNECTION ACCESSORIES I.D.	1/4" - 6 mm	1/4" - 6 mm	3/8" - 8 mm	3/8" - 8 mm	1/2" - 12 mm	1/2" - 12,5 mm	1/2" - 12,5 mm	1/2" - 12,5 mm	1/2" - 12,5 mm

(*) Suction kit for 200 l drum. Pump bracket not included.

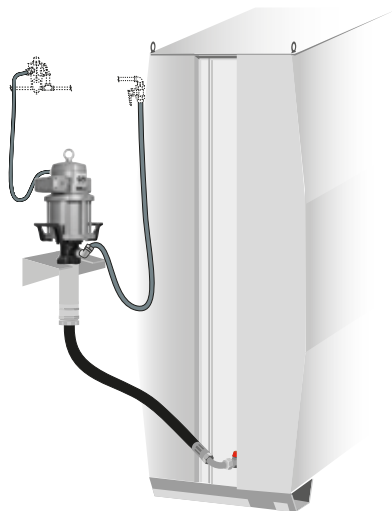
(1) Pump must be wall or floor mounted.

(2) SAMOA recommends using 1-1/2" x 2 m maximum length hose as suction kit. See page 24.

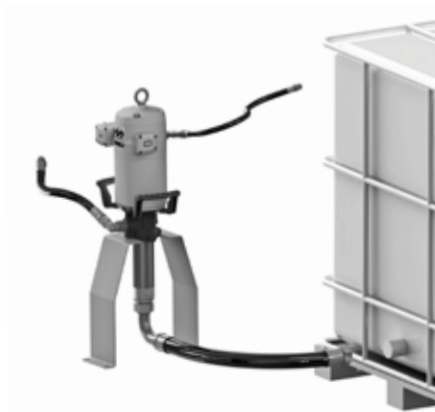
PUMP INSTALATION RECOMMENDATIONS

- Always use a ball valve between the tank outlet and the suction hose.
- Always use a ball valve between the pump outlet hose and the fluid distribution line.

PUMP INSTALLATION EXAMPLES



WALL MOUNTED PUMP



FLOOR MOUNTED PUMP



WALL MOUNTED PUMP

02 AIR OPERATED GREASE PUMPS AND KITS

AIR OPERATED GREASE PUMPS	28
PUMPMASTER 3 - 55:1 PRESSURE RATIO PUMPS AND PACKAGES	30
PUMPMASTER 3+3 - 60:1 PRESSURE RATIO PUMPS AND PACKAGES	32
PUMPMASTER 3 AND PUMPMASTER 3+3 ACCESSORIES	34
PUMPMASTER 45 - 25:1 PRESSURE RATIO PUMP	36
PUMPMASTER 45 - 40:1 PRESSURE RATIO PUMPS	37
PUMPMASTER 45 - 70:1 PRESSURE RATIO PUMPS	38
PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP	39
PUMPMASTER 60 - 80:1 PRESSURE RATIO PUMPS	40
PUMPMASTER 45 & 60 INSTALATION KITS	41
PUMPMASTER 45 & 60 PUMPS ACCESSORIES	43
GREASE PUMP ACCESSORIES	44



AIR OPERATED GREASE PUMPS



Effective greasing demands a pump capable to deliver the pressure required to force grease flow through the very narrow opening in a grease fitting. For this reason, high pressure, high ratio, pumps are used. Additionally, grease transfer requires pumps able to efficiently move large volumes of viscous products.

SAMOA offers a range of high pressure and high delivery grease pumps to handle a wide variety of applications. This pump offer fits original container sizes, from small pails to drums, totes and special built tanks, and covers applications from mobile and portable units to large distribution systems.

SAMOA's grease pumps are designed to provide years of dependable service. The in-line balanced design assures that maximum amount of energy is directed into the pump. The balanced design provides an even distribution of loads, allowing for long seal life. All SAMOA pumps have a double acting design, pumping product on both the upstroke and downstroke. An effective priming piston provides positive pump feeding, even when used with high viscosity or tacky greases and a hardened foot valve minimizes pump damage due to dirt. A corrosion proof air motor design tolerates moisture in compressed air.

All SAMOA pumps present on demand operation, pump adjusts speed to match system flow and pressure requirements and when the discharge is closed, for example by a closed control valve, then the pump stops. The pump can be left in this stalled condition without damaging the pump nor consuming compressed air.

PUMP MASTER®



	PUMPMASTER 3 - 55:1	PUMPMASTER 3+3 - 60:1
PUMP DESCRIPTION	Utility high pressure pump	Heavy Duty high pressure pump
SIMULTANEOUS OPERATION OUTLETS	1 No reels - mobile units	1 to 2
MAX. LINE LENGTH	15 m - 50'	75 m - 245'
APPLICATION	Agriculture Service shops Light Industrial	Heavy Duty service shops Fleets Lube trucks Mining and construction In-plant Railroad and mass transit vehicles

Maximum line length and number of simultaneous dispense points also depends on the line diameter, fluid viscosity and required delivery.

Product specifications are subject to change without prior notice



PUMPMASTER 45 - 25:1	PUMPMASTER 45 - 40:1	PUMPMASTER 45 - 70:1	PUMPMASTER 60 - 12:1	PUMPMASTER 60 - 80:1
Intensive Duty pressure transfer pump	Intensive Duty high flow pump	Intensive Duty high pressure pump	Intensive Duty volume transfer pump	Intensive Duty high performance pump
1 No reels - mobile units	4 or more	4 or more	1 High volume transfer pump	4 or more
75 m - 245'	125 m - 410'	175 m - 575'	50 m - 165'	250 m - 820'
Moderate pressure transfer Lube trucks Mining and construction In-plant	Heavy Duty service shops Fleets Lube trucks Mining and construction Railroad and mass transit vehicles In-plant Marine	Heavy Duty service shops Fleets Lube trucks Mining and construction Railroad and mass transit vehicles In-plant Marine	Low pressure, high volume transfer Mining and construction In-plant Railroad and mass transit vehicles	Fleets Lube trucks Mining and construction Railroad and mass transit vehicles In-plant Marine

Maximum line length and number of simultaneous dispense points also depends on the line diameter, fluid viscosity and required delivery.

407 200

UTILITY HIGH PRESSURE PUMPS

Light weight and effective high pressure delivery air operated pumps specially designed for use in mobile and portable greasing units.

Pumps are available with four different suction tube lengths, to fit all commercial grease drums: 12,5 - 20 kg (40 lb), 50 kg (120 lb) and 185 kg (400 lb). They include a height adjustable 2" BSP (M) bung adaptor.



FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

- Agriculture.
- Service shops.
- Light industrial.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
12,5 - 20 kg (40 lb) pails	410 mm	650 mm	3,5 kg	404 100
50 kg (120 lb) drums	510 mm	710 mm	3,7 kg	405 100
50 kg (120 lb) drums	725 mm	925 mm	4,3 kg	407 200
185 kg (400 lb) drums	920 mm	1.120 mm	4,8 kg	409 200

TECHNICAL DATA	
Pump ratio	55:1
Air pressure operating range	1,5 to 10 bar (20 to 140 psi)
Air consumption (1)	165 NL/min (5.8 cfm)
Maximum fluid outlet pressure	550 bar (7,700 psi)
Air motor diameter	70 mm (2.75")
Air motor stroke	35 mm (1.4")
Delivery at 110 cpm	300 g/min (0.67 lb/min)
Maximum free flow delivery (2)	540 g/min (1.2 lb/min)
Air inlet	1/4" NPSM (F)
Fluid outlet	1/4" NPSM (F)
Wetted and seal materials	Steel / NBR / PTFE
Noise level (3)	92 dB

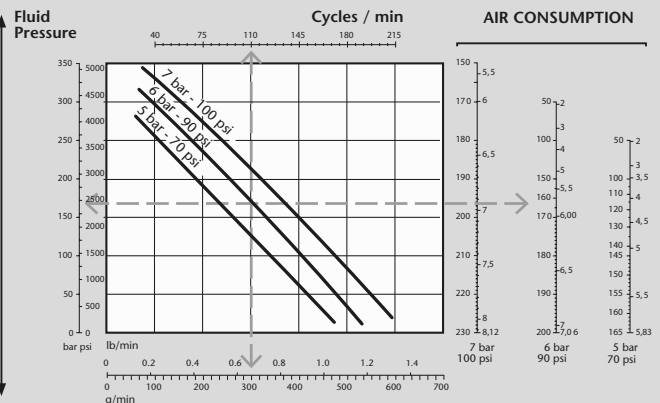
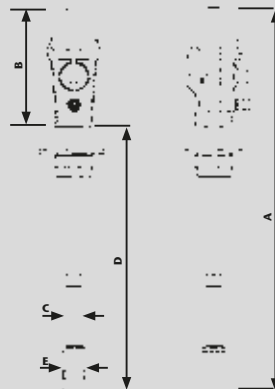
(1) Maximum air consumption with 6 bar air inlet pressure, NLGI-2 grease at 20 °C and 100 cpm.

(2) Maximum free delivery at 7 bar. NLGI-2 grease.

(3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

NLGI-2, 20 °C (68 °F) CAPACITY

MODEL	DIMENSIONS (mm)			
	404 100	405 100	407 200	409 200
A (mm)	650	710	925	1.120
B (mm)	200	200	200	200
C (mm)	26	26	26	26
D (mm)	410	510	725	920
E (mm)	38	38	38	38



424 172 - 424 152

482 200

425 150.002

428 243

Mobile and portable units to fit 18, 20, 50 and 185 kg drums.



Part No.	APPLICATION	PUMP	DRUM COVER	FOLLOWER PLATE	DELIVERY HOSE	GREASE GUN WITH Z-SWIVEL	TROLLEY
424 150	Mobile unit, 12,5 to 18 kg (1)	404 100	418 013	-	2 m x 1/4" 412 102	413 080	430 000
424 152	Mobile unit, 20 kg (1)	404 100	418 002	-	2 m x 1/4" 412 102	413 080	430 000
424 170	Portable unit, 12,5 to 18 kg (1)	404 100	418 013	-	2 m X 1/4" 412 102	413 080	-
424 170.800	Portable unit, 12,5 to 18 kg (1)	404 100	418 013	417 001	2 m x 1/4" 412 102	413 080	-
424 172	Portable unit, 20 kg (1)	404 100	418 002	-	2 m x 1/4" 412 102	413 080	-
424 172.710	Portable unit, 20 kg (1)	404 100	418 002	417 001	2 m x 1/4" 412 102	413 080	-
482 200	Mobile unit, 12,5 to 20 kg (2)	404 100	-	-	2 m x 1/4" 412 102	413 080	480 021
425 150	Mobile unit, 50 kg drum	407 200	418 004	-	3 m x 1/4" 412 103	413 080	431 000
425 150.002	Mobile unit, 50 kg drum	407 200	418 004	417 002	3 m x 1/4" 412 103	413 080	431 000
425 290	Mobile unit, 50 kg drum	407 200	418 004	-	2 m x 1/4" 412 102	413 080	430 000
482 500	Mobile unit, 50 kg drum (3)	407 200	-	-	3 m x 1/4" 412 103	413 080	480 050
428 243	Mobile unit, 185 kg drum	409 200	418 006	417 004	4 m x 1/4" 412 104	413 080	432 000
428 262	Stationaty unit, 185 kg drum	409 200	418 006	417 004	4 m x 1/4" 412 104	413 080	-

(1) Includes carrying handle 741 602.

