SAMES KREMLIN

High Viscosity
REXSON pumps

Reference book V5.2

"Pumping beyond possible, dispensing precisely"

Apply your Skills

Headquarter - Meylan, France

Product Manager's Note

In order to help your increase your competitiveness, SAMES KREMLIN dedicates itself to excellence in terms of innovation and reliability.

You will find the equipment in this catalog that will enable you to meet your dispensing challenges, with results per our performance objectives.

We constantly improve our performances as well as quality to satisfy your demanding requirements.

Providing you with the best with the best equipment is our mission.

We enable you to benefit from reliable technologies while ensuring you a swift return on investments.

All SAMES KREMLIN team is at your disposal to answer your questions.

Enjoy your reading.

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Customer Satisfaction

SAMES KREMLIN has worked out a complete range of services, adapted to all your needs:

Advice, repair, servicing, adjustment or intervention by a qualified technician. Whatever your request may be, **SAMES KREMLIN** Customer satisfaction department, is at your disposal to answer your needs within the shortest time.

HOTLINE

SAMES KREMLIN has a quality hotline which takes care of our customer satisfaction.
Please fill free to contact us. Our customer service team would like to provide an answer under 48 hours.

+33 (0)1 49 40 25 28 (French Time)
Monday to Friday: 8:30 - 12:00 am & 13:00 - 17:30 pm

AUDIT

In order to make the most from your installation, paint or powder, advice and expertise of specialists are essential. Made of practical, experienced members, SAMES KREMLIN customer support team will carry out a diagnostic of your installation and will provide you with a worthy technical assistance for the improvement or retrofit of your paint line.

REPAIR

A regular, and carried out professionally, maintenance or a retrofit of your equipment, is the best way to guaranty the correct running of your equipment. To this end, do not hesitate to contact one of our technicians:

- to get technical advice or technical assistance by phone
- to get one of your product repaired or controlled
- to carry out a retrofit

SPARE PARTS

Original spare parts guaranty the correct running of your equipment. We are here to deal with all your orders of spare parts throughout the world. Thus, our aim is to rapidly supply you and at the best price, with the wished part in order to guaranty an optimum and prolonged running of your paint or powder application equipment.

TRAINING

SAMES KREMLIN is registered as a training centre by the French Ministry of Employment.
Training sessions that allow you learning the requisite knowledge to the use and the maintenance of your equipment are organised throughout the year. A catalogue can be obtained upon request. You will be then able to choose among the proposed selection of training courses, the type of training that meets your needs or production aims. These training sessions can be organised within your premises or in our training centre located in our headquarters in Meylan - FRANCE.

Quality Insurance

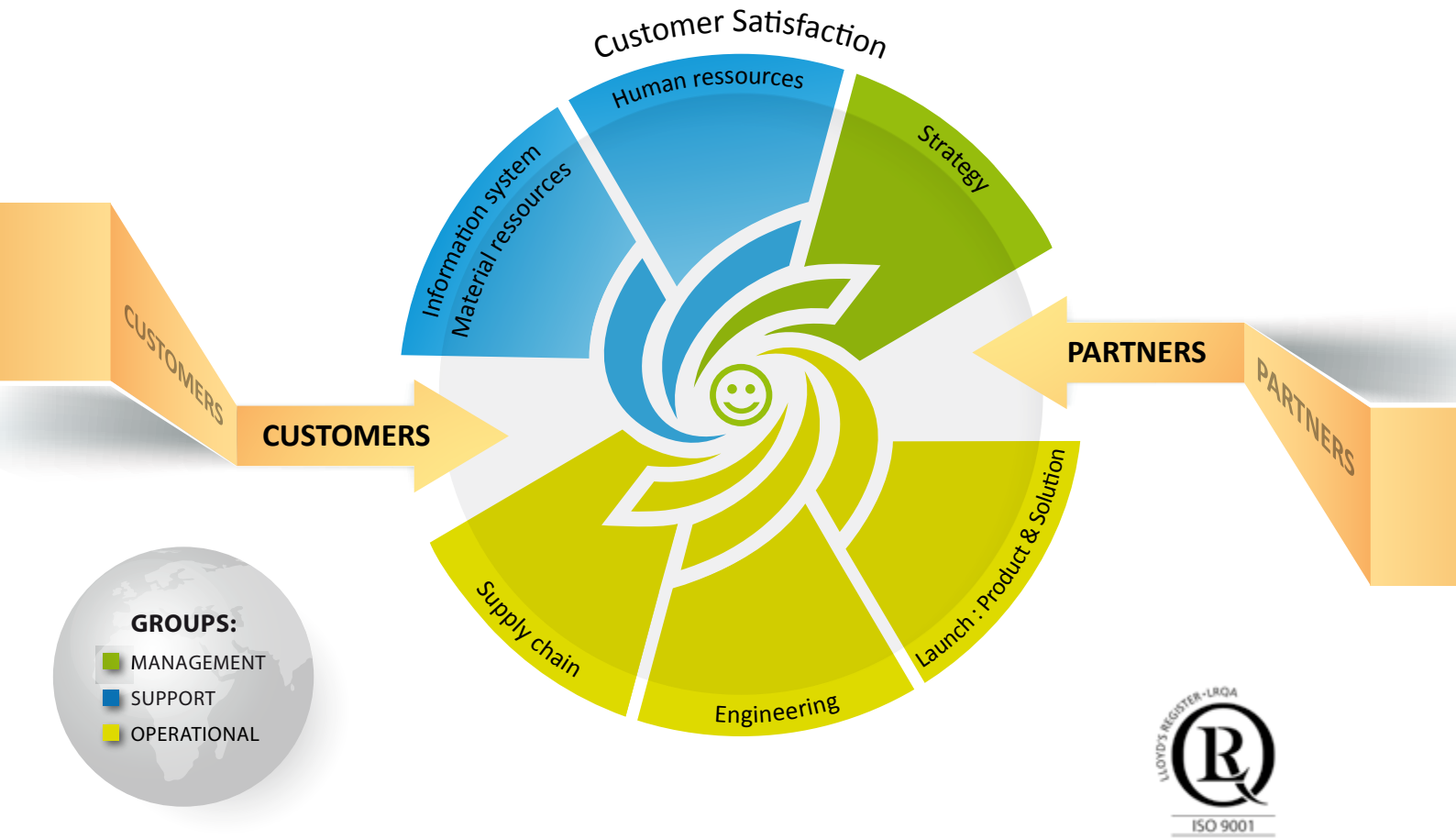
In conformity with the ISO9001 standard - issue 2008, the requisite procedures and registrations are mastered. The seriousness with which SAMES KREMLIN' quality policy is dealt ensures you an optimum quality at each stage of the production and of the assembly of the components.

Our products are in the scope of the following European directives:

- 2014/34/UE Explosive Atmospheres
- 2006/42/CE Machinery
- 2014/35/UE Low Voltage
- 2014/30/UE Electromagnetic Compatibility
- 2011/65/UE RoHS Restriction of Hazardous Substances in electrical and electronic equipment
- 2012/19/UE WEEE Waste of Electrical and Electronic Equipment
- 1907/2006/CE REACH Registration, Evaluation, Authorization and Restriction of Chemicals.

A process mapping allows organizing all the stages while being very attentive to the various environments (customers, competition...), to the audits (inner and outer) and to the indicators linked to the defined aims.

PROCESSES MAPPING

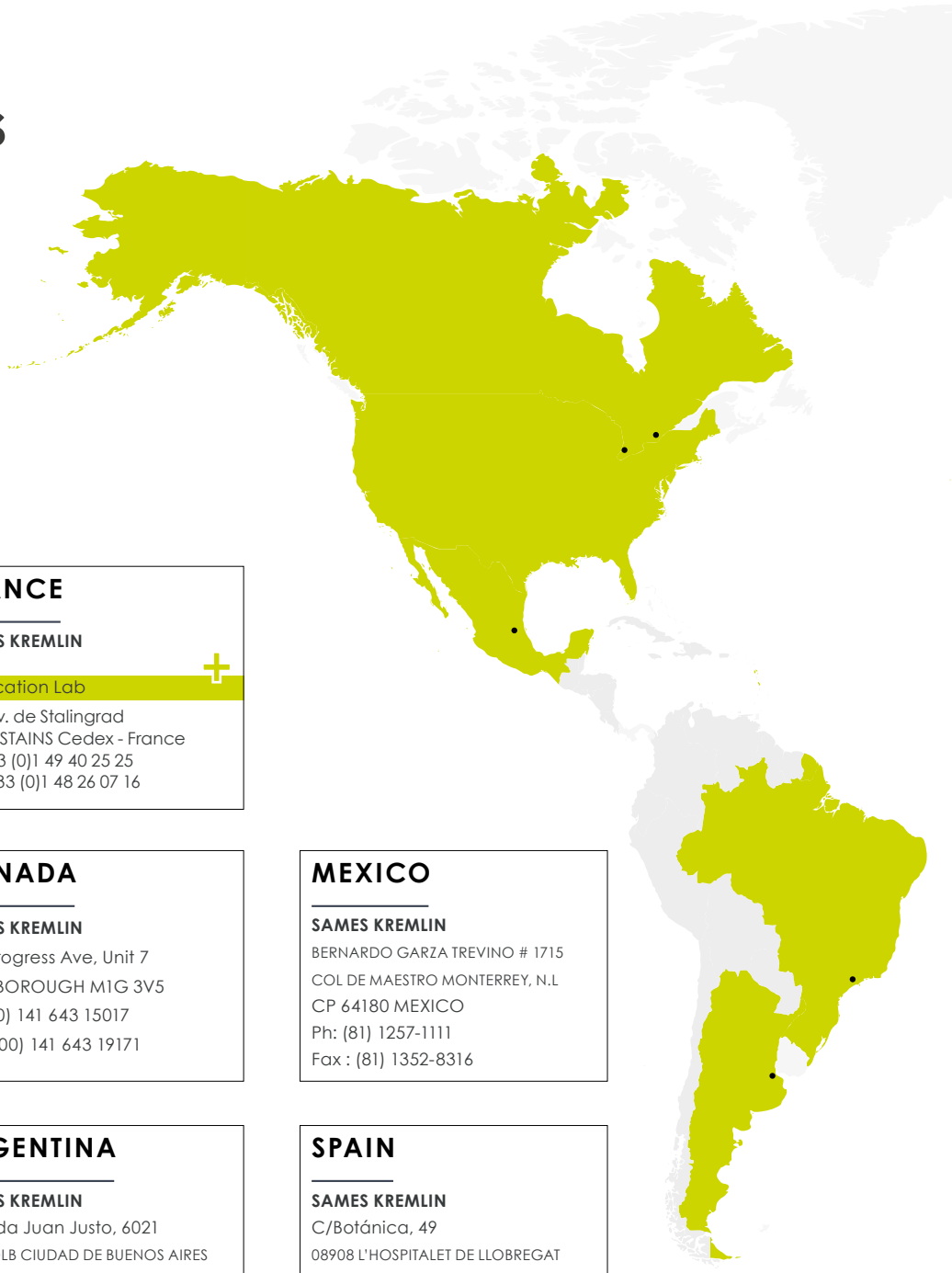


ISO 9001

Global Presence

16 Locations
Worldwide

800 Employees



FRANCE

SAMES KREMLIN
Headquarter
Application Lab
13 chemin de Malacher
38243 MEYLAN Cedex - France
Ph: +33 (0)4 76 41 60 60
Fax: +33 (0)4 76 41 60 90

FRANCE

SAMES KREMLIN
Application Lab
150, av. de Stalingrad
93245 STAINS Cedex - France
Ph: +33 (0)1 49 40 25 25
Fax: +33 (0)1 48 26 07 16

USA

SAMES KREMLIN
Application Lab
45001 5 Mile Rd,
PLYMOUTH, MI, 48170
Ph: 734-979-0100
Fax : 734-927-0064

CANADA

SAMES KREMLIN
931, Progress Ave, Unit 7
SCARBOROUGH M1G 3V5
Ph: (00) 141 643 15017
Fax : (00) 141 643 19171

MEXICO

SAMES KREMLIN
BERNARDO GARZA TREVINO # 1715
COL DE MAESTRO MONTERREY, N.L
CP 64180 MEXICO
Ph: (81) 1257-1111
Fax : (81) 1352-8316

BRAZIL

SAMES KREMLIN
Rua Alfredo Mario Pizotti, N.41
Vila Guilherme
SAO PAULO SP
Ph: (+ 5511) 2903 1200

ARGENTINA

SAMES KREMLIN
Avenida Juan Justo, 6021
C1416DLB CIUDAD DE BUENOS AIRES
Ph: +54 11 45 82 89 80
Fax : +54 11 45 84 66 77

SPAIN

SAMES KREMLIN
C/Botánica, 49
08908 L'HOSPITALET DE LLOBREGAT
BARCELONA
Ph: +34.932641540
Fax : + 34.932632829

GERMANY

SAMES KREMLIN
Moselstrasse 19
D-41464 NEUSS
Ph: +49 213 13 69 22 00
Fax : +49 213 13 69 22 22

GERMANY

iNTEC SAMES-KREMLIN GmbH
High viscosity application Lab
Otto - Hahn - Allee 9
50374 Erftstadt - Germany
Ph: +49 (0)2235 46558 – 0
Fax : +49 (0)2235 46558 – 119

ITALIA

SAMES KREMLIN
Linate Business Park
Strada Provinciale Rivoltana 35
20096 Pioltello (MI)
Ph: (+39) 02 - 48952815
Fax : (+39) 02 - 48300071

Global Presence

1000 Partners

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Combining a total workforce of 10,000 people worldwide

POLAND

SAMES KREMLIN
Modlinska 221B
International Business Park #05-109E
03120-WARSZAWA
Ph: +48 225 103850
Fax : + 48 225 103877

RUSSIA

SAMES KREMLIN
Application Lab since the beginning of 2020
Rodionova str. 134.
603093, N. Novgorod - Russia
Ph: 007 831 467 8981

CHINA

SAMES KREMLIN
Application Lab
Building No.9, No.3802 Shengang Road
Songjiang District
SHANGHAI 201613
Ph: 021-5438 6060
Fax : 021-5438 6090

PORTUGAL

SAMES KREMLIN
Rua da Silveira, 554 - Touria
2410-269 POUSOS LRA
Ph: +351 244 848 220
Fax : +351 244 848 229

INDIA

SAMES KREMLIN
GAT no - 634, PUNE NAGAR Road, Wagholi
PUNE - 412 207
Ph: +91 20 30472700/01
Fax : +91 20 30472710

JAPAN

SAMES KREMLIN
Takashima 2-19-12 - Sky Blig 20F
220-0003 YOKOHAMA - Nishi kanagawa
Ph: 045 412 5800
Fax: 045 412 5801
Mobile: 080 4203 3030

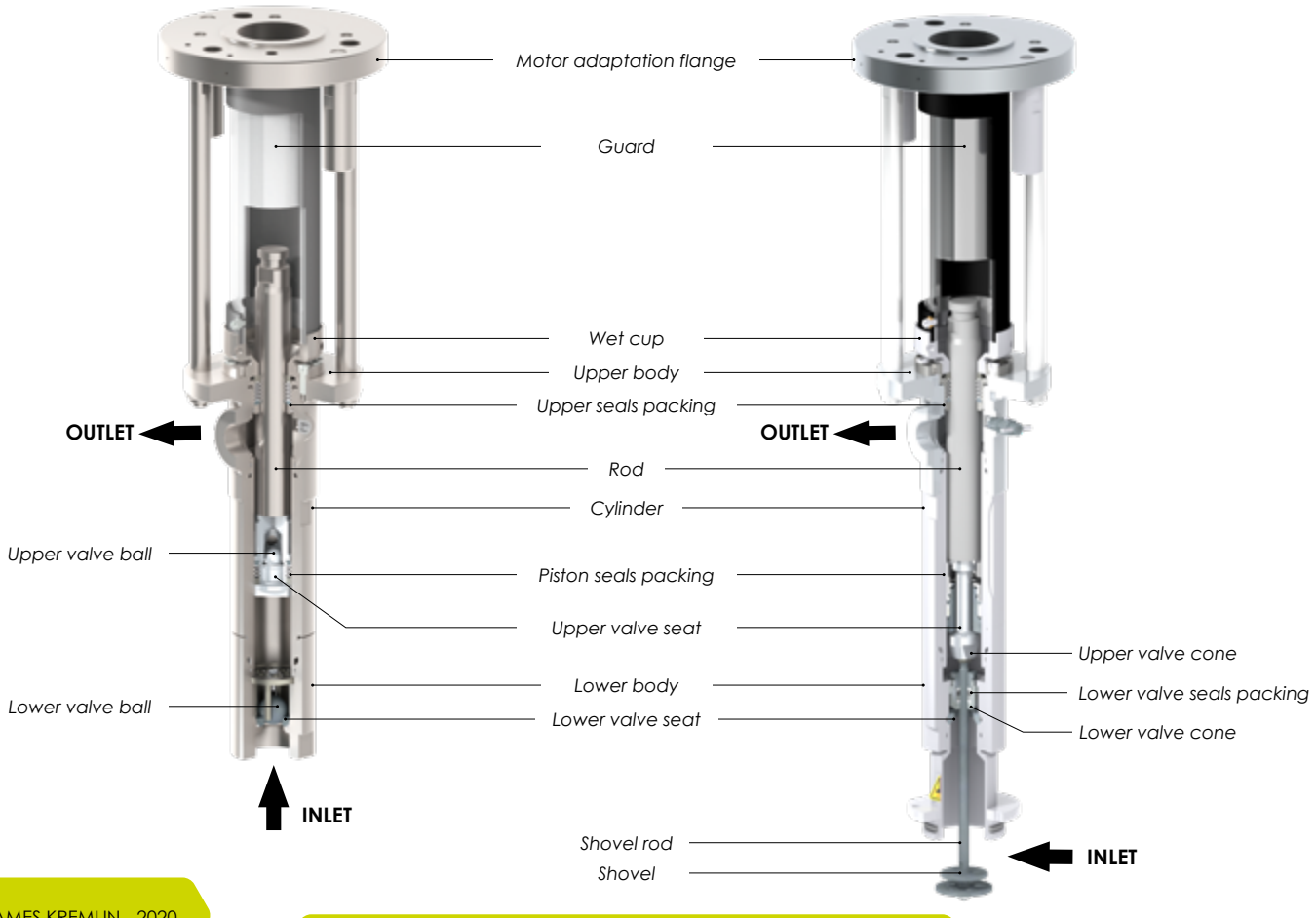
REXSON Pump Technology

The high viscosity pumps of the REXSON range have been designed with robustness in mind, with the aim of offering a high degree of modularity to suit your application. Unlike liquid fluid pumping, the high viscosity range imposes highly variable mechanical stresses from one product to another. This is why we suggest that you customize your pump using this guide.

There are **two main pump families** for two very different applications: Feeding pumps used to transfer fluid directly from the product packaging and booster pumps that increase pressure along the product distribution line. Feeding pumps are distinguished by **two technologies**:

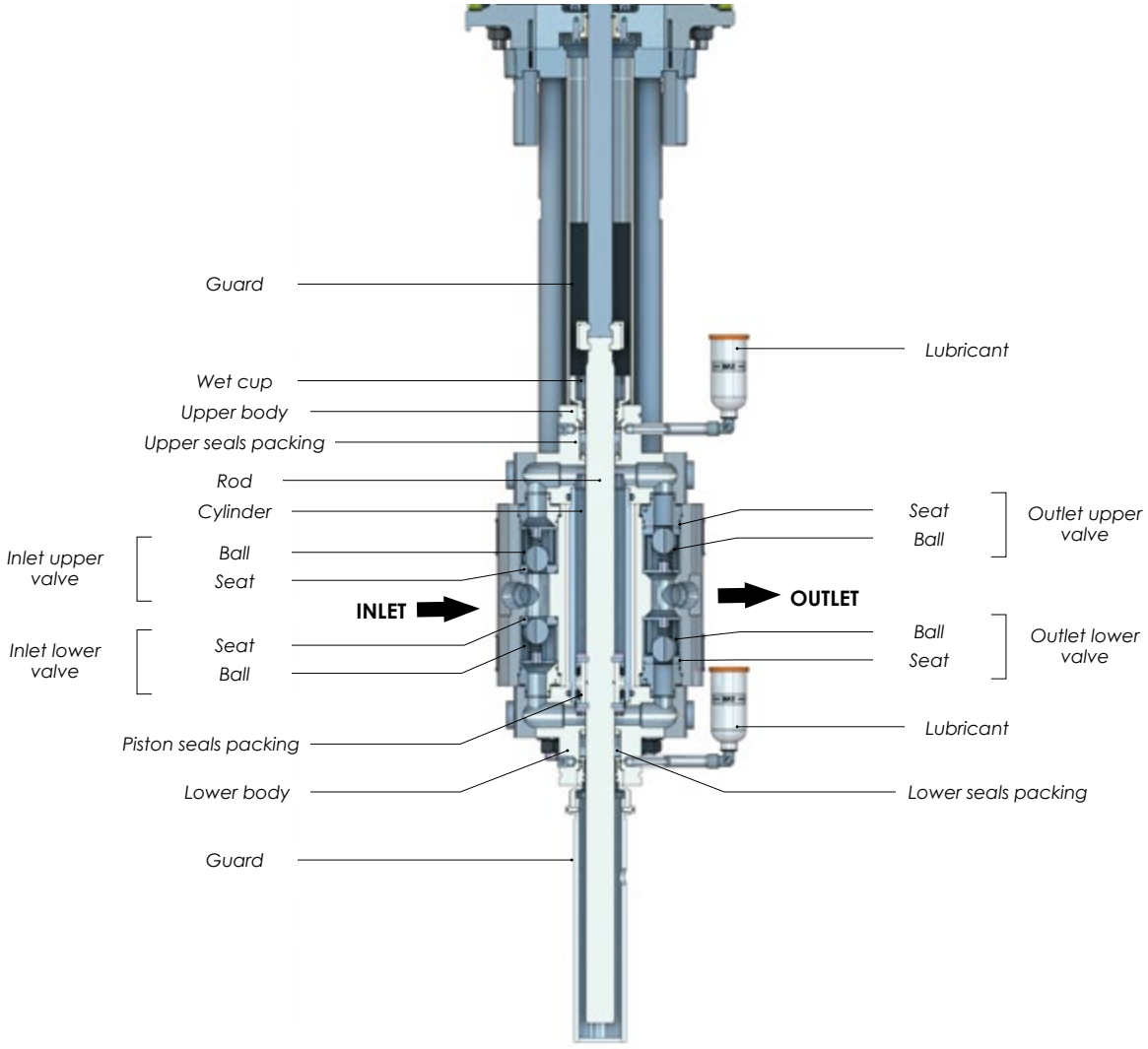
1 Double-acting **ball pumps** are similar in construction to pumps for liquid products and are capable of transferring fluids up to 50,000 Cps. These pumps have been adapted for high viscosity products by optimizing the passage diameters, the nature of the seals and the hardness of the materials. These pumps are used as feeding equipment directly from the product packaging in wall mounting, on bung drums or installed on an elevator with a follower plate for open drums.

