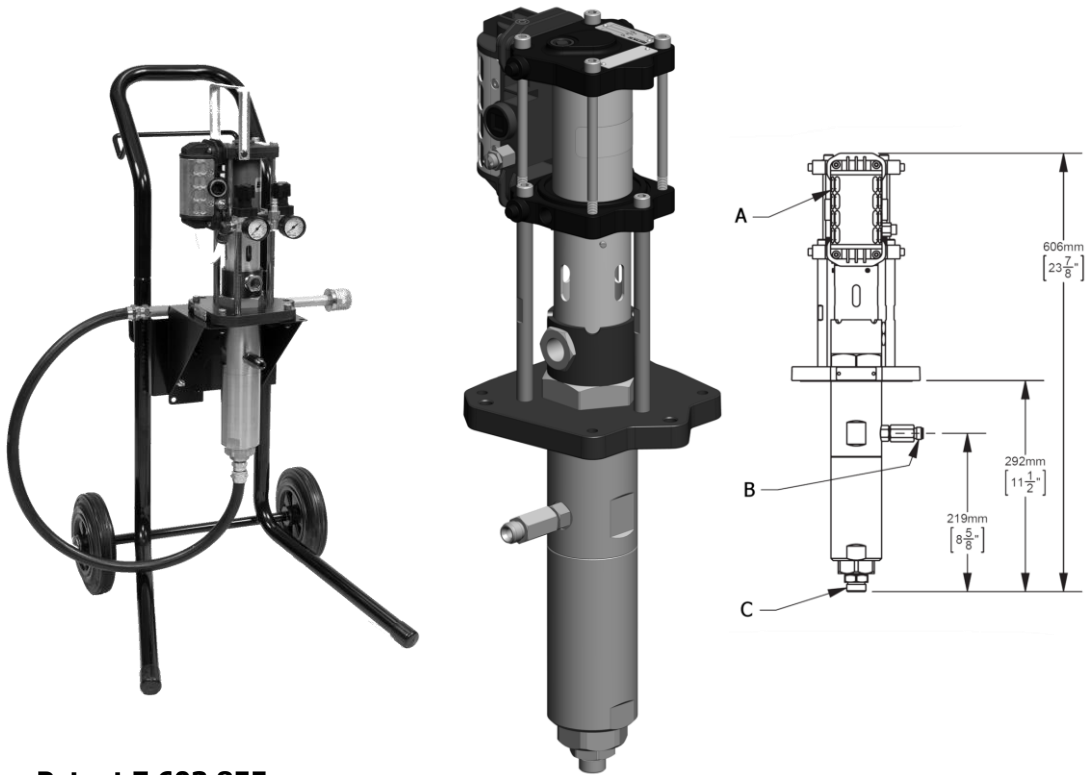




# MX1205 & MXL1205 Pump & Packages

Models: MX1205## & MXL1205##, ##=PL (PTFE/Leather), PP (PTFE), PU (PTFE/UHMWPE), UC (U-Cups), UCU (U-Cups/UHMWPE)



Patent 7,603,855.

SPECIFICATION - Bare Pump	
	Ratio: 4.8:1
	Maximum air inlet pressure: 8 bar [116 psi]
	Maximum fluid pressure: 39 bar [557 psi]
	Displacement per cycle: 72 cc [2.4 oz]
	Output @ 60 cycles/min: 4.3 l/m [1.2 US gal/m]
	Air consumption @ 20 cycles/min and 8 bar [116 psi] air inlet pressure: 62.5 l/m [2.2 SCFM]
	Maximum recommended continuous cycle rate (cycles/min): 20
A	Air inlet connection: 3/8" BSP(f)
C	Fluid inlet connection: MX-3/4" NPS(m), MXL-1/2" NPS(m)
B	Fluid outlet connection: 3/8" BSP(m)/NPS(m)
	Sound level: 88 dB
	Weight: 13 kg [28.4 lbs]
	Wetted parts materials of construction: Stainless Steel, Tunsten Carbide, Hard Chrome, PTFE, Polyethylene, Leather, Ceramic.

**Product Description / Object of Declaration:** MX4\*\*, MXL4\*\*, MX12\*\*, MXL12\*\*, MX190\*\*\*, MX220\*\*\*, EN  
MMX4\*\*, MMX12\*\*

**This Product is designed for use with:** Solvent and Water based Materials

**Suitable for use in hazardous area:** Zone 1

**Protection Level:** II 2 G c X IIB T4

**Notified body details and role:** TRAC Global Ltd (0891)  
Lodging of Technical file

**This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer:** Finishing Brands UK Ltd,  
Ringwood Road,  
Bournemouth, BH11 9LH. UK

## EU Declaration of Conformity



**The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:**

Machinery Directive 2006/42/EC

ATEX Directive 2014/34/EU

by complying with the following statutory documents and harmonized standards:

EN ISO 12100:2010 Safety of Machinery - General Principles for Design

EN 12621:+A1:2010 Machinery for the supply and circulation of coating materials under pressure - Safety requirements

EN1127-1:2011 Explosive atmospheres - Explosion prevention - Basic concepts

EN 13463-1:2009 Non electrical equipment for use in potentially explosive atmospheres - Basic methods and requirements



EN 13463-5:2011 Non electrical equipment for use in potentially explosive atmospheres - Protection by constructional safety

Providing all conditions of safe use / installation stated within the product manuals have been complied with and also installed in accordance with any applicable local codes of practice.

Signed for and on behalf of Finishing Brands  
UK Ltd:

D Smith  
20/4/16

Director of Sales (EMEA)  
Bournemouth, BH11 9LH, UK

 <b>WARNING</b>	 <b>CAUTION</b>	<b>NOTE</b>
Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.	Hazards or unsafe practices which could result in minor personal injury, product or property damage	Important installation, operation or maintenance information.

 **WARNING**

Read the following warnings before using this equipment.



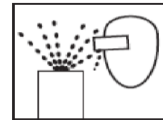
**READ THE MANUAL.** Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



**AUTOMATIC EQUIPMENT.** Automatic equipment may start suddenly without warning.



**WEAR SAFETY GLASSES.** Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



**PROJECTILE HAZARD.** You may be injured by venting liquids or gases that are released under pressure, or flying debris.



**DE-ENERGIZE, DE-PRESSURISE, DISCONNECT AND LOCK OUT ALL POWER SOURCES DURING MAINTENANCE.** Failure to de-energize, disconnect and lock out all power supplies before performing equipment maintenance could cause serious injury or death.



**KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY.**



**NOISE LEVELS.** The A-weighted sound level of pumping and spray equipment may exceed 85 dB(A) depending on equipment settings. Actual noise levels are available on request. It is recommended that ear protection is worn at all times while equipment is in use.



**PRESSURE RELIEF PROCEDURE.** Always follow the pressure relief procedure in the equipment instruction manual.



**INSPECT THE EQUIPMENT DAILY.** Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



**OPERATOR TRAINING.** All personnel must be trained before operating finishing equipment.



**EQUIPMENT MISUSE HAZARD.** Equipment misuse can cause the equipment to rupture, malfunction or start unexpectedly and result in serious injury.



**PACEMAKER WARNING.** You are in the presence of magnetic fields which may interfere with the operation of certain pacemakers.



**HIGH PRESSURE CONSIDERATION.** High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the gun, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury.



**KEEP EQUIPMENT GUARDS IN PLACE.** Do not operate the equipment if the safety devices have been removed.



**STATIC CHARGE.** Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



**NEVER MODIFY THE EQUIPMENT.** Do not modify the equipment unless the manufacturer provides written approval.



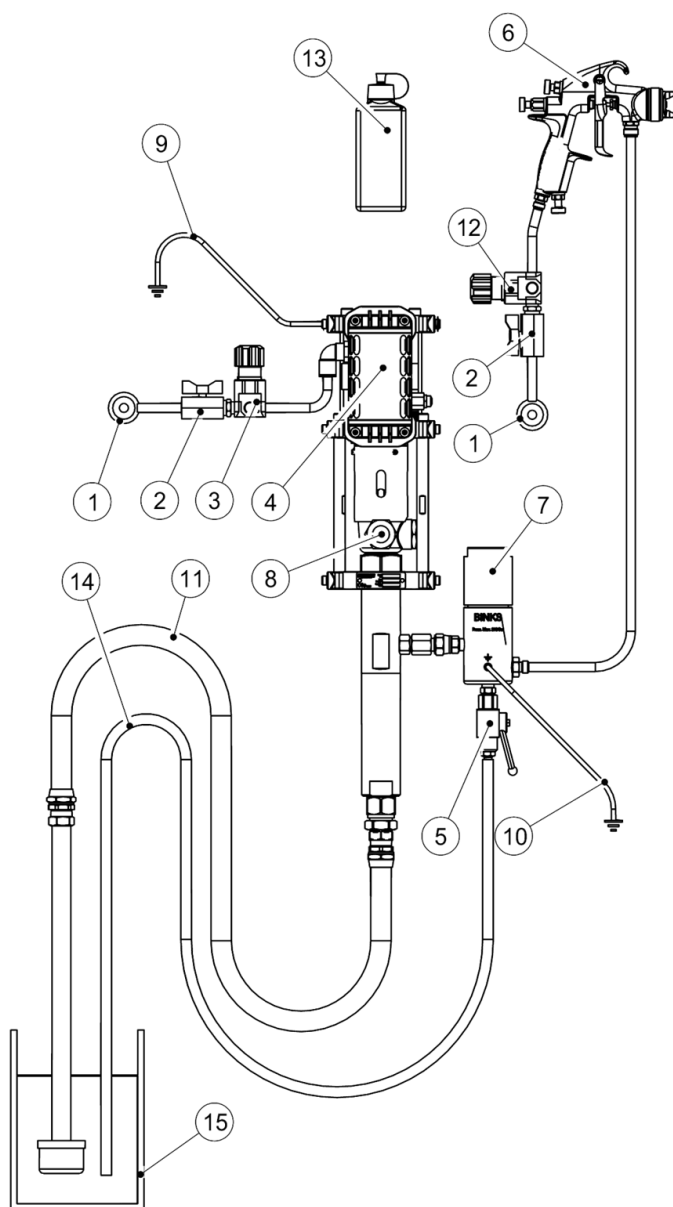
**PROP 65 WARNING.** WARNING: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.



**PINCH POINT HAZARD.** Moving parts can crush and cut. Pinch points are any areas where there are moving parts.

**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.**

## PUMP OPERATION AND CLEANING



1	AIR SUPPLY
2	AIR SHUT OFF VALVE (IF FITTED)
3	AIR PRESSURE REGULATOR
4	BINKS PUMP
5	FLUID PRESSURE RELIEF VALVE (IF FITTED)
6	SPRAY GUN
7	FLUID FILTER (IF FITTED)
8	LUBRICATION CUP & LEVEL
9	EARTH CABLE AIR MOTOR
10	EARTH CABLE FLUID FILTER (IF FITTED)
11	FLUID SUCTION HOSE/SUCTION TUBE/GRAVITY HOPPER - DEPENDING ON MODEL
12	AIR PRESSURE REGULATOR (SPRAY GUN) (IF FITTED)
13	LUBRICANT 0114-016099 SOLVENT BASED MATERIALS 0114-016100 WATER BASED MATERIALS
14	RELIEF/RETURN HOSE (IF FITTED)
15	FLUID CONTAINER

**⚠**  
**WARNING**

WEAR EYE PROTECTION WHEN OPERATING THIS EQUIPMENT

**⚠**  
**WARNING**

PUMP MUST BE GROUNDED BEFORE OPERATING, TO PREVENT STATIC CHARGES.

**⚠**  
**WARNING**

HOSES MUST HAVE A SUITABLE WORKING PRESSURE ABOVE THE MAXIMUM PRESSURE POSSIBLE.


## INSTALLATION

- 1 - ENSURE THE PUMP IS LOCATED ON A SUITABLE & STABLE MOUNTING.
- 2 - GROUND/EARTH THE PUMP WITH (9) OR (10), CHECK EARTH IS LESS THAN 1 Ohm.
- 3 - CONNECT SUITABLE HOSES FOR AIR SUPPLY AND FLUID HOSE TO GUN.
- 4 - FILL THE LUBRICATION CUP (8) WITH A SUITABLE LUBRICANT (13) SO IT IS VISIBLE IN THE LEVEL SIGHT GLASS.
- 5 - ENSURE SUITABLE FILTER MESH (100 MESH, 150 µm STD) IS INSTALLED IN THE FILTER(7).
- 6 - ENSURE RETURN HOSE (14) IF FITTED, IS DIRECTED INTO THE FLUID CONTAINER (15).

## CLEANING THE PUMP

<b>NOTE</b>	THE PUMP HAS BEEN TESTED WITH OIL, WATER OR OTHER MATERIAL. CLEAN THE PUMP PRIOR TO USE TO AVOID ANY CONTAMINATION.
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- 1 - INSERT SUCTION SYSTEM (11) & RETURN HOSE (14) (IF FITTED) INTO A CONTAINER WITH SUITABLE CLEANING FLUID.
- 2 - CLOSE VALVE (2) AND SET REGULATORS (3) & (12) TO ZERO ( WIND ANTICLOCKWISE), OPEN VALVE (5) IF FITTED.
- 3 - REMOVE FLUID NOZZLE FROM THE SPRAY GUN FOR RETURNING FLUID INTO THE CONTAINER
- 4 - CONNECT AIR SUPPLY
  - a) IF (5) IS FITTED:
    - 5a - OPEN VALVE (2), INCREASE REGULATOR PRESSURE (3) UNTIL PUMP STARTS TO OPERATE (APPROX. 1 BAR [14.5 PSI])
    - 6a - ALLOW FLUID TO CIRCULATE FOR SEVERAL MINUTES OR UNTIL SYSTEM IS CLEAN.
    - 7a - CLOSE VALVE (5) AND TRIGGER SPRAY GUN INTO CONTAINER FOR SEVERAL MINUTES TO CLEAN HOSE & GUN.
    - 8a - WITH THE TRIGGER STILL OPEN REDUCE REGULATOR PRESSURE (3) TO ZERO, AND OPEN VALVE (5) IF FITTED AND CLOSE TRIGGER.
  - b) IF (5) IS NOT FITTED.
    - 5b - TRIGGER SPRAY GUN AND HOLD OVER CONTAINER, INCREASE REGULATOR PRESSURE (3) UNTIL PUMP STARTS TO OPERATE (APPROX. 1 BAR [14.5PSI])
    - 6b - ALLOW FLUID TO CIRCULATE FOR SEVERAL MINUTES OR UNTIL SYSTEM IS CLEAN.
    - 7b - WITH THE TRIGGER STILL OPEN REDUCE REGULATOR PRESSURE(3) TO ZERO AND ENSURE NO PRESSURE IS LEFT IN THE HOSE AND GUN BEFORE CLOSING THE TRIGGER.