(2) Shielded unit. Includes base with 4 castors.

(3) Shielded unit. Includes base with 2 wheels and 2 castors.

Not included options:
239 000: 1/4" BSP (MM) connection adaptor.

240 500: Air filter and pressure regulator, 0-12 bar, 1/4" BSP (FF).

417 001: Follower plate 298 - 260 mm. For 12,5 and 18 kg pails.

417 002: Follower plate 370 - 330 mm. For 50 kg standard diameter drums.

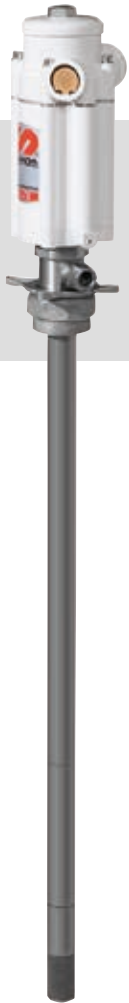
417 003: Follower plate 405 - 360 mm. For 50 kg large diameter drums.

417 005: Follower plate 340 - 300 mm. For 20 kg pails.

411 100: In-line grease meter for grease control gun.

402 000

HEAVY DUTY HIGH PRESSURE PUMPS



Heavy Duty pumps that combine high pressure (60:1 pressure ratio) and volume delivery. Recommended for use in distribution and greasing systems that include pipe lines, hose reels, etc. with up to 2 simultaneous use outlets even though the number of outlets in the system can be higher. Very reliable pump, it has a removable screen filter at the grease intake for eliminating dirt and impurities that could damage the pump, and a built in filter at the air inlet connection. Includes a height adjustable 2" BSP (M) bung adaptor.

FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

- Heavy duty service shops.
- Fleet service.
- Lube trucks.
- Mining and construction.
- In-plant.
- Railroad and mass transit vehicles.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
12,5 - 20 kg (40 lb) pails	516 mm	804 mm	6,5 kg	402 050
50 kg (120 lb) drum	730 mm	1.020 mm	7,5 kg	402 000
185 kg (400 lb) drum	925 mm	1.215 mm	8,5 kg	402 025

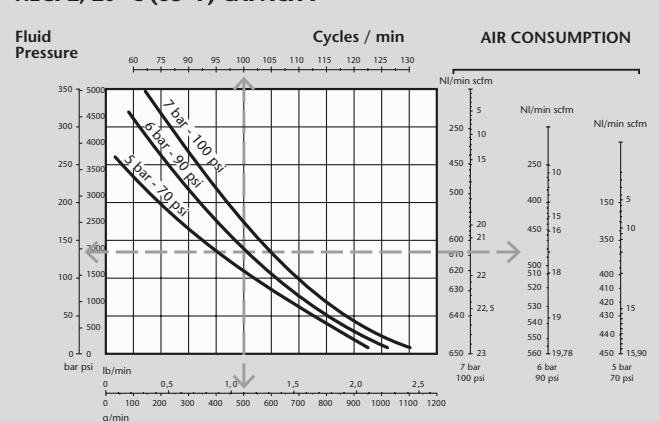
TECHNICAL DATA

Pump ratio	60:1
Air pressure operating range	1,5 to 10 bar (20 to 140 psi)
Air consumption (1)	475 Nl/min (16.8 cfm)
Maximum fluid outlet pressure	600 bar (8,400 psi)
Air motor diameter	75 mm (3")
Air motor stroke	75 mm (3")
Delivery at 100 cpm	500 g/min (1.1 lb/min)
Maximum free flow delivery (2)	1.200 g/min (2.6 lb/min)
Air inlet	3/8" NPSM (F)
Fluid outlet	3/8" NPSM (F)
Wetted and seal materials	Steel / PTFE / Polyurethane
Noise level (3)	92 dB

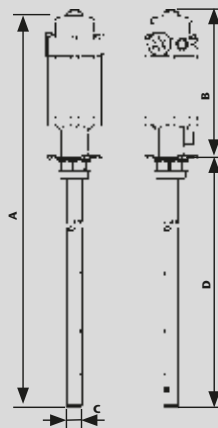
(1) Maximum air consumption with 7 bar air inlet pressure, NLGI-2 grease at 20 °C and 100 cpm.

(2) Maximum free delivery at 7 bar. NLGI-2 grease.

(3) Maximum noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

NLGI-2, 20 °C (68 °F) CAPACITY


	DIMENSIONS (mm)		
MODEL	402 050	402 000	402 025
A (mm)	806	1.020	1.215
B (mm)	290	290	290
C (mm)	30	30	30
D (mm)	516	730	925





	429 810	429 800	453 602	426 243	486 500	423 150	486 200	423 020
	INSTALLATION KIT 50 kg DRUM	INSTALLATION KIT 185 kg DRUM	PUMP HOSE REEL KIT 185 kg DRUM	MOBILE KIT 185 kg DRUM	MOBILE KIT 50 kg DRUMS	MOBILE KIT 50 kg DRUMS	MOBILE KIT 20 kg PAILS	PORTABLE KIT 18 kg PAILS
PART No.	429 810	429 800	453 602	426 243	486 500	423 150	486 200	423 020
PUMP	402 000	402 025	402 025	402 025	402 000	402 000	402 050	402 050
DRUM COVER	418 004	418 006	418 006	418 006	-	418 004	-	418 013
FOLLOWER PLATE	-	417 004	417 004	417 004	-	-	-	417 001
HOSE CONNECTION KIT	412 920	412 920	412 920	-	-	-	-	-
GREASE GUN WITH Z-SWIVEL	-	-	413 080	413 080	413 080	413 080	413 080	413 080
DELIVERY HOSE	-	-	15 m Hose reel 504 351	4 m x 1/4" 412 104	3 m x 1/4" 412 103	3 m x 1/4" 412 103	2 m x 1/4" 412 102	2 m x 1/4" 412 102
DRUM TROLLEY	-	-	-	432 000	480 050 ⁽¹⁾	431 000	480 021 ⁽²⁾	-

(1) Shielded unit. Includes base with 2 wheels and 2 castors.

(2) Shielded unit. Includes base with 4 castors.

424 060
MOBILE EXTRUSION UNIT FOR 12-20 kg PAILS


Mobile unit specially designed for its use with hard to pump sticky and high viscosity greases (up to NLGI3). The pump's lower end is fixed to an inductor plate and the pump is mounted to a pneumatic piston that elevates the pump for replacing an empty pail. The pneumatic piston also acts when the pump is in use, pushing the inductor plate against the grease, aiding the pump prime, making possible to pump very high viscosity grease. Follower plate increases productivity as it eliminates air pockets and contributes to maintain grease free from dirt in industrial environments. The air cylinder is controlled with a valve located on the top of the inductor post and it includes a pressure regulator to adjust the downward pressure.

The unit includes a PM 3+3 60:1 pressure ratio pump and it is mounted to a rolling base with 4 wheels, two of them with brake.

424 060 Mobile extrusion unit

Includes 3 m high pressure hose and a grease control gun with Z-swivel and hydraulic nozzle.

424 061 Mobile extrusion unit

Same as model 424 060 but with no outlet hose and grease control gun.

Air filter and regulator (PN 240 500) is non included option.

Not included options:

239 001: 1/4" BSP (M) - 3/8" BSP (M) connection adaptor.

240 500: Air filter and pressure regulator, 1/4" BSP (FF).

360 111: Hose reel pivoting bracket.

360 127: Control gun holder and drip tray.

417 001: Follower plate 298 - 260 mm. For 12,5 and 18 kg pails.

417 002: Follower plate 370 - 330 mm. For 50 kg standard diameter drums.

417 003: Follower plate 405 - 360 mm. For 50 kg large diameter drums.

417 005: Follower plate 340 - 300 mm. For 20 kg pails.

411 100: In line grease meter for grease control gun.

418 004 - 417 003

DRUM COVERS AND FOLLOWER PLATES

Drum covers. Very solid construction. With 2" BSP (F) bung opening.



Part No.	DRUM TYPE	DRUM EXTERNAL DIAMETER (MIN. - MAX.)
418 013	12,5 to 18 kg pails	265 - 310 mm
418 002	20 kg pails	285 - 330 mm
418 016	50 kg drums	350 - 395 mm
418 004	50 kg drums	360 - 405 mm
418 006	185 kg drums	565 - 610 mm

Follower plates eliminate air pockets and aid pump prime. Rubber flange minimizes waste. With handle for removing from empty drums.

Part No.	DRUM TYPE	DRUM EXTERNAL DIAMETER (MIN. - MAX.)
417 006	12,5 kg pails	190 - 260 mm
417 001	12,5 to 18 kg pails	260 - 298 mm
417 005	20 kg pails	300 - 340 mm
417 002	50 kg drums	330 - 370 mm
417 003	50 kg drums	360 - 405 mm
417 004	185 kg drums	550 - 590 mm

430 000 - 431 000 - 432 814 - 432 000

DRUM TROLLEYS

**430 000 Trolley for 20 kg pails**

Two wheel trolley with tubular frame for 20 and 50 kg drums.

431 000 Trolley for 50 and 20 kg drums

Four wheel trolley with tubular frame.

431 001 Trolley for 50 and 20 kg drums

Two wheel and two front rubber pads trolley with tubular frame.

480 050 Mobile protective drum cabinet, 50 kg**480 021 Mobile protective drum cabinet, 20 kg****432 000 Trolley for 185 kg drum.**

Two solid rubber wheels and one swiveling rubber wheel with brake. A hose reel and a pump can be, mounted using optional bracket.

360 134 Pump bracket

For mounting a short pump to trolley 432 000.

360 135 Hose reel bracket

For mounting a hose reel to trolley 432 000.

432 814 Heavy Duty trolley for 185 kg drum

Two 260 mm front tires and one swiveling solid rubber wheel with brake. A hose reel can be, mounted using optional bracket.