2 Double-acting **shovel pumps** are specifically designed for fluids with a viscosity greater than 50,000 Cps and operate from 25,000 Cps for products whose particular rheology makes them difficult to pump. In these pumps, we have replaced the ball valves with conical valves that are forced to open and close to force the product through. In addition, these pumps have a shovel that facilitates feeding in the same way as a shovel that brings the product to the pump inlet. These pumps are mainly mounted on elevators equipped with a follower plate for open drums.. But, they can also be collected on large tanks when the product is delivered in containers.



REXSON Pump Technology

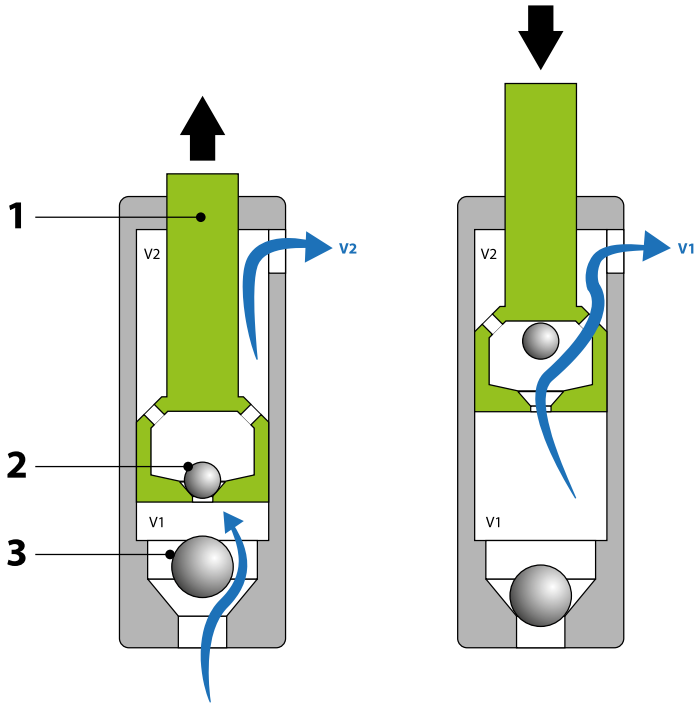
The REXSON **4 Ball Technology** are pumps used as boosters to increase pressure on a distribution supply lines or can be used in recirculating systems. The Pumps are built with carbide valve components for long life and different seal options exist for commonly know products. The pumping technology offers a unique chamber balancing system which allows the possibility recirculating at high pressures without pressure changes due to pump change over. The pumps must have the pumping material supplied to it from a feeder system for correct operation.



Fluid section technical details

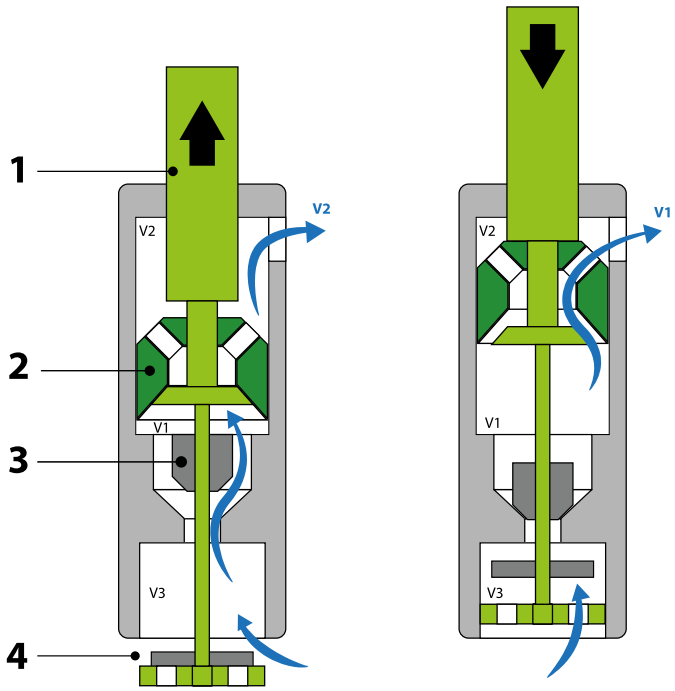
Operation of a double-acting 2 Ball Pump:

When the piston **(1)** rises, the Upper **(2)** closes or Lower Ball check **(3)** opens. The piston **(1)** expels the product from the upper chamber **(V2)** to the outside and sucks the product to fill the lower chamber **(V1)**.
When the piston **(1)** is lowered, the upper flap **(2)** opens and the lower flap **(3)** closes. The piston **(1)** compresses the fluid in the lower chamber **(V1)** and transfers it to the upper chamber **(V2)**. Since the volume of the upper chamber **(V2)** is half that of the lower chamber **(V1)**, a volume equivalent to the upper chamber **(V2)** is expelled from the pump.



Operation of a double-acting Shovel Pump:

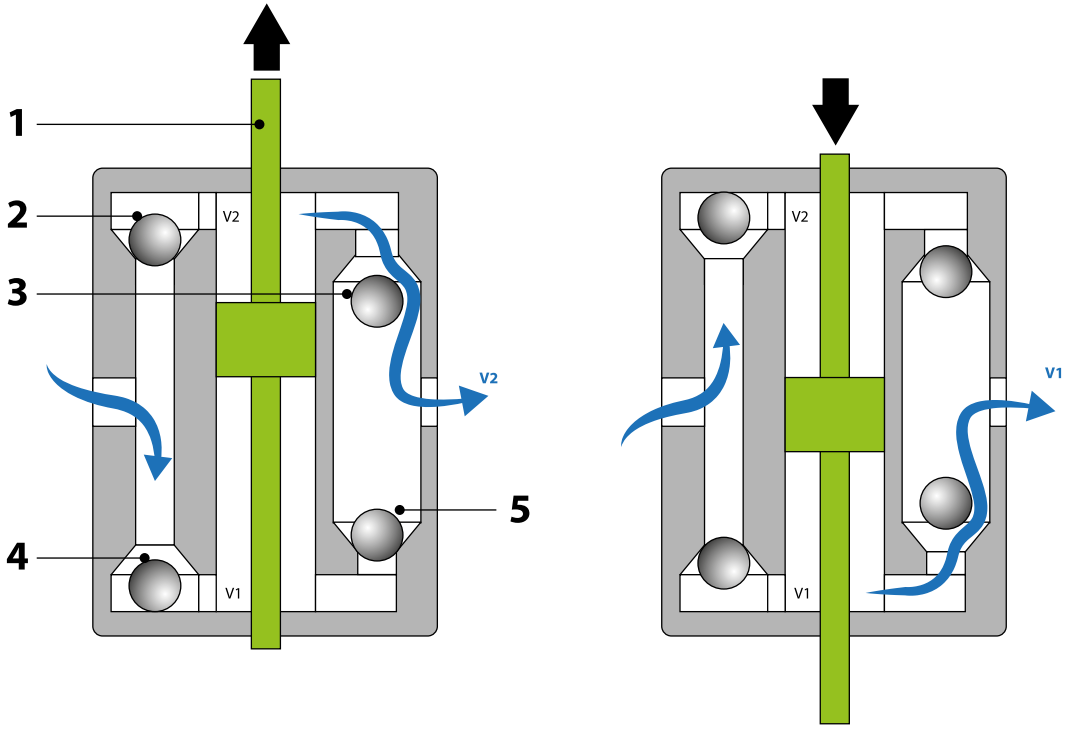
When the piston **(1)** rises, the upper flap **(2)** closes, the lower flap **(3)** opens and the pallet **(4)** closes. The piston **(1)** expels the product from the upper chamber **(V2)** to the outside and sucks the product to fill the lower chamber **(V1).** The pallet pushes the product into the pump foot **(V3)**.
When the piston **(1)** is lowered, the upper flap **(2)** opens, the lower flap **(3)** closes and the blade **(4)** opens. The piston **(1)** compresses the fluid in the lower chamber **(V1)** and transfers it to the upper chamber **(V2)**. Since the volume of the upper chamber **(V2)** is half that of the lower chamber **(V1)**, a volume equivalent to the upper chamber **(V2)** is expelled from the pump. The pallet **(4)** exits the pump foot **(V3)** without expelling the product.



Fluid section technical details

Operation of a 4 Ball Pump:

When the piston **(1)** rises, check-valves **2** and **5** close, while check-valves **3** and **4** open. The piston **(1)** expels the product from the upper chamber **(V2)** to the outside and sucks the product to fill the lower chamber **(V1)**.
When the piston **(1)** is lowered, check-valves **2** and **5** open, while check-valves **3** and **4** close. The piston **(1)** sucks in the product to fill the upper chamber **(V2)** and expels the product from the lower chamber **(V1)** outwards.



QUICK Selection Table

HOW TO USE THE QUICK SELECTION TABLE?

1. Select the pump **technology** according to the viscosity of the product:
   below 50 000 Cps use a 2 ball pump **(A)**
   between 25 000 & 50 000 Cps, you are able to choose either ball or showel pump depending on the available options that best fit to the viscous material.
   above 50 000 Cps use a shovel pump **(B)**
   4 ball pumps **(C)** used **as booster in distribution lines** or **recirculation systems**
2. Select the Pump Size based on the displacement and maximum flow rate
3. Select the Air Motor according to the maximum pressure
4. Select the Construction materials according to the nature of the product
5. Select the Foot and Mounting Style according to the product packaging and your installation
6. Select your seal pack using the logic diagram **(E)** or the seal comparison table **(D)** and referring to the chemical compatibility table on **page 80**.

A - 2 Ball Pumps technology

REX2B Viscosity < 25 000 Cps			Air Motor choice (MO)								Lower Material Choice (MA)				Type of mounting (FO)				
			Max pressure (bar) / (pressure ratio)								Not Abrasive		Abrasive						
Lower choice (DISP)		cc/ cycle	24 (4:1)	60 (10:1)	120 (20:1)	3 180 (30:1)	240 (40:1)	300 (50:1)	360 (60:1)	480 (80:1)	4 Solvent based	Water based	Solvent based	Water based	Wall mounted	5 Follower plate	Drum Bung 60L	Drum Bung 200L	Cover 200L
Max Flow [L/min]	0,8	0079				15			30		SS				WM	FP			
	1,2	0124		10	15	30		50			SS		SC		WM	FP		D2	
	2,3	0225	10	15	30	50					SS				WM	FP			C2
		0227				60		70		90	CS	SS	XS*	SC		FP	D1	D2	
	3,6	0360						72			SC				WM	FP			
	5	0453					72		92		CS				WM	FP			
	2 6	0588			70	90					CS	SS	CC	SC	WM	FP			
	7,5	0750				72	92				CS				WM	FP			
	10	0980			72	92					CS	SS	CC	SC	WM	FP			
		1000							9H		SC					FP			

(*) XS: Special for ZINC paint - Carbide + Triple Chromium

B - Shovel Pumps technology

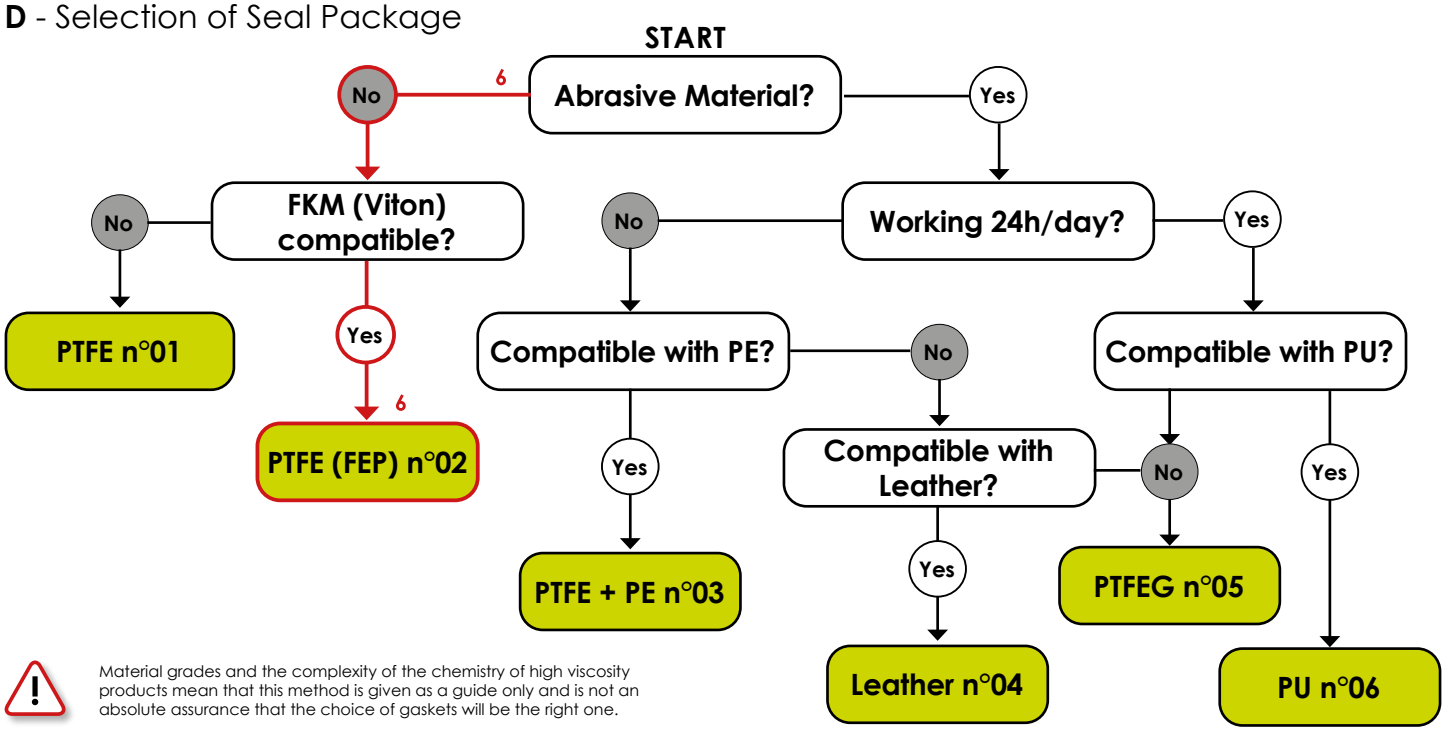
REXSH Viscosity > 50 000 Cps			Air Motor choice (MO)								Lower Material Choice (MA)				Type of mounting (FO)			
			Max pressure (bar) / (pressure ratio)								Not Abrasive		Abrasive					
Lower choice (DISP)		cc/ cycle	24 (4:1)	60 (10:1)	120 (20:1)	180 (30:1)	240 (40:1)	300 (50:1)	360 (60:1)	480 (80:1)	Solvent based	Water based	Solvent based	Water based	Plain Cylinder	Follower plate	Drum Bung 60L	Drum Bung 200L
Max Flow [L/min]	0,6	0060				15			30		CS	SS				FP	D1	D2
	1,1	0106			15	30			50		CS	SS				FP	D1	D2
	2,2	0207		15	30	50					SS					FP		
		0216				60		70		90	CS					FP	D1	
	3,4	0340						72			SS					FP		
	5,6	0560			70	90					CS	SS				FP		
	7,2	0715				72	92				CS				PC	FP		
	9,3	0910			72	92					CS	SS			PC	FP		
		0930							9H		SC				PC	FP		

QUICK Selection Table

C - 4 Ball Pumps technology

REX4B			Air Motor choice (MO) Max pressure [bar]				Lower Material Choice (MA)		Type of mounting (FO)
Lower choice (DISP)			150	200	240	320	Solvent based	Water based	
Max Flow [L/min]	5,7	0570		72		92	CS	SS	G1
	7,5	0750	72		92		CS		G1

D - Selection of Seal Package



Material grades and the complexity of the chemistry of high viscosity products mean that this method is given as a guide only and is not an absolute assurance that the choice of gaskets will be the right one.

	Seal Selection Criteria				
SE	Dynamic / Static	Chemical Compatibility	Mechanical resistance (abrasivity)	Price	Comment
6 01	PTFE / FKM	★ ★ ★	★	€	Very good chemical compatibility
02	PTFE / FEP	★ ★ ★ ★	★	€ € €	Excellent chemical compatibility
03	PTFE+PE / FKM	★ ★	★ ★	€	Good chemical compatibility, better resistance to abrasive material (2)
04	Leather / FKM	★ ★	★ ★ ★ ★	€ €	Entry offer for abrasive Solvent Based product (2)
05	PTFEG / FKM	★ ★ ★	★ ★	€ €	Solvent Based product
06	PU /FKM	★	★ ★ ★ ★	€ €	Abrasive Water Based product ans some Solvent based product(2)
XX(1)	PU+PTFEV / FKM	★ ★ ★	★ ★ ★	€ € €	Better resistance to high piston speed anf hot material (not available on each pumps) (2)
XX(1)	PEEK / FKM	★ ★ ★	★ ★ ★ ★ ★	€ € € € €	Very abrasive material, hot material (available only for 4 ball pumps)

(1) Seal pack number is different from a lower to another
(2) Please refer to chemical compatibility table
PTFE = Polytetrafluoroethylene
PTFEG = PTFE + Graphite
PE = Polyethylen
FKM = Fluoroelastomer
PU = Polyurethan
PTFEV = PTFE + Glass
FEP = Covered O-rings
PA = Polyamid

This table is a summary of advice given in the literature and commonly used prices. However, there are exceptions and experiences to the contrary. We suggest one method of selection, but it is not the only one.

QUICK Selection Table

EXAMPLE:

Let's consider a 10 000 Cps solvent base sealer not abrasive, compatible with Viton (FKM) and applied at 150 bars with a flow rate of 5 liters / minute and deliver in 200L drum.

1. 10 000 Cps is lower than 25 000 Cps therefore we choose a ball pump a «**REX2B**»
2. We need 5 liters per minute therefore a **588**cc is enought, we choose «0588»
3. The pressure is 180 bars therefore we choose the «**90**» motor
4. The sealer is a none abrasive solvent base material, so we can choose a «**CS**»
5. To unlaod 200L drum, we need a folower plate then we choose a «**FP**» mounting
6. The product is not abrasive and compatible with FKM, so we choose PTFE Seal **Pack N°01**

Our final choice is **REX2B0588-90-CS-FP-01**

Pressure unit conversion

bar	25	50	100	180	190	240	250	320	360	370	480	490
PSI	360	730	1450	2610	2760	3480	3630	4640	5220	5370	6960	7110

QUICK Selection Table

HOW TO BUILD THE PART NUMBER OF REXSON PUMPS?

- High Viscosity **2 Ball** & **Shovel Pumps**

Generic part number:

REX	TT	CCCC	-	MO	-	MA	-	FO	-	SE
ex: REX	SH	0106	-	30	-	SS	-	WM	-	01

Product Family
High Viscosity Pump Product: **REX**

Product technologie
HV Ball pumps: **2B**
HV Shovel Pumps: **SH**

Displacement
4 digits in **cc**

Motor
none: XX
Motor 1000: **10**
Motor 1500: **15**
Motor 3000: **30**
Motor 5000: **50**
Motor 6000: **60**
Motor 7000: **70**
Motor 9000: **90**
Motor 7200: **72**
Motor 9200: **92**
Motor Double 9200: **9H**

Material
CS: Mixed Steels
SS: Stainless Steel
CC: Mixed steels + Carbide Valves
SC: Stainless steel + Carbide Valves
XS: Carbide + Triple chromium

Pump Foot/Mounting Style
WM: wall mounted
FP: follower plate (standard size D80 & D105)
D1: Drum bung mounted 60L
D2: Drum bung mounted 200L
PC: plain cylinder
C2: Version for 200L cover

Seal pack
01: PTFE
02: PTFE + FEP
03: PE
04: Leather
05: PTFEG
06: PU
07: Reserved for special seal
08: Reserved for special seal
09: Reserved for special seal

- High Viscosity **4 Ball Pumps**

Generic part number:

REX	TT	CCCC	-	MO	-	MA	-	FO	-	SE
ex: REX	4B	0750	-	30	-	SS	-	WM	-	01

Product Family
High Viscosity Pump Product: **REX**

Product technologie
HV Quatro pumps: **4B**

Displacement
4 digits in **cc**

Motor
none: XX
Motor 1000: **10**
Motor 1500: **15**
Motor 3000: **30**
Motor 5000: **50**
Motor 6000: **60**
Motor 7000: **70**
Motor 9000: **90**
Motor 7200: **72**
Motor 9200: **92**
Motor Double 9200: **9H**

Material
CS: Mixed Steels
SS: Stainless Steel
CC: Mixed steels + Carbide Valves
SC: Stainless steel + Carbide Valves
XS: Carbide + Triple chromium

Pump foot
G1: GAZ 1" Female

Seal pack
01: PTFE
02: PTFE + FEP
03: PE
04: Leather
05: PTFEG
06: PU
07: Reserved for special seal
08: Reserved for special seal
09: Reserved for special seal

ELEVATORS & FOLLOWER PLATES SELECTION

1. Regarding the viscosity of the material, select available follower plate and elevator.
2. Depending on material packaging (drum diameter & design), keep the compatible follower plate.
3. If the product is moisture sensitive, then you must choose a double sealed follower plate.

Follower Plate			Elevator/Ram		
Seal	**Diameter (mm)**	**Drum design**	**Moisture sensitive**	**Monocolumn Elevator**	**Double column Ø80**
Flat seal	**280-360** (20 to 60 L.)	**Straight or Conical**	**No**	**25 000 Cps**	**300 000 Cps**
Double Flat Seal*	**571** (200 L.)		**Yes**		**200 000 Cps**
Double O-ring	**280-360** (20 to 60 L.)	**Straigth**			**1 000 000 Cps**
	571 (200 L.)				**200 000 Cps**

(*) Coming soon

EXAMPLE:

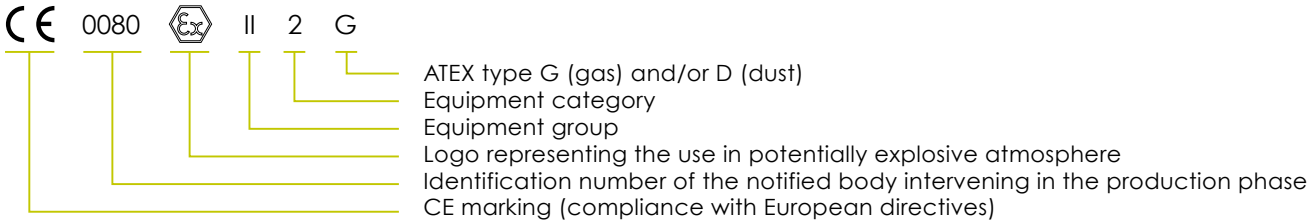
Let's consider a 500 000 Cps material delivered in a 360mm straight drum with no moisture sensibility.

1. Regarding the viscosity, we must choose at least a Double column Elevator.
2. The drum is straight of size of 360mm, then we can choose a double O-ring follower plate.
3. The material is not sensitive to moisture. But with the high viscosity, we must keep a double O-Ring plate.