<b>NOTE</b>	REPEAT CLEANING PROCESS UNTIL CLEANING FLUID HAS NO CONTAMINATION, ESPECIALLY IF THE PUMP WILL NOT BE USED IMMEDIATELY, OR HAS BEEN USED WITH 2 COMPONENT PAINTS.
 <b>CAUTION</b>	WHEN THE SPRAY GUN IS NOT IN USE THE SAFTEY LOCK SHOULD BE ENGAGED TO PREVENT ACCIDENTAL OPERATION.

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## STARTUP

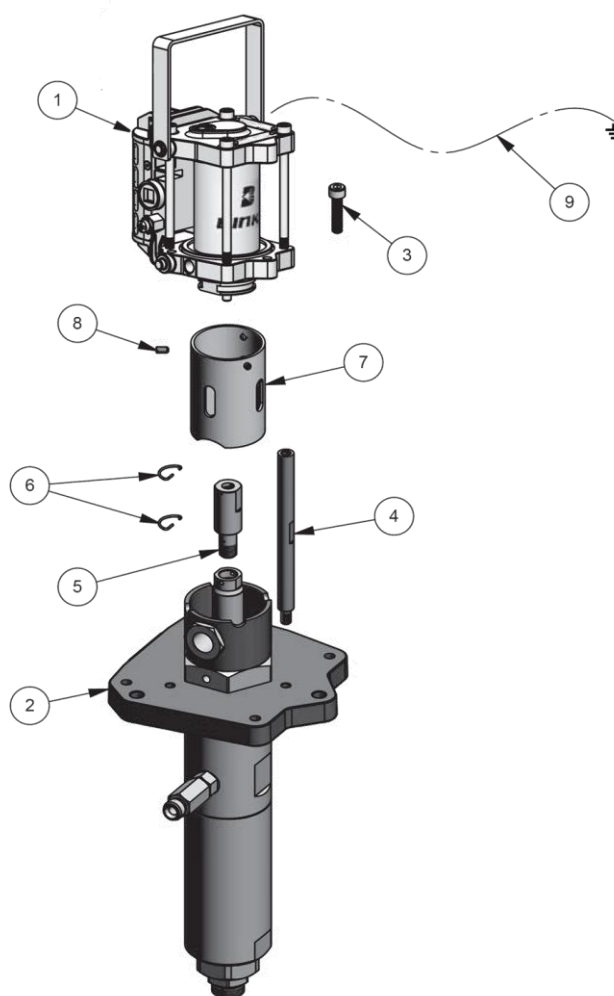
- 1 - INSERT SUCTION SYSTEM (11) & RETURN HOSE (14) (IF FITTED) INTO A CONTAINER WITH THE FLUID TO BE SPRAYED
- 2 - CLOSE VALVE (2) AND SET REGULATORS (3) AND (12) TO ZERO (WIND ANTICLOCKWISE), OPEN VALVE (5) IF FITTED.
- 3 - REMOVE SPRAY TIP FROM THE GUN FOR RETURNING FLUID INTO THE CONTAINER.
- 4 - CONNECT AIR SUPPLY.
- a) IF (5) IS FITTED
  - 5a - OPEN VALVE (2), INCREASE REGULATOR PRESSURE (3) UNTIL PUMP STARTS TO OPERATE.
  - 6a - WHEN FLUID FLOWS THROUGH HOSE (14) WITHOUT AERATION, CLOSE VALVE (5).
  - 7a - OPEN SPRAY GUN TRIGGER UNTIL FLUID FLOWS INTO CONTAINER WITHOUT AIR, THEN RELEASE TRIGGER.
- b) IF (5) IS NOT FITTED.
  - 5b - TRIGGER THE SPRAY GUN AND HOLD OVER CONTAINER, INCREASE REGULATOR PRESSURE (3) UNTIL PUMP STARTS TO OPERATE.
  - 6b - KEEP TRIGGER OPEN UNTIL FLUID FLOWS INTO CONTAINER WITHOUT AERATION, THEN RELEASE TRIGGER.
- 8 - REDUCE REGULATOR PRESSURE (3) TO ZERO.
- 9 - APPLY SPRAY GUN SAFETY LOCK WHILE SPRAY TIP IS FITTED.
- 10 - INCREASE REGULATOR PRESSURE(3) UNTIL DESIRED ATOMISATION IS ACHIEVED FROM SPRAY GUN.
- 11 - INCREASE REGULATOR PRESSURE (12) TO ACHIEVE DESIRED SPRAY FAN.

## SHUT DOWN

- 1 - REDUCE REGULATOR PRESSURE (3) AND (12) TO ZERO.
- 2 - TRIGGER GUN TO REDUCE SYSTEM PRESSURE.
- 3 - OPEN VALVE (5) SLOWLY IF FITTED.
- 4 - APPLY SPRAY GUN SAFETY LOCK WHILE SPRAY TIP IS REMOVED
- 5 - TRIGGER GUN CAREFULLY INTO CONTAINER AND ENSURE FLUID SYSTEM IS DE-PRESSURISED.
- 6 - CLOSE VALVE(2) AND REMOVE AIR SUPPLY.
- 7 - APPLY SPRAY GUN SAFETY LOCK.
- 8 - CLEAN AS INSTRUCTED AND SOAK/CLEAN SPRAYGUN FLUID NOZZLE.

<b>NOTE</b>	IF THE SYSTEM IS NOT USED FOR AN EXTENDED PERIOD IT IS RECOMMENDED TO BE FILLED WITH A LIGHT OIL AFTER CLEANING.
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## MX1205 &amp; MXL1205 BARE PUMP

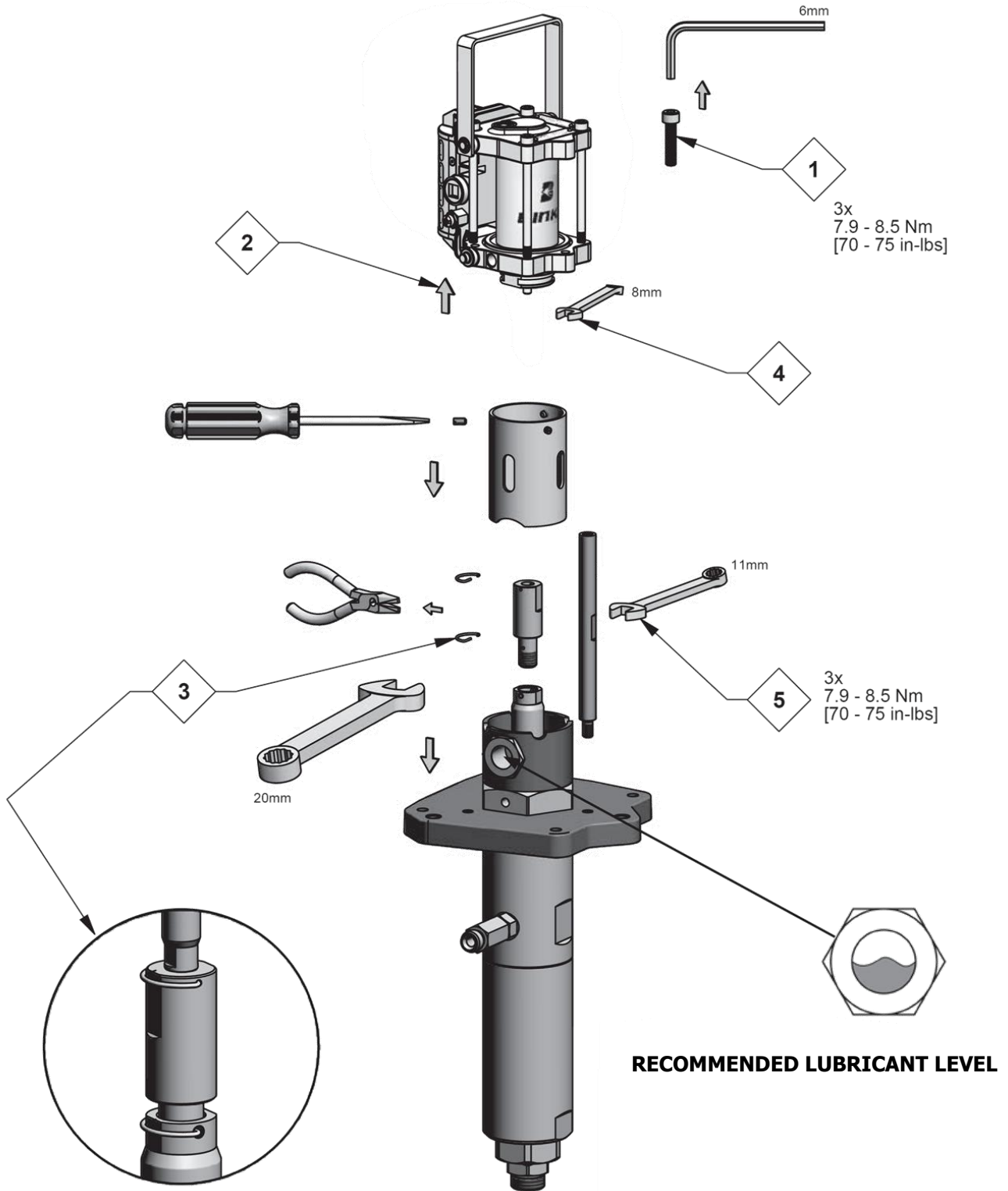


ITEM	PART NUMBER	DESCRIPTION	QUANTITY				
			MX1205 & MXL1205				
			PL	PP	PU	UC	UCU
1	AX55S	AX55S AIR MOTOR	1	1	1	1	1
2	FX12PL/FXL12PL	FLUID SECTION (PTFE/LEATHER)	1	-	-	-	-
	FX12PP/FXL12PP	FLUID SECTION (PTFE)	-	1	-	-	-
	FX12PU/FXL12PU	FLUID SECTION (PTFE/UHMW)	-	-	1	-	-
	FX12UC/FXL12UC	FLUID SECTION (U-CUPS)	-	-	-	1	-
	FX12UCU/FXL12UCU	FLUID SECTION (U-CUPS/UHMW)	-	-	-	-	1
3	0115-010001 $\Delta$	SOCKET HEAD CAP SCREW	3	3	3	3	3
4	0115-010646	TIE ROD	3	3	3	3	3
5	0115-010649	MOTOR ROD ADAPTER	1	1	1	1	1
6	0115-010113 •	LOCKING CLIP	2	2	2	2	2
7	0115-010655	GUARD	1	1	1	1	1
8	166001	SLOTTED SET SCREW	3	3	3	3	3
9	0114-011798	GROUND WIRE	1	1	1	1	1

• Part only available in repair kits: 0115-010305, 0115-010307, 0115-010309 and 0115-010387.

$\Delta$  Part only available in AX55 Hardware kit: 0115-010213.

**MX1205 & MXL1205 BARE PUMP - MAINTENANCE**



**MAINTENANCE SYMBOLS**

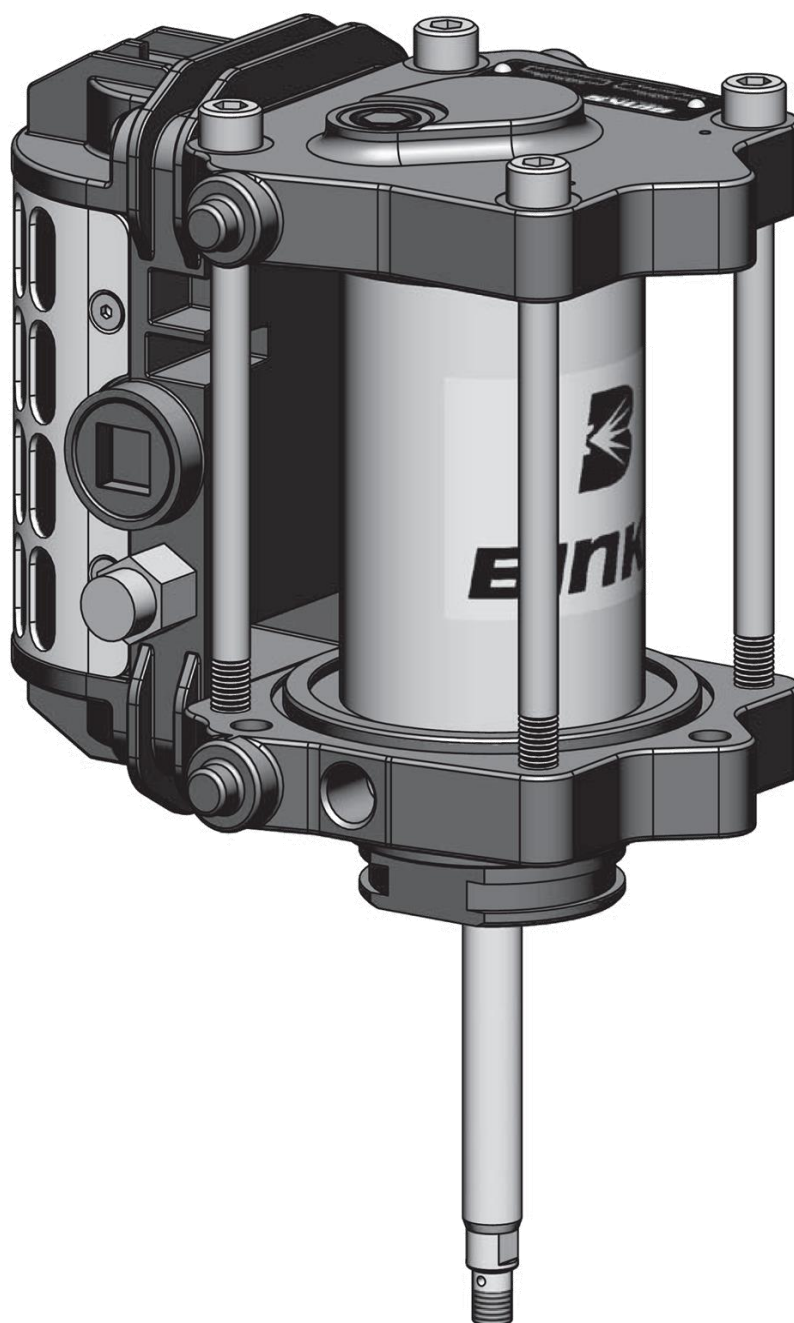
#	ITEM NUMBER
#	MAINTENANCE ORDER (Reverse for assembly)
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)



## MX1205 & MXL1205 BARE PUMP - TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
<b>Pump will not start</b>	No compressed air. Spray tip is blocked.	Check compressed air supply. Clean or replace the spray tip.
<b>Erratic operation of air motor, air motor stops.</b>	Worn poppet assemblies. Worn or dirty spool and sleeve assembly.	Replace the poppet assemblies. Clean or replace the spool and sleeve assembly, as necessary.
<b>Continuous air leak from the exhaust</b>	Worn poppet assemblies. Worn piston seal. Worn diaphragm.	Replace poppet assemblies. Replace piston seal. Replace diaphragm.
<b>Material in solvent cup.</b>	Worn or dirty upper packings.	Replace or clean upper packings as necessary.
<b>Pump does not stop on the down stroke.</b>	Worn or dirty lower ball check.	Replace or clean the parts as necessary.
<b>Pump does not stop on the up stroke.</b>	Worn or dirty upper ball check. Worn or dirty lower packings.	Replace or clean the parts as necessary.
<b>Pump runs erratically</b>	Blocked siphon kit. Blocked inlet filter or strainer. Low material level.	Replace or clean the siphon kit. Replace or clean the inlet filter or strainer. Replace or refill material container.
<b>Pump runs , with no output.</b>	Loose connection in between pump and siphon kit. Stuck lower ball.	Check that all connections are tight. Replace or clean the parts as necessary.