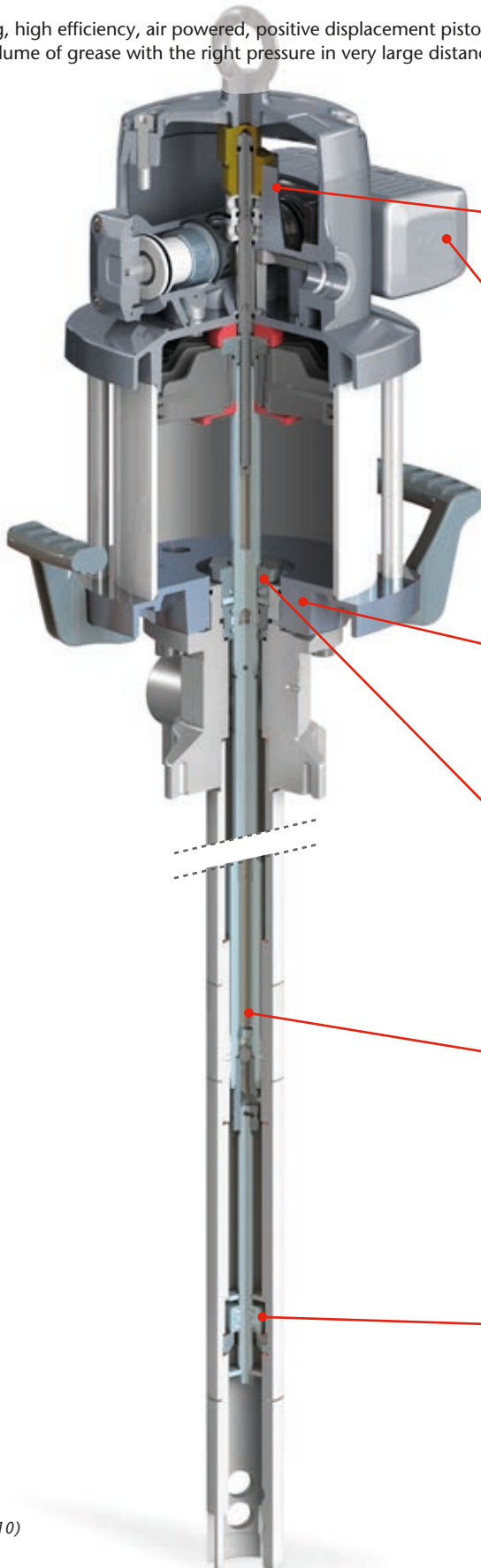
360 113 Hose reel bracket.

For mounting a hose reel to trolley 432 814.

INTENSIVE DUTY PISTON PUMPS: THE HEART OF A LUBRICATION SYSTEM

SAMOA Intensive Duty pumps are designed to deliver through long distribution lines or to multiple dispensing points with simultaneous operation all kind of grease at continuous duty and high flow rates under extreme and intensive working conditions.

These double acting, high efficiency, air powered, positive displacement piston pumps provide the necessary confidence to offer solutions for moving fast the required volume of grease with the right pressure in very large distance applications.



Pneumatic air motors. Mechanically driven air motors offer the reliability and dependability required for assuring a non-stalling and superb performance under every working condition. The very simple air valve has no energy consuming springs that could fail due to material fatigue or pneumatic end of stroke sensors that could get to locked because of dirty air.

Air exhaust. The well dimensioned air exhaust design manufactured, in efficient heat dissipation aluminium eliminates erratic pump performance and ice formation at the air exhaust. The air exhaust includes a muffler to reduce noise levels to meet or exceed OSHA requirements. The muffler can be removed for connecting a hose to the exhaust port for expanding the air to a remote location.

Modular design. Tough modular pump design allows multiple combination assemblies of air motor and lower pump end. This versatile pump construction, for easy service and maintenance, provides a comprehensive range of operating output pressures and flow-rates to meet any amount of grease and pressure demanded in each application.

Pump top gland seal. The anti-corrosive, hardened plunger and the cartridge seals packing arrangements are designed for low friction, to minimize wear and to maximize tightness and seals life.

High quality materials. Aluminium die-cast pneumatic air motor with hard anodized aluminium cylinder; light weight drive piston and plunger with rubber-PTFE or polyurethane seals; cast outlet body, thick-wall polished tube, high tensile steel on rod; barrel, piston and prime valve made of special hardened, precision fitted, ground steel for perfect seal and long life of grease pumps.

Pump inlet valve. SAMOA offers a chop-check priming valve that assists the entry of heavy and sticky high viscosity grease into the pump and improves pump efficiency. PM45-25:1 ratio pump is double ball valve design pump for the transfer of grease up to NLGI-1.

PM 60 - 80 MA (532 810)

PUMPMASTER 45 - 25:1 PRESSURE RATIO PUMP

531 210

INTENSIVE DUTY PRESSURE TRANSFER PUMP

Moderate pressure, high delivery pumps for transfer of grease up to NLGI-1. They are also recommended for use with low viscosity grease in centralized grease systems that do not require a very high pressure output and in large distribution systems of high viscosity oils.

Pumps are available with tube length to fit commercial 185 kg - 400 lb drums and they are available for cover mount to 185 kg - 400 lb open drums.



FLUIDS HANDLED

- Grease up to NLGI-1.
- High viscosity oil.

MARKETS SERVED

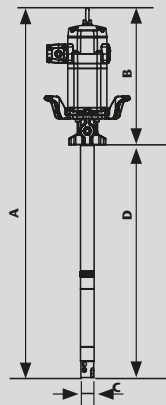
- Lube trucks.
- Mining and construction.
- In-plant.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
185 kg (400 lb) drum	855 mm	1.357 mm	24 kg	531 210

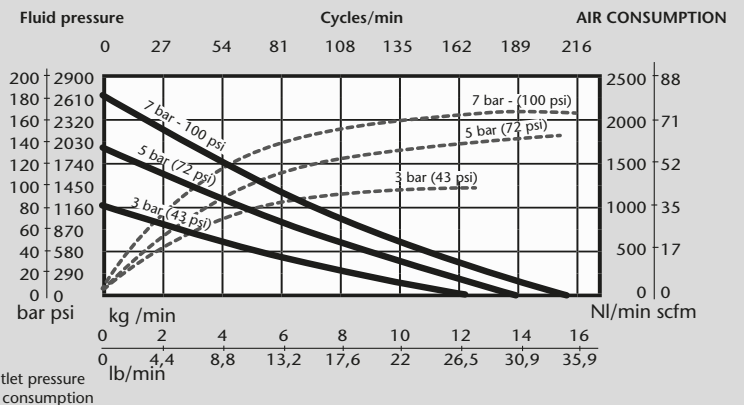
TECHNICAL DATA	
Pump ratio	25:1
Continuous duty flow rate	6 kg/min (13.2 lb/min)
Maximum free flow	16 kg/min (35.3 lb/min)
Air pressure operating range	1,5 - 14 bar (20 - 200 psi)
Maximum outlet pressure	350 bar (5,000 psi)
Air motor effective diameter	115 mm (4.5")
Air motor stroke	100 mm (4")
Air consumption (1)	1.340 NI/min (47 cfm)
Air inlet	1/2" BSP (F)
Fluid outlet	1/2" BSP (F)
Wetted and seals materials	Cast Iron / Steel / Hard chromed steel / UHMWPE / NBR
Noise level (2)	80 dB

(1) Air consumption at 5 bar air pressure, NLGI-0 grease at 20 °C and 80 cpm.
 (2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)	
MODEL	531 210
A (mm)	1.357
B (mm)	502
C (mm)	50
D (mm)	855



NLGI-0, 21 °C (70 °F) CAPACITY



PUMPMASTER 45 - 40:1 PRESSURE RATIO PUMPS

531 410

INTENSIVE DUTY HIGH FLOW PUMPS

High flow pumps with high pressure delivery for use in lubrication systems that require a combination of high flow and pressure delivery. Pumps can be used with grease up to NLGI-2 viscosity. For higher viscosity grease a pneumatic or a gravity fed inductor plate might be required. These pumps can be used in medium length systems that include simultaneous operation outlets. Pumps are available for cover mount to 50 kg - 120 lb and 185 kg - 400 lb open drums and for horizontal and side mount on grease totes and bags.



FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

- Heavy Duty service shops.
- Fleets.
- Mining and construction.
- Railroad and mass transit vehicles.
- In-plant.
- Marine.

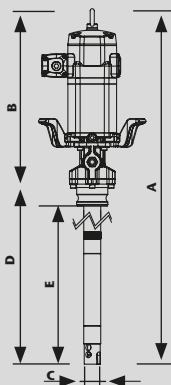
MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
185 kg (400 lb) drum	855 mm	1.357 mm	25 kg	531 410
50 kg (120 lb) drum	650 mm	1.152 mm	22 kg	531 420
Bulk tote	490 mm	992 mm	26 kg	531 430*

* Includes adaptor 753 110 to fit a 3" cam-lock connector for use in totes and grease bags.

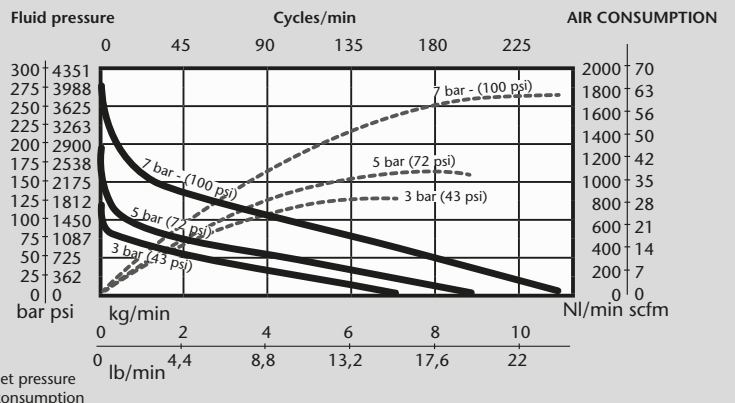
TECHNICAL DATA	
Pump ratio	40:1
Continuous duty flow rate	3,5 kg/min (7.5 lb/min)
Maximum free flow	11 kg/min (24.3 lb/min)
Air pressure operating range	1,5 - 14 bar (20 - 200 psi)
Maximum outlet pressure	560 bar (8,000 psi)
Air motor effective diameter	115 mm (4.5")
Air motor stroke	100 mm (4")
Air consumption (1)	750 NI/min (26.5 cfm)
Air inlet	1/2" BSP (F)
Fluid outlet	1/2" BSP (F)
Wetted and seals materials	Cast Iron / Steel / Hard chromed steel / UHMW PE / NBR / PTFE
Noise level (2)	80 dB

(1) Air consumption at 5 bar air pressure, NLGI-2 grease at 20 °C and 80 cpm.
 (2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)			
MODEL	531 410	531 420	531 430*
A (mm)	1.357	1.152	992
B (mm)	502	502	502
C (mm)	50	50	50
D (mm)	855	650	490
E (mm)	-	-	410



NLGI-2, 21 °C (70 °F) CAPACITY



PUMPMASTER 45 - 70:1 PRESSURE RATIO PUMPS

531 710

INTENSIVE DUTY HIGH PRESSURE PUMPS

High pressure pump for use in applications that require extra pressure output, cold temperatures or when a low air pressure could limit pump performance. Pumps can be used with grease up to NLGI-2 viscosity. For higher viscosity grease a pneumatic or a gravity fed inductor plate might be required. These pumps can be used in large distribution systems that include simultaneous operation outlets.

Pumps are available for cover mount to 50 kg - 120 lb and 185 kg - 400 lb open drum and for horizontal and side mount on grease totes and bags.



FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

- Heavy Duty service shops.
- Fleets.
- Lube trucks.
- Mining and construction.
- Rail road and mass transit vehicles.
- In-plant.
- Marine

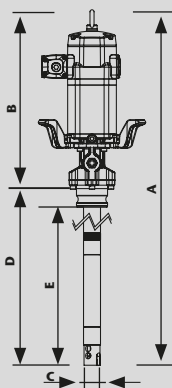
MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
185 kg (400 lb) drum	855 mm	1.357 mm	25 kg	531 710
50 kg (120 lb) drum	650 mm	1.152 mm	22 kg	531 720
Bulk tote	490 mm	992 mm	21 kg	531 730*

* Includes adaptor 753 110 to fit a 3" cam-lock connector.

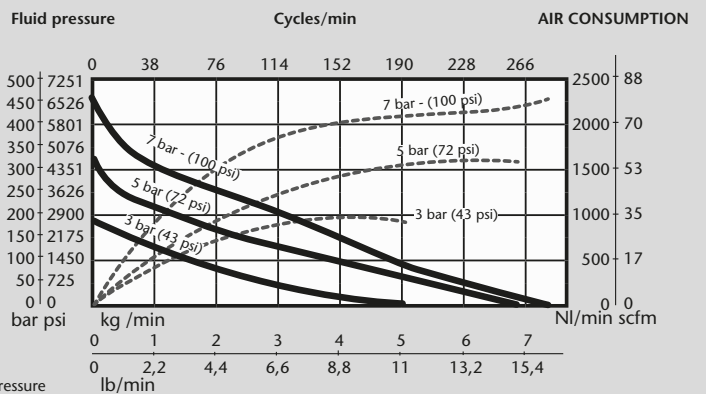
TECHNICAL DATA	
Pump ratio	70:1
Continuous duty flow rate	2 kg/min (4.5 lb/min)
Maximum free flow	7,5 kg/min (16.5 lb/min)
Air pressure operating range	1,5 - 7 bar (20 - 100 psi)
Maximum outlet pressure	490 bar (7,000 psi)
Air motor effective diameter	115 mm (4.5")
Air motor stroke	100 mm (4")
Air consumption (1)	925 NI/min (32.6 cfm)
Air inlet	1/2" BSP (F)
Fluid outlet	1/2" BSP (F)
Wetted and seals materials	Cast Iron / Steel / Hard chromed steel / UHMW PE / NBR / PTFE
Noise level (2)	80 dB

(1) Air consumption at 5 bar air pressure, NLGI-2 grease at 20 °C and and 80 cpm.
 (2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)			
MODEL	531 710	531 720	531 730*
A (mm)	1.357	1.152	992
B (mm)	502	502	502
C (mm)	50	50	50
D (mm)	855	650	490
E (mm)	-	-	410



NLGI-2, 21 °C (70 °F) CAPACITY



PUMPMASTER 60 - 12:1 PRESSURE RATIO PUMP

532 130

INTENSIVE DUTY VOLUME TRANSFER PUMP

Moderate pressure, very high volume grease pump for use in transfer applications. These pumps can be used with all type of grease up to NLGI-2. For higher viscosity grease a pneumatic inductor plate might be required.

Pumps are available for horizontal mounting on grease totes and grease bags and they include an adaptor to fit a 3" Cam-Lock connector. They can be used with 185 kg - 400 lb drums when mounted to air pneumatic inductor (see "Grease pump kits" section in this chapter.)



FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

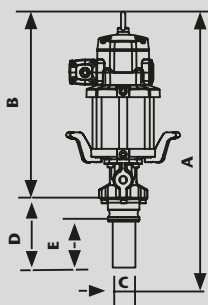
- Mining and construction.
- In-plant grease transfer.
- Rail road and mass transit vehicles.

MODELS				
APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
Bulk tote	226 mm	742 mm	19 kg	532 130

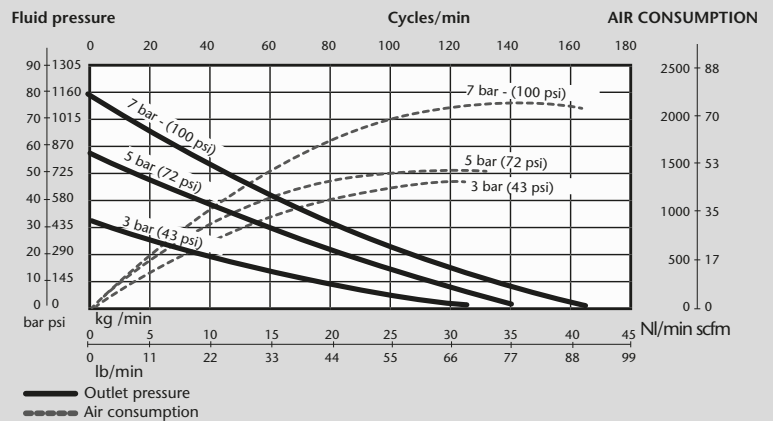
TECHNICAL DATA	
Pump ratio	12:1
Continuous duty flow rate	15 kg/min (33 lb/min)
Maximum free flow	40 kg/min (88 lb/min)
Air pressure operating range	1,5 - 7 bar (20 - 100 psi)
Maximum outlet pressure	84 bar (1,200 psi)
Air motor effective diameter	150 mm (6")
Air motor stroke	100 mm (4")
Air consumption (1)	1.100 NI/min (39 cfm)
Air inlet	1/2" BSP (F)
Fluid outlet	1" BSP (F)
Wetted and seals materials	Cast Iron / Steel / Hard chromed steel / UHMWPE / NBR / PTFE / Polyurethane
Noise level (2)	80 dB

(1) Air consumption at 5 bar air pressure, NLGI-2 grease at 20 °C and 60 cpm.
 (2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)	
MODEL	532 130
A (mm)	742
B (mm)	516
C (mm)	70
D (mm)	226
E (mm)	146



NLGI-2, 21 °C (70 °F) CAPACITY



532 810

INTENSIVE DUTY HIGH PERFORMANCE PUMPS

Very high pressure and high volume delivery pump for use in applications that require extra pressure and volume output, cold temperatures or when a low air pressure could limit pump performance. Pumps can be used with grease up to NLGI-2 viscosity. For higher viscosity grease a pneumatic or a gravity fed inductor plate might be required. These pumps can be used in large distribution systems that include simultaneous operation outlets.

Pumps are available for cover mount to 50 kg - 120 lb and 185 kg - 400 lb open drum and for side mount on grease totes.


FLUIDS HANDLED

- Grease up to NLGI-2.

MARKETS SERVED

- Mining and construction.
- In-plant.
- Railroad and mass transit vehicles
- Lube trucks.
- Fleets.

MODELS

APPLICATION	PUMP TUBE HEIGHT	TOTAL HEIGHT	WEIGHT	PART No.
185 kg (400 lb) drum	855 mm	1.371 mm	27 kg	532 810
50 kg (120 lb) drum	650 mm	1.166 mm	24 kg	532 820

TECHNICAL DATA

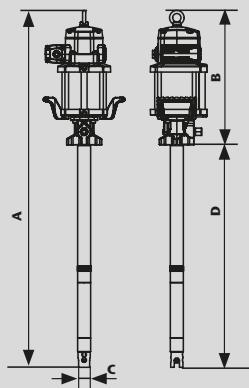
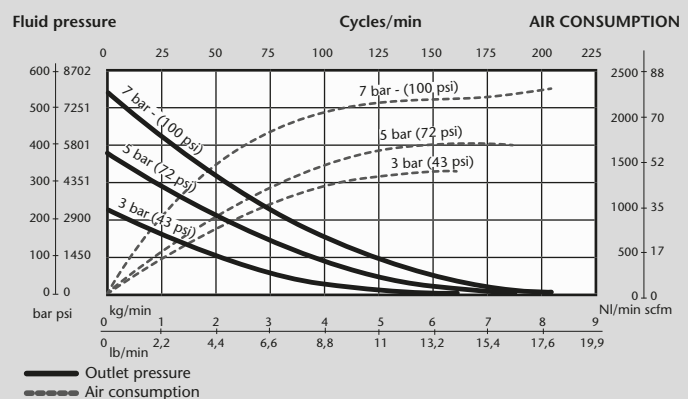
Pump ratio	80:1
Continuous duty flow rate	2,5 kg/min (5.5 lb/min)
Maximum free flow	8 kg/min (17.6 lb/min)
Air pressure operating range	1,5 - 7 bar (20 - 100 psi)
Maximum outlet pressure	560 bar (8,000 psi)
Air motor effective diameter	150 mm (6")
Air motor stroke	100 mm (4")
Air consumption (1)	1.000 NI/min (35 cfm)
Air inlet	1/2" BSP (F)
Fluid outlet	1/2" BSP (F)
Wetted and seals materials	Cast Iron / Steel / Hard chromed steel / UHMW PE / NBR / PTFE
Noise level (2)	80 dB

(1) Air consumption at 5 bar air pressure, NLGI-2 grease at 20 °C and 60 cpm.

(2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

DIMENSIONS (mm)

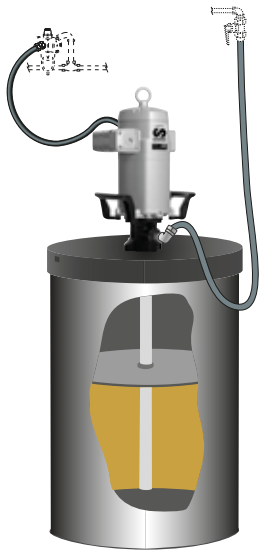
MODEL	532 810	532 820
A (mm)	1.371	1.166
B (mm)	516	516
C (mm)	50	50
D (mm)	855	650


NLGI-2, 21 °C (70 °F) CAPACITY


PUMPMASTER 45 & 60 INSTALLATION KITS

534 720

PUMPMASTER 45 INSTALLATION KITS



PM45 pump kits for 50 kg and 185 kg drums, totes and grease bags mounting.

	KIT PART No.	PUMP	RATIO	COVER	FOLLOWER PLATE	CONNECTION KIT	CAMLOCK FEMALE	CAMLOCK MALE
50 kg DRUM MOUNTED PUMP KIT	534 420	531 420	40:1	418 017	(1)	534 103	-	-
	534 720	531 720	70:1	418 017	(1)	534 103	-	-
185 kg DRUM MOUNTED PUMP KIT	534 410	531 410	40:1	418 026	417 009	534 103	-	-
	534 710	531 710	70:1	418 026	417 009	534 103	-	-
	534 210	531 210	25:1	418 026	417 009	534 103	-	-
TANK SIDE MOUNTED PUMP KIT	534 240	531 210	25:1	-	-	534 103	950 358	753 110
	534 440	531 410	40:1	-	-	534 103	950 358	753 110
	534 740	531 710	70:1	-	-	534 103	950 358	753 110
TANK HORIZONTAL MOUNTED PUMP KIT	534 441	531 430	40:1	-	-	534 103	950 358	(2)
	534 741	531 730	70:1	-	-	534 103	950 358	(2)

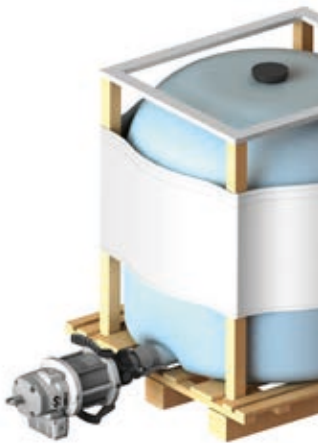
(1) Use follower plate 417 010 or 417 011 as required. Follower plate not included.
 (2) Included with pump.

