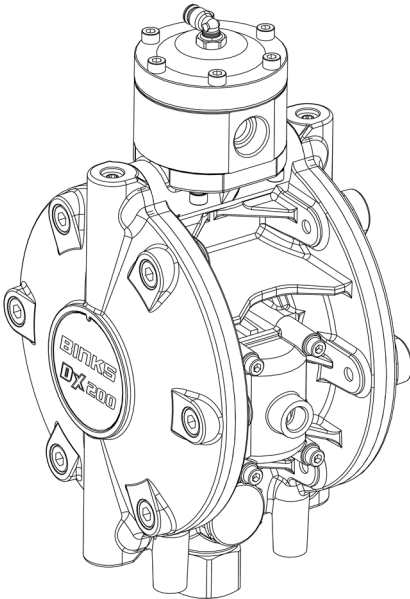
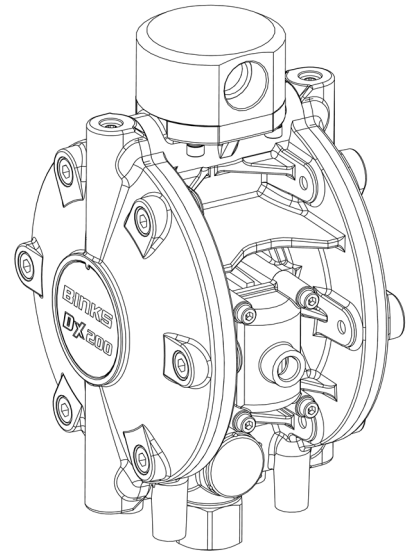


DX200

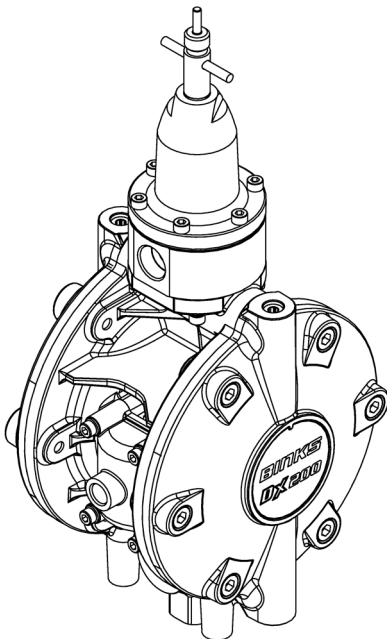
Stainless Steel Diaphragm Pump



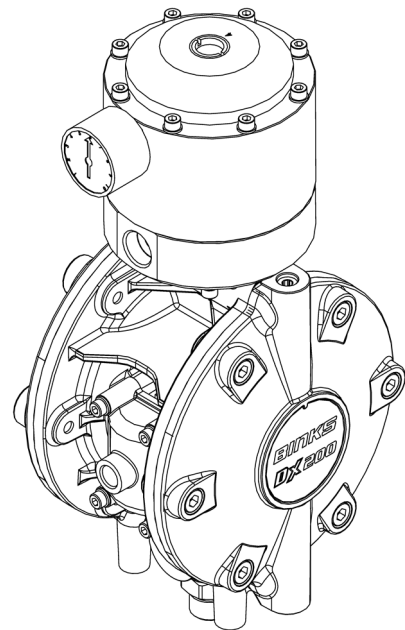
DX200SR



DX200SN



DX200SM



DX200SP

Patent US9447780

Product Description / Object of Declaration: Diaphragm Pumps - DX70, DX200, DX200-3 Bare pump and packages

EN

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 Ex h IIB T4 Gb

Notified body details and role: Element Materials Technology (0891)
Lodging of Technical file

This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer: Carlisle Fluid Technologies 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

EN 1127-1:2011 Explosive atmospheres - Explosion prevention - Basic concepts

EN ISO 80079-36:2016 Explosive Atmospheres- Part 36: Non Electrical equipment for explosive atmospheres- Basic methods and requirements.



EN ISO 80079-37:2016 Explosive Atmospheres- Part 37: Non Electrical equipment for explosive atmospheres - protection by methods "c", "b" and "k".

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 Carlisle Fluid
Technologies UK Ltd:

D Smith
3/5/17

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

 WARNING	 CAUTION	NOTE
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.



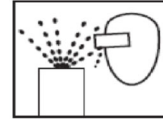
READ THE MANUAL. Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



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.