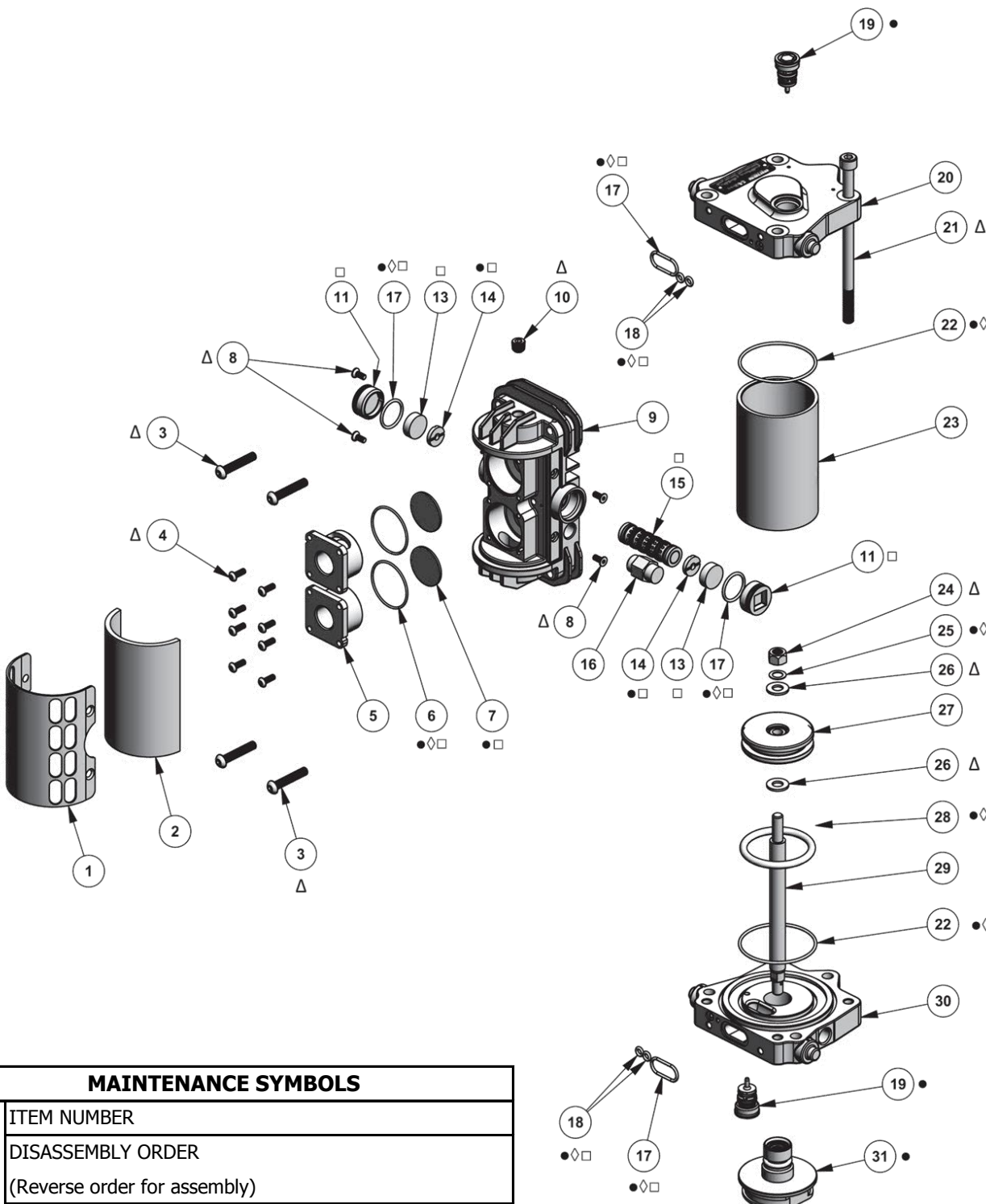
## AX55S Air Motor



Patent 7,603,855

<b>SPECIFICATION</b>	
Maximum air inlet pressure	8 Bar [116 psi]
Maximum recommended continuous cycle rate: (cycles/min)	20
Air inlet connection:	3/8" BSP(f)
Piston Diameter:	55 mm [2.2 in]
Stroke Length:	75 mm [3.0 in]

**AX55S AIR MOTOR**



MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	DISASSEMBLY ORDER (Reverse order for assembly)
PG	PETROLEUM JELLY/GREASE
TS	THREAD SEALANT (PTFE tape)

- Parts are included in 0115-010214 AX55 Repair Kit.
- ◆ Parts are included in 0115-010216 AX55 Seal Kit.
- Parts are included in 0115-010226 Air Motor Valve Repair Kit.
- ▲ Parts are included in 0115-010213 AX55 Hardware Kit.

## AX55S AIR MOTOR

REF.	PART NUMBER	DESCRIPTION	QTY
1	0115-010023 ○	EXHAUST COVER SCREEN	1
2	0115-010022 ○	EXHAUST COVER	1
3	0115-010026 ○Δ	BUTTON HEAD CAP SCREW	4
4	0115-010073 ○Δ	BUTTON HEAD CAP SCREW	8
5	0115-010019 ○	QUICK EXHAUST VALVE CAGE	2
6	0115-010021 ○●◇□	O-RING	2
7	0115-010020 ○●□	DIAPHRAGM	2
8	0115-010024 ○	COUNTER SUNK CAP SCREW	4
9	0115-010097 ○	VALVE BLOCK	1
10	0115-010107 ○Δ	PIPE PLUG	1
11	0115-010018 ○□	VALVE BLOCK END CAP	2
13	0115-010017 ○□	MAGNET	2
14	0115-010016 ○●□	BUMPER	2
15	0115-010015 ○□	SPOOL AND SLEEVE ASSEMBLY	1
16	0114-014774 ○	SAFETY VALVE	1
17	0115-010049 ○●◇□	O-RING	4
18	0115-010051 ●◇□	O-RING	4
19	0115-010037 ●	POPPET ASSEMBLY	2
20	0115-010004	UPPER END CAP MACHINING	1
21	0115-010029 Δ	SOCKET HEAD CAP SCREW	4
22	0115-010086 ●◇	CYLINDER SEAL, 55mm	2
23	0115-010007	CYLINDER, 55mm	1
24	0115-010096 Δ	LOCKNUT	1
25	0115-010036 ●◇	SEALING RING	1
26	0115-010035 Δ	FLAT WASHER	2
27	0115-010085	PISTON, 55mm	1
28	0115-010025 ●◇	PISTON SEAL, 55mm	1
29	0115-010034	MOTOR ROD	1
30	0115-010006	LOWER END CAP MACHINING	1
31	0115-010657 ●	MOTOR ROD CARTRIDGE ASSEMBLY	1

○ Items available separately or as a complete assembly: 0115-010660.

● Parts are included in 0115-010214 AX55 Repair Kit.

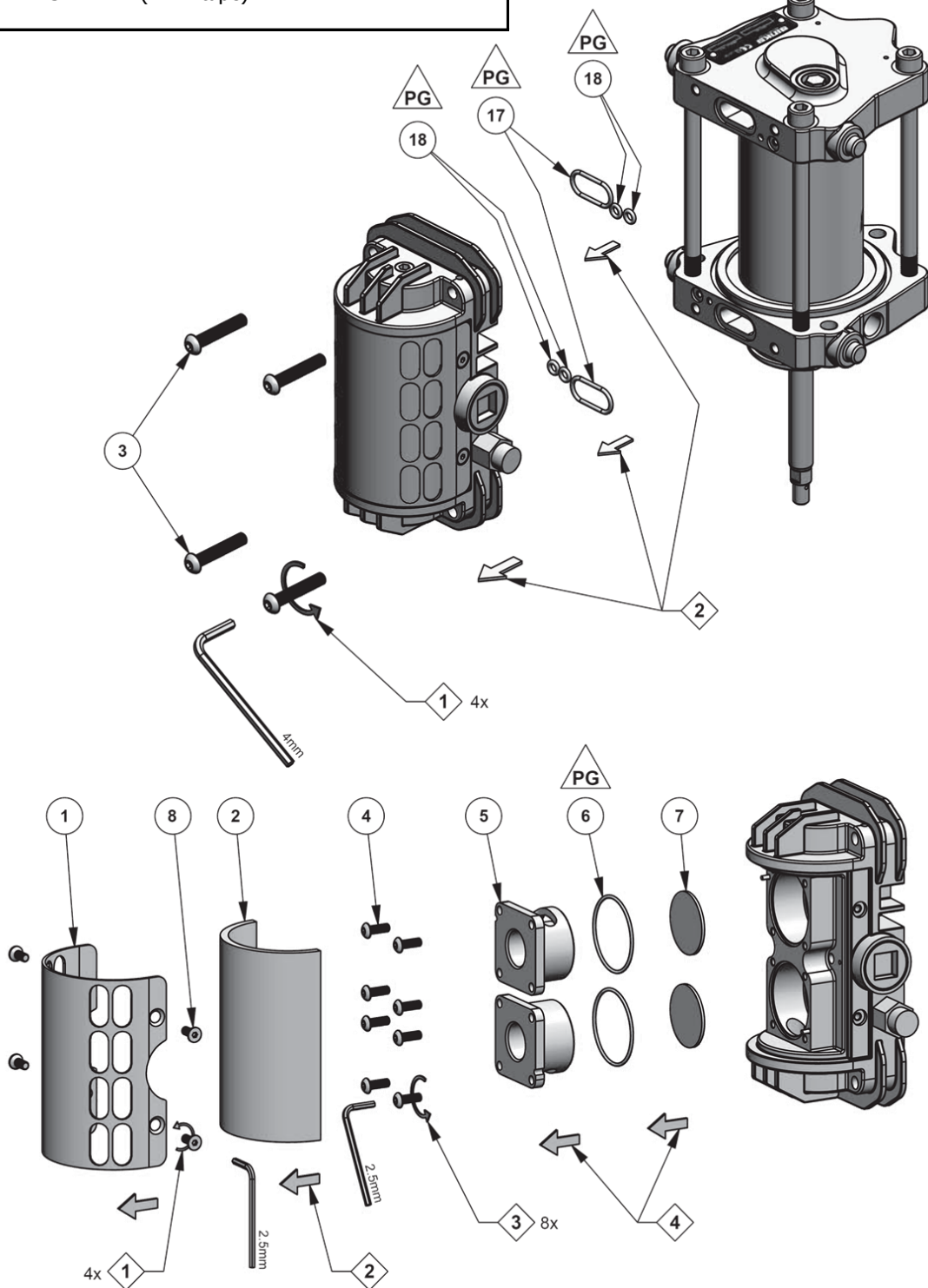
◇ Parts are included in 0115-010216 AX55 Seal Kit.

□ Parts are included in 0115-010226 Air Motor Valve Repair Kit.