SAMOA recommends using an air filter and pressure regulator at the pump air inlet and a high pressure ball valve between the grease delivery hose and the grease distribution line.

534 141

PUMPMASTER 60 INSTALLATION KITS

PM60 pump kits for 50 kg and 185 kg drums, totes and grease bags mounting.



	KIT PART No.	PUMP	RATIO	COVER	FOLLOWER PLATE	CONNECTION KIT	CAMLOCK FEMALE	CAMLOCK MALE
50 kg DRUM MOUNTED PUMP KIT	534 820	532 820	80:1	418 017	(1)	534 103	-	-
185 kg DRUM MOUNTED PUMP KIT	534 810	532 810	80:1	418 026	417 009	534 103	-	-
TANK SIDE MOUNTED PUMP KIT	534 840	532 810	80:1	-	-	534 103	950 358	753 110
TANK HORIZONTAL MOUNTED PUMP KIT	534 141**	532 130	12:1	-	-	539 009	950 358	(2)

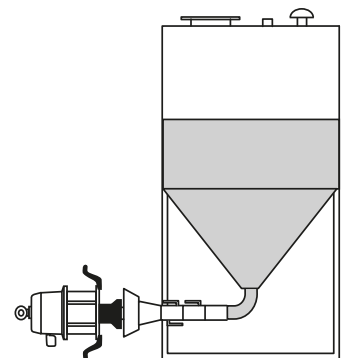
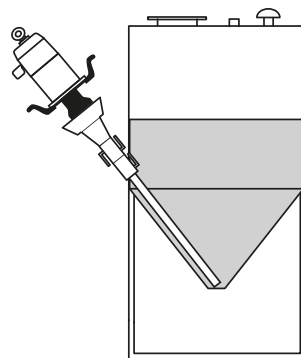
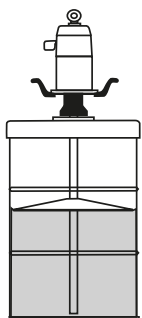
(1) Use follower plate 417 010 or 417 011 as required. Follower plate not included.
 (2) Included with pump.

SAMOA recommends using an air filter and pressure regulator at the pump air inlet and a high pressure ball valve between the grease delivery hose and the grease distribution line.

DRUM MOUNTED PUMP

TANK SIDE MOUNT PUMP

TANK HORIZONTAL MOUNT PUMP



GREASE PUMP KITS

534 721

AIR OPERATED INDUCTOR PLATE MOUNTED GREASE PUMP KITS



PM45 and PM60 air operated grease pumps mounted onto an air operated inductor 391 000 for use with high viscosity, hard to pump greases in 185 kg - 400 lb drums.

The kit includes pump, twin cylinder air operated inductor with a double lip follower plate and pneumatic controls for the hoist and pump. Kit does not include grease hose connection kit.

The twin cylinder hoist raises the pump and follower plate facilitating the replacement of an empty drum. The pump is rigidly fixed to the inductor plate and when the cylinders exert downward force, they push the pump and the follower plate into the fluid aiding pump prime, eliminating air pockets and channeling and minimizing material waste.

KIT PART No.	PUMP INCLUDED	PRESSURE RATIO
534 421	531 420	PM45 - 40:1
534 721	531 720	PM45 - 70:1
534 121	532 130	PM60 - 12:1
534 821	532 820	PM60 - 80:1

534 811

AIR OPERATED PUMP HOIST AND GRAVITY INDUCTOR PLATE MOUNTED GREASE PUMP KITS

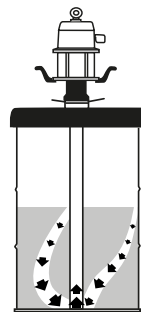


PM45 and PM60 pump kits mounted onto a gravity fed follower plate and an air operated pump hoist for use with 185 kg - 400 lb drums.

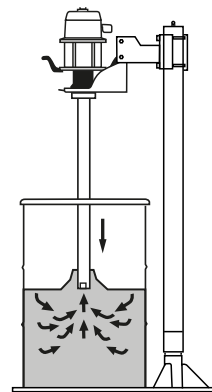
The pump hoist facilitates change-over of empty drums. A pneumatic cylinder lifts the pump from the container. The pump is fixed to a single lip follower plate and the weight of the air motor, pump, and mounting bracket maintains pump prime, eliminates air pockets and channeling and minimizes waste.

The kit includes pump, pump lift with air controls, single lip follower plate and hose connection kit.

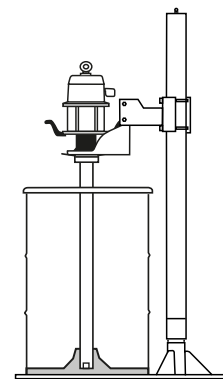
KIT PART No.	PUMP INCLUDED	PRESSURE RATIO	HOSE CONNECTION KIT
534 411	531 410	PM45 - 40:1	534 103
534 711	531 710	PM45 - 70:1	534 103
534 811	532 810	PM60 - 80:1	534 103



*No inductor.
Air pockets and channels
can be formed.*



*With inductor plate.
Pump is permanently primed.*



*Inductor plates aid to minimize
waste left in the drum.*

391 000

AIR OPERATED DOUBLE POST INDUCTOR

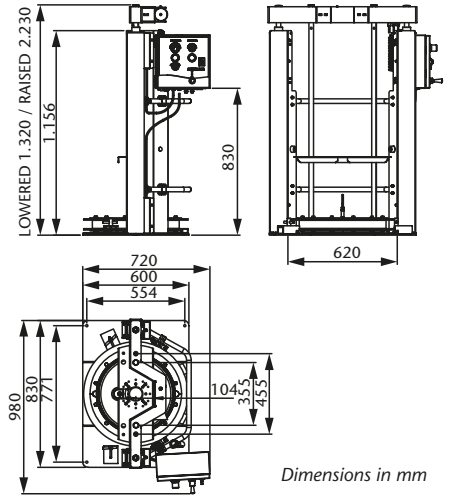


391 000 Air operated double post inductor

The air operated double post inductor features controlled ram pressure to assist atmospheric pressure and equipment weight in priming the heaviest pumpable materials. When the double lip inductor plate is rigidly attached to the lower end of pump tube, it exerts pneumatic, weight and atmospheric pressure on the material forcing pump prime. The inductor plate also serves as protection against contaminants and eliminates material waste. For use with 185 kg - 400 lb drums.

Unit also includes guide rods, drum retaining mechanism and a control box with the following features:

- On/off control of the pump.
- Up/down control of the ram (drum exchange).
- Two independent air pressure regulators, one for the pump and the other for the power ram cylinders.
- Pump/ram independent air pressure gauges.
- Empty drum shut-off safety feature.
- Automatic vacuum release.



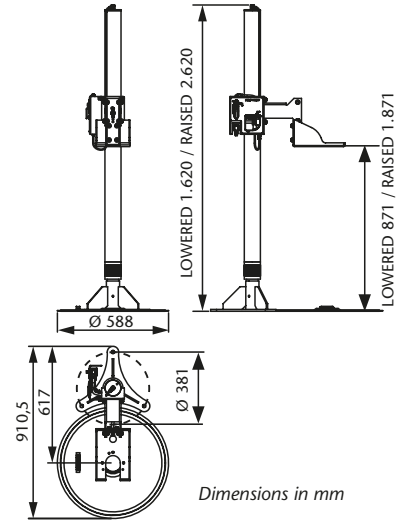
391 023

GRAVITY INDUCTOR AND PUMP HOIST



391 023 Gravity inductor and pump hoist

Air operated pump hoist lifts and lowers pumps, making drum changes easier, faster and safer. The pump lower end shall be rigidly fixed to a follower plate with a single rubber lip. The weight of the pump, pump bracket and follower plate plus the atmospheric pressure push the assembly against the fluid, eliminating channeling and air pockets, keeping lubricant free from contaminants, removing all grease from the drum and aiding pump prime. For use with 185 kg - 400 lb drums. Maximum height raised: 2.630 mm. Minimum height lowered: 1.630 mm.



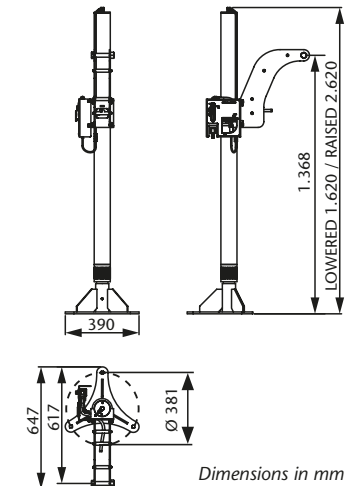
391 022

PUMP HOIST



391 022 Pump Hoist

Maximum utility air operated hoist lifts and lowers pumps, making drum changes easier, faster and safer. Hoist arm adjusts to fit different pump heights and swings a full 360°, serving one or more pumps. It can be used with 185 kg - 400 lb and 50 kg - 120 lb drums. Maximum height raised: 2.630 mm. Minimum height lowered: 1.630 mm.



GREASE PUMP ACCESSORIES

418 026 - 418 017



DRUM COVERS

For PumpMaster 45 and 60 pumps
Covers are made from heavy steel gauge to withstand hard usage. Cover flange provides rigidity and maintains solid position on drum. Grease pump mounts in centre of cover with four screws.

PART No.	APPLICATION	MAXIMUM MINIMUM DRUM DIAMETER
418 026	185 kg - 400 lb	620 - 580 mm
418 017	50 kg - 120 lb	395 - 350 mm

417 009 - 417 010



FOLLOWER PLATES

For PumpMaster 45 and 60 pumps
Follower plates eliminate channeling and air pockets, keep lubricant free from contaminants, remove all grease from the drum and aid pump prime.

PART No.	APPLICATION	MAXIMUM MINIMUM DRUM DIAMETER
417 009	185 kg - 400 lb	590 - 550 mm
417 010	50 kg - 120 lb	405 - 360 mm
417 011	50 kg - 120 lb	370 - 330 mm

741 604



Pump, follower plate, drum cover and drum are not included.

HOLD DOWN KITS

Allow to fix a 185 kg or a 50 kg drum to a lube truck bed when used together with drum covers 418 026 and 418 017.

741 604 Hold down kit for 185 kg - 400 lb drums
For use with drum cover 418 026.
741 605 Hold down kit for 50 kg - 129 lb drums
For use with drum cover 418 017.