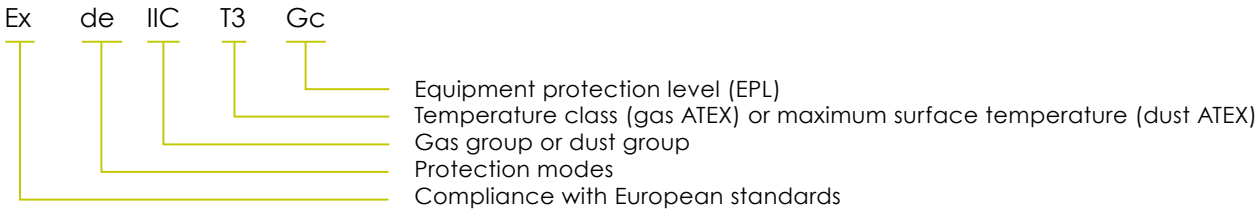
ELECTRICAL OR NON-ELECTRICAL EQUIPMENT MARKING

(requirement of directive 2014/34/EU)

Identification of the regulatory marking



Identification of the complementary normative marking



All models of **Pumps**	All models of **RAM**
CE Ex II 2 G IIA T3	CE Ex II 2 Gc

GROUP II applies to equipment used in areas with an explosive gas atmosphere, other than mines subject to firedamp.

Subdivisions of GROUP **IIA**: propane characteristic gas (from the lowest risk to the highest risk).

T3: Maximum surface temperature : 200°C / 392°F.

c: Protection by constructional safety

Pumps

2 BALL PUMP

SHOVEL PUMP

4 BALL PUMP

PRODUCT TECHNOLOGY

2 Ball pump

2B79 HV Ball

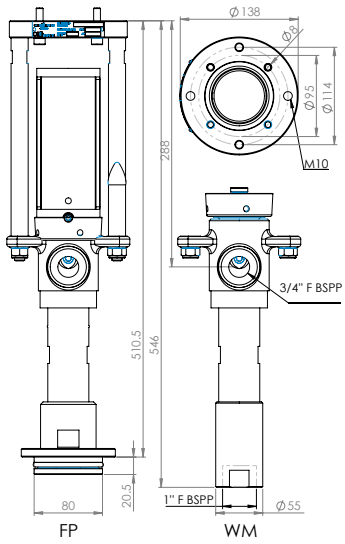
2B79: 2 Ball Pump Size 79cc

part number:

REX	2B	0079	-	MO	-	MA	-	FO	-	SE

example: REX2B0079-15-SS-FP-03

High Viscosity 2 Ball Pump used for airless and extrusion applications requiring low flow rates. The pumping solution offers a small footprint and its stainless-steel construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	79	cc	2,67	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	320	bar	4600	psi
Weight	8	kg	17,6	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
10	MOTOR 1000	11 : 1	6	100	70	1000	17	247	13,5	29,8	54	1,9	1 / 2 "
15	MOTOR 1500	23 : 1	6	100	140	2000	35	500	13,5	29,8	109	3,8	1 / 2 "
30	MOTOR 3000	46 : 1	6	100	280	4000	69	1001	15,2	33,5	218	7,7	1 / 2 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	CB	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
WM	Wall mounted	Inlet F 1"	Available	Not available
FP	Follower Plate	Ø80 mm	Available	Not available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B124 HV Ball

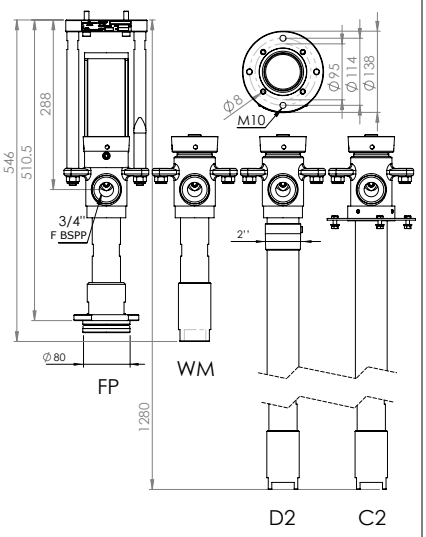
2B124: 2 Ball Pump Size 124cc

part number:

REX	2B	0124	-	MO	-	MA	-	FO	-	SE

example: REX2B0124-15-SS-D2-03

High Viscosity 2 Ball Pump used for airless and extrusion application requiring low flow rates. The pumping solution offers a small to mid-size foo prints and its stainless-steel construction with optional carbide seat and different seal pack options work for all materials, including abrasive.



Technical Data

Fluid volume per cycle	124	cc	4,19	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	320	bar	4600	psi
Weight	9 - 12	kg	19,8	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
10	MOTOR 1000	8 : 1	6	100	50	700	12	174	14,5	32,0	60	2,1	1 / 2 "
15	MOTOR 1500	15 : 1	6	100	90	1300	23	326	14,5	32,0	112	3,9	1 / 2 "
30	MOTOR 3000	30 : 1	6	100	180	2600	45	653	16,2	35,7	223	7,9	1 / 2 "
50	MOTOR 5000	53 : 1	6	100	320	4600	80	1153	30	66,2	394	13,9	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	CB	SST	SST	SST	SST
SC	Stainless steel + CB seats	SST	SST	SST+Cr	SST+Cr	SST	SST	CB	SST	SST	CB	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Stainless steel	2: Stainless steel + CB seats
WM	Wall mounted	Inlet F 1"	Available	Not available
FP	Follower Plate	Ø80 mm	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
D2	Drum Bung mounted	200 Liters Drum / 2'' Bung	Available	Not available
C2	Drum Cover	200 Liters Cover	Available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG
07	PTFEG/PE + FEP (special)	FEP	PTFEG and PE	PTFEG and PE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B225 HV Ball

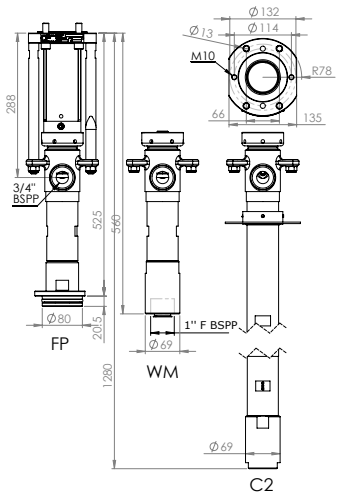
2B225: 2 Ball Pump Size 225cc

part number:

REX	2B	0225	-	MO	-	MA	-	FO	-	SE

example: REX2B0225-15-SS-FP-03

High Viscosity 2 Ball Pump used for airless and extrusion applications requiring low to medium flow rates. The pumping solution offers a small to mid-size footprint, many mounting possibilities, and its stainless-steel construction works for all non-abrasive materials with several seal pack options available.



Technical Data

Fluid volume per cycle	225	cc	7,61	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	180	bar	2600	psi
Weight	25	kg	55,1	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
10	MOTOR 1000	4 : 1	6	100	24	300	6	87	30,5	67,3	54	1,9	1 / 2 "
15	MOTOR 1500	8 : 1	6	100	50	700	13	182	30,5	67,3	113	4,0	1 / 2 "
30	MOTOR 3000	16 : 1	6	100	100	1400	24	348	32,2	71,0	216	7,6	1 / 2 "
50	MOTOR 5000	30 : 1	6	100	180	2600	45	653	46,0	101,4	405	14,3	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
SS	Stainless steel	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	CB	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
WM	Wall mounted	Inlet F 1"	Not available	Available
FP	Follower Plate	Ø80 mm	Not available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available
C2	Drum Cover	200 Liters Cover	Not available	Available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG
07	PTFEG/PE + FEP (special)	FEP	PTFEG and PE	PTFEG and PE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B227 HV Ball

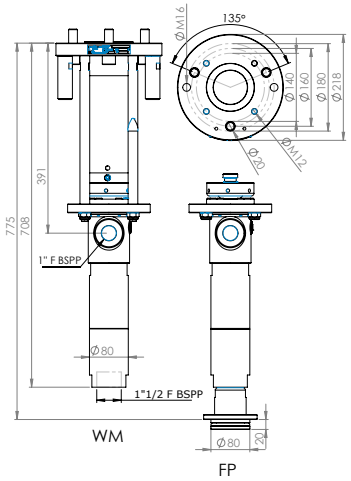
2B227: 2 Ball Pump Size 227cc

part number:

REX	2B	0227	-	MO	-	MA	-	FO	-	SE

example: REX2B0227-70-CS-FP-02

High Viscosity 2 Ball Pump is for high pressure, up to 480 bar, applications requiring low to medium flow rates. The pumping solution offers a medium to large footprint and its construction material and seal pack have many options working with all materials, and unique materials like waterborne sound deadener and zinc-based products.



Technical Data

Fluid volume per cycle	227	cc	7,68	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	480	bar	7000	psi
Weight	25	kg	55,1	Lbs
Fluid outlet	1 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
60	MOTOR 6000	29 : 1	6	100	170	2500	44	631	46,0	101,4	395	13,9	3 / 4 "
70	MOTOR 7000	52 : 1	6	100	310	4500	78	1131	51	112,5	708	25,0	3 / 4 "
90	MOTOR 9000	80 : 1	6	100	480	7000	120	1740	60	132,3	1090	38,5	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
CS	Mixed materials	CS+Zn	SST	CS+Cr	CS+Cr	SST	SST	CB	CS	SST	SST	CS
SS	Stainless steel	CS+Zn	SST	CS+Cr	CS+Cr	SST	SST	CB	SST	SST	SST	-
SC	Stainless steel + CB	CS+Zn	SST	CS+Cr	CS+Cr	SST	SST	CB	SST	SST	CB	-
XS	Reinforced Chromium + Full CB	CS+Zn	SST	CS+Cr	CS+Cr	SST	SST	CB	CS	SST	CB	CS

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

MA

	Available Configurations	Technical characteristic	Materials			
			Mixed materials	Stainless steel	Stainless steel + Carbide	Reinforced Chromium + Full CB
WM	Wall mounted	Inlet F 1"1/2	Available	Available	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Available	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG
07	PTFEG/PE + FEP (special)	FEP	PTFEG and PE	PTFEG and PE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B360 HV Ball

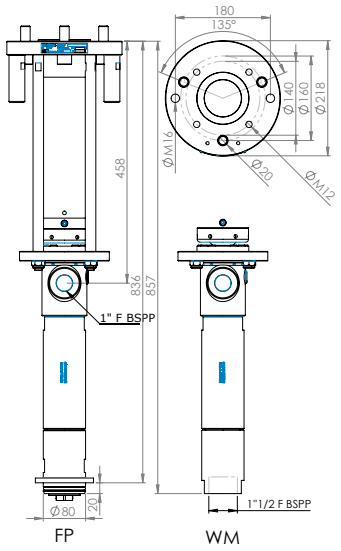
2B360: 2 Ball Pump Size 360cc

part number:

REX	2B	0360	-	MO	-	MA	-	FO	-	SE

example: REX2B0360-72-SC-FP-06

High Viscosity 2 Ball Pump used for automotive sealing and sound deadener applications requiring low flow rates. The pump is adapted from 2B227 and has a longer body. The pumping solution offers a mid-size footprint and its stainless-steel construction with carbide seats work with unique materials.



Technical Data

Fluid volume per cycle	360	cc	12,17	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	480	bar	7000	psi
Weight	47	kg	103,7	Lbs
Fluid outlet	1 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	53 : 1	6	100	320	4600	80	1153	73	165,4	1145	40,4	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
SC	Stainless steel + carbide	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	CB	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

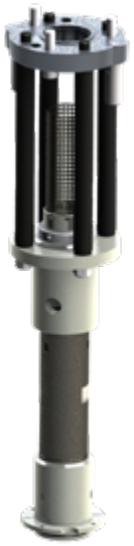
	Available Configurations	Technical characteristic	Materials (MA)	
			1: Stainless	2: Stainless steel
WM	Wall mounted	1''1/2 F BSPP	Not available	Available
FP	Follower Plate	Ø80 mm	Not available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
06	PU	FKM	PU and PE	PTFEG

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)



2B453 HV Ball

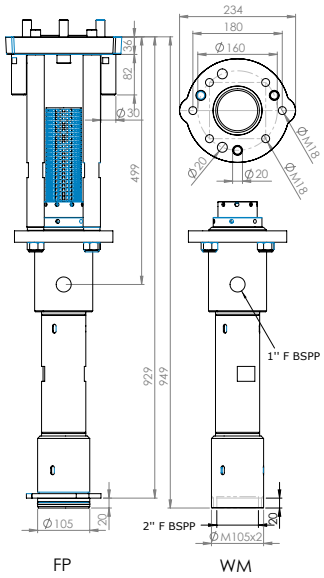
2B453: 2 Ball Pump Size 453cc

part number:

REX	2B	0453	-	MO	-	MA	-	FO	-	SE

example: REX2B0453-92-CS-FP-03

High Viscosity 2 Ball Pump used for sealing applications requiring medium flow rates. The pumping solution offers a large footprint, and its construction and seal pack work for solvent based sealers.



Technical Data

Fluid volume per cycle	453	cc	15,32	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	390	bar	5700	psi
Weight	46	kg	101,4	Lbs
Fluid outlet	1 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	40 : 1	6	100	240	3500	60	870	74	163,2	1087	38,4	3 / 4 "
92	MOTOR 9200	65 : 1	6	100	390	5700	98	1414	83	183,0	1767	62,4	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
CS	Mixed materials	CS	CS	CS+Cr	SST+Cr	CS	CS	CS	CS+Zn	CS	CS	-

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
WM	Wall mounted	M105x2 / F 2'' BSPP	Available	Not available
FP	Follower Plate	Ø105 mm	Available	Not available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
03	PE	FKM	PE	PTFEG
06	PU	FKM	PU	PTFEG

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B588 HV Ball

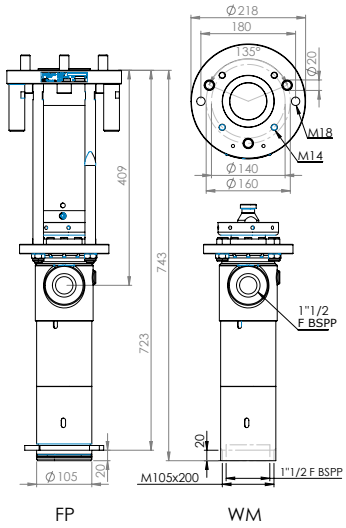
2B588: 2 Ball Pump Size 588cc

part number:

REX	2B	0588	-	MO	-	MA	-	FO	-	SE

example: REX2B0588-60-SC-FP-03

High Viscosity 2 Ball Pump used for airless and extrusion application requiring medium flow rates. The is a shorter version of 2B980 offers a medium footprint, and its construction and seal pack options allow the pump to work with all materials.



Technical Data

Fluid volume per cycle	588	cc	19,88	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	180	bar	2600	psi
Weight	36	kg	79,4	Lbs
Fluid outlet	1 ''1/2	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
60	MOTOR 6000	10 : 1	6	100	60	900	15	218	57	125,7	353	12,5	3 / 4 "
70	MOTOR 7000	18 : 1	6	100	110	1600	27	392	64	141,1	635	22,4	3 / 4 "
90	MOTOR 9000	30 : 1	6	100	180	2600	45	653	73	161,0	1058	37,4	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve		
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat
CS	Mixed materials	CS+Zn	SST	CS+Cr	SST+Cr	CS	CS	CS	CS	CS	CS
SS	Stainless steel	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST
SC	Mixed materials + CB valves	CS+Zn	SST	CS+Cr	SST+Cr	SST	CB	SST	CS	CB	CB

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

MA

	Available Configurations	Technical characteristic	Materials			
			1: Mixed materials	2: Stainless Steel	3: Mixed materials + CB valves	4: Stainless steel+ CB valves
WM	Wall mounted	M105x2 / F 1''1/2 BSPP	Available	Available	Not available	Not available
FP	Follower Plate	Ø105 mm	Available	Available	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG
07	PTFEV	FKM	PU and PE	PE and PTFEV

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B750 HV Ball

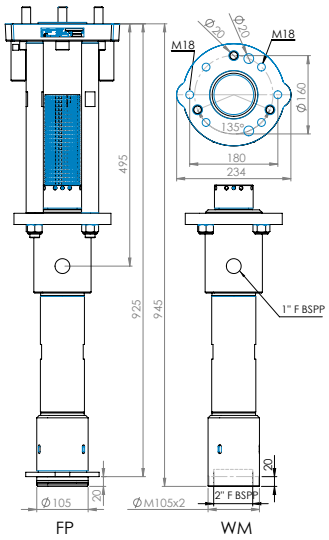
2B750: 2 Ball Pump Size 750cc

part number:

REX	2B	0750	-	MO	-	MA	-	FO	-	SE

example: REX2B0750-72-CS-FP-05

High Viscosity 2 Ball Pump used for sealing applications requiring high flow rates. The pumping solution offers a large footprint, and its construction and seal pack work for solvent based sealers.



Technical Data

Fluid volume per cycle	750	cc	25,36	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	380	bar	5500	psi
Weight	46	kg	101,4	Lbs
Fluid outlet	1'' F BSPP	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	25 : 1	6	100	150	2200	38	544	74	163,2	1125	39,7	3 / 4 "
92	MOTOR 9200	40 : 1	6	100	240	3500	60	870	83	183	1800	63,6	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
CS	Mixed materials	CS	CS	CS + Cr	SST + Cr	CS	CS	CS	CS + Zn	CS	CS	CS

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

MA

Available Configurations	Technical characteristic	Materials	
		Mixed materials	Stainless steel
WM — Wall mounted	M105x2 / F2''BSPP	Available	Not available
FP — Follower Plate	Ø105 mm	Available	Not available
- — Drum Bung mounted	60 Liters Drum	Not available	Not available
- — Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
05	PTFEG	FEP	PTFEG	PTFEG
06	PU	FKM	PU	PTFEG

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B980 HV Ball

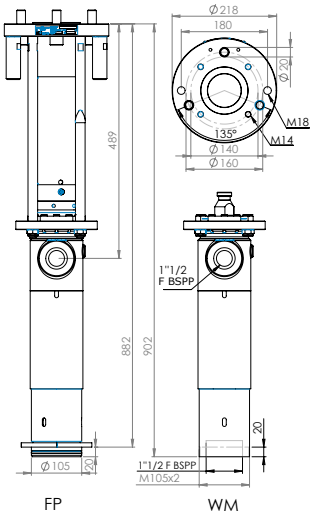
2B980: 2 Ball Pump Size 980cc

part number:

REX	2B	0980	-	MO	-	MA	-	FO	-	SE

example: REX2B0980-72-SC-FP-03

High Viscosity 2 Ball Pump used for suppling airless and extrusion application systems requiring high flow rates. This is the longer version of 2B588 offers a large footprint, and its construction and seal pack options allow the pump to work with all materials.



Technical Data

Fluid volume per cycle	980	cc	33,14	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	180	bar	2600	psi
Weight	70	kg	154,4	Lbs
Fluid outlet	1 ''1/2	F BSPP		

MO Air Motor

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	18 : 1	6	100	110	1600	27	392	98	216,1	1058	37,4	3 / 4 "
92	MOTOR 9200	30 : 1	6	100	180	2600	45	653	107	235,9	1764	62,3	3 / 4 "

scfm= Standard cubic feet of gas per minute

MA Pump Construction

	Available Materials	Pump body			Piston				lower valve		
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat
CS	Mixed materials	CS+Zn	SST	CS+Cr	SST+Cr	CS	CS	CS	CS	CS	CS
SS	Stainless steel	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST
SC	Mixed materials + CB valves	CS+Zn	SST	CS+Cr	SST+Cr	SST	CB	SST	CS	CB	CB

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

FO Foot and Mounting Styles

	Available Configurations	Technical characteristic	Materials (MA)		
			1: Mixed materials	2: Stainless Steel	3: Mixed materials + CB valves
WM	Wall mounted	M105x2 / F2'' BSPP	Available	Available	Not available
FP	Follower Plate	Ø105 mm	Available	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available	Not available

SE Seal Pack Options

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
01	PTFE	FKM	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE
04	Leather	FKM	Leather and PE	Leather and PE
05	PTFEG	FKM	PTFEG	PTFEG
06	PU	FKM	PU and PE	PTFEG
07	PTFEV	FKM	PU and PE	PE and PTFEV

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

2B1000 HV Ball

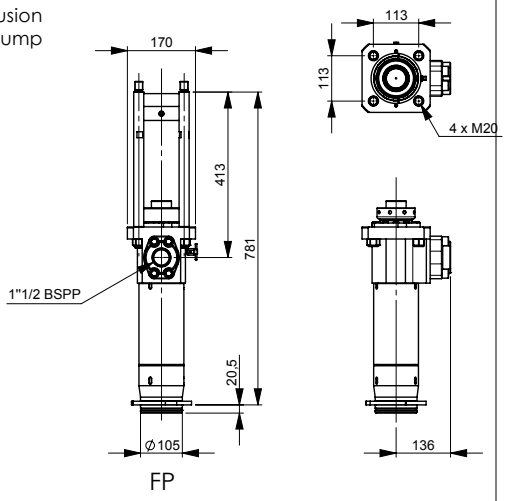
2B1000: 2 Ball Pump Size 1000cc

part number:

REX	2B	1000	-	MO	-	MA	-	FO	-	SE

example: REX2B1000-9H-SS-FP-06

High Viscosity 2 Ball Pump used for suppling airless and extrusion application systems requiring high flow rates with high pressure. The pump has a large foot and it construction is for all material.