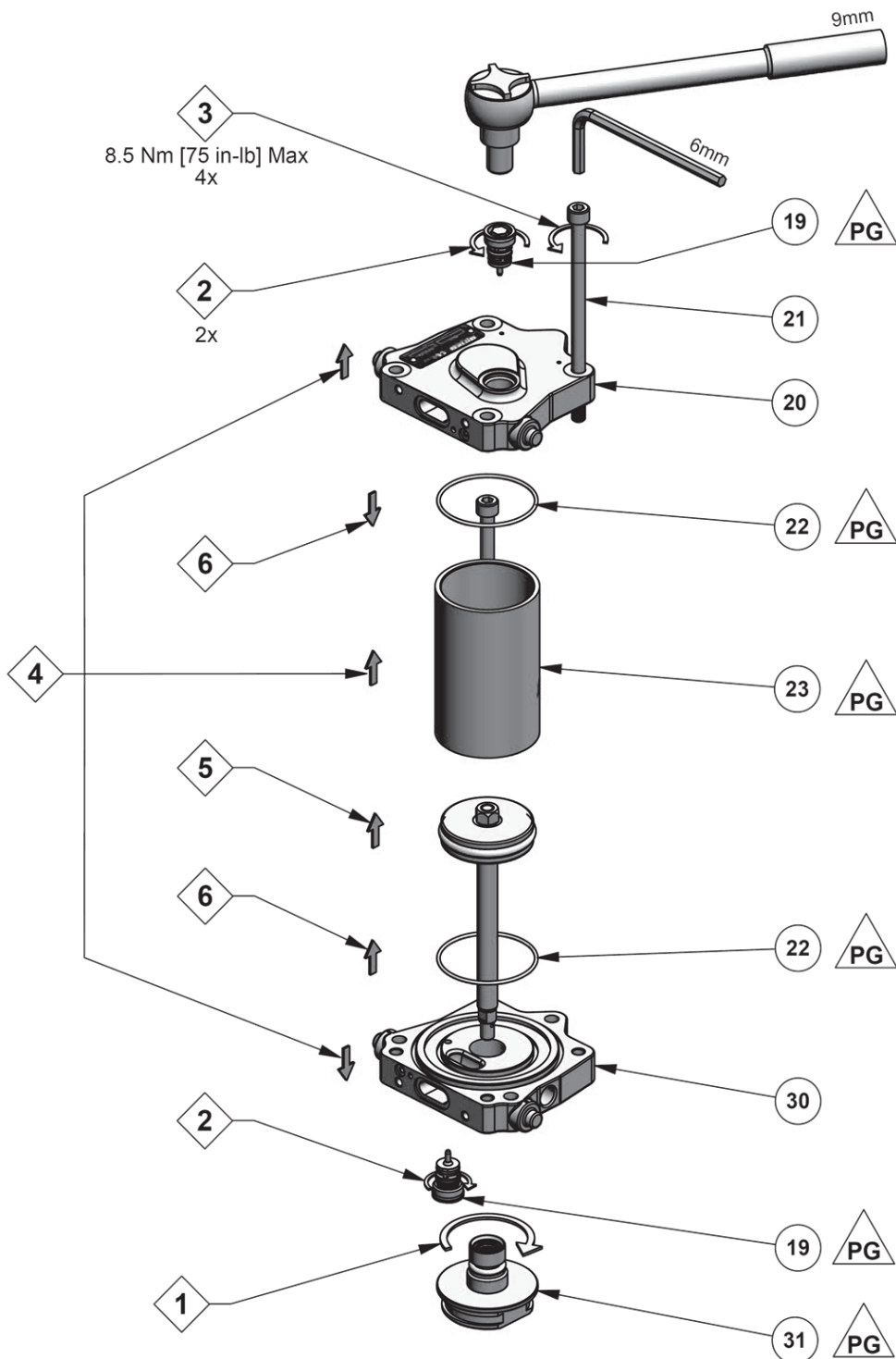
Δ Parts are included in 0115-010213 AX55 Hardware Kit.

AX55S AIR MOTOR - MAINTENANCE

MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	DISASSEMBLY ORDER (Reverse order for assembly)
PG	PETROLEUM JELLY/GREASE
TS	THREAD SEALANT (PTFE tape)



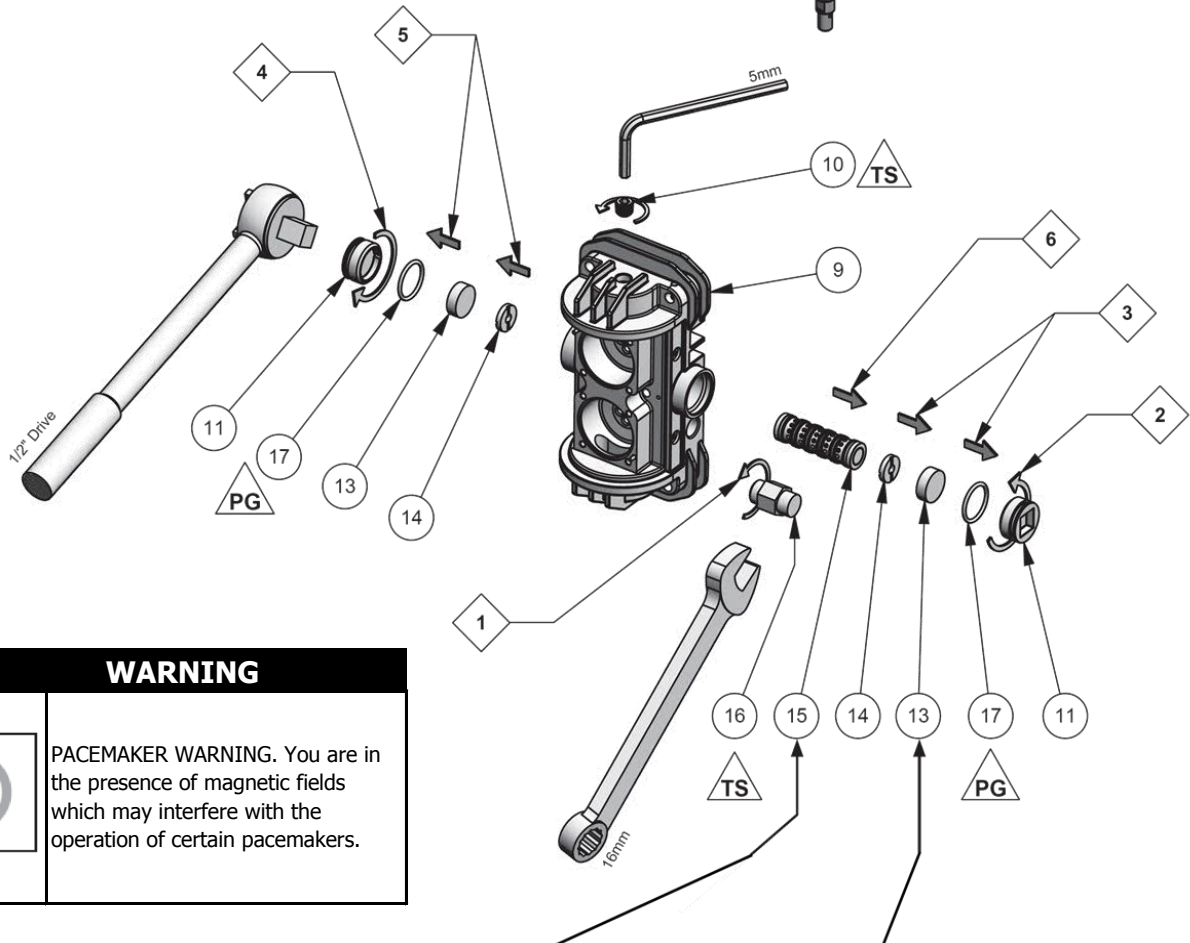
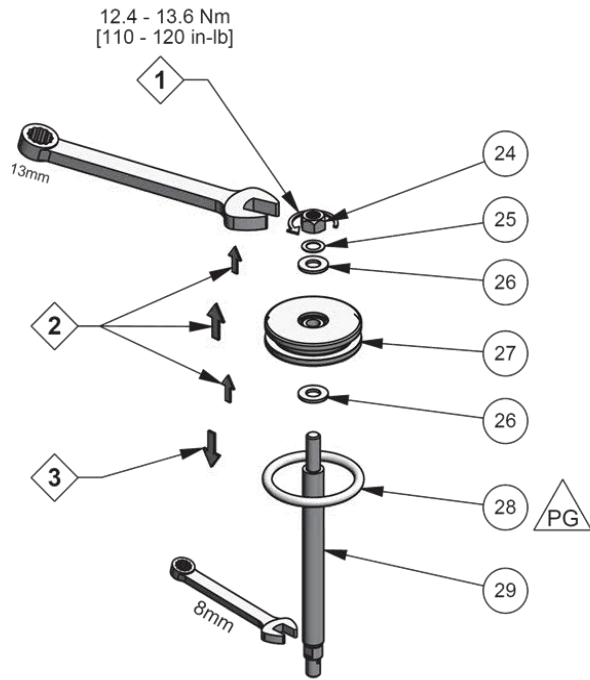
**AX55S AIR MOTOR - MAINTENANCE**



MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	DISASSEMBLY ORDER (Reverse order for assembly)
PG	PETROLEUM JELLY/GREASE
TS	THREAD SEALANT (PTFE tape)

AX55S AIR MOTOR - MAINTENANCE

MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	DISASSEMBLY ORDER (Reverse order for assembly)
PG	PETROLEUM JELLY/GREASE
TS	THREAD SEALANT (PTFE tape)



WARNING	
	<b>PACEMAKER WARNING.</b> You are in the presence of magnetic fields which may interfere with the operation of certain pacemakers.

NOTE	CAUTION
Spool and sleeve assembly (15) is a matched set and cannot be interchanged with other spool and sleeve assemblies	Take care when handling the magnets (13). Avoid getting magnets in close proximity to each other. Injury or damage to magnets may result.

**AX55S AIR MOTOR - TROUBLESHOOTING**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
<b>Pump will not start</b>	No compressed air. System is blocked.	Check compressed air supply. Clear the blockage.
<b>Erratic operation of air motor, air motor stops</b>	Worn poppet assemblies. Worn or dirty spool and sleeve assembly.	Replace poppet assemblies. Clean or replace the spool and sleeve assembly as necessary.
<b>Continuous air leak from the exhaust</b>	Worn poppet assemblies. Worn piston seal. Worn diaphragm.	Replace poppet assemblies. Replace piston seal. Replace diaphragm.



## FX12 & FXL12 FLUID SECTION

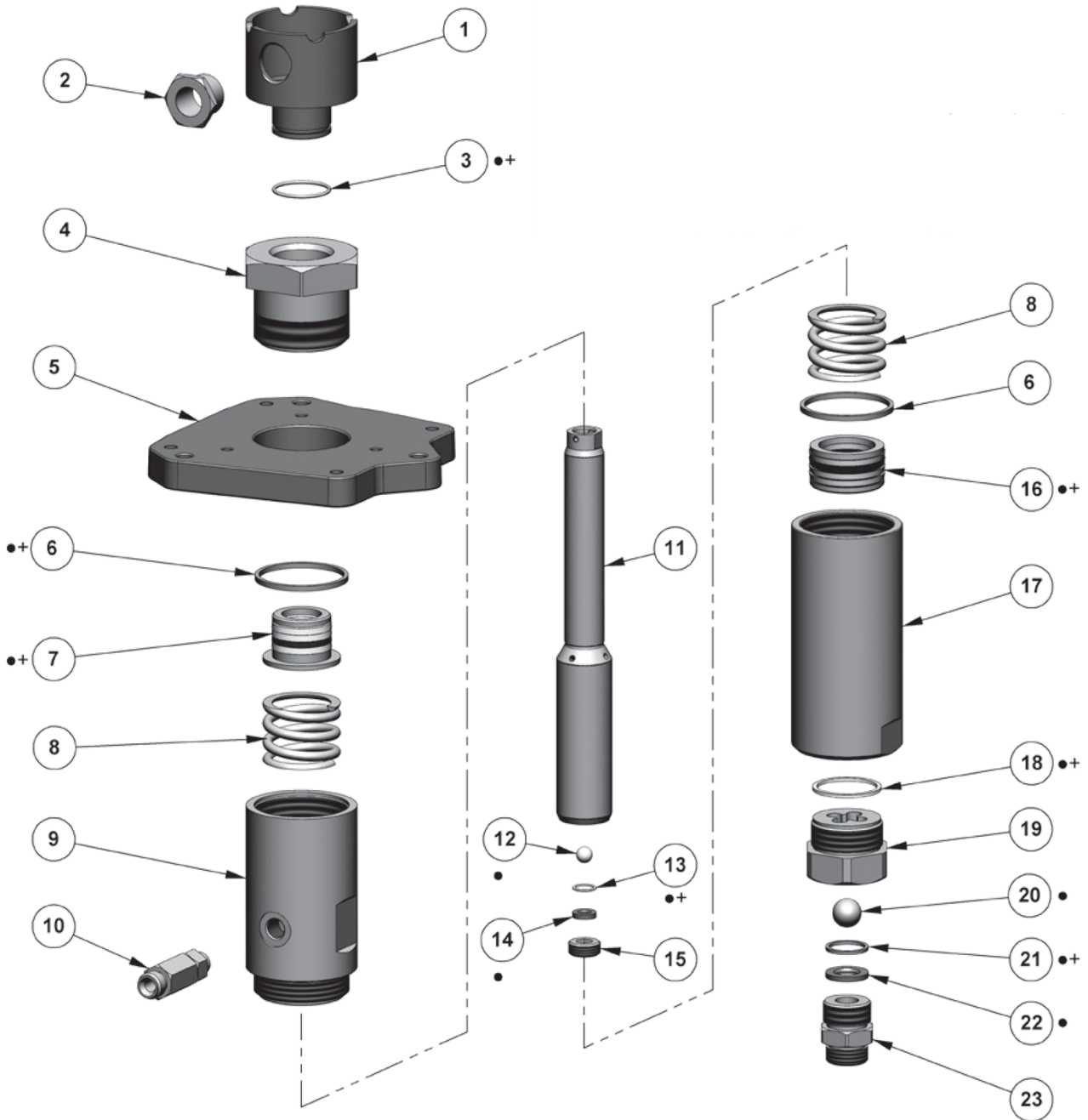
Models: MX1205## & MXL1205##, ##=PL (PTFE/Leather), PP (PTFE), PU (PTFE/UHMWPE), UC (U-Cups), UCU (U-Cups/UHMWPE)



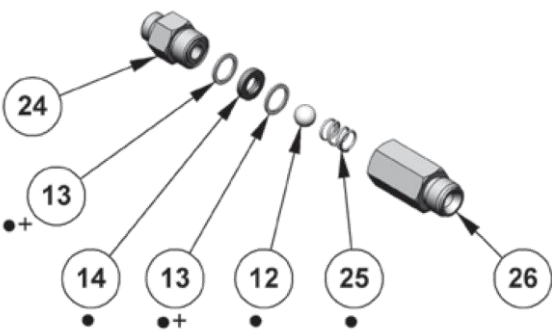
<b>SPECIFICATIONS</b>	
Maximum fluid pressure:	248 bar
Displacement per cycle:	72 cc
Output @ 60 cycles/min:	4.3 L/m [1.1 gal/m]
Fluid inlet size:	FX-3/4" NPS(m), FXL-1/2"NPS(m)
Fluid outlet size:	3/8" BSP(m) & 3/8" NPS(m)
Weight:	6.4 kg [14.1 lbs]
Wetted parts materials of construction:	Stainless Steel, Tungsten Carbide, Hard Chrome, PTFE, Polyethylene, Leather, Ceramic

**FX12 & FXL12 FLUID SECTION (Chevron seals)**

Models: FX12## & FXL12##, ##=PL (PTFE/Leather), PP (PTFE), PU (PTFE/UHMWPE).