AIR AND GREASE HOOK UP KITS

FOR PM3+3 PUMPS

412 920

Includes 1 m x 3/8" air hose (PN 247 710) with 3/8" - 1/2" BSP (MM) connection threads, quick air coupler 251 438, air nipple 255 338, 1,5 m x 3/8" high pressure grease hose (412 392) with 3/8"-1/2" BSP (MM) connection threads

FOR PM45 AND PM60 PUMPS¹

534 103

Includes 1,8 m x 1/2" air hose (248 018) with 1/2" BSP (MM) connection threads, elbow 239 352, quick air coupler 251 412, air nipple 255 312, 1,8 m x 1/2" high pressure grease hose (412 202) with 1/2" BSP (MM) connection threads and swivel elbow (945 736) with 1/2" BSP (MF) threads

(1) Hook up kits are valid for all PM45 and PM60 grease pumps except PM60 12:1 pressure ratio pump.

AIR ACCESSORIES

AIR ACCESSORIES	1/4" CONNECTION THREADS 1/4" BSP (FF)	1/2" CONNECTION THREADS 1/2" BSP (FF) WITH ONE 1/2" BSP (M) 3/8" BSP (F) ADAPTOR	3/4" CONNECTION THREADS 3/4" BSP (FF)
AIR PRESSURE REGULATOR 0-12 BAR	240 200	241 201	242 202
COMBINED AIR FILTER AND PRESSURE REGULATOR	240 500	241 501	242 302 (Filter only)
AIR LUBRICATOR	240 400	241 401	242 402



240 200



241 501



242 202

753 110 - 950 358



CAM-LOCK ADAPTORS

Allow to fix a pump horizontally or vertically to grease bags, totes and other type of containers.

753 110 Male Cam-Lock adaptor
Fixes to the bottom end of the grease pump body. Fits any standard 3" female Cam-Lock connector.

950 358 Female Cam-Lock connector
Connection thread 3" BSP (F).

LOW AND MEDIUM PRESSURE VALVES

950 305	1/4" BSP (FF), 65 bar quarter turn valve
950 320	3/8" BSP (FF), 65 bar quarter turn valve
950 300	1/2" BSP (FF), 65 bar quarter turn valve

HIGH PRESSURE VALVES

950 304	1/2" BSP (FF), 500 bar quarter turn valve
950 328	3/4" BSP (FF), 400 bar quarter turn valve
950 329	1" BSP (FF), 350 bar quarter turn valve

AIR LINE SHUTOFF VALVES

950 318	Air valve, 3/8" BSP (FF)
950 319	Air valve, 1/2" BSP (FF)

950 304



GREASE PUMP ACCESSORIES

412 103

GREASE HOSES


Manufactured in NBR with a high density steel reinforcement braid. With two swaged nuts and male-male adaptors on both ends.

412 101, 1 m x 1/4". Working pressure: 400 bar. Connection threads: 1/4" BSP (MM)

412 190, 1,5 m x 1/4". Working pressure: 400 bar. Connection threads: 1/4" BSP (MM)

412 102, 2 m x 1/4". Working pressure: 400 bar. Connection threads: 1/4" BSP (MM)

412 103, 3 m x 1/4". Working pressure: 400 bar. Connection threads: 1/4" BSP (MM)

412 104, 4 m x 1/4". Working pressure: 400 bar. Connection threads: 1/4" BSP (MM)

412 391, 1,5 m x 3/8". Working pressure: 400 bar. Connection threads: 1/4" - 3/8" BSP (MM)

412 392, 1,5 m x 3/8". Working pressure: 400 bar. Connection threads: 3/8" BSP (MM)

412 202, 1,8 m x 1/2". Working pressure: 400 bar. Connection threads: 1/2" BSP (MM)

412 203, 3 m x 1/2". Working pressure: 400 bar. Connection threads: 1/2" BSP (MM)

GREASE PUMP MOUNTING ACCESSORIES QUICK REFERENCE CHART

PUMP	PUMPMaster 3+3	PUMPMaster 45	PUMPMaster 45	PUMPMaster 45	PUMPMaster 60	PUMPMaster 60
RATIO	60:1	25:1	40:1	70:1	12:1 (1)	80:1
BUNG ADAPTOR	410 002	(2)	(2)	(2)	(2)	(2)
CONNECTION HOSE KIT	412 920	534 103	534 103	534 103	539 009	534 103
DRUM COVER 185 kg	418 006	418 026	418 026	418 026	N/A	418 026
DRUM COVER 50 kg	418 004	N/A	418 017	418 017	N/A	418 017
FOLLOWER PLATE 185 kg	417 004	417 009	417 009	417 009	N/A	417 009
FOLLOWER PLATE 50 kg	417 002	N/A	417 011	417 011	N/A	417 011
POWER RAM	N/A	N/A	391 000	391 000	391 000	391 000
SINGLE POST PUMP HOIST	N/A	N/A	391 023	391 023	N/A	391 023
CAM-LOCK ADAPTOR	N/A	N/A	753 110 (3)	753 110 (3)	753 110 (3)	753 110 (4)
CAM-LOCK CONNECTOR	N/A	N/A	950 358	950 358	950 358	N/A
AIR REGULATOR WITH GAUGE	241 201	241 201	241 201	241 201	241 201	241 201
AIR FILTER LUBRICATOR	241 501	241 501	241 501	241 501	241 501	241 501
FRL	241 001	241 001	241 001	241 001	241 001	241 001
AIRLINE SHUTOFF VALVE	950 318	950 319	950 319	950 319	950 319	950 319
FLUID SHUTOFF VALVE	950 304	950 328	950 304	950 304	950 328	950 304
QUICK AIR COUPLER	253 138	251 412	251 412	251 412	251 412	251 412
QUICK AIR CONNECTOR	259 038	255 312	255 312	255 312	255 312	255 312
AIR CONNECTION ACCESSORIES I.D.	3/8" - 8 mm	1/2" - 12,5 mm	1/2" - 12,5 mm	1/2" - 12,5 mm	1/2" - 12,5 mm	1/2" - 12,5 mm

(1) PM60, 12:1 pump is only available for horizontal mount on tanks, totes and grease bags.

(2) Flange mounted pumps. No bung adaptor for fixing a pump to a cover.

(3) Included in short pumps for horizontal mount on tanks, totes and grease bags. Required for vertical mount on grease tanks (long pumps).

(4) For vertical mount on grease tanks only (long pumps).

03 AIR OPERATED PUMPS FOR OTHER SERVICE FLUIDS

AIR OPERATED DIAPHRAGM PUMPS 48
DIAPHRAGM PUMPS ACCESSORIES 53
AIR OPERATED PISTON PUMPS FOR FLUIDS 54

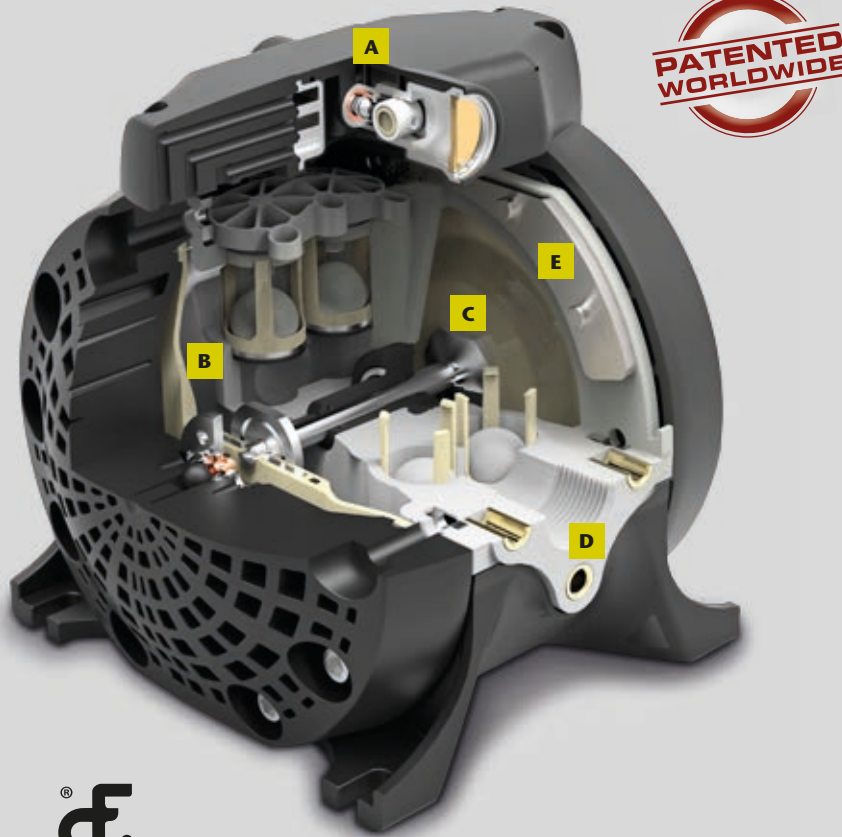


directflo
Central flow technology

INNOVATIVE TECHNOLOGIES CREATE THE DIFFERENCE

Conventional air operated diaphragm pumps pump the fluid around the outside of the pump and compressed air acts on the inside face of the diaphragms. Directflo pumps are inside out pumps, the fluid is pumped through the centre of the pump and compressed air acts on the outside face of the diaphragms.

Important innovations were necessary to realise the central flow concept and, whilst developing Directflo, further inventions were made that built on the central flow concept. A few highlights are described below.



SUPERIOR ALL-ROUND PUMPING PERFORMANCE

- Significant dry suction lift eliminates self-priming issues.
- Discharge fluids at up to 7 bar (100 psi), to pump medium viscosity fluids even over long pipe runs and up to significant heights.
- Efficient compressed air usage.

A

FRICTIONLESS PIVOTING AIR VALVE

- High operational reliability.
- Variable flow rate and pressure by adjusting the air pressure.
- Non stalling.
- Non icing.
- Self-cleaning.
- Extremely fast switching between strokes reduces air consumption and minimizes pulsations.
- Enables a short stroke pump design, for long diaphragm life.
- Tolerates dry, damp, dirty or oily air.

B

BALL CHECK VALVES ADJACENT TO DIAPHRAGMS

- Very fast valve action, even with viscous fluids. Together with the high speed frictionless pivoting air valve, this enables a short stroke pump design, for long diaphragm life.
- Enables superior pump suction and thus improves overall pump performance.

C

STRESS FREE DIAPHRAGM COUPLINGS

- Non-rigid sliding couplings between push rod and diaphragms prevent diaphragm and push rod stress.
- Long leak free diaphragm life.
- Fast and easy diaphragm service.

D

SINGLE PART MOULDED PUMP BODY

- Minimizes energy losses within the pump.
- No leaks.
- Compact.

E

FLANGE FASTENING PLATES

- Pumps with plastic central bodies are fitted with load spreading stainless steel flange fastening plates.
- Reduces the risk of damage to plastic bodies when flange bolts are over tightened.
- Enhances sealing in the areas between flange bolts and so reduces the risk of flange leaks.

DIRECTFLO® PUMP RANGE COMPARATIVE CHART

FLUIDS HANDLED

- Oils.
- Antifreeze, coolant.
- Windshield wash.
- Hydraulic fluids.
- Diesel.
- AdBlue® / DEF.
- Water.
- Waste oil.
- Waste antifreeze.