FP

Technical Data

Fluid volume per cycle	1005	cc	33,98	oz
Stroke	205	mm	8,07	inch
Maximum service pressure	360	bar	5200	psi
Weight	100	kg	220,5	Lbs
Fluid outlet	1 '' 1/2	F BSPP		

MO Air Motor

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
9H	MOTOR 2 x 9200	60 : 1	6 /	100	360 /	5200	90 /	1305	165 /	363,8	3618 /	127,8	3 / 4 "

scfm= Standard cubic feet of gas per minute

MA Pump Construction

	Available Materials	Pump body			Piston				lower valve			Foot tube
		Wet Cup	Upper body	Cylinder	rod	Valve Body	Valve Ball	Valve Seat	Body	Ball	Seat	
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	CB	SST	SST	CB	SST	

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

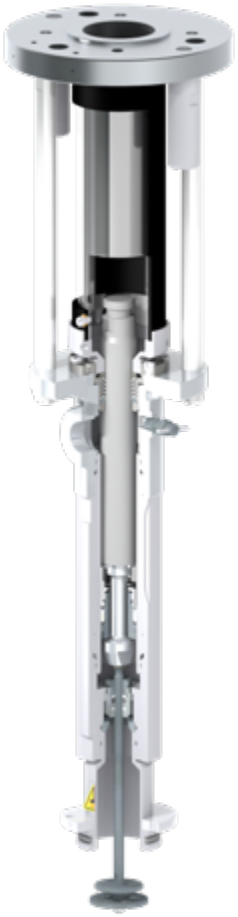
FO Foot and Mounting Styles

	Available Configurations	Technical characteristic	Materials (MA)	
			Mixed materials	**Stainless steel**
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø105 mm	Not available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

SE Seal Pack Options

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
06	PU	FKM	PU and PE	PTFEG

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)



2 BALL PUMP

PUMPS

SHOVEL PUMP

4 BALL PUMP

PRODUCT TECHNOLOGY

Shovel pump

SH60 HV Shovel

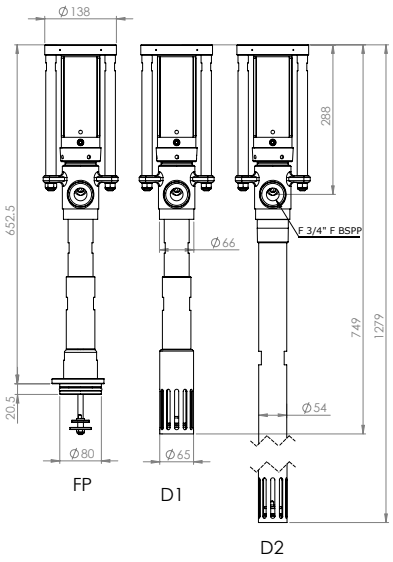
SH60: Shovel Pump Size 60cc

part number:

REX	SH	0060	-	MO	-	MA	-	FO	-	SE

example: REXSH0060-15-CS-WM-03

High Viscosity Shovel Pump used for airless and extrusion applications requiring low flow rates. The pumping solution offers a small footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	60	cc	2,03	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	360	bar	5200	psi
Weight	8	kg	17,6	Lbs
Fluid outlet	3 / 4 ''	F BSPPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
15	MOTOR 1500	31 : 1	6	100	190	2700	26	370	13,5	29,8	113	4,0	1 / 2 "
30	MOTOR 3000	62 : 1	6	100	370	5400	51	740	15,2	33,5	222	7,8	1 / 2 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	SST	SST	SST+Cr	SST+Cr	CS	CS	CS	CS	CS	CS	SST+Cr	SST	CS
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST+Cr	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	**2: Stainless steel**
WM	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Available
D1	Drum Bung mounted	60 Liters Drum	Available	Not available
D2	Drum Bung mounted	200 Liters Drum	Available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH106 HV Shovel

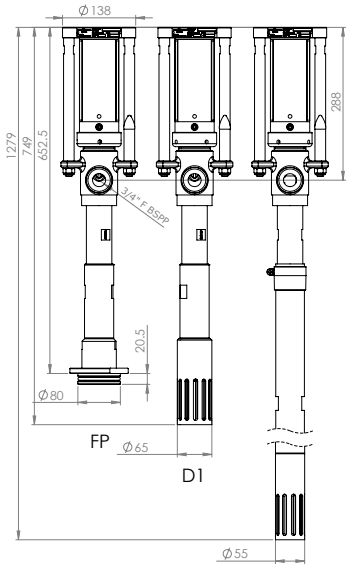
SH106: Shovel Pump Size 106cc

part number:

REX	SH	0106	-	MO	-	MA	-	FO	-	SE

example: REXSH0106-15-CS-D1-03

High Viscosity Shovel Pump used for airless and extrusion applications requiring low flow rates. The pumping solution offers a small footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	106	cc	3,58	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	380	bar	5500	psi
Weight	9,5	kg	20,9	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
15	MOTOR 1500	17 : 1	6	100	100	1500	26	6,00	15,0	33,1	108	3,8	1 / 2 "
30	MOTOR 3000	34 : 1	6	100	200	3000	51	740	17,0	37,5	216	7,6	1 / 2 "
50	MOTOR 5000	63 : 1	6	100	380	5500	95	1371	30,0	66,2	401	14,1	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	SST	SST	SST+Cr	SST+Cr	CS	CS	CS	CS	CS	CS	SST+Cr	SST	CS
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST+Cr	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	**2: Stainless steel**
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Available
D1	Drum Bung mounted	60 Liters Drum	Available	Not available
D2	Drum Bung mounted	200 Liters Drum	Available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH207 HV Shovel

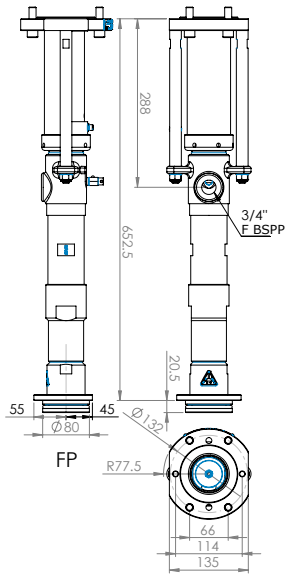
SH207: Shovel Pump Size 207cc

part number:

REX	SH	0207	-	MO	-	MA	-	FO	-	SE

example: REXSH0207-30-SS-FP-02

High Viscosity Shovel Pump used for airless and extrusion applications requiring low to medium flow rates. The pumping solution offers a small footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	207	cc	7	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	190	bar	2800	psi
Weight	10,5	kg	23,2	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
15	MOTOR 1500	9 : 1	6	100	55	800	26	370	16,0	35,3	113	4,0	1 / 2 "
30	MOTOR 3000	18 : 1	6	100	110	1600	51	740	17,7	39,0	222	7,8	1 / 2 "
50	MOTOR 5000	33 : 1	6	100	200	2900	95	1371	31,5	69,5	408	14,4	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST+Cr	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials MA	
			1: Mixed materials	**2: Stainless steel**
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Not Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH216 HV Shovel

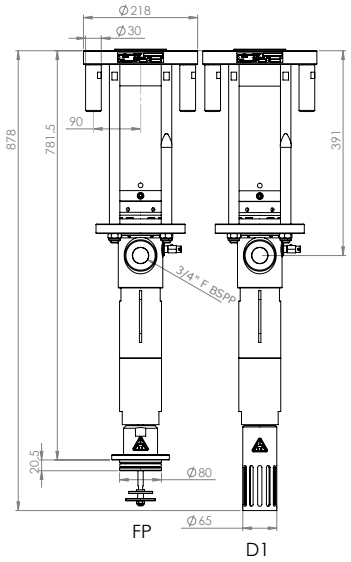
SH216: Shovel Pump Size 216cc

part number:

REX	SH	0216	-	MO	-	MA	-	FO	-	SE

example: REXSH0216-60-CS-D1-03

High Viscosity Shovel Pump is for high pressure, up to 480 bar, applications for airless and extrusion applications requiring low to medium flow rates. The pumping solution offers a large footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	216	cc	7,3	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	480	bar	7000	psi
Weight	27	kg	59,5	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
60	MOTOR 6000	30 : 1	6	100	180	2600	45	653	48	105,8	389	13,7	3 / 4 "
70	MOTOR 7000	53 : 1	6	100	320	4600	80	1153	53	116,9	687	24,3	3 / 4 "
90	MOTOR 9000	82 : 1	6	100	490	7100	123	1784	62	136,7	1063	37,5	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	CS	SST	CS+Cr	CS+Cr	SST	SST	SST	SST	SST	SST	SST+Cr	SST	CS

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Not available
D1	Drum Bung mounted	60 Liters Drum	Available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PTFE
07	Leather/PTFE	FKM	PTFE and Leather	PTFE and Leather	PTFE
08	PU/PTFEV	FKM	PU, PTFEV and PE	PTFE and PE	PTFEV and PE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH340 HV Shovel

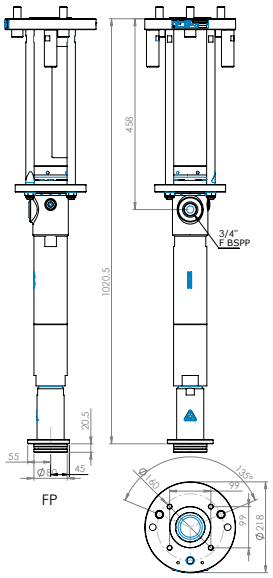
SH340: Shovel Pump Size 340cc

part number:

REX	SH	0340	-	MO	-	MA	-	FO	-	SE

example: REXSH0340-72-SS-FP-06

High Viscosity Shovel Pump used for airless and extrusion applications requiring medium flow rates, the Pump is built from the SH216 with a longer lower body. The pumping solution offers a large footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	340	cc	11,5	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	320	bar	4600	psi
Weight	47	kg	103,6	Lbs
Fluid outlet	3 / 4 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	53 : 1	6	100	320	4600	80	1153	75,0	165,4	1081	38,2	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
SS	Stainless steel	CS	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST+Cr	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	**2: Stainless steel**
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
06	PU	FKM	PU and PE	PTFEG	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH560 HV Shovel

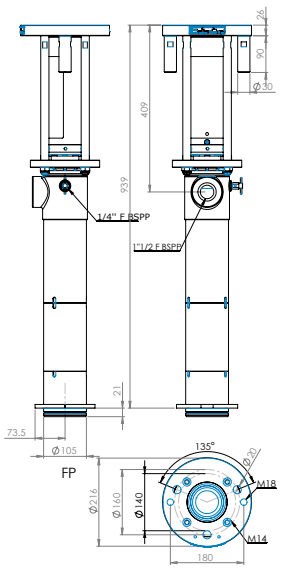
SH560: Shovel Pump Size 560cc

part number:

REX	SH	0560	-	MO	-	MA	-	FO	-	SE

example: REXSH0560-70-SS-FP-02

High Viscosity 2 Shovel Pump used for sealing applications requiring medium to high flow rates. The pumping solution offers a large footprint, and its construction and seal pack work for solvent based sealers.



Technical Data

Fluid volume per cycle	560	cc	18,94	oz
Stroke	120	mm	4,72	inch
Maximum service pressure	180	bar	2600	psi
Weight	38	kg	83,8	Lbs
Fluid outlet	1 '' 1/2	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
70	MOTOR 7000	18 : 1	6	100	110	1600	27	392	66	145,5	605	21,4	3 / 4 "
90	MOTOR 9000	30 : 1	6	100	180	2600	45	653	75	165,4	1008	35,6	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	CS+Zn	SST	CS+Cr	SST+Cr	CS+Zn	SST	SST	CS	SST	SST	SST	CS+Zn	CS+Zn
SS	Stainless steel	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA) 1: Mixed materials	2: Stainless steel
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø80 mm	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PE and PTFEV
07	PTFEV	FKM	PU and PE	PE and PTFEV	PE and PTFEV
08	PEHD	FKM	HDPE	HDPE	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH715 HV Shovel

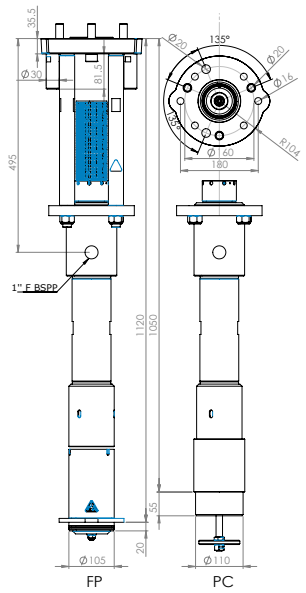
SH715: Shovel Pump Size 715cc

part number:

REX	SH	0715	-	MO	-	MA	-	FO	-	SE

example: REXSH0715-92-CS-FP-06

High Viscosity Hybrid Shovel Pump with an upper ball check valve used in sealer system requiring high flow rates with lower viscosity not consist with standard Shovel Pump viscosity. The pumping solution offers a large footprint and its construction with several seal pack options work for all non-abrasive materials.



Technical Data

Fluid volume per cycle	910	cc	30,77	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	180	bar	2600	psi
Weight	46	kg	101,4	Lbs
Fluid outlet	1 ''	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	25 : 1	6	100	150	2200	38	544	74	163,2	1365	48,2	3 / 4 "
92	MOTOR 9200	40 : 1	6	100	240	3500	60	870	83	183,0	2184	77,1	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	CS	CS	CS+Cr	SST+Cr	CS	CS	CS	CS	CS	CS	CS	CS	CS

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	**2: Stainless steel**
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø105 mm	Available	Not available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available
PC	Plain cylinder	Ø110 mm	Available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
06	PU	FKM	PU	PTFEG	PA

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)
PA = Polyamid

SH910 HV Shovel

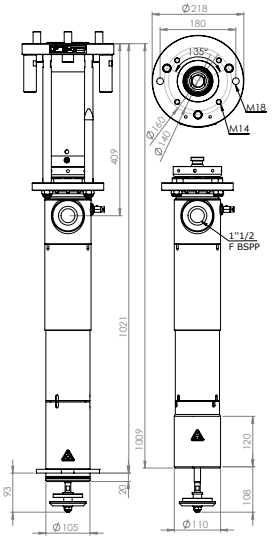
SH910: Shovel Pump Size 910cc

part number:

REX	SH	0910	-	MO	-	MA	-	FO	-	SE

example: REXSH0910-72-SS-FP-03

High Viscosity Shovel Pump used for suppling airless and extrusion application systems requiring high flow rates. The pumping solution offers a large footprint and its construction with several seal pack options work for all non-abrasive materials.



FP PC

Technical Data

Fluid volume per cycle	910	cc	30,77	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	180	bar	2600	psi
Weight	44	kg	97	Lbs
Fluid outlet	1 '' 1/2	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	18 : 1	6	100	110	1600	27	392	72	158,8	983	34,7	3 / 4 "
92	MOTOR 9200	30 : 1	6	100	180	2600	45	653	81	178,6	1638	57,8	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
CS	Mixed materials	CS+Zn	SST	CS+Cr	SST+Cr	CS+Zn	SST	SST	CS	SST	SST	SST	CS+Zn	CS+Zn
SS	Stainless steel	CS+Zn	SST	SST+Cr	SST+Cr	SST	SST	SST	SST	SST	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø105 mm	Available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available
PC	Plain cylinder	Ø110 mm	Available	Not available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
01	PTFE	FKM	PTFE	PTFE	PTFE
02	PTFE + FEP	FEP	PTFE	PTFE	PTFE
03	PE	FKM	PTFE and PE	PTFE and PE	PTFE
04	Leather	FKM	Leather and PE	Leather and PE	PTFE
05	PTFEG	FKM	PTFEG	PTFEG	PTFE
06	PU	FKM	PU and PE	PTFEG	PE and PTFEV
07	PTFEV	FKM	PU and PE	PE and PTFEV	PE and PTFEV
08	PEHD	FKM	PEHD	PEHD	PTFE

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

SH930 HV Shovel

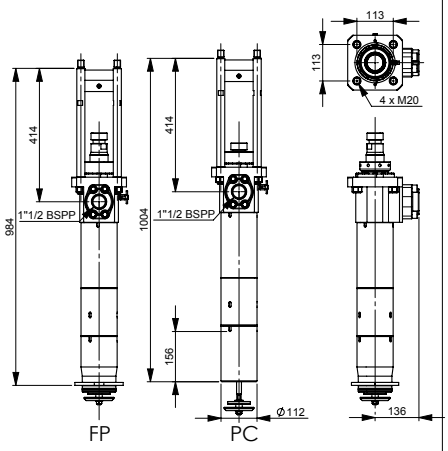
SH930: Shovel Pump Size 930cc

part number:

REX	SH	0930	-	MO	-	MA	-	FO	-	SE

example: REXSH0930-9H-SS-FP-06

High Viscosity Hybrid Shovel Pump with an upper ball check valve used in sealer system requiring high flow rates to deliver material to multiple dispensing solutions. The pumping solution offers a large footprint and its stainless-steel construction with carbide seat work with unique materials.



Technical Data

Fluid volume per cycle	933	cc	31,54	oz
Stroke	205	mm	8,07	inch
Maximum service pressure	360	bar	5200	psi
Weight	100	kg	220,5	Lbs
Fluid outlet	1 '' 1/2	F BSPP		

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
9H	MOTOR 2 x 9200	60 : 1	6	100	360	5200	90	1305	165	363,8	3358	118,6	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston				lower valve			Foot		
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Cone	Valve Seat	Body	Cone	Seat	Rod	Shovel	Inlet tube
SS	Stainless Steel	SST	SST	SST+Cr	SST+Cr	SST	CB	SST	SST	SST	SST	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
-	Wall mounted	-	Not available	Not available
FP	Follower Plate	Ø105 mm	Not available	Available
-	Drum Bung mounted	60 Liters Drum	Not available	Not available
-	Drum Bung mounted	200 Liters Drum	Not available	Not available
PC	Plain cylinder	Ø112 mm	Not available	Available

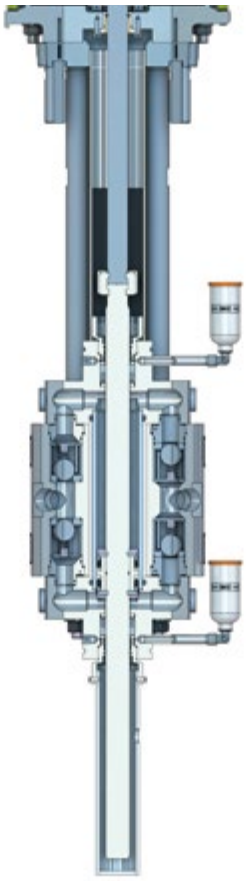
Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing	Lower Valve seals packing
06	PU	FKM	PU and PE	PE and PTFEG	PE and PTFEV

PTFE=Polytetrafluorothylene (Teflon like properties)
PTFEG=PTFE + Graphite (impregnated)
PE-Polyethene (UHMWPE)
FKM=Flouroelastomer (Viton like properties)
PU=Polyurethane
PTFEV=PTFE + Glass (impregnated)
FEP=Encapsulated O-Ring (Teflon like properties over Viton or Silicone)

Notes



2 BALL PUMP

SHOVEL PUMP

PUMPS

4 BALL PUMP

PRODUCT TECHNOLOGY

4 Ball Pump

4B570 HV Quatro

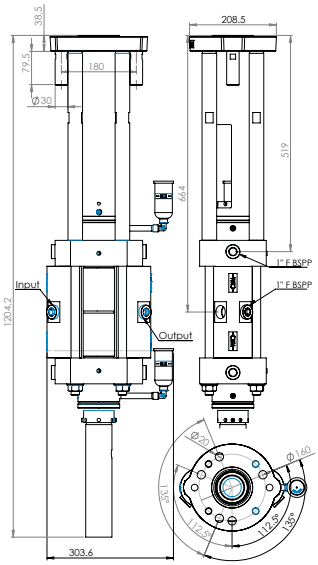
4B570: 4 Ball Pump Size 570cc

part number:

REX	4B	0570	-	MO	-	MA	-	FO	-	SE

example: REX4B0570-72-CS-G1-06

The unique technology of this pump allows high viscosity products to be circulated under high pressure without the use of an intermediate tank. It can act as a booster for the distribution lines of sealing compounds because it increases the inlet pressure by a ratio that depends on the selected motor. The stainless steel version is specially designed for water-based sounddeadner.



Technical Data

Fluid volume per cycle	570	cc	19,27	oz
Stroke	200	mm	7,87	inch
Maximum service pressure	240 bar for SST version 300 bar for other versions	bar	4400	psi
Weight	83	kg	183	Lbs
Fluid outlet	1 ''	F BSPP		

Maximum ouput pressure is 240 bars for stainless steel version and 300 bars for other versions. It is your responsibility to monitor the inlet pressure so that the output pressure does not exceed the maximum allowed.

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	33 : 1	6	100	200	2900	50	718	111	244,8	1129	39,9	3 / 4 "
92	MOTOR 9200	53 : 1	6	100	300	4600	80	1153	120	264,6	1813	64,0	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston			
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Ball	Valve Seat
CS	Mixed materials	CS+Zn	CS+Zn	CS+Cr	SST+Cr	CS+Zn	CS	CS
SS	Stainless steel	SST	SST	SST+Cr	SST+Cr	SST	SST	SST

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
G1	1'' F BSPP	-	Available	Available

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
06	PU	FKM	PU/PE	PE/PTFEV
07	PEEK	FKM	PEEK/PTFEG	PEEK/PTFEG

PTFE = Polytetrafluoroethylene
PTFEG = PTFE + Graphite
PE = Polyethylen
FKM = Fluoroelastomer
PU = Polyurethan
PTFEV = PTFE + Glass
FEP = Covered O-rings

4B750 HV Quatro

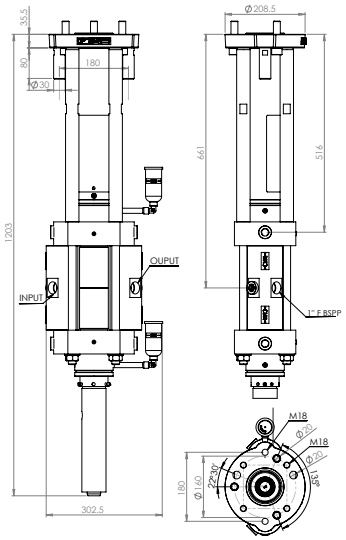
4B750: 4 Ball Pump Size 750cc

part number:

REX	4B	0750	-	MO	-	MA	-	FO	-	SE

example: REX4B0750-72-CS-G1-05

The unique technology of this pump allows high viscosity products to be circulated under high pressure without the use of an intermediate tank. It can act as a booster for the distribution lines of sealing compounds because it increases the inlet pressure by a ratio that depends on the selected motor.



Technical Data

Fluid volume per cycle	750	cc	25.36	oz
Stroke	200	mm	7.87	inch
Maximum service pressure	300	bar	4351	psi
Weight	116	kg	255.73	Lbs
Fluid outlet	1''	F BSPP		

Maximum ouput pressure is 300 bars. It is your responsibility to monitor the inlet pressure so that the output pressure does not exceed the maximum allowed.

Air Motor

MO

	Available Motors	Pressure Ratio	Maximum Air Inlet Pressure		Maximum Outlet Fluid Pressure		Minimum Outlet Fluid Pressure		Motopump Weight		Air consumption 15 Stroke/min @ 4 bar		Air inlet fitting
		su	bar	psi	bar	psi	bar	psi	Kg	Lbs	NL.min-1	scfm	Female BSP
XX	NONE	-	-	-	-	-	-	-	-	-	-	-	-
72	MOTOR 7200	25 : 1	6	100	150	2200	126	277,8	146	321.87	3 / 4 "	39,9	3 / 4 "
92	MOTOR 9200	40 : 1	6	100	240	3500	135	297,7	154	339.5	3 / 4 "	64,0	3 / 4 "

scfm= Standard cubic feet of gas per minute

Pump Construction

MA

	Available Materials	Pump body			Piston			
		Wet Cup	Upper body	Cylinder	rod	Nut	Valve Ball	Valve Seat
CS	Mixed materials	CS+Zn	CS+Zn	CS+Cr	SST+Cr	CS+Zn	CS	CS

CS: Carbon Steel - SST: Stainless Steel - CB: Carbide - Zn: Zinc treatment - Cr: Chromium treatment

Foot and Mounting Styles

FO

	Available Configurations	Technical characteristic	Materials (MA)	
			1: Mixed materials	2: Stainless steel
G1	1'' F BSPP	-	Available	-

Seal Pack Options

SE

	Available Seals Packing	Static seals "O"-rings	Upper seals packing	Piston seals packing
06	PU	FKM	PU/PE	PE/PTFEV
07	PEEK	FKM	PEEK/PTFEG	PEEK/PTFEG

PTFE = Polytetrafluoroethylene
PTFEG = PTFE + Graphite
PE = Polyethylen
FKM = Fluoroelastomer
PU = Polyurethan
PTFEV = PTFE + Glass
FEP = Covered O-rings

Motors

AIR MOTORS

Air Motors

MOT1000 Air Motor

part number:

			1	0	6	0	1	1

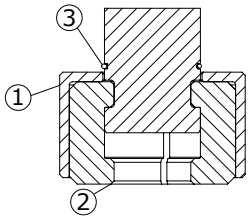
A small reliable air motor design with a single casted body works with smaller displacement pumps.