**0115-010269 CHECK VALVE**



- Parts are included in Repair Kits
- + Parts are included in Seal Kits

### FX12 & FXL12 FLUID SECTION (Chevron seals)

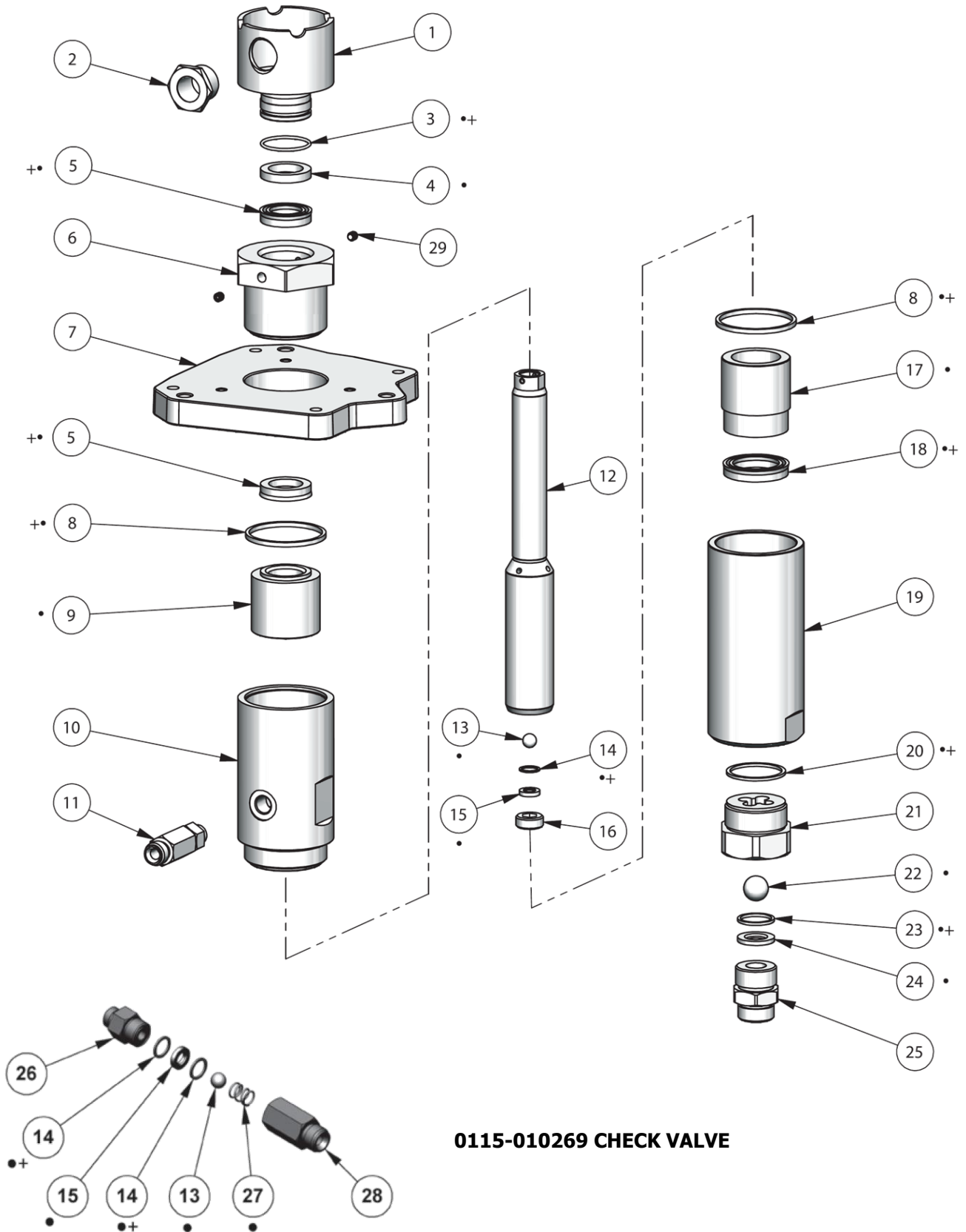
Models: FX12## & FXL12##, ##=PL (PTFE/Leather), PP (PTFE), PU (PTFE/UHMWPE).

ITEM.	PART NUMBER	DESCRIPTION	QUANTITY		
			FX12 & FXL12		
			PL	PP	PU
1	0115-010232	SOLVENT CUP	1	1	1
2	0115-010294	SIGHT GLASS	1	1	1
3	0115-010231 •+	O-RING	1	1	1
4	0115-010141	FX12 UPPER PACKING RETAINER	1	1	1
5	0115-010205	PUMP ADAPTER PLATE	1	1	1
6	0115-010143 •+	PUMP TUBE SEAL	2	2	2
7	0115-010261 •+	UPPER PACKING SET (PTFE/LEATHER)	1	-	-
	0115-010263 •+	UPPER PACKING SET (PTFE)	-	1	-
	0115-010265 •+	UPPER PACKING SET (PTFE/UHMW)	-	-	1
8	0115-010152	PACKING SPRING	2	2	2
9	0115-010137	UPPER PUMP TUBE	1	1	1
10	0115-010269	FX12 CHECK VALVE ASSEMBLY	1	1	1
11	0115-010142	FX12 PUMP ROD	1	1	1
12	0114-014022 •	UPPER BALL(10mm)	2	2	2
13	0115-010144 •+	UPPER SEAT SEAL	3	3	3
14	0115-010145 •	UPPER SEAT	2	2	2
15	0115-010146	FX12 UPPER SEAT RETAINER	1	1	1
16	0115-010262 •+	LOWER PACKING SET (PTFE/LEATHER)	1	-	-
	0115-010264 •+	LOWER PACKING SET (PTFE)	-	1	-
	0115-010266 •+	LOWER PACKING SET (PTFE/UHMW)	-	-	1
17	0115-010138	LOWER PUMP TUBE	1	1	1
18	0115-010140 •+	SEAL	1	1	1
19	0115-010139	LOWER BALL CAGE	1	1	1
20	0114-014025 •	LOWER BALL (18mm)	1	1	1
21	0115-010147 •+	LOWER SEAT SEAL	1	1	1
22	0115-010148 •	LOWER SEAT	1	1	1
23	0115-010149	INLET 3/4" NPS(m) FX12	1	1	1
	0115-010070	INLET 1/2" NPS(m) FXL12	1	1	1
24	0115-010258	FLUID OUTLET FITTING	1	1	1
25	0115-010270 •	CHECK VALVE SPRING	1	1	1
26	0115-010271	CHECK VALVE HOUSING	1	1	1

		FX*12PL	FX*12PP	FX*12PU
•	Parts are included in Repair Kits	0115-010307	0115-010309	0115-010387
+	Parts are included in Seal Kits	0115-010306	0115-010308	0115-010303

**FX12 & FXL12 Fluid Section (U-cup seals)**

Models: FX12UC & FXL12UC



**0115-010269 CHECK VALVE**

- Parts are included in 0115-010305 Repair Kit
- + Parts are included in 0115-010304 Seal Kit

**FX12 & FXL12 Fluid Section (U-cup seals)**

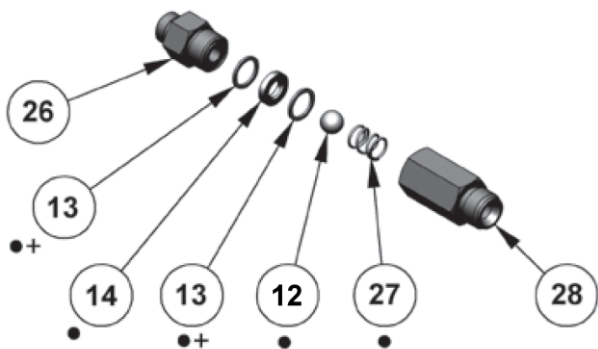
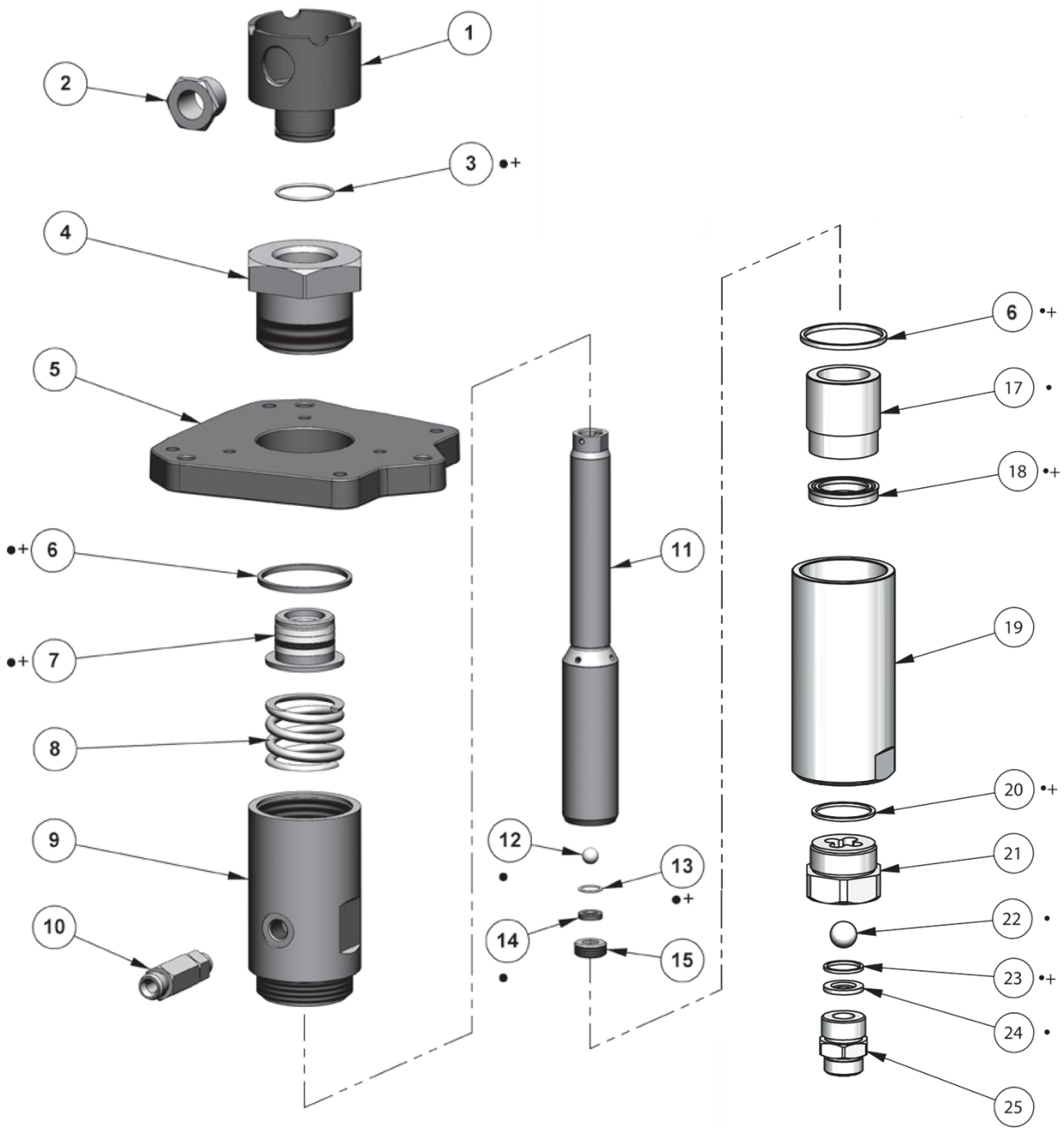
Models: FX12UC &amp; FXL12UC

ITEM.	PART NUMBER	DESCRIPTION	QTY
1	0115-010232	FX12 SOLVENT CUP	1
2	0115-010294	SIGHT GLASS	1
3	0115-010231 •+	O-RING	1
4	0115-010230 •	SPACER	1
5	0115-010161 •+	UPPER U-CUP SEAL	2
6	0115-010229	UPPER U-CUP RETAINER	1
7	0115-010205	PUMP ADAPTER PLATE	1
8	0115-010143 •+	FX12 PUMP TUBE SEAL	2
9	0115-010162 •	UPPER U-CUP SPACER	1
10	0115-010137	FX12 UPPER PUMP TUBE	1
11	0115-010269	FX12 CHECK VALVE ASSEMBLY	1
12	0115-010142	FX12 PUMP ROD	1
13	0114-014022 •	UPPER BALL (10mm)	2
14	0115-010144 •+	FX12 UPPER SEAT SEAL	3
15	0115-010145 •	FX12 UPPER SEAT	2
16	0115-010146	FX12 UPPER SEAT RETAINER	1
17	0115-010164 •	LOWER U-CUP SPACER	1
18	0115-010163 •+	FX12 LOWER U-CUP SEAL	1
19	0115-010138	FX12 LOWER PUMP TUBE	1
20	0115-010140 •+	FX12 LOWER BALL CAGE SEAL	1
21	0115-010139	FX12 LOWER BALL CAGE	1
22	0114-014025 •	LOWER BALL (18mm)	1
23	0115-010147 •+	FX12 LOWER SEAL SEAL	1
24	0115-010148 •	FX12 LOWER SEAT	1
25	0115-010149	INLET 3/4" NPS(m) FX12	1
	0115-010070	INLET 1/2" NPS(m) FXL12	1
26	0115-010258	FLUID OUTLET FITTING	1
27	0115-010270 •	FX12 CHECK VALVE SPRING	1
28	0115-010271	FX12 CHECK VALVE HOUSING	1
29	0114-018251	SET SCREW	2

•	Parts are included in Repair Kit	0115-010305
+	Parts are included in Seal Kit	0115-010304

**FX12 & FXL12 FLUID SECTION (Mixed seals)**

Models: FX12## & FXL12##, ##=UCU (U-Cup/UHMWPE).



**0115-010269 CHECK VALVE**

- Parts are included in Repair Kits
- + Parts are included in Seal Kits

**FX12 & FXL12 FLUID SECTION (Mixed seals)**

Models: FX12## &amp; FXL12##, ##=UCU (U-Cup/UHMWPE).