MARKETS SERVED

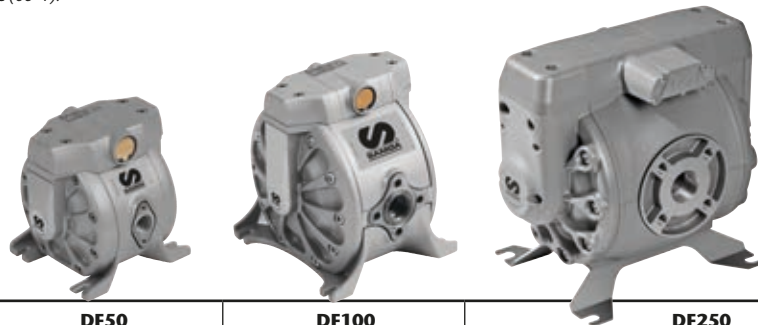
- Car and truck dealers.
- Construction, mining.
- Rail way and mass transit vehicles.
- Lube trucks.
- Fleets.
- In-plant.



PLASTIC PUMPS

DF SERIES	DF30	DF50	DF100
PRESSURE RATIO	1:1	1:1	1:1
MAXIMUM FREE DELIVERY ⁽¹⁾	38 l/min (10 US gpm)	50 l/min (13.2 US gpm)	100 l/min (26.4 US gpm)
DELIVERY PER STROKE APPROX. ⁽¹⁾	0,07 litres (0.02 US gal)	0,1 litres (0.026 US gal)	0,25 l (0.07 US gal)
DELIVERY PER CICLE (2 X STROKES) ⁽¹⁾	0,14 litres (0.04 US gal)	0,2 litres (0.05 US gal)	0,50 l (0.13 US gal)
AIR PRESSURE OPERATING RANGE	1,5 to 7 bar (22 to 102 psi)	1,5 to 7 bar (22 to 102 psi)	1,5 to 7 bar (22 to 102 psi)
SOLIDS IN SUSPENSION MAXIMUM SIZE	3 mm (0.12")	3 mm (1/8")	4 mm (3/16")
MAXIMUM DRY SUCTION HEAD ⁽¹⁾	4 m (13')	6 m (20')	4,5 m (15')
MAXIMUM WET SUCTION HEAD ⁽¹⁾	8 m (26')	8 m (26')	7 m (23')
WEIGHT	1,9 kg (4.19 lb)	2,2 kg (4.85 lb)	5,1 kg (11.24 lb)
FLUID INLET CONNECTION	1/2" BSP (F)	1/2" BSP (F)	1" BSP (F)
FLUID OUTLET CONNECTION	1/2" BSP (F)	1/2" BSP (F)	1" BSP (F)
AIR INLET CONNECTION	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)

(1) Data measured with water, air inlet pressure 7 bar (100 psi), 20 °C (68 °F).



METAL PUMPS

DF SERIES	DF50	DF100	DF250
PRESSURE RATIO	1:1	1:1	1:1
MAXIMUM FREE DELIVERY ⁽¹⁾	50 l/min (13.2 US gpm)	100 l/min (26.4 US gpm)	250 l/min (66 US gpm)
DELIVERY PER STROKE APPROX. ⁽¹⁾	0,1 litres (0.026 US gal)	0,25 l (0.07 US gal)	0,6 l (0.16 US gal)
DELIVERY PER CICLE (2 X STROKES) ⁽¹⁾	0,2 litres (0.05 US gal)	0,5 l (0.13 US gal)	1,2 l (0.32 US gal)
AIR PRESSURE OPERATING RANGE	1,5 to 7 bar (22 to 100 psi)	1,5 to 7 bar (22 to 100 psi)	1,5 to 7 bar (22 to 102 psi)
SOLIDS IN SUSPENSION MAXIMUM SIZE	3 mm (1/8")	4 mm (3/16")	6 mm (1/4")
MAXIMUM DRY SUCTION HEAD ⁽¹⁾	6 m (20')	4,5 m (15')	5 m (16.4')
MAXIMUM WET SUCTION HEAD ⁽¹⁾	8 m (26')	7 m (23')	8 m (26')
WEIGHT	3,5 kg (7.72 lb)	7,2 kg (16 lb)	20 kg (45 lb)
FLUID INLET CONNECTION	1/2" BSP (F)	1" BSP (F)	1 1/2" BSP (F) and DIN PN-10 flange
FLUID OUTLET CONNECTION	1/2" BSP (F)	1" BSP (F)	1 1/2" BSP (F) and DIN PN-10 flange
AIR INLET CONNECTION	3/8" NPSM (F)	3/8" NPSM (F)	1/2" NPSM (F)

(1) Data measured with water, air inlet pressure 7 bar (100 psi), 20 °C (68 °F).

PLASTIC PUMPS

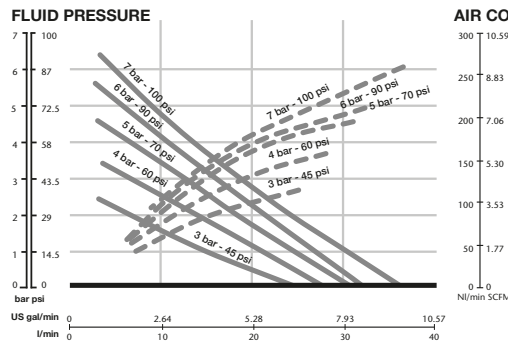


Plastic pumps are adequate for indoor use and they can handle a wide range of fluids used for vehicle service. Pump air valve module and lateral pump covers are manufactured in polypropylene or conductive polypropylene depending on models.

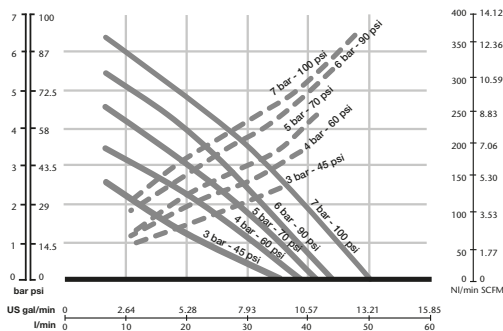
Typical applications are transferring and dispensing of windshield wash and antifreeze solutions, pure windshield wash and AdBlue® / DEF. They can be used as stand-alone pumps for transfer applications or as systems pumps in distribution systems that include hose reels. ATEX approved pumps are available for use in potential explosive environments and with flammable fluids like pure ethanol.

PUMP SIZE	PART NUMBER	PUMP BODY	DIAPHRAGMS	BALLS	OTHER WETTED PARTS	APPLICATIONS
DF30 (38 l/min)	553 164	Polypropylene	TPE	PTFE	FKM, Stainless steel	Antifreeze and windshield wash solutions, AdBlue® / DEF
	553 162	Conductive Polypropylene	PTFE	PTFE	FKM, Stainless steel	⚠️ ATEX pump for pure ethanol, pure windshield wash
DF50 (50 l/min)	552 164	Polypropylene	TPE	PTFE	FKM, Stainless steel	Antifreeze and windshield wash solutions, AdBlue® / DEF
	552 162	Conductive Polypropylene	PTFE	PTFE	FKM, Stainless steel	⚠️ ATEX pump for pure ethanol, pure windshield wash
DF100 (100 l/min)	551 164	Polypropylene	TPE	PTFE	FKM, Stainless steel	Antifreeze and windshield wash solutions, AdBlue® / DEF
	551 162	Conductive Polypropylene	PTFE	PTFE	FKM, Stainless steel	⚠️ ATEX pump for pure ethanol, pure windshield wash

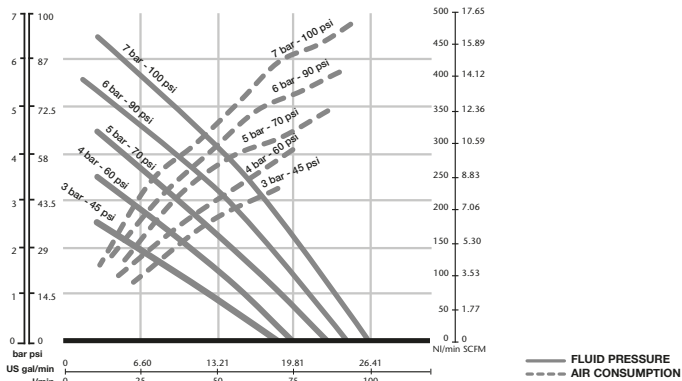
553 164



552 164



551 164



AIR OPERATED DIAPHRAGM PUMPS



METAL PUMPS

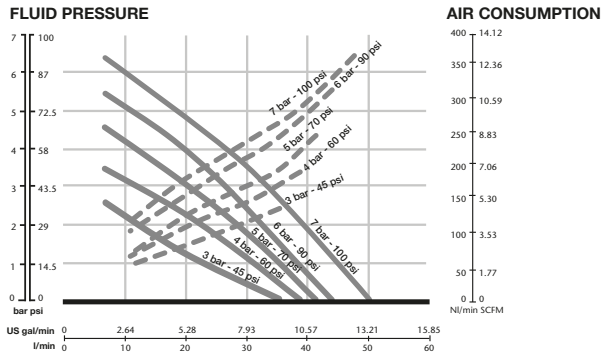
Metal pumps are adequate for indoor and outdoor use and they can handle a wide range of fluids used for vehicle service. Pump air valve module and lateral pump covers are manufactured in aluminium.

Typical applications are transferring and dispensing of windshield wash, antifreeze solutions, lubricants and diesel, and for waste oil evacuation. They can be used as stand-alone pumps for transfer applications or as systems pumps in distribution systems that include hose reels.

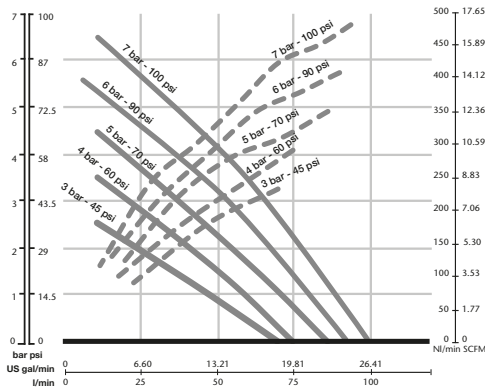
PUMP SIZE	PART NUMBER	PUMP BODY	DIAPHRAGMS	BALLS	OTHER WETTED PARTS	APPLICATIONS
DF50 (50 l/min)	552 010	Aluminium	TPE	Acetal	PTFE, NBR, Stainless steel	Antifreeze and windshield wash solutions, lubricants
DF100 (100 l/min)	551 010	Aluminium	TPE	Acetal	PTFE, NBR, Stainless steel	Antifreeze and windshield wash solutions, lubricants, waste oil evacuation, diesel
	551 020	Aluminium	PTFE	Acetal	FKM, Stainless steel	Diesel (1)
DF250 (250 l/min)	554 010	Aluminium	TPE	Acetal	NBR, Stainless steel	Antifreeze and windshield wash solutions, lubricants, waste oil evacuation, diesel.
	554 020	Aluminium	PTFE	Acetal	FKM, Stainless steel	Diesel (1)

(1) Some types of diesel include additives in their formulation that might not be compatible with TPE. PTFE diaphragms are recommended in this case.