Technical Data

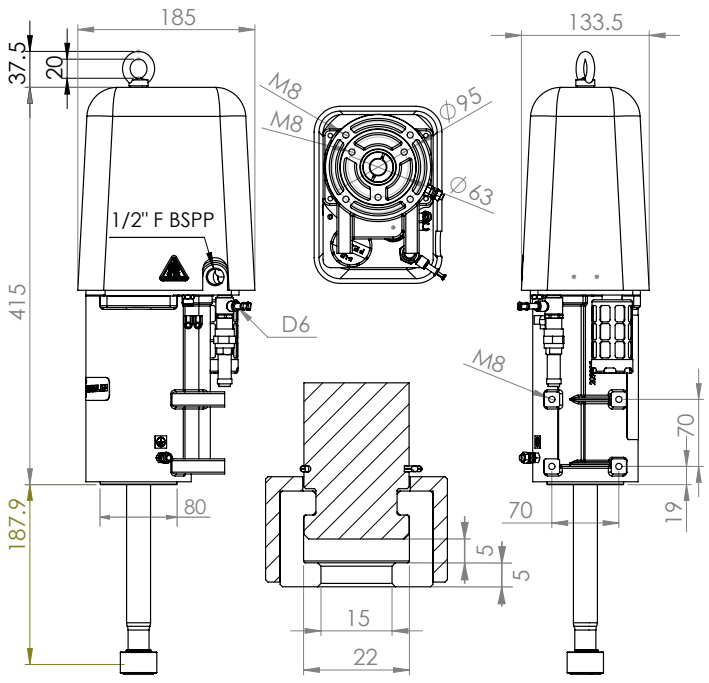
Cylinder Diameter	69	mm	2,72	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	897	cc	30,35	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	5,5	kg	12,1	Lbs
Air consumption 15 Stroke/min @ 4 bar	54	NL.min-1	1,9	scfm
Maxium Motor Force (@ 6 bar)	224	daN		
Air inlet fitting	1/2''	Female BSP		

Accessories

		mark	Part number
Lower to Air Motor adapter kit	for all pumps		144246295
Pump hitching system	Closing ring	1	205094
	Pair of hitch shell	2	209394
	Locking ring	3	90040



Dimensions



MOT1500 Air Motor

part number:

			1	0	6	0	2	1

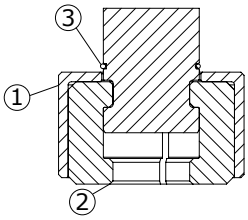
A small reliable air motor design with a single casted body works with smaller displacement pumps.

Technical Data

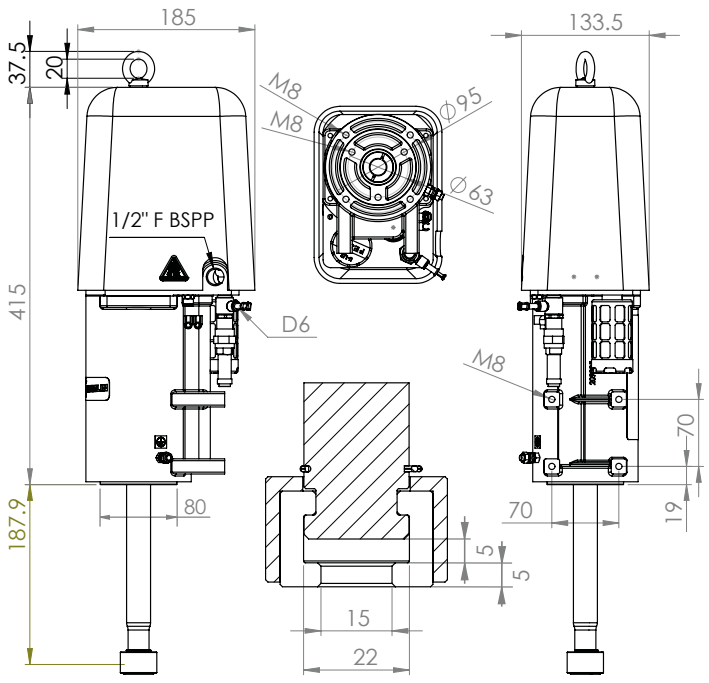
Cylinder Diameter	100	mm	3,94	inch
Nominal Stroke	120	mm	4,72	inch
Total Volume by Cycle	1885	cc	63,74	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	5,5	kg	12,1	Lbs
Air consumption 15 Stroke/min @ 4 bar	113	NL.min-1	4	scfm
Maxium Motor Force (@ 6 bar)	471	daN		
Air inlet fitting	1/2''	Female BSP		

Accessories

		mark	Part number
Lower to Air Motor adapter kit	for all pumps		144246295
Pump hitching system	Closing ring	1	205094
	Pair of hitch shell	2	209394
	Locking ring	3	90040



Dimensions



MOT3000 Air Motor

part number:

1	4	6	3	1	0	0	0	0

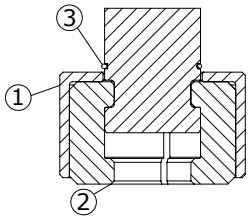
A small reliable air motor design with a single casted body works with smaller displacement pumps.

Technical Data

Cylinder Diameter	140	mm	5,51	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	3695	cc	124,93	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	7,2	kg	15,9	Lbs
Air consumption 15 Stroke/min @ 4 bar	222	NL.min-1	7,8	scfm
Maxium Motor Force (@ 6 bar)	924	daN		
Air inlet fitting	1/2''	Female BSP		

Accessories

		mark	Part number
Lower to Air Motor adapter kit	for all pumps		144246295
Pump hitching system	Closing ring	1	205094
	Pair of hitch shell	2	209394
	Locking ring	3	90040



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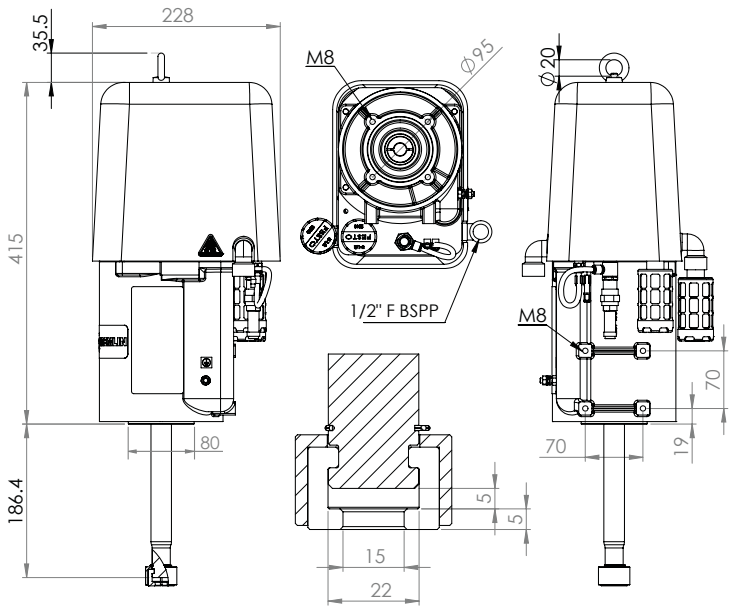
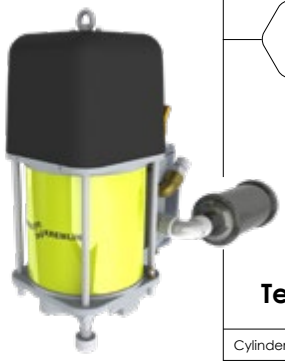




MOT5000 Air Motor

part number:

1	4	6	3	2	0	0	0	0

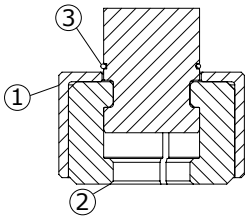
A medium size reliable air motor design with a modular construction of casted parts works with smaller displacement pumps.

Technical Data

Cylinder Diameter	190	mm	7,48	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	6805	cc	230,09	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	21	kg	46,3	Lbs
Air consumption 15 Stroke/min @ 4 bar	408	NL.min-1	14,4	scfm
Maxium Motor Force (@ 6 bar)	1701	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Low adapter flange	for all pumps		144245295
Pump hitching system	Closing ring	1	205094
	Pair of hitch shell	2	209394
	Locking ring	3	90040



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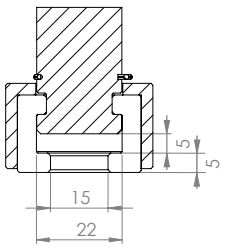
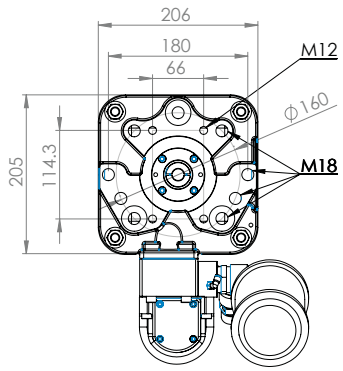
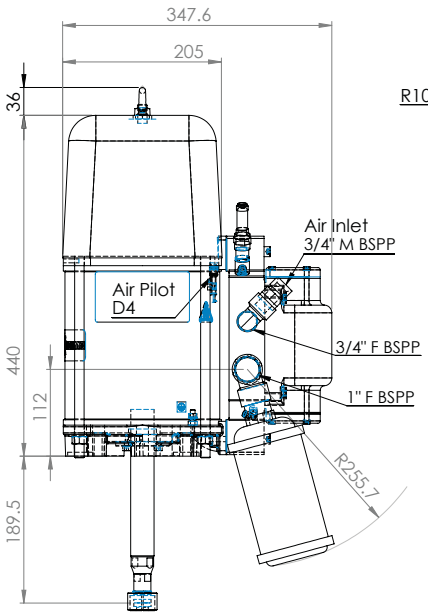
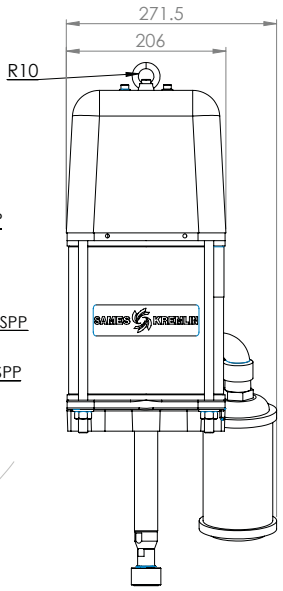








MOT6000 Air Motor

part number:

			1	0	5	2	6	1

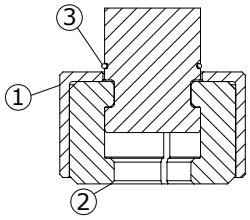
A medium size reliable air motor specifically working with the 2B227 and SH216 with a modular construction of casted parts works with medium size displacement pumps.

Technical Data

Cylinder Diameter	190	mm	7,48	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	6805	cc	230,09	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	21	kg	46,3	Lbs
Air consumption 15 Stroke/min @ 4 bar	408	NL.min-1	14,4	scfm
Maxium Motor Force (@ 6 bar)	1701	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for all pumps		144245493
Pump hitching system	Closing ring	1	205212
	Pair of hitch shell	2	205211
	Locking ring	3	90165



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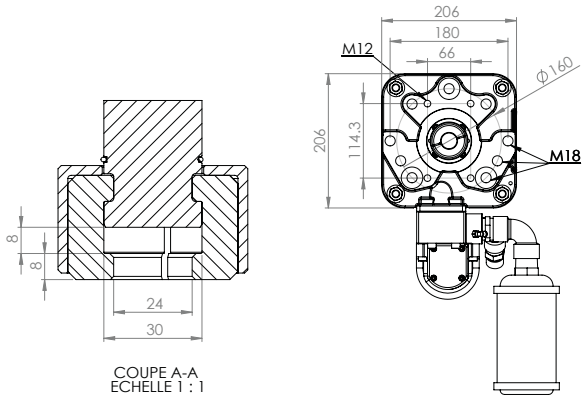
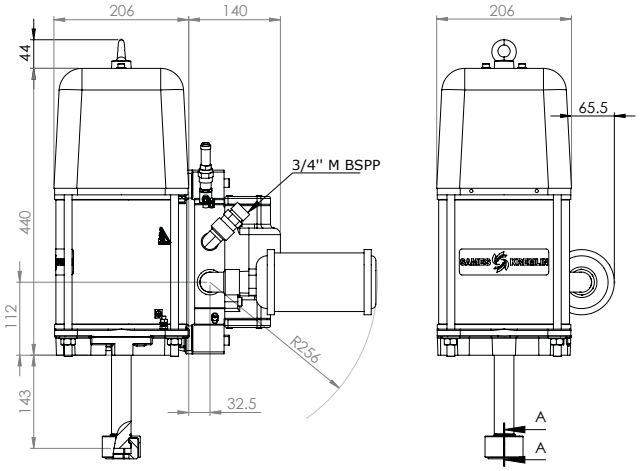


COUPE A-A
ECHELLE 1 : 1



MOT7000 Air Motor

part number:

1	4	6	3	3	0	0	0	0

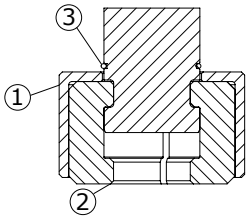
A large size reliable air motor with a modular construction of casted parts works with medium size displacement pumps.

Technical Data

Cylinder Diameter	250	mm	9,84	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	11781	cc	398,36	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	26	kg	57,3	Lbs
Air consumption 15 Stroke/min @ 4 bar	707	NL.min-1	25	scfm
Maxium Motor Force (@ 6 bar)	2945	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for all pumps		144245493
Pump hitching system	Closing ring	1	205212
	Pair of hitch shell	2	205211
	Locking ring	3	90165



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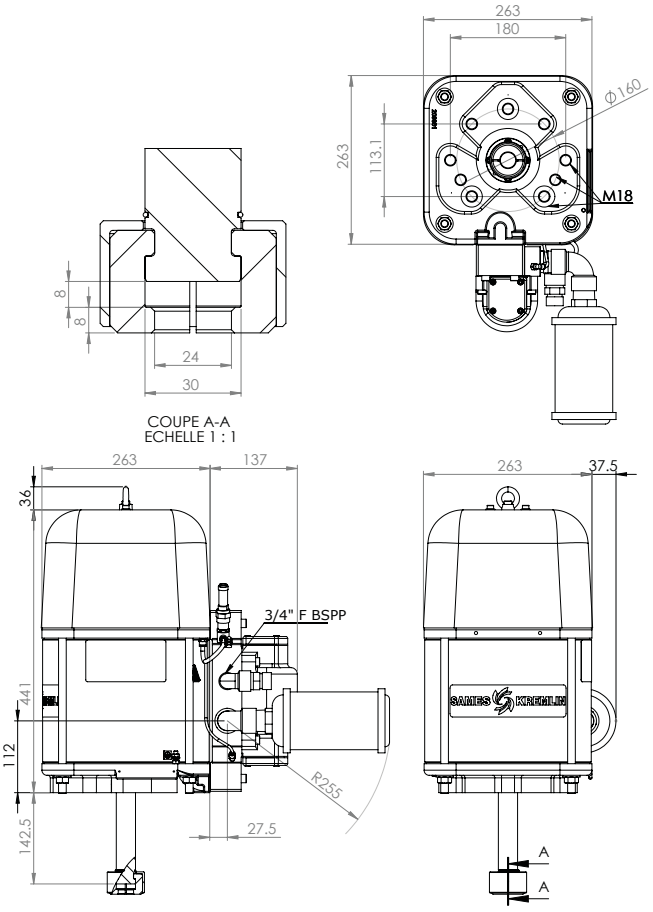


MOT9000 Air Motor

part number:

1	4	6	3	4	0	0	0	0

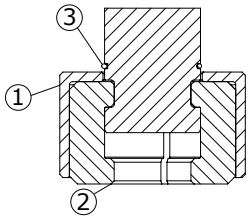
A large size reliable air motor with a modular construction of casted parts works with medium size displacement pumps creating the highest pressure with the 2B227 and SH216 pumps.

Technical Data

Cylinder Diameter	310	mm	12,2	inch
Nominal Stroke	120	mm	4.72	inch
Total Volume by Cycle	18114	cc	612,52	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	35	kg	77,2	Lbs
Air consumption 15 Stroke/min @ 4 bar	1087	NL.min-1	38,4	scfm
Maxium Motor Force (@ 6 bar)	4529	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for all pumps		144245493
Pump hitching system	Closing ring	1	205212
	Pair of hitch shell	2	205211
	Locking ring	3	90165



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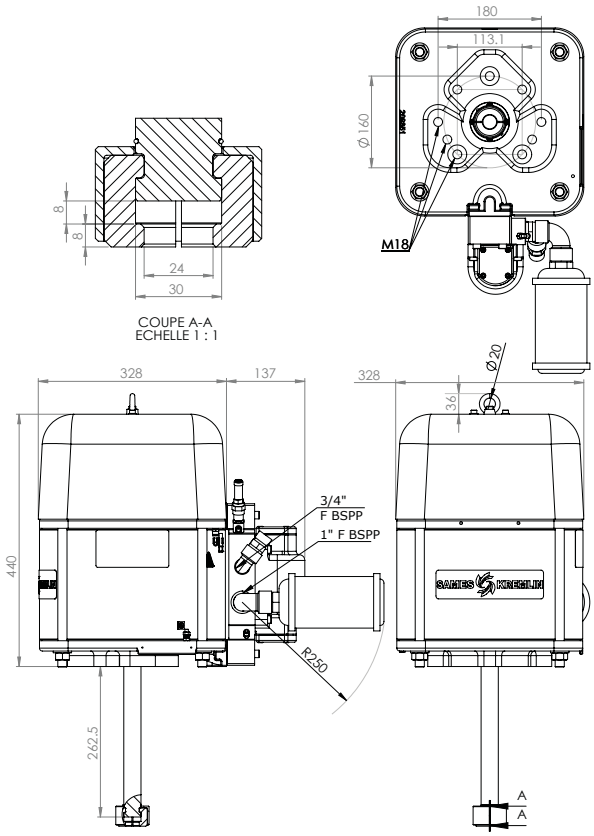


MOT7200 Air Motor

part number:

	1	0	5	2	7	2	0	0

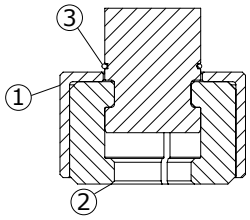
A large size reliable air motor with longer stroke and a modular construction of casted parts works with larger size displacement pumps.

Technical Data

Cylinder Diameter	250	mm	9,84	inch
Nominal Stroke	200	mm	7,87	inch
Total Volume by Cycle	19635	cc	663,94	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	26	kg	57,3	Lbs
Air consumption 15 Stroke/min @ 4 bar	1178	NL.min-1	41,6	scfm
Maxium Motor Force (@ 6 bar)	2945	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for 4B570 and 4B750		110413597
	for SH340 and 2B360		144247493
	for SH715, 2B453 & 2B750		144245497
	for SH910 and 2B980		144244493
Pump hitching system	Closing ring	1	205212
	Pair of hitch shell	2	205211
	Locking ring	3	90165



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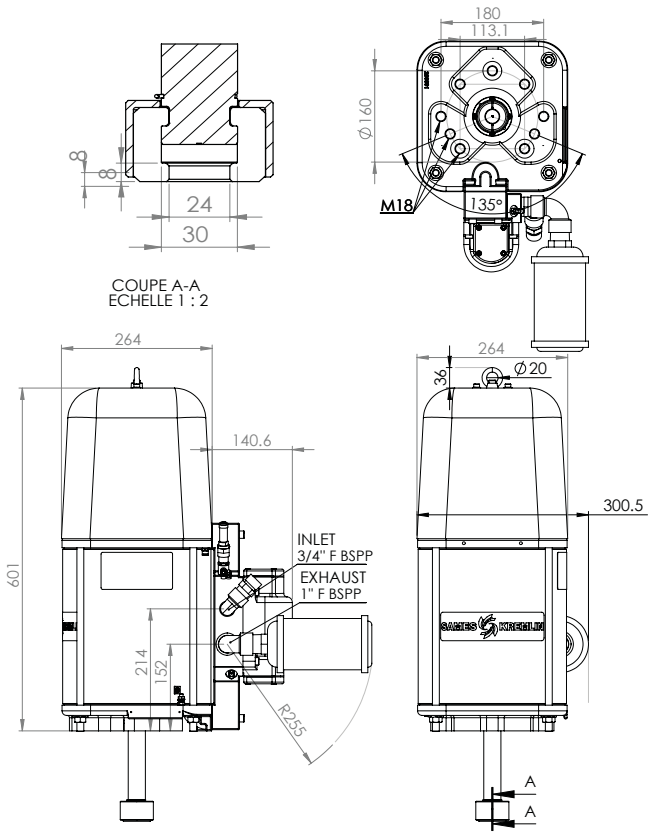


MOT9200 Air Motor

part number:

	1	0	5	2	9	2	0	0

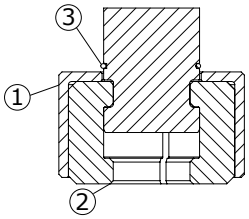
A large size reliable air motor with longer stroke and a modular construction of casted parts works with larger size displacement pumps.

Technical Data

Cylinder Diameter	310	mm	12,2	inch
Nominal Stroke	200	mm	7,87	inch
Total Volume by Cycle	30191	cc	1020,87	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	35	kg	77,2	Lbs
Air consumption 15 Stroke/min @ 4 bar	1811	NL.min-1	64	scfm
Maxium Motor Force (@ 6 bar)	4529	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for 4B570 and 4B750		110413597
	for SH340 and 2B360		144247493
	for SH715, 2B453 & 2B750		144245497
	for SH910 and 2B980		144244493
Pump hitching system	Closing ring	1	205212
	Pair of hitch shell	2	205211
	Locking ring	3	90165



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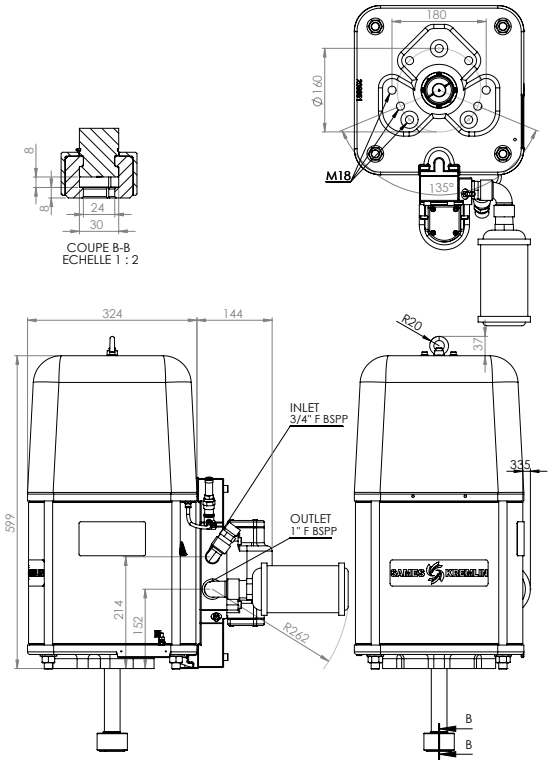


MOT9200-2 Air Motor

part number:

1	4	6	3	5	0	0	0	0

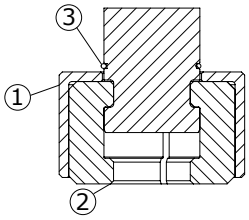
The largest air motor with 2 stages, modular construction of casted parts works specifically with 2B1000 for the highest flow rate and pressure to meet your beyond applications.