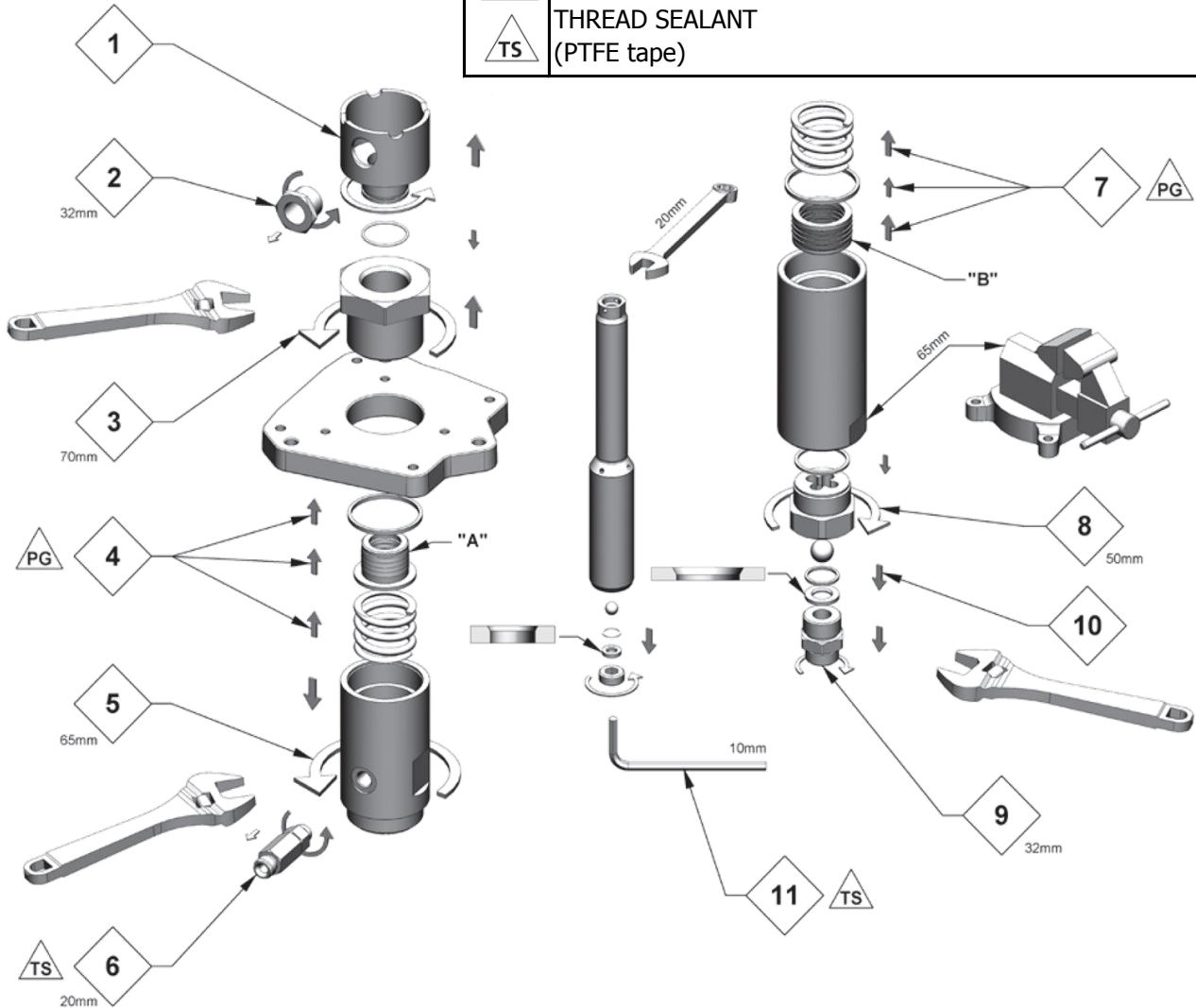
ITEM.	PART NUMBER	DESCRIPTION	QUANTITY
1	0115-010232	SOLVENT CUP	1
2	0115-010294	SIGHT GLASS	1
3	0115-010231	•+ O-RING	1
4	0115-010141	FX12 UPPER PACKING RETAINER	1
5	0115-010205	PUMP ADAPTER PLATE	1
6	0115-010143	•+ PUMP TUBE SEAL	2
7	0115-010729	•+ UPPER PACKING SET (UHMW)	1
8	0115-010152	PACKING SPRING	2
9	0115-010137	UPPER PUMP TUBE	1
10	0115-010269	FX12 CHECK VALVE ASSEMBLY	1
11	0115-010142	FX12 PUMP ROD	1
12	0114-014022	• UPPER BALL(10mm)	2
13	0115-010144	•+ UPPER SEAT SEAL	3
14	0115-010145	• UPPER SEAT	2
15	0115-010146	FX12 UPPER SEAT RETAINER	1
16			
17	0115-010164	• LOWER U-CUP SPACER	1
18	0115-010163	•+ FX12 LOWER U-CUP SEAL	1
19	0115-010138	FX12 LOWER PUMP TUBE	1
20	0115-010140	•+ FX12 LOWER BALL CAGE SEAL	1
21	0115-010139	FX12 LOWER BALL CAGE	1
22	0114-014025	• LOWER BALL (18mm)	1
23	0115-010147	•+ FX12 LOWER SEAL SEAL	1
24	0115-010148	• FX12 LOWER SEAT	1
25	0115-010149	INLET 3/4" NPS(m) FX12	1
	0115-010070	INLET 1/2" NPS(m) FXL12	1
26	0115-010258	FLUID OUTLET FITTING	1
27	0115-010270	• FX12 CHECK VALVE SPRING	1
28	0115-010271	FX12 CHECK VALVE HOUSING	1

•	Parts are included in Repair Kits	0115-010730
+	Parts are included in Seal Kits	0115-010731

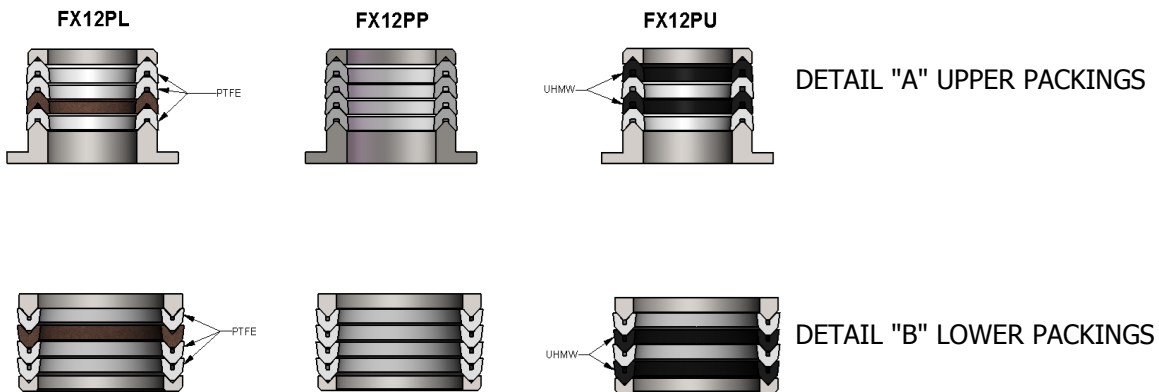
## FX12 & FXL12 FLUID SECTION (Chevron seals) - MAINTENANCE

Models: FX12## & FXL12##, ##=PL (PTFE/Leather), PP (PTFE), PU (PTFE/UHMWPE).

MAINTENANCE SYMBOLS	
#	MAINTENANCE ORDER (Reverse for assembly)
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)



### FX12 & FXL12 SEAL ORIENTATION

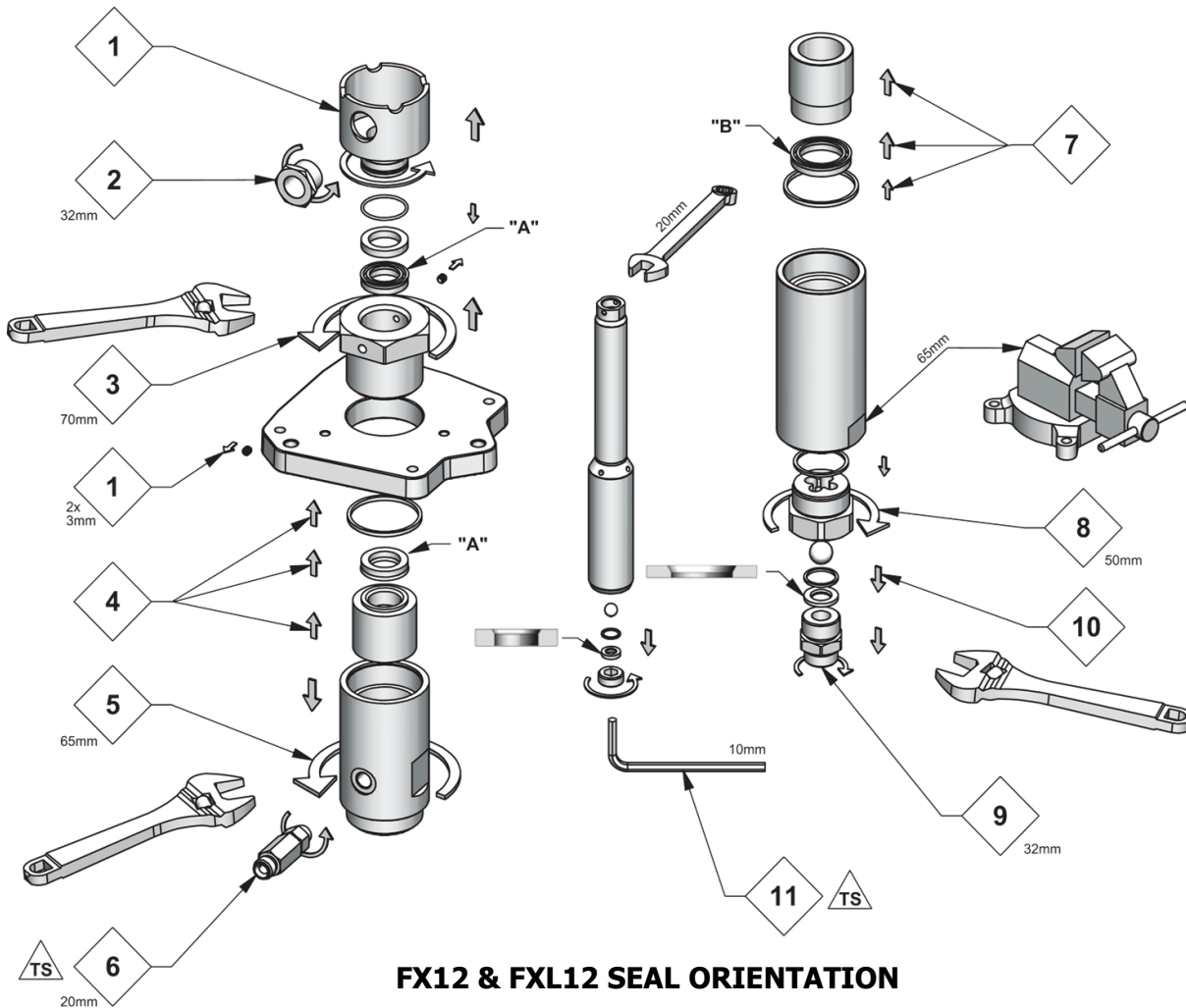




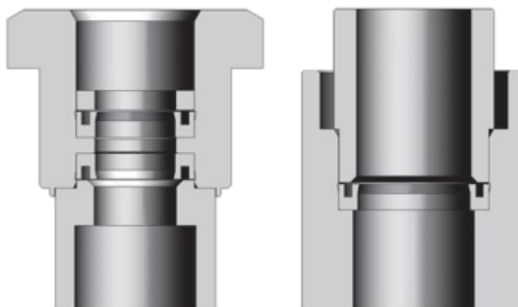
# FX12 FLUID SECTION (U-CUP Seals) - MAINTENANCE

MODEL: FX12UC & FXL12UC

MAINTENANCE SYMBOLS	
#	MAINTENANCE ORDER (Reverse for assembly)
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)



## FX12 & FXL12 SEAL ORIENTATION



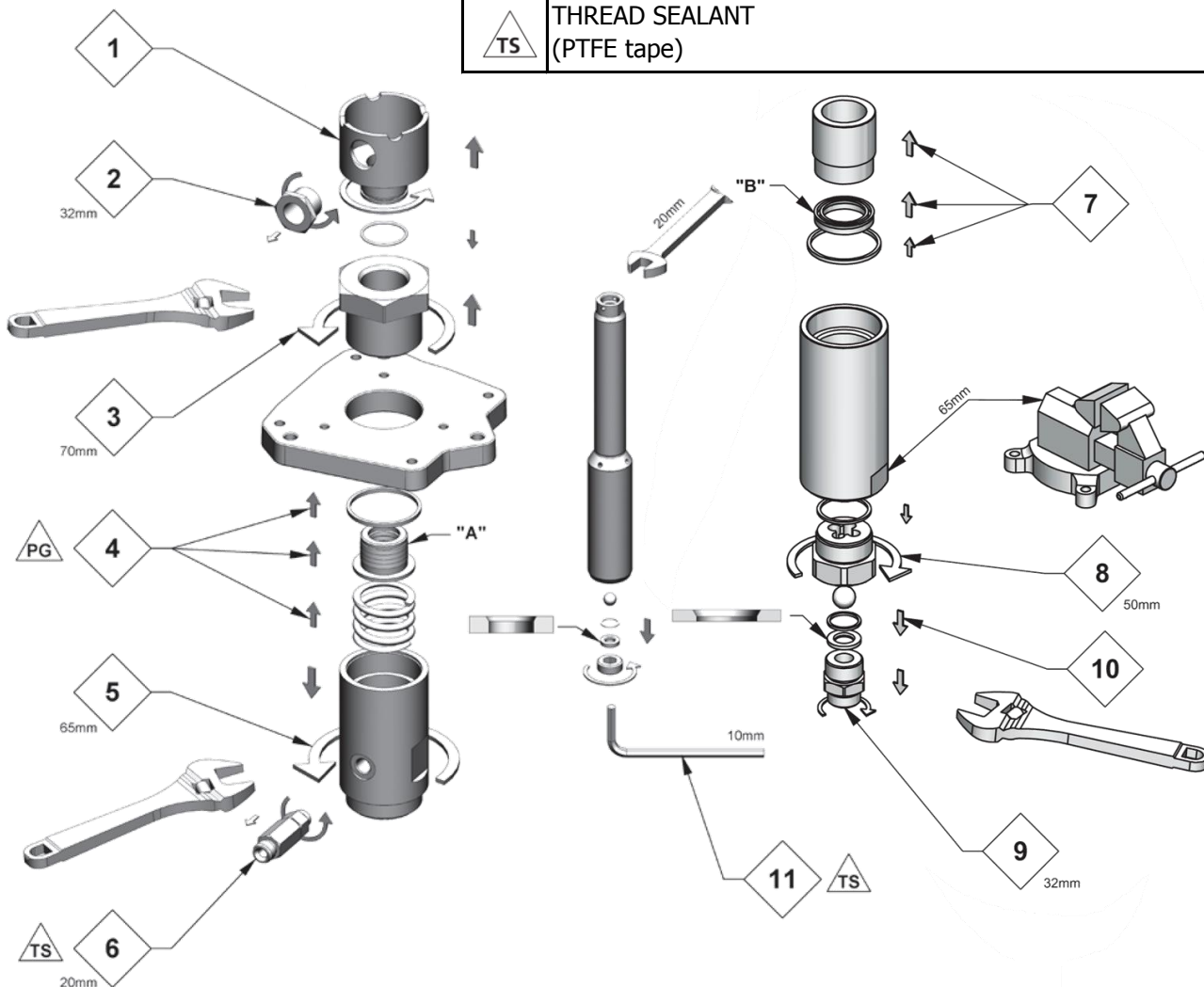
DETAIL "A" UPPER SEAL

DETAIL "B" LOWER SEAL

### FX12 & FXL12 FLUID SECTION (Mixed seals)

Models: FX12## & FXL12##, ##=UCU (U-Cup/UHMWPE).