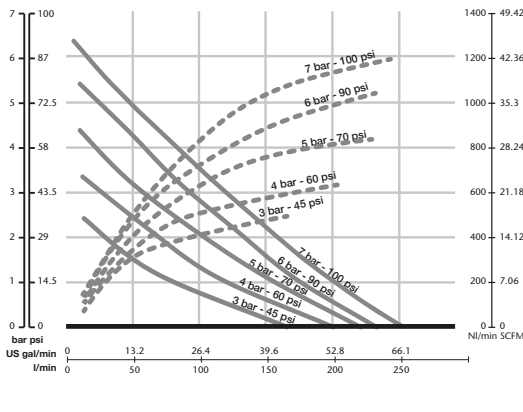
552 010



551 010



554 010



— FLUID PRESSURE
- - - AIR CONSUMPTION

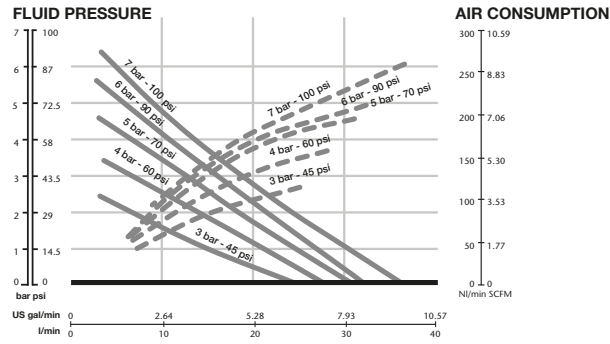
PLASTIC MIX PUMPS



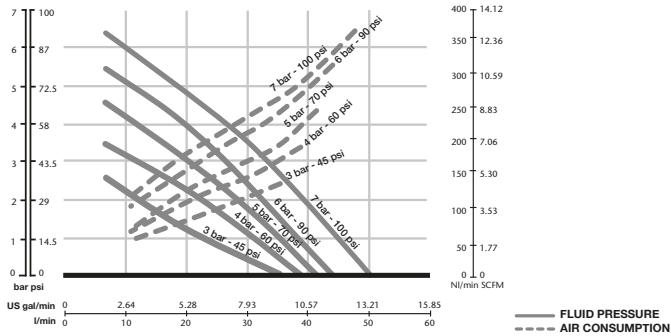
DF30 and DF50 plastic diaphragm pumps with a dual inlet for 1:1 ratio mixing of fluids with similar viscosities, like windshield wash or antifreeze with water. All dual inlet pumps have 2 x 3/8" BSP (F) inlet. All other technical features of these pumps are the same as the ones for the DF30 and DF50 pumps.

PUMP SIZE	PART NUMBER	PUMP BODY	DIAPHRAGMS	BALLS	OTHER WETTED PARTS	APPLICATIONS
DF30 (38 l/min)	553 124	Polypropylene	TPE	PTFE	FKM, Stainless steel	1:1 ratio water / windshield or antifreeze solutions
DF50 (50 l/min)	552 124	Polypropylene	TPE	PTFE	FKM, Stainless steel	1:1 ratio water / windshield or antifreeze solutions

553 124



552 124



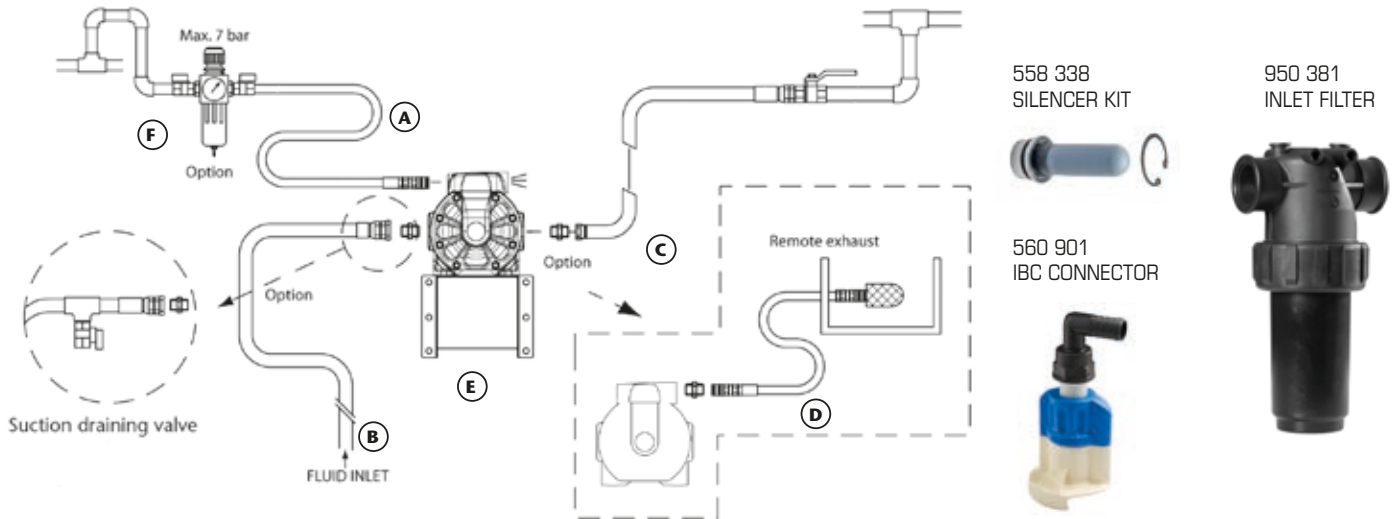
DF PUMP MOUNTING SPECIFICATIONS

DF SERIES	DF30	DF50 (1)	DF100 (1)	DF250
(A) AIR CONNECTION HOSE	3/8" - 9,5 mm	3/8" - 9,5 mm	3/8" - 9,5 mm	1/2" - 12,5 mm
(B) FLUID SUCTION HOSE	1/2" - 12,5 mm	1/2" - 12,5 mm	1" - 25 mm	1-1/2" - 38 mm
(C) FLUID DELIVERY HOSE	1/2" - 12,5 mm	1/2" - 12,5 mm	3/4" - 19 mm / 1" - 25 mm	1-1/2" - 38 mm
(D) AIR EXHAUST VENT HOSE	3/8" - 9,5 mm Requires adapter 855 432	3/8" - 9,5 mm Requires adapter 855 432	3/8" - 9,5 mm Requires adapter 855 432	1" - 25,4 mm
(E) WALL BRACKET	360 100	360 100	360 101	N/A (2)
DRUM / TOTE BRACKET	360 137	360 137	360 137	N/A
(F) AIR FILTER AND PRESSURE REGULATOR (3)	240 500	240 500	241 501	241 501
AIR PRESSURE REGULATOR (3)	240 300	240 300	241 201	241 201
QUICK AIR COUPLER	253 138	253 138	253 138	251 412
ADDITIONAL SILENCER KIT	558 338	558 338	558 338	N/A
IBC CONNECTOR	560 901	560 901	560 901	N/A

(1) Metal and plastic pumps.

(2) Pump to be floor or tank mounted.

(3) Always place the air treatment element close to the air pipe. Connect air nipple to the pump.



CARBON STEEL FITTINGS		POLYPROPYLENE FITTINGS		CARBON STEEL LOW PRESSURE SHUT-OFF VALVES	
945 593	1/2" BSP(MM)	689 059	1/2" BSP (MM)	950 300	1/2" BSP (FF)
945 551	3/4" BSP (MM)	689 061	1/2" BSP (F) - 3/4" BSP (F)	950 303	3/4" BSP (FF)
945 555	1" BSP (MM)	689 062	1/2" BSP (M) - 3/4" BSP (F)	950 306	1" BSP (FF)
945 567	2" - 1-1/2" BSP (MM)	689 056	3/4" BSP(F) - 1" BSP (F)	950 312	1-1/2" BSP (FF)
945 681	1-1/2" - 1" BSP (MM)	689 055	1" BSP (FF)	950 320	3/8" BSP (FF) - AIR
945 552	1" - 3/4" BSP (MM)	689 060	1" BSP (MM)	POLYPROPYLENE INLET FILTERS	
945 554	3/4" - 1/2" BSP (MM)	689 079	1-1/4" BSP (M) - 3/4" BSP (F)	950 381	1-1/4" BSP (FF)
945 565	2" - 1" BSP (MF)	689 054	19 mm hose tail - 1/2" BSP (M)		
945 670	1" - 3/4" BSP (MF)	689 058	19 mm hose tail - 3/4" BSP (F) L elbow		
369 900	3/4" - 1/2" BSP (MF)	945 580	19 mm hose tail - 3/4" BSP (M)		
		689 045	19 mm hose tail - 1" (M)		
		689 072	19 mm hose tail - 1" (F)		
		689 046	25 mm hose tail - 1" (M)		
		689 073	25 mm hose tail - 1" (F)		

Use hoses and accessories compatible with the pumped fluid.

AIR OPERATED PISTON PUMPS FOR FLUIDS

PUMP MASTER®


	PUMP MASTER 2		PUMP MASTER 4
	NICKEL PROTECTED PUMP	STAINLESS STEEL PUMP	STAINLESS STEEL PUMP
PART No.	601 202	331 120	333 120
PUMP TYPE	Universal stub pump	Universal stub pump; divorced	Universal stub pump; divorced
PRESSURE RATIO	1:1	1:1	3:1
EFFECTIVE AIR PISTON DIAMETER	35 mm (1 1/2")	35 mm (1 1/2")	60 mm (2 1/2")
PISTON STROKE	75 mm (3")	75 mm (3")	75 mm (3")
AIR PRESSURE OPERATING RANGE	1,5 to 10 bar (20 to 145 psi)	1,5 to 10 bar (20 to 145 psi)	1,5 to 10 bar (20 to 145 psi)
AIR INLET	1/4" BSP (F)	1/4" BSP (F)	3/8" BSP (F)
FLUID INLET	1" BSP (F)	1" BSP (F)	1" BSP (F)
FLUID OUTLET	3/4" BSP (F)	3/4" BSP (F)	3/4" BSP (F)
DELIVERY AT 100 CYCLES PER MINUTE	13,5 l/min - 3.6 gal/min	25 l/min - 6.6 gal/min	25 l/min - 6.6 gal/min
MAXIMUM FREE DELIVERY	55 l/min - 14.5 gal/min	38 l/min - 10 gal/min	40 l/min - 10.6 gal/min
WETTED MATERIALS	Nickel coated aluminium and steel, stainless steel, acetal, NBR, polyurethane	PTFE, Viton®, stainless steel	PTFE, Viton®, stainless steel
HEIGHT ADJUSTABLE BUNG ADAPTOR	Included	Included	Included

Air Operated Piston Pumps for Fluids accessory:
P.N. **331 110.002**, PVC suction tube for 205 l drums.

351 121


SPECIALITY PUMP
351 121 PumpMaster 2, 1:1 pressure ratio suction pump

Pump Master pump with 1:1 ratio with a modified air valve to allow a lower upward movement of the piston to improve pump suction capacity and avoid pump cavitation when suctioning fluids like waste oil through small diameter suction canes.