Technical Data

Cylinder Diameter	310	mm	12,2	inch
Nominal Stroke	200	mm	7,87	inch
Total Volume by Cycle	60381	cc	2041.74	oz
Maximum air inlet pressure	6	bar	100	psi
Weight	65	kg	143.3	Lbs
Air consumption 15 Stroke/min @ 4 bar	7246	NL.min-1	255.9	scfm
Maxium Motor Force (@ 6 bar)	9057	daN		
Air inlet fitting	3/4''	Female BSP		

Accessories

		mark	Part number
Lower adapter flange	for all pumps		144245495
Pump hitching system	Closing ring	1	146350015
	Pair of hitch shell	2	146350014
	Locking ring	3	146350013



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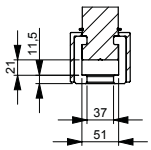
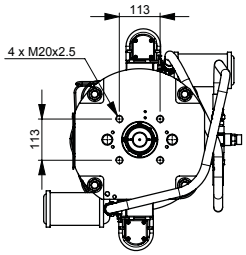
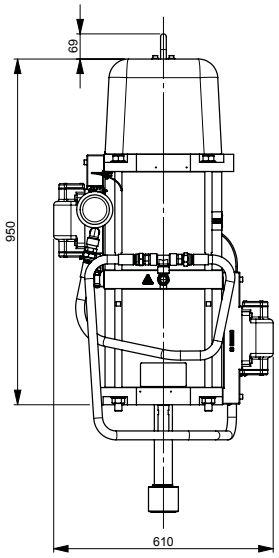
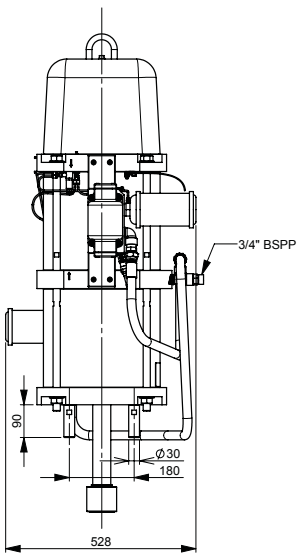








Pump Accessories

Follower Plates

Support & Elevator

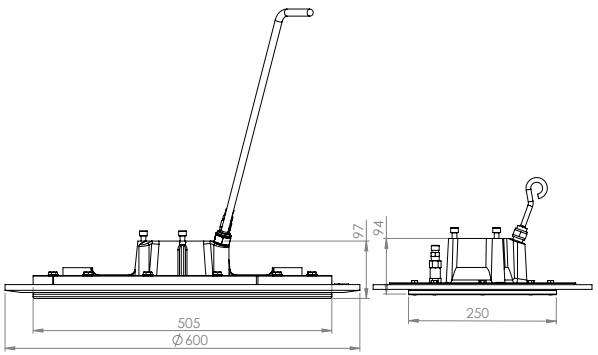
Fluid Pressure Regulator

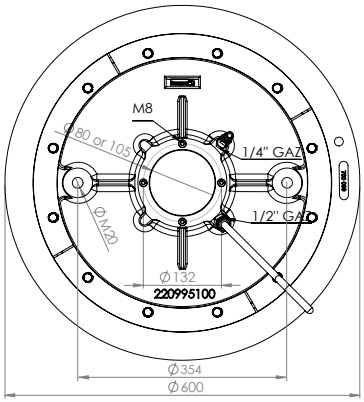
Fluid Filters

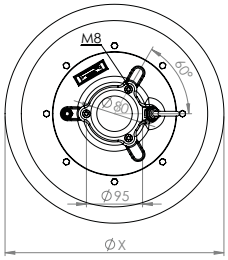
Single/Dual Flat Seal Follower Plates

Follower Plates with Single Flat seals are used on materials, that are less than 30k CPS. They can be used on tapered drums and non-moisture sensitive materials. The Double Flat seal can be used with moisture sensitive materials.

FOLLOWER PLATE TECHNICAL CHARACTERISTICS					PART NUMBER	
DRUM DIAMETER		DRUM VOLUME	WEIGHT (Lbs)	PUMP FOOT	ALUMINUM BODY, SINGLE NBR SEALS	ALUMINUM BODY, DOUBLE NBR SEALS
Ø 280	11.0''	20 L	2.7 kg (5.95)	Ø 80	151100100	-
Ø 285	11.2''	30 L				
Ø 305	12.0''		3.1 kg (6.83)	Ø 80	151100200	-
Ø 315	12.4''		3.2 kg (7)	Ø 80	151100300	-
Ø 360	14.2''	40-60 L	4.2 kg (9.25)	Ø 80	151100400	-
Ø 571	22.5''	200 L	13.5 kg (29.8)	Ø 80	151100500	1055180301
				Ø 110 (old version)	1055190101	-
				Ø 105	1055190001	-





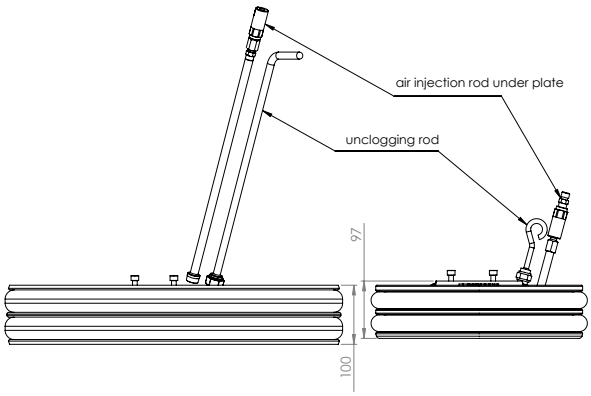


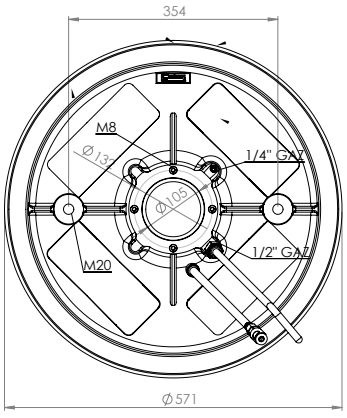
Drum Ø	X Ø
280-285	295
305	320
315	325
360	370
571	600

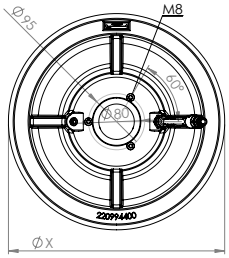
Double O-Ring Seals Follower Plates

Follower Plates with Double O-Ring Seals are used on high viscosity or moisture sensitive materials, where the double sealing actions create a prefect seal with the container. Silicone seals provided higher chemical resistance and allow for higher temperatures in heated systems versus EPDM.

FOLLOWER PLATE TECHNICAL CHARACTERISTICS					PART NUMBER			
					ALUMINUM BODY		PTFE COATED BODY	
DRUM DIAMETER		DRUM VOLUME	WEIGHT (Lbs)	PUMP FOOT	EPDM SEALS	SILICONE SEALS	EPDM SEALS	SILICONE SEALS
Ø 280	11.0''	20 L	6.4 kg (14.1)	Ø 80	151101100	1054890002	151102100	-
Ø 285	11.2''	30 L	6.8 kg (15)	Ø 80	151101200	1054880002	151102200	-
Ø 305	12.0''		7.2 kg (15.87)	Ø 80	151101300	-	151102300	1056810002
Ø 315	12.4''		7.4 kg (16.3)	Ø 80	151101400	-	151102400	-
Ø 360	14.2''	40-60 L	9.6 kg (21.16)	Ø 80	151101500	-	151102500	-
Ø 571	22.5''	200 L	17.8 kg (39.24)	Ø 80	151101600	-	151102600	-
				Ø 105	1055170001	-	1057370001	-



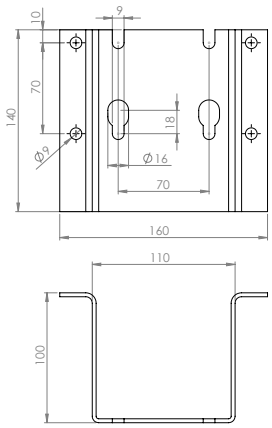


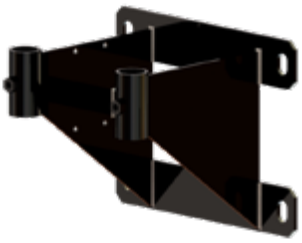


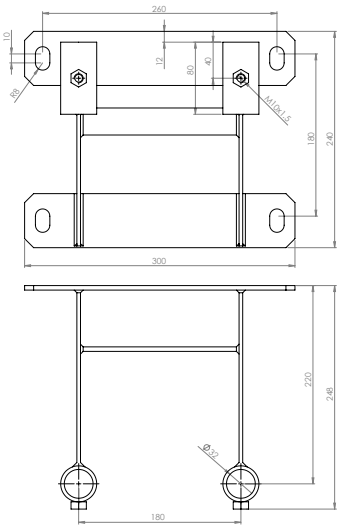
Ø X	280	285	305
	315	360	571

Wall Mounted Support Brackets

The wall brackets are intended for pumps equipped with a «wall mounting» type foot. There are two supports, one for the motor from 1000 to 3000 and the other for the motors from 5000 to 9200.

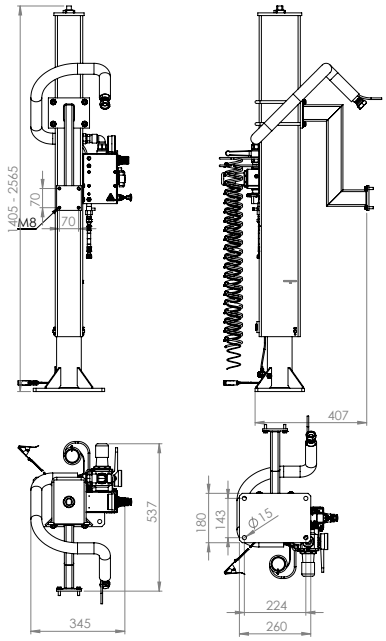




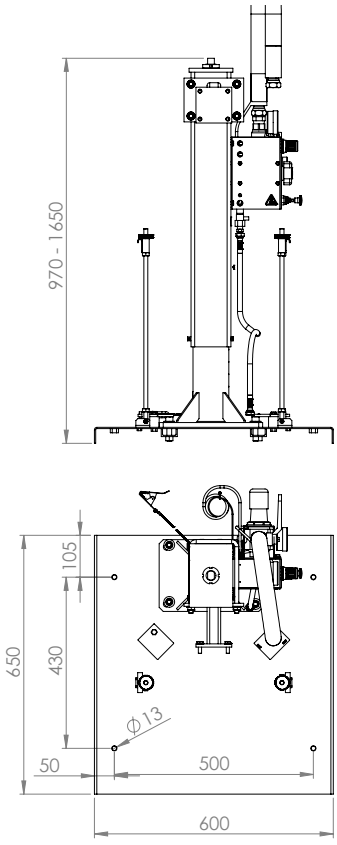


Single Post Elevator

This is a well designed ram with a square cylinder housing to prevent any sideways rotation. (Maximum Applied force 240 daN or 60 lbf). For normal applications, please use single seal follower plate (Maximum follower plate diameter size up to 315 mm); Ideal for materials with a viscosity range between 3000 and 25000 cps.



200 L. version

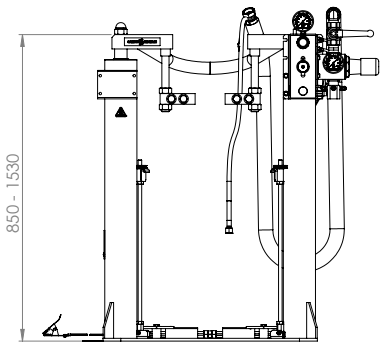


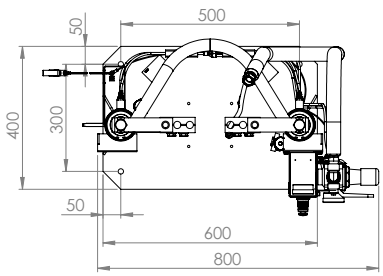
20 - 60 L. version

Twin Post Elevators

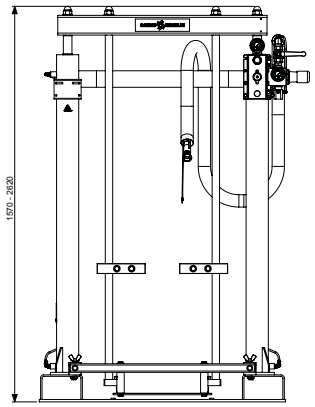
The main difference between Monocolumn and Double Columns elevator is the amount of force that the ram can apply and how that force is applied. With Double Columns elevator, you are able to apply more force (Maximum applied force 480 daN or 120 lbf). You can use both single seal or double O'ring seal follower plates: Single Seal follower plate will allow you to process materials with a viscosity ranging from 3000 and 300000 cps. Double seal will allow you to go up to 1 000 000 cps depending on follower plate size.

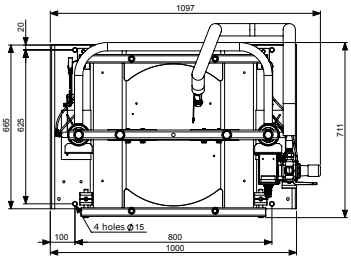
20 - 60 L. version





200 L. version





Technical Data

	MONOCOLUMM		DOUBLE COLUMM		WALL MOUNTED SUPPORT	
	20 - 60 L	200 L	20 - 60 L	200 L	1000 to 3000 air motor	5000 to 9200 air motor
Weight (kg)	67.5	83.8	76	145	1.11	4.02
Air inlet	3/4 '' F BSPP					

Elevators & Supports for 2 ball or shovel pumps

EQUIPMENT	DESCRIPTION	PART NUMBER	
		WITHOUT CONTROL	WITH CONTROL
Wall mounted support	for 1000 to 3000 air motor	210008	-
	for 5000 to 9200 air motor	9015	-
Monocolumm elevator	for 20 to 60 L. drums	-	151080000
	for 200 L. drums	-	151090000
Double columm elevator ø80	for 20 to 60 L. drums	102689	151080500
	for 200 L. drums	101639	151090500

Fluid Pressure Regulator

REGSMART Regulators

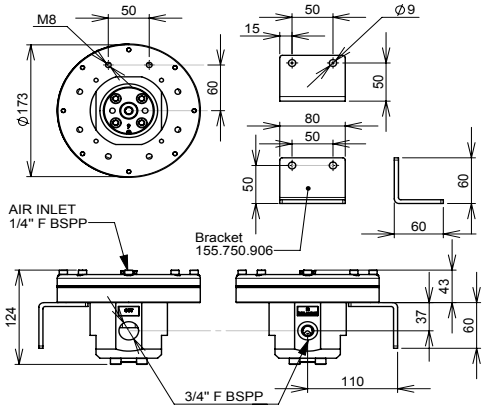
A regulator is needed when you want to control fluid pressure/ flow rate, change fluid pressure to different values in a short time, dampen out pulsation on pump, change over and help prevent "snake head" effect on gun opening.

Specially designed for medium viscosity materials, RegSMART diaphragm design is ideal for moisture-sensitive and water-based materials. The modular design enables you to control over a wide range of flowrates.

RegSMART regulators incorporates a cartridge design, reducing dead zones, ensuring minimum downtimes during maintenance.

TECHNICAL DATA		
	REGSMART ALUMINUM	**REGSMART STAINLESS STEEL**
Inlet pressure (bar Max)	**400**	
Outlet pressure range (min/max bar)	**25 / 275**	
Air pressure (bar max)	**6**	
Air inlet threat	**1/4'' F BSPP**	
Weight (Lbs)	**4.2 kg (9.25)**	**6.2 kg (13.66)**
Max working temperature (°C)	**80**	
Material inlet & outlet	**3/4 " F BSPP**	
Wetted parts	**Aluminum, PTFE, FFKM**	**Stainless steel, PTFE, FFKM**
Average output (l/mn)*	**diameter 6 - 0,9 l/mn diameter 8 - 3 l/mn diameter 12 - 9 l/mn**	

* *measured at free flowrate with product viscosity of 15.000 cPs.*

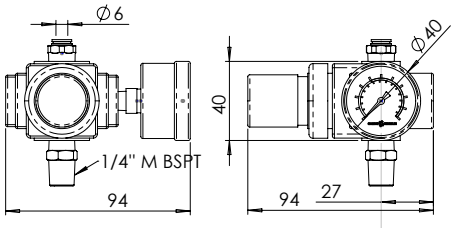


REGSMART Part Numbers:

DESIGNATION	MATERIAL	PART NUMBER
REGSMART - 275 bar - ball 6 (cold application)	**Aluminum**	**155750000**
REGSMART - 275 bar - ball 8 (cold application)	**Aluminum**	**155750100**
REGSMART - 275 bar - ball 12 (cold application)	**Aluminum**	**155750200**
REGSMART - 275 bar - ball 6 (cold application)	**Stainless steel**	**155751000**
REGSMART - 275 bar - ball 8 (cold application)	**Stainless steel**	**155751100**
REGSMART - 275 bar - ball 12 (cold application)	**Stainless steel**	**155751200**

Accessories Part Numbers:

DESIGNATION	DESCRIPTION	PART NUMBER
Regsmart support	Bracket and fixing screws	**155750906**
Air regulator kit	Air regulator with assembly accessories and pressure gauge - 0.3 to 7 bar	**155750908**



REGMASTER Regulators

A regulator is needed when you want to control fluid pressure/ flow rate, change fluid pressure to different values in a short time, dampen out pulsation on pump, change over and help prevent "snake head" effect on gun opening.

The modular design enables you to control over a wide range of pressures.Our regulators are well known for their high precision and repeatability especially in automated applications.

TECHNICAL DATA					
	REGMASTER 40	**REGMASTER 80**	**REGMASTER 120**	**REGMASTER 160**	**REGMASTER 200**
Number of plates	1	2	3	4	5
Inlet pressure (bar Max)	400	400	400	400	400
Outlet pressure range (min/max bar)	5 / 40	7 / 80	12 / 120	15 / 160	20 / 200
Air pressure (bar max)	6	6	6	6	6
Ait inlet threat	1/4'' F BSPP	1/4'' F BSPP	1/4'' F BSPP	1/4'' F BSPP	1/4'' F BSPP
Material inlet & outlet	3/4" F BSPP	3/4" F BSPP	3/4" F BSPP	3/4" F BSPP	3/4" F BSPP
Max working temperature (°C)	80	80	80	80	80
Wetted parts	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum/stainless steel on request
Height (mm)	184	212	240	263	296
Diameter (mm)	150	150	150	150	150
Weight (Lbs)	6 kg (13.22)	6,5 kg (14,33)	7 kg (15,43)	7,5 kg (16,53)	8 kg (17,63)

REGMASTER Part Numbers:

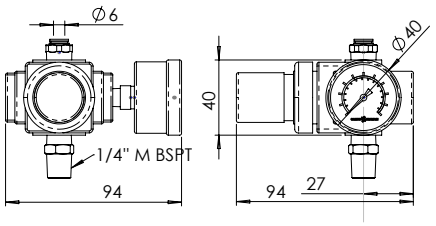
The diffusor allows to reduce the needle wear

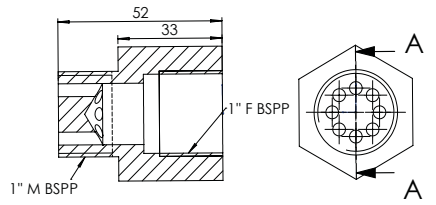
DESIGNATION	Option	PART NUMBER
REGMASTER (cold application) - 200 b 5 PLT	**with diffusor**	**1061250251**
REGMASTER (cold application) - 400/40 b 1 PLT	**-**	**1061250111**
REGMASTER (cold application) - 400/80 b 2 PLT	**-**	**1061250121**
REGMASTER (cold application) - 400/120 b 3 PLT	**-**	**1061250131**
REGMASTER (cold application) - 400/160 b 4 PLT	**-**	**1061250141**
REGMASTER (cold application) - 400/200 b 5 PLT	**-**	**1061250151**
REGMASTER (cold application) - 400/40 b 1 PLT	**with diffusor**	**1061250211**
REGMASTER (cold application) - 400/80 b 2 PLT	**with diffusor**	**1061250221**
REGMASTER (cold application) - 400/120 b 3 PLT	**with diffusor**	**1061250231**
REGMASTER (cold application) - 400/160 b 4 PLT	**with diffusor**	**1061250241**

REGMASTER Regulators

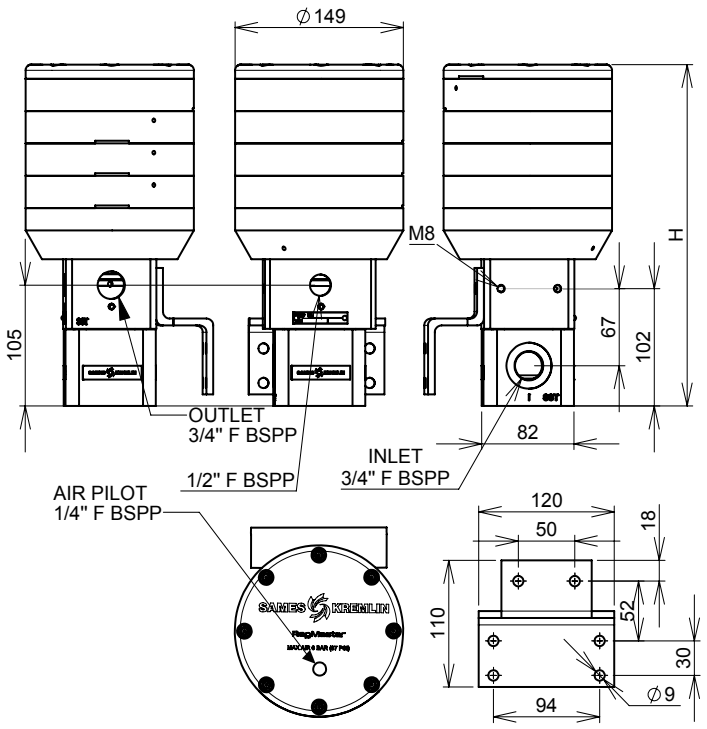
Accessories Part Numbers:

DESIGNATION	DESCRIPTION	PART NUMBER
REGMASTER	Bracket and fixing screws	**155760089**
Air regulator kit	Air regulator with assembly accessories and pressure gauge - 0.3 to 7 bar	**155750908**
Diffusor adaptor	The diffuser is used to homogenize the product. It is mounted in place of the plug under the regulator.	**206634**





Dimensions:



Bracket 155.760.089

Nb of Plates	H
5	297
4	269
3	241
2	213
1	185

Carbon Steel Filters

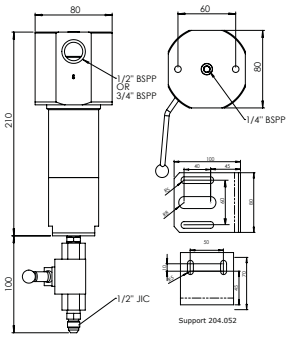
The filters are designed to stop impurities that are or created in movement of the product and prevent clogging of small orifice nozzles. The choice filter size is dependent upon the mesh screen's wire diameter and density. Select the mesh screen size that will not impede the material largest particle size but be small enough to prevent tip plugging.
The 1/2'' and 3/4'' filters share the same components. Only the size of the inlet and outlet threads are different. They use single component screens.
The 1'' and 1''1/2 filters have a majority of common components except for the upper body. They use sieves made up of several components, which means that only the screen needs to be changed in case of clogging. These do not have a standard support as they are usually installed in integrated pumping stations.