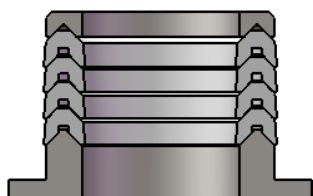
MAINTENANCE SYMBOLS	
#	MAINTENANCE ORDER (Reverse for assembly)
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)



### FX12 & FXL12 SEAL ORIENTATION

DETAIL "A" UPPER PACKINGS

FX12UCU / FXL12UCU



DETAIL "B" LOWER SEAL



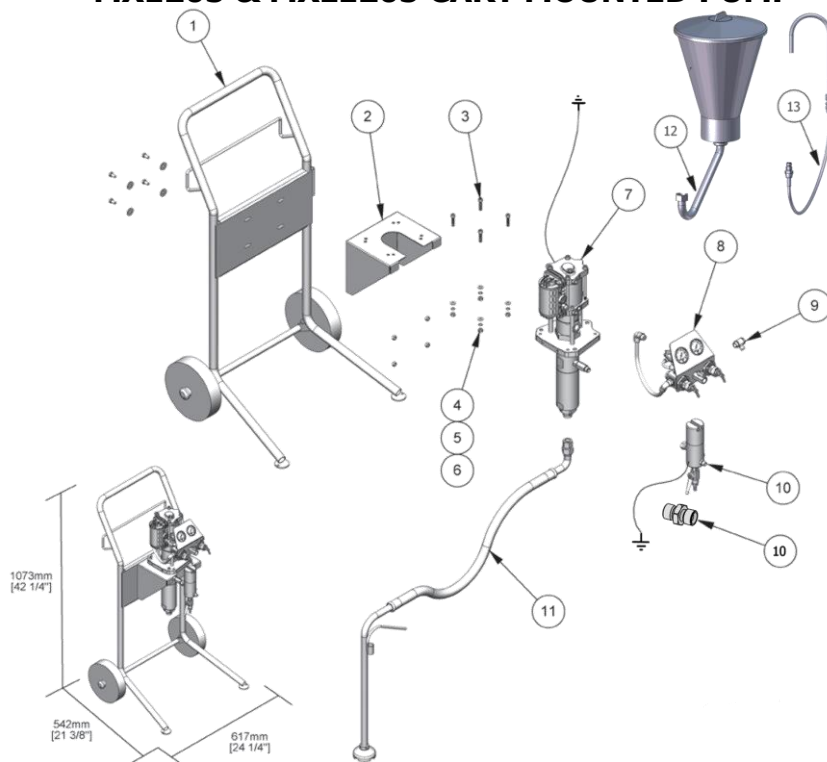
## FX12 FLUID PUMP ASSEMBLIES - TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
<b>Material in solvent cup</b>	Worn or dirty upper packings.	Replace or clean upper packings as necessary.
<b>Pump does not stop on the down stroke</b>	Worn or dirty lower ball check.	Replace or clean the parts as necessary.
<b>Pump does not stop on the up stroke</b>	Worn or dirty upper ball check. Worn or dirty lower packings.	Replace or clean the parts as necessary.
<b>Pump runs erratically</b>	Blocked material siphon kit. Blocked inlet filter or strainer. Low material level.	Replace or clean the siphon kit. Replace or clean inlet filter or strainer. Replace or refill material container.
<b>Pump runs, with no output</b>	Loose connection in between pump and siphon assembly. Stuck lower ball.	Check that all connections are tight. Replace or clean the parts as necessary.

### Packing Recommendation

Packing Material	Recommendation
PU (PTFE & UHMW)	Most materials
PL (PTFE & Leather)	High temperature applications
PP (PTFE)	UV and acid based materials
UC (U-Cups)	Low friction applications
UCU (U-Cup/UHMWPE).	Low friction applications

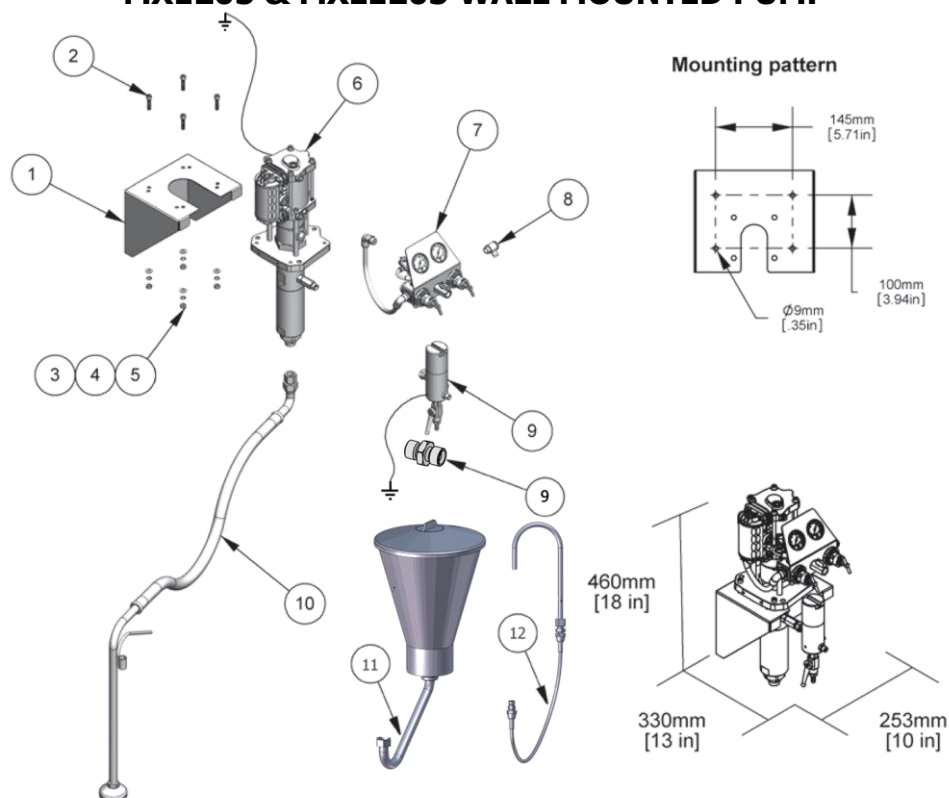
## MX1205 & MXL1205 CART MOUNTED PUMP



\* = OPTIONS

ITEM	PART NUMBER	DESCRIPTION	QTY	
			MX	MXL
1	0115-010186	CART	1	
2	0115-010179	WALL BRACKET	1	
3	0115-010001	SCREW	4	
4	0115-010030	M8 HEX NUT	4	
5	0115-010031	LOCKWASHER	4	
6	0115-010035	PLAIN WASHER	4	
7	MX1205XX	MX1205 BARE PUMP	1	-
	MXL1205XX	MXL1205 BARE PUMP	-	1
8	0115-010180	AIR CONTROL 2 REGULATORS & VALVE	1	-
	0115-010664	AIR CONTROL 2 REGULATORS	-	1
9	0114-009164	ELBOW FITTING	1	
10	0110-009130	HP FILTER (100 mesh)	1	1*
	0115-010705	OUTLET FITTING	-	1*
11	0115-010236	SUCTION HOSE (20 mesh) 3/4"	1	-
	0115-010696	SUCTION HOSE (20 mesh) 1/2"	-	1
12	0115-010726	HOPPER 6L [1.6 US Gal] (3/4" CONNECTION)	1*	-
	0115-010701	HOPPER 6L [1.6 US Gal] (1/2" CONNECTION)	-	1*
13	0114-009629	1/4" RETURN HOSE	1*	-
	0115-010712	1/4" RETURN HOSE	-	1*

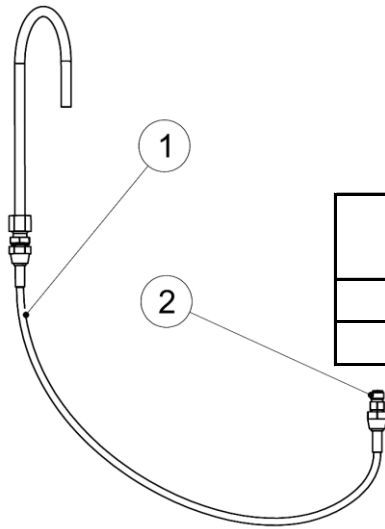
## MX1205 & MXL1205 WALL MOUNTED PUMP



\* = OPTIONS

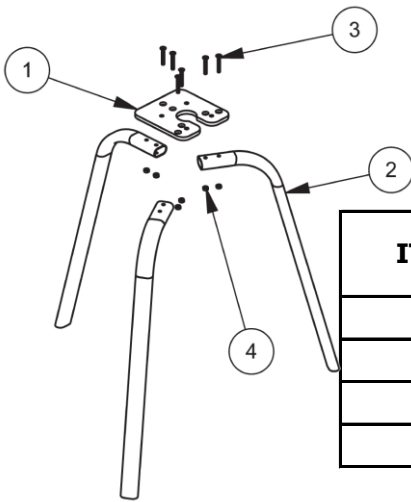
ITEM	PART NUMBER	DESCRIPTION	QTY	
			MX	MXL
1	0115-010179	WALL BRACKET	1	
2	0115-010001	SCREW	4	
3	0115-010030	M8 HEX NUT	4	
4	0115-010031	LOCKWASHER	4	
5	0115-010035	PLAIN WASHER	4	
6	MX1205XX	MX1205 BARE PUMP	1	-
	MXL1205XX	MXL1205 BARE PUMP	-	1
7	0115-010180	AIR CONTROL 2 REGULATORS & VALVE	1	-
	0115-010664	AIR CONTROL 2 REGULATORS	-	1
8	0114-009164	ELBOW FITTING	1	
9	0110-009130	HP FILTER (100 mesh)	1	1*
	0115-010705	OUTLET FITTING	-	1*
10	0115-010236	SUCTION HOSE (20 mesh) 3/4"	1	-
	0115-010696	SUCTION HOSE (20 mesh) 1/2"	-	1
11	0115-010726	HOPPER 6L [1.6 US Gal] (3/4" CONNECTION)	1*	-
	0115-010701	HOPPER 6L [1.6 US Gal] (1/2" CONNECTION)	-	1*
12	0114-009629	1/4" RETURN HOSE	1*	-
	0115-010712	1/4" RETURN HOSE	-	1*

**ACCESSORIES**



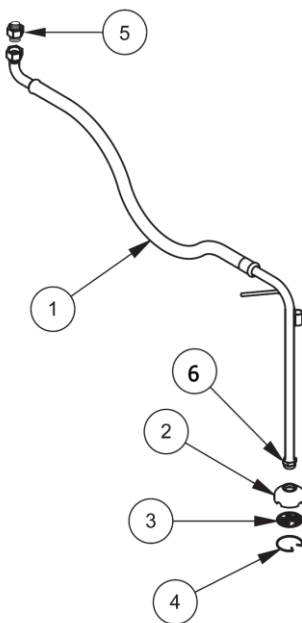
**0114-009629  
1/4" RETURN HOSE**

ITEM	PART NO	DESCRIPTION	QTY
1	0115-010695	DUMP HOSE & TUBE	1
2	0114-016059	FITTING 1/4"	1



**0115-010100  
TRIPOD**

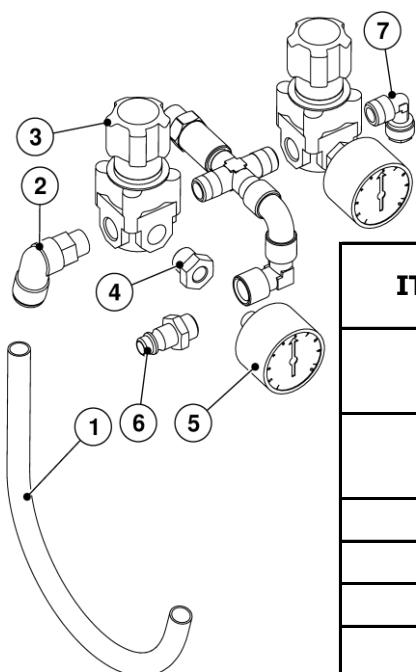
ITEM	PART NO	DESCRIPTION	QTY
1	0115-010101	MOUNTING PLATE	1
2	0115-010210	TRIPOD LEG	3
3	0115-010212	FLAT HEAD SCREW	6
4	0115-010211	LOCKING NUT	6