1/2" and 3/4" Carbon Steel Filter Size

Filter size	Filter Model	MAX PRESSURE (BAR)	WEIGHT (KG)	PART NUMBER
1/2"	-	400	3,68	**104240**
	With Drain valve	400	4,29	**104241**
3/4"	-	400	3,78	**104243**
	With Drain valve	400	5,00	**104244**

Accessories

DESIGNATION	DESCRIPTION	PART NUMBER
Carbon Steel Cartridges	Screen 200 mesh (90 µ)	**601093**
	Screen 160 mesh (102 µ)	**601090**
	Screen 100 mesh (160 µ)*	**601089**
	Screen 80 mesh (201 µ)	**601287**
	Screen 50 mesh (350 µ)	**601092**
	Screen 25 mesh (710 µ)	**601084**
Support	mounting bracket with screws	**204052**



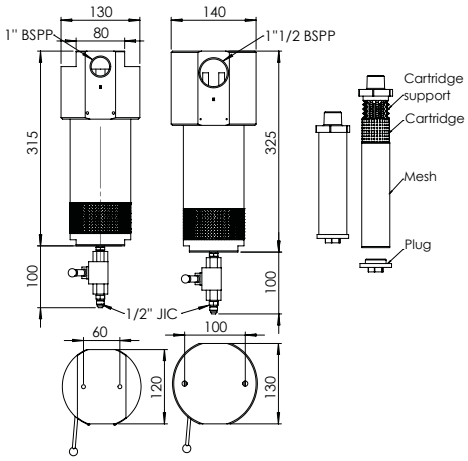
* *All models include a 100 mesh screen*

1" and 1"1/2 Carbon Steel Filter Size

Filter size	Filter Model	MAX PRESSURE (BAR)	WEIGHT (KG)	PART NUMBER
1"	-	400	10,75	**1062620401**
	With Drain valve	400	11,22	**1062621401**
1"1/2	-	400	10,75	**1062630401**
	With Drain valve	400	11,22	**1062631401**

Accessories

DESIGNATION	DESCRIPTION	PART NUMBER
Carbon Steel Screens	Screen 160 mesh (102 µ)	**601008**
	Screen 100 mesh (160 µ)*	**601009**
	Screen 50 mesh (350 µ)	**601012**
	Screen 40 mesh (510 µ)	**601014**
	Screen 25 mesh (710 µ)	**601013**
Cartridge components	Cartridge support	**601016**
	Cartridge	**601015**
	Plug	**601006**



* *All models include a 100 mesh screen*

Stainless Steel Filters

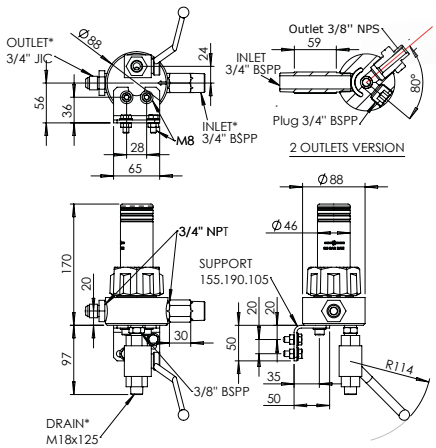
The filters are designed to stop impurities that are or created in movement of the product and prevent clogging of small orifice nozzles. The choice filter size is dependent upon the mesh screen's wire diameter and density. Select the mesh screen size that will not impede the material largest particle size but be small enough to prevent tip plugging.
The Stainless Steel Filter version has two sizes, select the based on your material properties and flow rate of the system.

3/4" Stainless Steel Filters

Filter size	Filter Model	MAX PRESSURE (BAR)	WEIGHT (KG)	PART NUMBER
3/4"	Not equipped version	360	3,4	**155581450**
	Equipped version*	360	4,13	**155581400**
	2 outlets version**	500	4,3	**155581456**

Accessories

DESIGNATION	DESCRIPTION	PART NUMBER
Stainless Steel Cartridges	Screen n° 1 (37 µ)	**000161101**
	Screen n° 2 (77 µ)	**000161102**
	Screen n° 4 (99 µ)	**000161104**
	Screen n° 6 (168 µ)	**000161106**
	Screen n° 8 (210 µ)	**000161108**
	Screen n° 12 (280 µ)	**000161112**
	Screen n° 15 (360 µ)	**000161115**
	Screen n° 20 (510 µ)	**000161020**
	Screen n° 30 (750 µ)	**000161030**
Support	mounting bracket with screws	**155190105**



* *Equipped version includes a 280 µ cartridge, inlet and outlet fittings, plus the drain valve.*

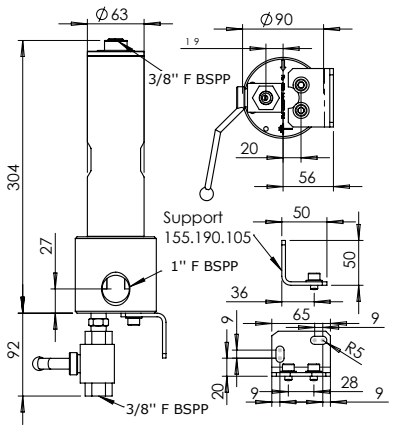
** *2 outlet version do not include cartridge. It includes two outlets: one with fitting, one plugged, plus the drain valve. The two outlets form an angle of 80°.*

1" Stainless Steel Filters

Filter size	Filter Model	MAX PRESSURE (BAR)	WEIGHT (KG)	PART NUMBER
1"	*Not equipped version*	480	6,6	**155582000**
	*Equipped version**	480	7,2	**155582050**

Accessories

DESIGNATION	DESCRIPTION	PART NUMBER
Stainless Steel Cartridges Warning: The filter contains two cartridges (don't forget to order by two units)	Screen n° 12 (280 µ)	**000161112**
	Screen n° 15 (360 µ)	**000161115**
	Screen n° 20 (510 µ)	**000161020**
	Screen n° 30 (750 µ)	**000161030**
Support	mounting bracket with screws	**155190105**



* *Equipped version includes a 360 µ cartridge, plus the drain valve*

General Information

General Information

To assure correct equipment selection the characteristics of the material to be pumped and applied must be identified and understood. Users should not base their selection on only the viscosity of the material.

There are many conditions that influence a materials level of viscosity.
- Ambient room temperature or material temperature

(can dramatically increase or reduce material viscosity)
- Agitation or shearing of the material to create temporary or permanent viscosity changes
- Potential application viscosity changes

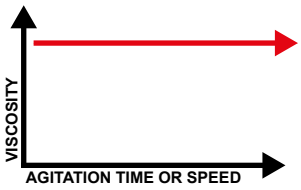
Environmental conditions such as humidity, temperature or lights may trigger irreversible changes in a material (polymerizaton, aging, oxidation, curing, thickening). Some materials may congeal or crystallize, causing the pumping system to fail or prematurely wear. Pumps and accessories may "chatter" or seize in some cases. Some materials may separate or settle. Careful material agitation or circulation may solve these problems.

In some cases, the impact of the pump or accessory on a pumped material due to heat or shear can be significant. Therefore it is necessary to consider the following:
- Maximum fluid pressure when the material leaves the pump or applicator
- Maximum flow rate required from the system
- The pump cycle rate or the pump cycles per dispense

Different families of materials

NEWTONIAN

Viscosity is dependent only on temperature, **not shear rates or time.**

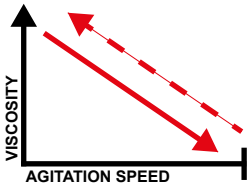


THIXOTROPIC

Agitation or shear reduces viscosity. When the material is at rest **it returns to its original viscosity.**

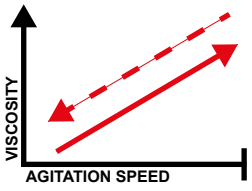
RHEOFLUIDIC

Increasing the amount of agitation lowers the viscosity level but the agitation time does not. The viscosity level **will return to its original level when agitation stops.**



RHEO-THICKENING

Increased agitation increases viscosity but the time of agitation has no effect. When agitation stops the material r**eturns to its original viscosity**



Viscosity

Usually expressed in centipoise (cPs), Poise (P) or seen in units as milliPascal/second (mPa.s). Other units used: Centistoke, Engler, Saybolt & Gardner

1 Pa.s = 10 poise = 1000 cPs
1 mPa.s = 1 cPs
1 Poise = 100cPs
1 Pa.s = 1000 mPas

NOTE: Examples - A Brookfield Cone viscosity meter was used to measure the viscosity

VARIOUS	VISCOSITY	TEMP.
WATER	1 cPs	72°F (22°C)

INKS	VISCOSITY	TEMP.
UV INK	95,000-103,000 cPs	77°F (25°C)
INK	45,000 cPs	72°F (22°C)

SILICONE	VISCOSITY	TEMP.
SILICONE	40,000-49,000 cPs	79°F (26°C)

SANITARY PRODUCTS	VISCOSITY	TEMP.
MUSTARD	1,100-1,500 cPs	73°F (23°C)
JAM	8,000-12,000 cPs	73°F (23°C)
LIQUID HONEY	21,000-16,000 cPs	73°F (23°C)
HONEY	30,000 cPs	73°F (23°C)
PASTE CHOCOLATE	15,000-16,000 cPs	73°F (23°C)
GLUCOSE SYRUP	110,000 cPs	73°F (23°C)
THICK SYRUP	3,200 cPs	73°F (23°C)

COSMETICS	VISCOSITY	TEMP.
PASTE SOAP	1,700-2,200 cPs	73°F (23°C)
LIQUID SOAP	100-170 cPs	73°F (23°C)
VASELINE	64,000 cPs	73°F (23°C)

OILS AND GREASES	APPLICATIONS	VISCOSITY	TEMP.
OIL 1	CAR ENGINES	95 cPs	73°F (23°C)
OIL 2	GEAR BOXES	1,900-2,000 cPs	73°F (23°C)
SILICONE GREASE	VARIOUS	22,000-27,000 cPs	77°F (25°C)
GREASE 1	"	3,200-3,300 cPs	77°F (25°C)
GREASE 2	"	6,800-7,100 cPs	77°F (25°C)
GREASE 3	"	15,000-16,000 cPs	77°F (25°C)
GREASE 4	"	13,000-14,000 cPs	77°F (25°C)
GREASE 5	"	7,500-8,500 cPs	73°F (23°C)
GREASE 6	"	9,500-11,500 cPs	73°F (23°C)
GREASE 7	"	34,000-40,000 cPs	73°F (23°C)
THICK GREASE	"	50,000-62,000 cPs	77°F (25°C)

MASTICS	APPLICATIONS	VISCOSITY	TEMP.
MASTIC 1	BODY AND WHITE HEM FLANGE	2,600-3,300 cPs	73°F (23°C)
PVC MASTIC	PAINT SHOP SEAL SPRAY	4,500-6,500 cPs	73°F (23°C)
EPOXY 1	BODY AND WHITE STRUCTURAL BONDING	+ 150,000 cPs 100,000-125,000 cPs	86°F (30°C) 104°F (40°C)
EPOXY 2	BODY AND WHITE STRUCTURAL BONDING	92,000-110,000 cPs	73°F (23°C)
BUTYL MASTIC	BODY AND WHITE ANTI-FLUTTER	120,000-123,000 cPs 103,000-115,000 cPs 85,000-89,000 cPs	77°F (25°C) 86°F (30°C) 104°F (40°C)
CLEANING PASTE 1		38,000-58,000 cPs	75°F (24°C)
CLEANING PASTE 2	FOR HOT MELT	100,000-135,000 cPs	79°F (26°C)
ELASTOMER GLUE	BODY AND WHITE STRUCTURAL BONDING	118,000-123,000 cPs	75°F (24°C)

VARIOUS	APPLICATIONS	VISCOSITY	TEMP.
SANITARY GLUE	BOTTLE CORK	3,700-4,000 cPs	73°F (23°C)

Viscosity References

Units used for high viscosity materials

EQUIVALENT VISCOSITIES

POISE	mPa.S CENTIPOISE	GARDNER HOLDT BUBBLE	GARDNER LITHOGRAPH	UNITS KREBS KU	SAYBOLT UNIVERSAL SSU
20.0	2,000			105	9,400
21.0	2,100			109	9,850
22.0	2,200			114	10,300
23.0	2,300	Z	2	121	10,750
24.0	2,400			129	11,200
25.0	2,500	Z - 1		133	11,600
30.0	3,000			136	14,500
35.0	3,500	Z - 2	3		16,500
40.0	4,000				18,500
45.0	4,500	Z - 3			21,000
50.0	5,000				23,500
55.0	5,500				26,000
60.0	6,000	Z - 4	4		28,000
65.0	6,500				30,000
70.0	7,000				32,500
75.0	7,500				35,000
80.0	8,000				37,000
85.0	8,500				39,500
90.0	9,000				41,000
95.0	9,500				43,000
100.0	10,000	Z - 5	5		46,500
110.0	11,000				51,000
120.0	12,000				55,500
130.0	13,000				60,000
140.0	14,000				65,000
150.0	15,000				69,500
160.0	16,000	Z - 6			74,000
170.0	17,000				80,000
180.0	18,000				83,500
190.0	19,000				88,000
200.0	20,000				93,000
300.0	30,000				140,000
500.0	50,000				
800.0	80,000				
1,000.0	100,000				
5,000.0	500,000				
8,000.0	800,000				
9,000.0	900,000				
10,000.0	1,000,000				
12,000.0	1,200,000				
14,000.0	1,400,000				
15,000.0	1,500,000				
18,000.0	1,800,000				
20,000.0	2,000,000				

Pressure Drop

Pressure drop is the resistance that prevents material from moving forward in the pipe. Two pipe variables influence this resistance: the (inside/internal) diameter and the pipe length. The pump will generate a pressure, strong enough to move the fluid material through the pipe (or hose) to the material pipe outlet; this pressure must be enough to overcome the original pressure drop. While it is hard to reduce the pipe length, it is relatively easy to select an appropriate internal pipe diameter.

PRESSURE DROP CALCULATION

Pressure loss (bar/m) = $\frac{6.9^* \times \text{Flow (l/min)} \times \text{Viscosity (cPs)}}{D^4 \text{ (interior diameter in mm)}}$

Pressure loss (psi/Ft) = $\frac{2.73^* \times \text{Flow (gpm)} \times \text{Viscosity (cPs)}}{D^4 \text{ (interior diameter in inches)}}$

FLOW RATE CALCULATION

Flow (l/mn) = $\frac{\text{Pressure loss (bar/m)} \times D^4 \text{ (interior diameter in mm)}}{6.9^* \times \text{Viscosity (cPs)}}$

Flow (gpm) = $\frac{\text{Pressure loss (psi/Ft)} \times D^4 \text{ (interior diameter in inches)}}{2.73^* \times \text{Viscosity (cPs)}}$

PIPE DIAMETER CALCULATION

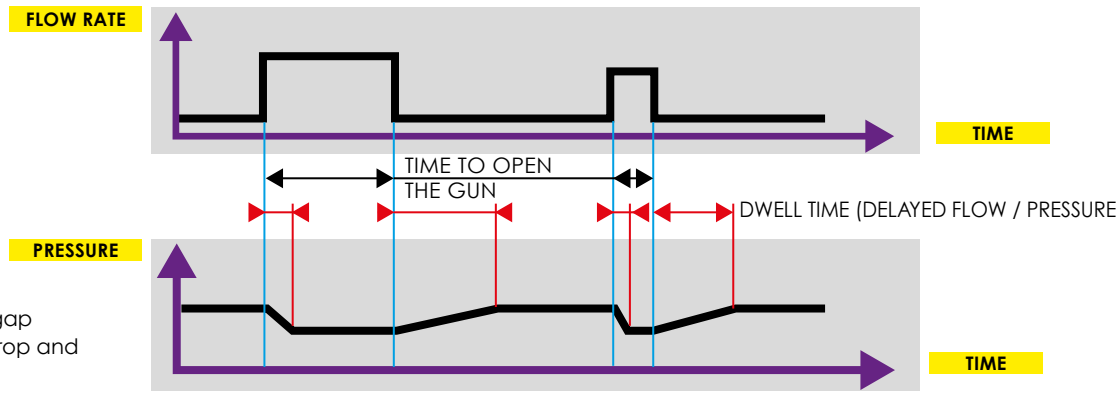
D interior diameter in (mm) = $\sqrt[4]{\frac{6.9^* \times \text{Flow (l/min)} \times \text{Viscosity (cPs)}}{\text{Pressure Loss (bar/m)}}}$

D interior diameter (in.) = $\sqrt[4]{\frac{2.73^* \times \text{Flow (gpm)} \times \text{Viscosity (cPs)}}{\text{Pressure Loss (psi/Ft)}}}$

*** = constant value**

Compressibility

Viscous materials can be compressed. Users have to take into account the difference between the flow rate and pressure drop through the pipe; it occurs when both the gun (used to dispense material) and the pump stop. Turning on both the gun and pump triggers the same process, due to this compressibility.



Visualization of the gap between pressure drop and flow rate

Rheology

The ideal material is "newtonian". Its viscosity remains constant during the whole process. In the case of a non-newtonian product, viscosity will develop (change) until it is dispensed or the process is ended. Some materials may liquify while others may thicken depending on the shearing they experience when they are used.

Each product family has its own rheology and response to shearing, even-though the temperature remains the same. Viscosity is a common measurement of a materials condition. Viscosity reflects the internal friction of a fluid which makes it resist flowing past a solid surface such as the inside of a pipe or hose. Many conditions can influence viscosity in non-Newtonian fluids, one key influence is temperature combined with shear and time. Most material viscosities decrease with increased temperature, however this result is difficult to predict. In summary, "dynamic" viscosity takes into account the effect of shear rate, time and temperature and is the critical viscosity to be aware of when specifying pumping and dispensing equipment.

In addition, a material's original viscosity may be affected by the materials age, exposure to evaporation or settling of heavy particles from solution.

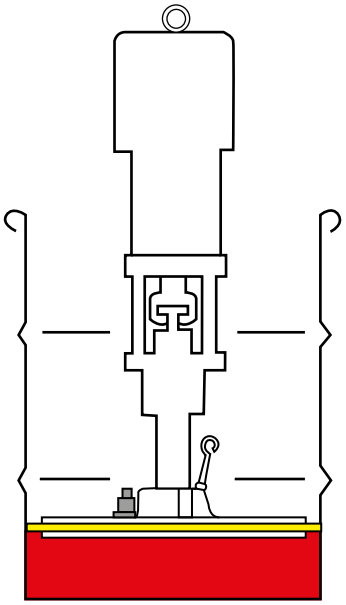
There are two simple guidelines to follow to help keep materials consistent and the equipment in good working order:

1. **use the minimum fluid pressures possible**
2. **cover the material with a single or double wiper ram plate**

FILLERS AND ABRASION

In most cases, a material's abrasiveness is determined by the characteristics of the fillers used in it. The shape, hardness and concentration of filler will significantly influence the proper selection of a pump, its fluid seals, fluid filters and other system accessories.

Decreasing pump cycle rates by using larger cylinders and the lowest possible fluid pressure combined with the most effective fluid seals will minimize the negative affects of abrasive material fillers and increase pump life.



examples of filler values:

	NORTH STANDARD	PARTICLE SIZE (1/100 mm)
Grease	**15/1**	**30/1**
PVC mastic	**x**	**x**
Epoxy adhesive	**x**	**x**
Anti-flutter	**x**	**x**

Filtration

> Extrusion

When using an extrusion gun (e.g., dispensing a bead) it is typically not necessary to filter the product if application tip diameters are large enough.

> Airless spraying

Airless spraying is based on the application of pressure to a fluid with a high-pressure pump. The high-pressure fluid is directed through a small orifice. As the material exits the orifice and goes to ambient pressure, the material rapidly expands and breaks into fine particles, a process commonly referred to as "atomization". The size of the spray orifice determines the amount of fluid filtration required. Impurities, dried particles and other particles that are larger than the orifice will plug its opening. Therefore most spray systems require some degree of fluid filtration.

It is necessary to balance the appropriate size spray tip with the proper meshed fluid filter:

- To avoid lost production due to clogging and cleaning of spray tips

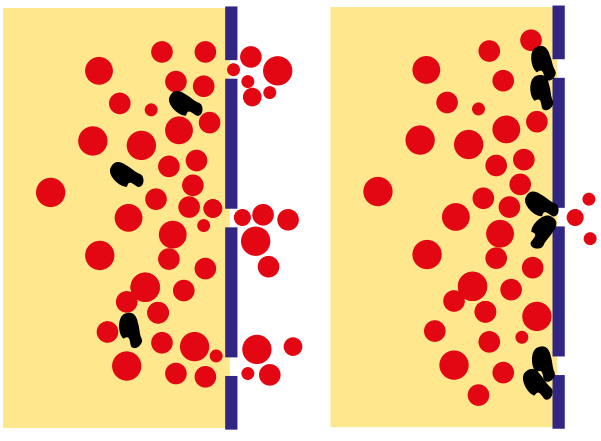
- To avoid damaging or changing the material and its characteristics by having too fine of filtration

- To minimize material pressure drop over the filter (finer filter has more pressure loss than a more coarse filter element)

- To reduce the plugging of the filter (the finer the screen the more quickly it will plug)
  High pressure can cause a plugged filter screen to collapse or break in some instances

- To reduce the required frequency of filter cleaning or replacement
  When filtering a material the filter must be continuously maintained to be effective

Certain products will not accept filtration
(verify with the material supplier)



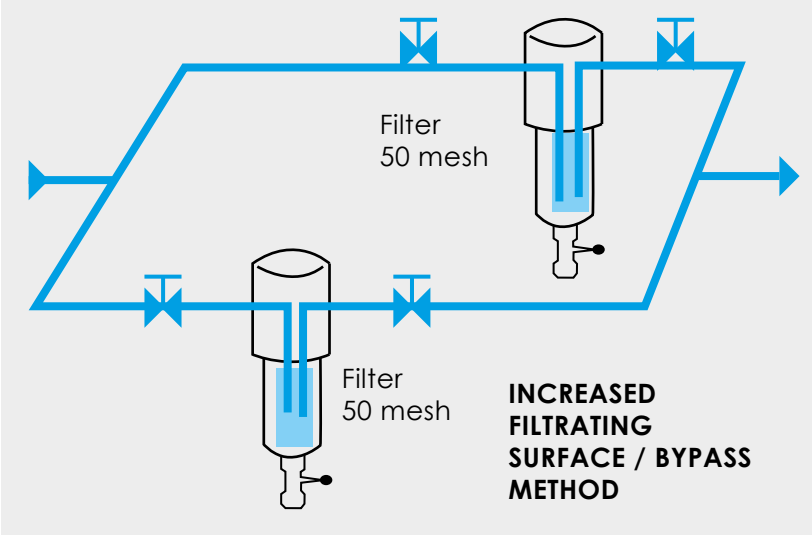
FILTRATION PLUGGED

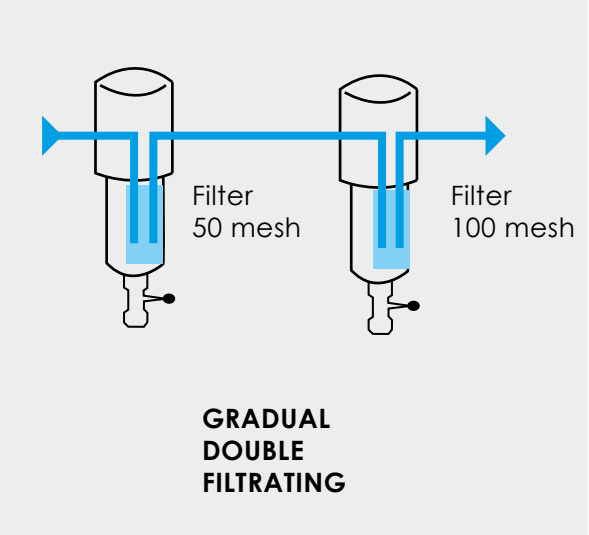
Filtration

> One or two filters?

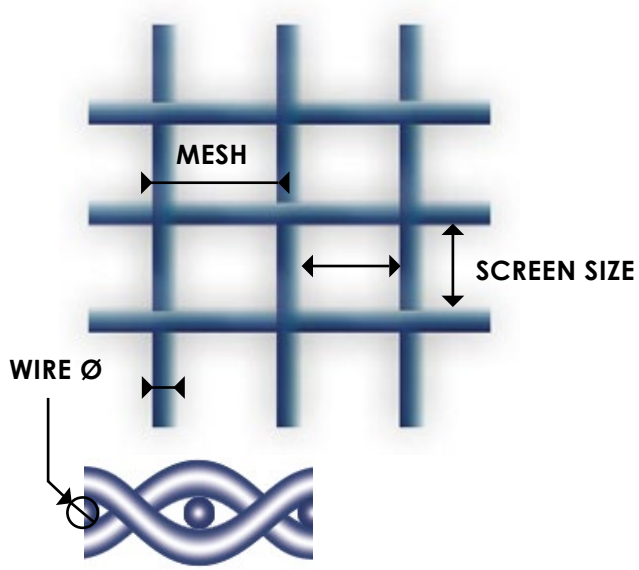
- Users should make sure to select a filter with an orifice smaller than the diameter of the tip orifice.
- Please use a filter with an opening larger than 160 mesh for thick materials.
- Users should select a filter with a large filtering surface area, depending on the flow rate and the cleaning frequency.
- If the user is not satisfied with the end result, they might set up several filters either in series or on a parallel line.

NOTE: Depending on production requirements - Two filters maybe required for bypass considerations to change elements during production.





> Filter, Mesh and Screen size



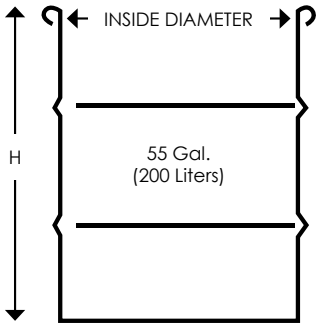
> Guide to choosing filter screens

	FILTER (mesh size)	SCREEN SIZE (width) MICRON
PASTY MATERIALS	25	710
	50	350
FLUIDS	75	220
	80	201
	100	160
	160	102
	200	90

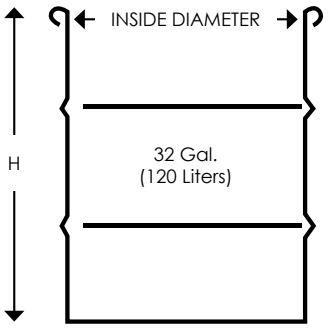
Containers

INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
22.5 / 571.5	34.2 / 870	56 / 213.0	58 / 223	•
22.5 / 571.5	34.3 / 871	56 / 213.0	58 / 223	•(1)
22.5 / 571.5	34.5 / 875	57 / 216.5	58 / 224	
22.5 / 571.5	35.5 / 903	58 / 223.0	61 / 231	
23.0 / 585.0	34.9 / 889	59 / 225.0	62 / 239	•
23.0 / 585.0	35.0 / 891	59 / 225.0	62 / 239	•
22.5 / 571.5	35.4 / 900	59 / 225.0	60 / 230	• (1)
22.5 / 571.5	34.7 / 882	57 / 217.0	58 / 226	
22.5 / 571.5	34.7 / 882	58 / 221.0	58 / 221	

STEEL DRUM
WITH OPEN TOP



INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
18 / 460	29.2 / 742	32 / 120	32 / 123	•(1)
18 / 460	29.6 / 752	32 / 120	33 / 125	
18 / 460	29.4 / 748	32 / 120	33 / 124	
18 / 460	29.9 / 761	32 / 120	33 / 126	
18 / 460	30.2 / 768	32 / 120	33 / 127	•

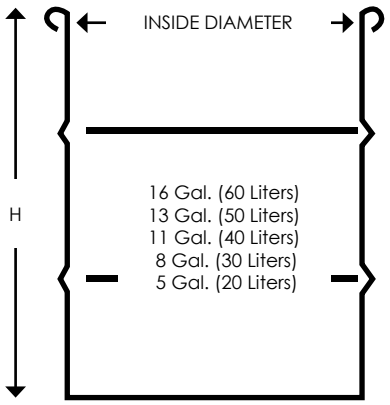


The dimensions in this document are typical dimensions throughout the industry.
(1) = other types of drums exist; this list is not complete.

Containers

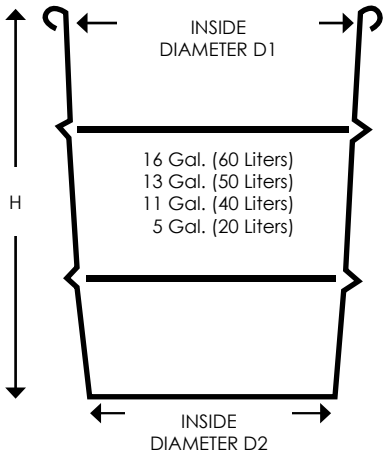
INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
14.1 / 360	24.44 / 621	16 / 60	16.6 / 63.2	•(1)
14.1 / 360	24.37 / 619	16 / 60	16.6 / 63.0	
14.1 / 360	24.80 / 630	16 / 60	16.9 / 64.1	•
14.1 / 360	25.15 / 639	16 / 60	17.1 / 65.0	•(1)
14.1 / 360	25.19 / 640	16 / 60	17.1 / 65.1	
14.1 / 360	25.35 / 644	16 / 60	17.2 / 65.5	
14.1 / 360	24.60 / 625	16 / 60	16.8 / 63.6	
14.1 / 360	21.18 / 538	13 / 50	14.4 / 54.7	
14.1 / 360	21.33 / 542	13 / 50	14.4 / 55.0	
14.1 / 360	17.16 / 436	11 / 40	11.6 / 44.3	
14.1 / 360	17.32 / 440	11 / 40	11.7 / 44.7	
12.2 / 310	14.09 / 358	8 / 30	7.1 / 27.0	
12.0 / 305	17.83 / 453	8 / 30	8.7 / 33.1	•
12.0 / 305	17.51 / 445	8 / 30	8.5 / 32.5	•(1)
12.0 / 305	18.03 / 458	8 / 30	8.7 / 33.4	
12.4 / 315	16.61 / 422	8 / 30	8.6 / 32.8	•(1)
12.0 / 305	17.63 / 448	8 / 30	8.6 / 32.7	
11.2 / 285	16.73 / 425	8 / 30	7.1 / 27.1	
11.0 / 280	15.55 / 395	5 / 20	6.3 / 24.3	
10.8 / 275	14.33 / 364	5 / 20	5.7 / 21.6	•
11.0 / 280	15.82 / 402	5 / 20	6.5 / 24.7	•(1)

STEEL DRUM
WITH OPEN TOP



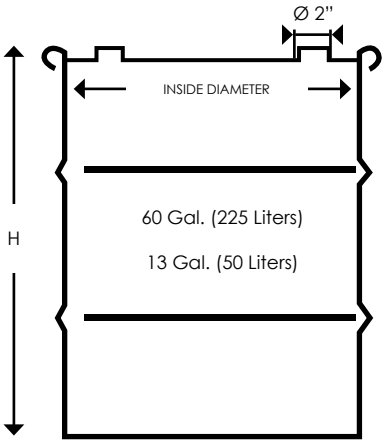
INSIDE Ø D1 (inches / mm)	INSIDE Ø D2 (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM
11.22 / 285	10.03 / 255	14.17 / 360	5 / 20	5.4 / 20.5
14.96 / 380	14.17 / 360	16.22 / 412	11 / 40	11.6 / 44.2
14.96 / 380	14.17 / 360	19.84 / 504	13 / 50	14.2 / 54.2
14.96 / 380	14.17 / 360	23.50 / 597	16 / 60	16.9 / 64.2

STEEL CONE
SHAPED DRUM

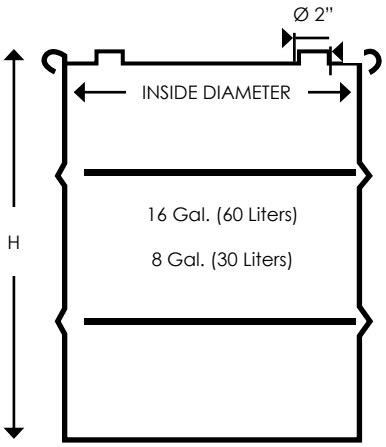


Containers

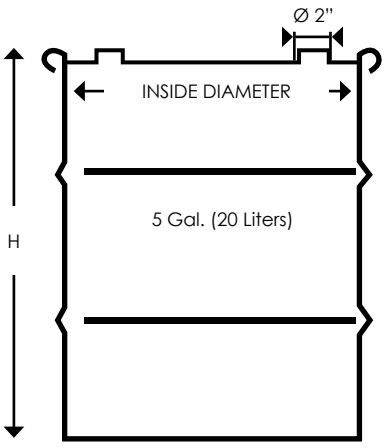
CLOSED-HEAD DRUM
WITH BUNG OPENING



INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
23.03 / 585.0	**35.11 / 892**	**60 / 225**	**62 / 239**	•
22.49 / 571.5	**32.36 / 822**	**60 / 225**		**•(1)**
22.49 / 571.5	**36.02 / 915**	**60 / 225**		
18.11 / 460.0	**29.96 / 761**	**32 / 120**	**33 / 126**	
18.11 / 460.0	**30.23 / 768**	**32 / 120**	**33 / 127**	•



INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
14.17 / 360	21.61 / 549	16 / 60	14.7 / 55.8	**•(1)**
14.17 / 360	24.80 / 630	16 / 60	17.1 / 64.1	•
14.17 / 360	24.48 / 622	16 / 60	16.7 / 63.3	**•(1)**
12.00 / 305	24.80 / 630	8 / 30	12.1 / 46.0	
12.00 / 305	18.07 / 459	8 / 30	8.8 / 33.5	•
12.00 / 305	17.71 / 450	8 / 30	8.6 / 32.8	**•(1)**



INSIDE Ø (inches / mm)	H=HEIGHT (inches / mm)	CAPACITY (Gal / Liters) NOMINAL	CAPACITY (Gal / Liters) MAXIMUM	STANDARD
10.82 / 275	14.37 / 365	5.2 / 20	5.7 / 21.6	**•(1)**

The dimensions in this document are typical dimensions throughout the industry.
(1) = other types of drums exist; this list is not complete.

Chemical Compatibility Table

••• = High compatibility •• = Good compatibility • = Low compatibility × = Not compatible

MATERIAL IN CONTACT WITH (WETTED PARTS)

	CARBON STEEL	ALUMINUM	BRASS	STAINLESS STEEL	NYLON (PA)	NITRILE	VITON (FKM)	LEATHER	P.U.	P.E.
Butyl acetate	•••	•••	•••	•••	•••	×	×		×	•••
Ethyl acetate	••	••	••	••	•••	×				••
Acetal aldehyde	•••	•••	•••	•••	•••	×	×	••	×	•
Amonium acetate				•••						••
Acedic acid	•••			•••	•••	×	×	×	×	•••
Boric acid	•••	•••		•••	•••		•••	•••	•••	•••
Hydrobromic acid				•••	•••	×	•••		×	••
Chloridic acid	×	×		×	•••	×	•••		×	•••
Chromic acid	×	×	×	•	•••	×			×	••
Citric acid				•••	•••		•••			•••
Fluorohydric acid						×	•••		×	••
Fluoslicic acid			•••		•••	×	×		×	•••
Formic acid	×	••	×	•	•••	×	•		×	•••
Nitric acid	×	×	×	•••	•••	×	•••		×	•
Oxylic acid	×	×	×	×	•••		•••	•••	•••	•••
Phosphoric acid	×	×		•••	•••	×	•••		×	•••
Ethyalcohol						•••	×		×	•••
Methyalcohol	•••						×	•••	×	•••
Acetic aldehyde	•••	•••		•••	•••	×	×		×	×
Formic aldehyde	×	••	×	×	•••	×	•••		×	
Sodium algenate					•••		×			
Starch						•••	•••			•••
Amines					•••	×	×	×		
Acetone	•••	•••		••	•••	×	×		×	×
Liquid ammonia	•••	•••		•••	••	••	×	×	×	•••
Benzene	•••	•••	•••	•••	•••	×	•••	••	•	×
Sodium bicarbonate		×	×	•••	•••	•••	•••			•••
Chlorine dioxide						×	•••			
Sodium bisulphate	×	×		×	•••	×	•••			•••
Brominate						×			×	×
Calcium carbonate	•••			•••	•••	•••	•••	•••	×	•••
Sodium carbonate					•••		•••			•••
Chlorinate gas						•••	•••			×
Sodium chlorite							•••		•••	×
Aluminum chlorosul-fate					•••	•••	•••	•••		
Calcium chloride	•••			•••	•••		•••		•••	•••
Magnesium chloride	••	×		×	•••	•••	•••	•••	•••	•••
Potassium chloride	×	×		••	•••	•••	•••	•••	•••	•••
Sodium chloride					•••	•••	•••		•••	•••
Zinc chloride	×	×		×	•••	•••	•••		•••	•••
Ferrous chloride	×	×	×	×	•••		•••			•••
Ferric chloride	×	×	×	×	•••		•••		•••	•••
Cycloheane	•••	•••	•••	•••	•••	•••	•••			×
Chlorobenzene	•••			•••	•	×	•••		×	×
Ethylene chloride		••			••	×	••		×	×
Methylene chlorid e	••	×	••	••	×	×	••		×	×
Diatomees						•••	•••			
Dichloroethylene					•••					
Diethylene glycol	•••	••		•••	•••	•••	•••		×	
Bleach	×	••		•••	•••				•	•••
Distilled water	×	•••	•••	•••	•••		•••	•••	•••	••

PA = Polyamid, FKM = Fluoroelastomer, PU = Polyurethan, PE = Polyethylen

Chemical Compatibility Table

••• = High compatibility •• = Good compatibility • = Low compatibility × = Not compatible

MATERIAL IN CONTACT WITH (WETTED PARTS)

	CARBON STEEL	ALUMINUM	BRASS	STAINLESS STEEL	NYLON (PA)	NITRILE	VITON (FKM)	LEATHER	P.U.	P.E.
Oxygenated water	×		×	••	×		••		•••	
EDTA						•••	×			
Fertilizer						•••	×			•••
Ethanol					•••	•••	×		×	••
Ethyl ether	••	••		••	•••	×	×		•	×
Ethylene glycol	••	••	•••	••	•••	•••	•••		×	•••
Ethyl-mercapan						×	•••			
Fuel						×	•••		×	
Fluosilicate			•••		•••	•••	•••			
Foraldehyde	×	••		×	••	•••	•••		×	•••
Glycol	••	••		••	•••	•••	•••		×	•••
Gelatine	×	••		•••	•••	×	×		×	•••
Sodium hydroxide					•••	×	×		×	•••
Ammonium hydroxide				•••	•••	×	×	••	×	•••
Potassium hydroxide	•	×		••	•••	×	×		×	••
Calcium hypochlorite				•	•••	×	•••	×		•••
Sodium hypochlorite					•••	×	•••		×	•••
Sodium hyposulfite					•••	×	•••			•••
Fruit juice						•••	•••		×	•••
Methanol	×	•••		•••			×		•	•••
Morpholine	•••	•••				×	×			•••
Methylethycetone	•••	••		•••	•••	×	×		×	•
Sodium nitrite					×	×	•••			•••
Perchlorethylene (tetrachlret)	•••	••		•••	×	••	•••		×	×
Permanganate de potassium	••	••		••	•••	×	•••			•••
Hydrogen peroxide	×	•••	×	••		×	••			••
Chlorohated Peroxyde						×	•••			
Phenol	×	×			•••	×	•••			
Ammonium phosphate			•••	•••	•••	•••	•••			•••
Trisodium phosphate	•••	×		•••	•••	•••	•••			
Aluminium polychlorite						•••	•••			
Polyelectrolytes						•••	•••			
Potasse caustique		×		•••		×	•••			••
Sodium silicate					•••	•••	•••			•••
Soude						×	×			•••
Aluminium sulfate					•••	•••	•••	•••	×	•••
Ammonium sulfate					•••				•••	•••
Calcium sulfate	•••	•••		•••	•••		•••			•••
Copper sulfate				•••	•••	•••	•••		•••	•••
Ferrous sulfate		×		••	•••	•••	•••			•••
Ferric sulfate	×	×		×	•••	•••	•••		•••	•••
Sodium sulfate	×				•••	•••	•••			•••
Hydrogen sulfur	•••				•••	•••	×			•••
Carbon tetrachloride	••		•••	•••	•••	×	•••		×	×
Toluene	•••	•••		•••	×	×	•••		×	×
Trichlorethane	••	×		••	×	×	•••		×	×
Trichlorethylene	••	•••		••	×	×			×	×
Triethyleneglycol				••	•••		•••			
Urea	••	••		••	•••		•••			•••
Xylenes	••	••		••	•••	×	•••		×	•

PA = Polyamid, FKM = Fluoroelastomer, PU = Polyurethan, PE = Polyethylen

PU = Polyurethan, PE = Polyethylen

Metric - IMPERIAL conversion

CONVERT FROM	TO	MULTIPLY BY
Centimeters	feet	0.03280
Centimeters	inches	0.3937
Centimeters/min.	feet/min.	1.9684
Centimeters/sec.	feet/sec.	0.03281
Cubic centimeters.	cubic feet	3.5314 x 10 –5

CONVERT FROM	TO	MULTIPLY BY
Cubic centimeters	ounces	0.033
Cubic centimeters	liquid gallons	0.0002642
Cubic feet	liquid gallons	7.4805
Cubic feet	cubic inches	1.728
Cubic feet/min.	gallons/min.	7.4805

CONVERT FROM	TO	MULTIPLY BY
Cubic inches	gallons	0.004329
Cubic inches	cubic centimeters	16.387
Cubic inches	cubic feet	0.0005787
Cubic meters	liquid U.S. gallons	264.17
Cubic meters	cubic centimeters	1 x 106

CONVERT FROM	TO	MULTIPLY BY
Cubic meters	cubic feet	35.31
Cubic meters	cubic inches	61,023.38
Feet	centimeters	30.48
Feet	meters	0.3048
Feet of water	atmosphere	0.02949

CONVERT FROM	TO	MULTIPLY BY
Feet of water	psi	0.443
Feet/hour	miles/hour	0.00018933
Feet/min.	meters/min.	0.3048
Feet/min.	miles/hour	0.01136
Feet/sec.	miles/hour	0.681818

CONVERT FROM	TO	MULTIPLY BY
Gallons	cubic cm	3 785,43
Gallons	cubic inches	231
Gallons	imperial gallons	83,268
Gallons	cubic feet	13,368
Gallons/min.	cubic feet/min.	13,368

CONVERT FROM	TO	MULTIPLY BY
Inches	feet	83,333
Inches	meters	254
Inches	millimeters	2,540,005
Inches	mils	1 000
Kilograms	pounds	22,046

CONVERT FROM	TO	MULTIPLY BY
Kilograms/cm^2	psi	142,233
Kilograms/mm^2	psi	1 422,33
Liters	gallons	264,178
Meters	feet	32,808
Meters	inches	3,937

CONVERT FROM	TO	MULTIPLY BY
Poise	centipoise	1,000
Pints of water	gallons	11,985
PSI	atmosphere (bar)	6,804
Inches^2	cm^2	64,516
Inches^2	feet^2	6,944
Inches^2	mm^2	645,163
Millimeters^2	inches^2	15,499
daN	Kilograms	1.0

NOTE: All gallons are U.S. Gallons.

For the **diameter of a circle**, multiply the circumference by 0.31831
For the **circumference of a circle**, multiply the diameter by 3.1416
For the **surface area of a circle,** multiply the diameter^2 by 0.7854
For the **surface area of a sphere**, multiply the diameter^2 by 3.1416
To find the **side of a square that has the same surface area of a circle**, multiply the diameter by 0.8862
To find the **number of cubic inches in a sphere**, multiply the diameter^3 by 0.5236
To find the **number of gallons inside a pipe or cylinder**, divide the volume in liters by 231
To find the **cubic volume of a cylinder or pipe**, multiply the section area by the length

Notes

Bond | Protect | Beautify

With our manual guns, automatic and robotic applicators, supplied by our wide range of pumps & machines for fluid handling, dosing, mixing & dispensing.

SAMES KREMLIN provides industrial solutions for production increase, quality improvement, material & cost savings.

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SAMES KREMLIN

13 chemin de Malacher - CS 70086
38243 MEYLAN Cedex - FRANCE
Phone: +33 (0)4 76 41 60 60 - Fax: +33 (0)4 76 41 60 90