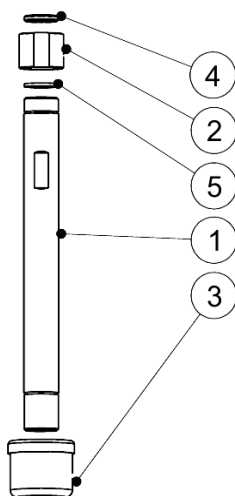
**0115-010236-K  
3/4" SUCTION HOSE (MX)**

ITEM	PART NO	DESCRIPTION	QTY
1	0114-018506	SUCTION HOSE (DN20)	1
2	0114-013734	FILTER HOUSING	1
3	0114-014112	STRAINER (20 MESH)	1
4	0114-014080	RETAINING RING	1
5	0115-010235	ADAPTER 3/4"M-1/2"F	1
6	0114-016024	ADAPTER	1
<b>ADDITIONAL STRAINERS</b>			
	0114-014068	50 Mesh	
	0114-014221	70 Mesh	

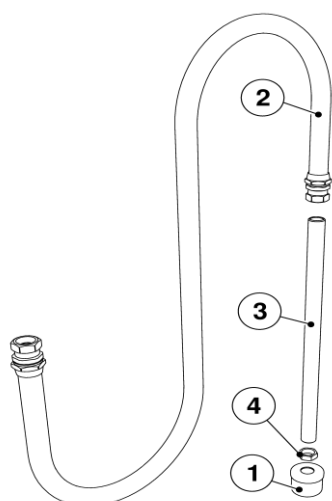
## ACCESSORIES

**0115-010664****AIR CONTROL 2 REGULATORS (MXL)**

ITEM	PART NO	DESCRIPTION	QTY
1	0115-010694	Ø12 NYLON TUBE	0.32
2	0115-010666	12mm OD ELBOW	1
3	ZZ-3073	AIR REGULATOR	2
4	0114-019209	REDUCING BUSH	2
5	GA-382-P	PRESSURE GAUGE	2
6	MPV-10	QD STEM 1/4 BSP M	1
7	0115-010667	Ø8 ELBOW	1

**0115-010670****3/4" SUCTION TUBE (MX)**

ITEM	PART NO	DESCRIPTION	QTY
1	0115-010105	SUCTION TUBE	1
2	0115-010104	ADAPTER	1
3	0115-010668	3/4" STRAINER 15 MESH	1
4	0115-010693	SEAL	1
5	0114-013834	SEAL	1

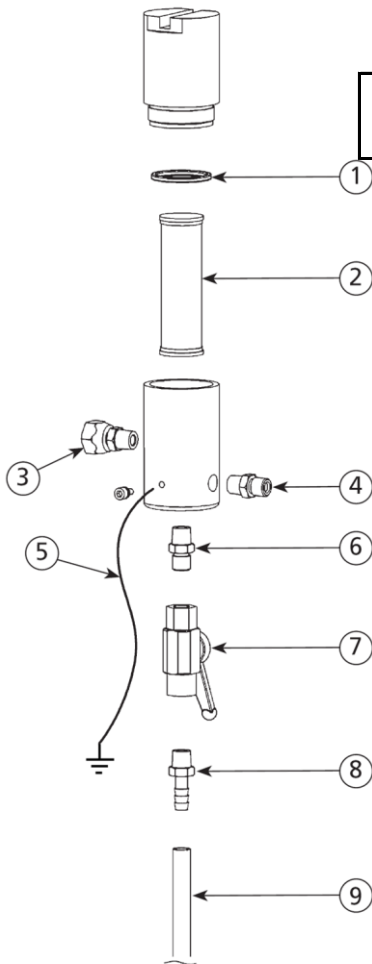
**0115-010696****1/2" SUCTION HOSE (MXL)**

ITEM	PART NO	DESCRIPTION	QTY
1	0115-010704	1/2" STRAINER 30 MESH	1
2	0115-010698	1/2" HOSE	1
3	0115-010697	TUBE	1
4	0115-010728	NUT	1

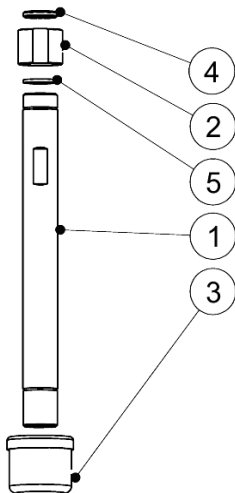
**ACCESSORIES**

**0110-009130  
HIGH PRESSURE FILTER**

272 BAR Max, 100 MESH  
3/8" BSP F INLET, 1/4" NPSM OUTLET



ITEM	PART NO	DESCRIPTION	QTY
1	0114-016061	SEAL	1
2	0110-009132	FILTER 100 MESH	1
3	0114-016058	3/8" BSP SWIVEL	1
4	0114-016059	1/4" NPSM NIPPLE	1
5	0114-011798	GROUND WIRE KIT	1
6	0114-019090	1/4" NIPPLE	1
7	0114-019091	BALL VALVE	1
8	0114-019985	HOSE NIPPLE	1
9	0110-009103	DUMP HOSE	1
ADDITIONAL FILTERS			
	0110-009131	50 MESH	
	0110-009133	150 MESH	
	0110-009134	200 MESH	

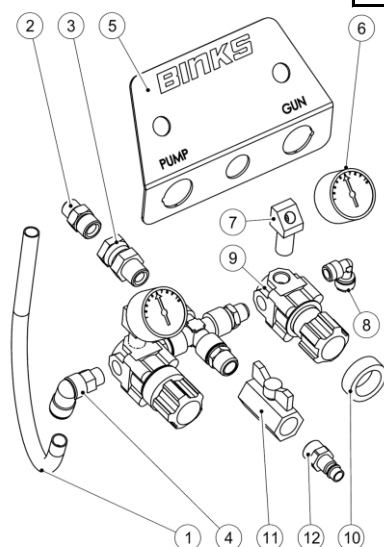


**0115-010699  
1/2" SUCTION TUBE (MXL)**

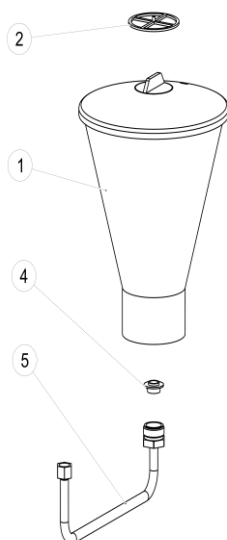
ITEM	PART NO	DESCRIPTION	QTY
1	0115-010702	SUCTION TUBE	1
2	0115-010703	ADAPTER	1
3	0115-010704	3/4" STRAINER 15 MESH	1
4	0115-010165	SEAL	1
5	0115-010165	SEAL	1



## ACCESSORIES

**0115-010180**  
**AIR CONTROLS (MX)**


ITEM	PART NO	DESCRIPTION	QTY
1	0115-010694	Ø12 TUBE	0.32
2	0115-010157	MOUNTING STUD	1
3	0115-010324	3/8 BSP SWIVEL	1
4	0115-010666	Ø12 ELBOW	1
5	0115-010680	PANEL	1
6	GA-382-P	PRESSURE GAUGE	2
7	DVX-56	GAUGE BLOCK	2
8	0115-010667	Ø8 ELBOW	1
9	ZZ-3073	AIR REGULATOR	2
10	DVX-58	REGULATOR NUT	2
11	0115-010684	3/8" BALL VALVE	1
12	0110-009091	QD STEM 3/8"	1


**0115-010701**

**HOPPER 6L [1.6 US Gal] (1/2" CONNECTION)**

ITEM	PART NO	DESCRIPTION	QTY
1	ZZ-2571	HOPPER	1
2	00-00-0002147	FILTER	1
3	00-00-0002148	TENSION RING	1
4	ZZ-2587	PTFE SEAL	1
5	0115-010707	SUCTION TUBE	1


**PUMP LUBRICATION**

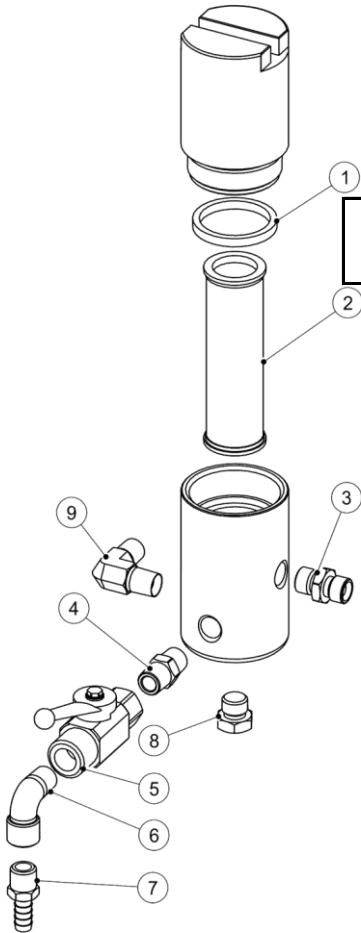
0114-016099	LUBRICATION-SOLVENT BASED 0.25l
0114-016100	LUBRICATION-WATER BASED 0.25l
0114-014871	LUBRICATION-WATER BASED 0.5l
0114-009433	LUBRICATION-SOLVENT BASED 0.5l

ACCESSORIES

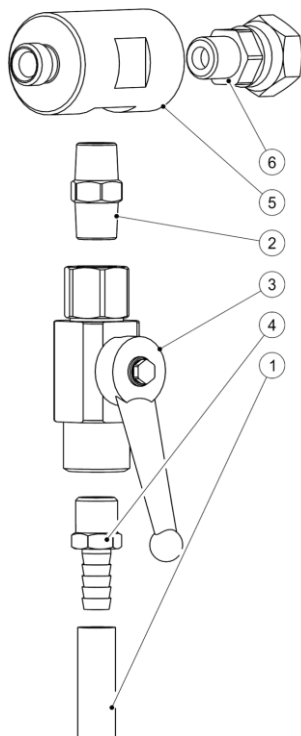
**0115-010200**  
**HIGH PRESSURE FILTER (PAIL)**

272 BAR Max, 100 MESH

3/8" BSP F INLET, 1/4" NPSM OUTLET



ITEM	PART NO	DESCRIPTION	QTY
1	0114-016061	SEAL	1
2	0110-009132	FILTER SCREEN 100 MESH	1
3	0114-013730	NIPPLE 1/4"NPSM	1
4	0114-019090	NIPPLE	1
5	0114-019091	BALL VALVE	1
6	0114-0200027	ELBOW	1
7	0114-019985	HOSE CONNECTOR	1
8	0115-010600	PLUG	1
9	20-2828	ELBOW	1
10	0114-011798	GROUND WIRE (NOT SHOWN)	1
ADDITIONAL FILTERS			
	0110-009131	50 MESH	
	0110-009133	150 MESH	
	0110-009134	200 MESH	



**0115-010672**  
**DUMP VALVE KIT**

272 BAR Max

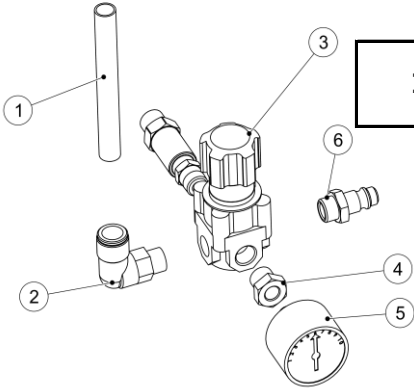
1/4"NPSM F SWIVEL - 1/4" BSP/NPS M

ITEM	PART NO	DESCRIPTION	QTY
1	0110-009103	DUMP HOSE	0.6
2	0114-019090	NIPPLE	1
3	0114-019091	BALL VALVE	1
4	0114-019985	HOSE CONNECTOR	1
5	0115-010673	MANIFOLD	1
6	0115-010674	SWIVEL NUT	1

ACCESSORIES

0115-010708

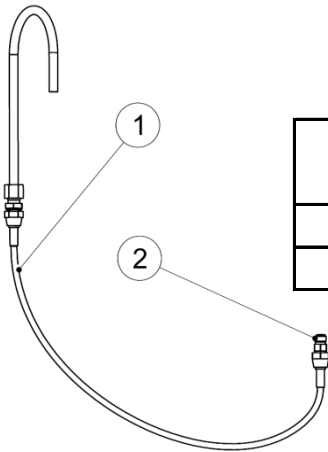
AIR CONTROL 1 REGULATOR (MXL)



ITEM	PART NO	DESCRIPTION	QTY
1	0115-010694	Ø12 TUBE	0.32
2	0115-010666	Ø12 ELBOW	1
3	ZZ-3073	AIR REGULATOR	1
4	0114-019209	REDUCING BUSH	1
5	GA-382-P	PRESSURE GAUGE	1
6	MPV-10	QD STEM 1/4 BSP M	1

0115-010712

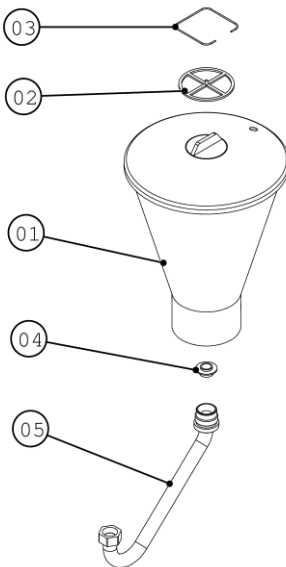
1/4" RETURN HOSE



ITEM	PART NO	DESCRIPTION	QTY
1	DVX-115	DUMP HOSE & TUBE	1
2	0114-016059	FITTING 1/4"	1

0115-010726

HOPPER 6L [1.6 US Gal] (3/4" CONNECTION)



ITEM	PART NO	DESCRIPTION	QTY
1	ZZ-2571	HOPPER	1
2	00-00-0002147	FILTER	1
3	00-00-0002148	TENSION RING	1
4	ZZ-2587	PTFE SEAL	1
5	0114-016041	SUCTION TUBE	1

## **WARRANTY POLICY**

Binks products are covered by Carlisle Fluid Technologies five year materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. For specific warranty information please contact the closest Carlisle Fluid Technologies location listed below.

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Toll Free Fax: 1-888-246-5732

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ventas@carlisleleft.com.mx  
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