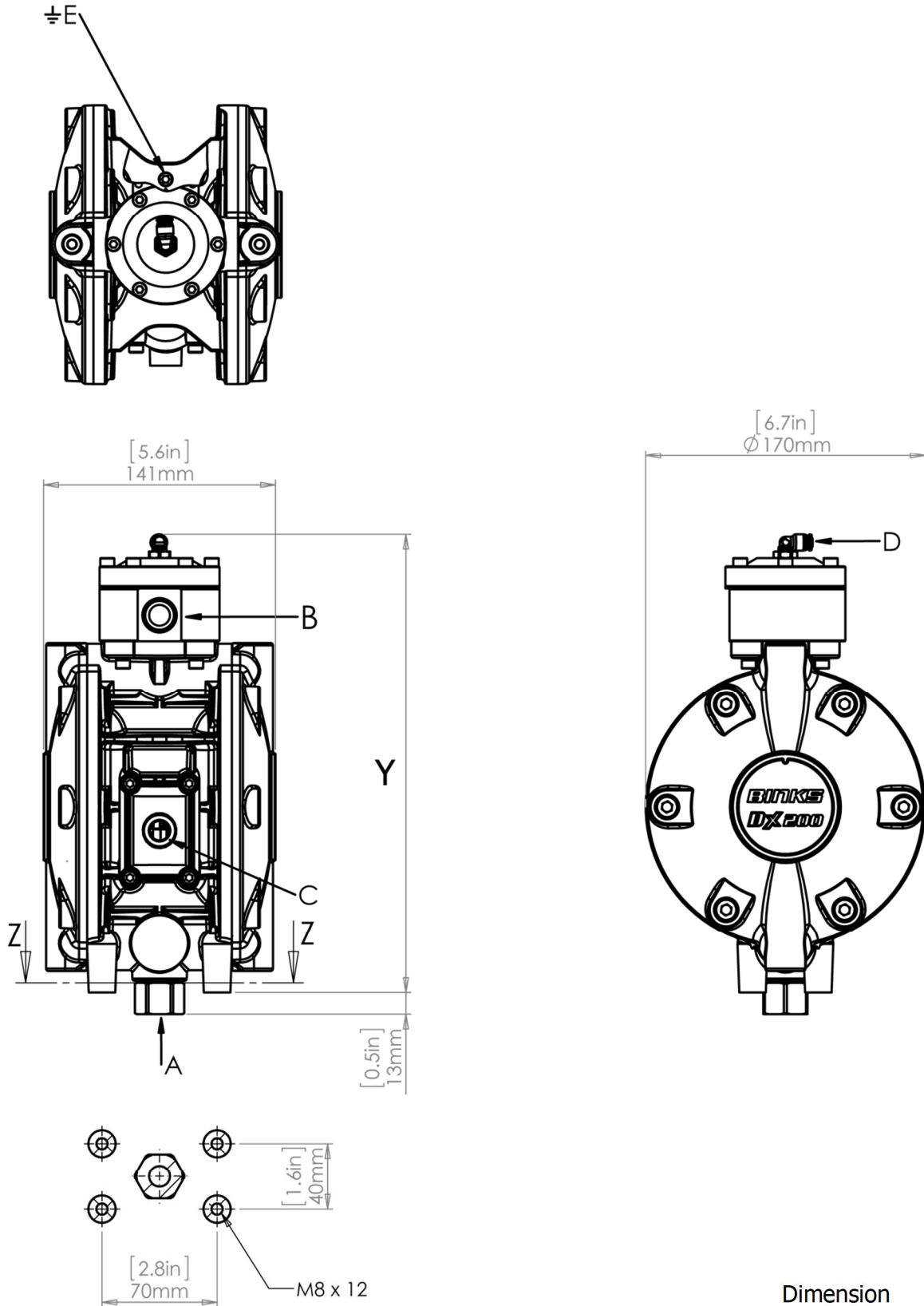
PINCH POINT HAZARD. Moving parts can crush and cut. Pinch points are any areas where there are moving parts.

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

Specification

	Ratio:	1:1
	Maximum air inlet pressure:	7 Bar [100 psi]
	Maximum fluid pressure:	7 Bar [100 psi]
	Displacement per cycle:	0.20 Litres [0.05 US gall]
	Output @ 60 cycles / min:	12 Litres/min [3.17 US gall/min]
	Maximum Recommended Continuous Cycle Rate (cycles / min):	25
	Maximum Recommended Intermittent Cycle Rate (cycles / min):	60
A	Fluid inlet connection:	1/2" BSPP Female
B	Fluid outlet connection:	1/2" BSPP Female
C	Air inlet connection:	1/4" Universal (BSPP/ NPSM) Female
D	Fluid regulator pilot connection:	Ø4mm [Ø5/32"]
	Maximum dry/wet Lift:	4.6m [15.1ft] / 7.5m [24.6ft]
	Air volume / cycle @ 6.9 Bar/100psi:	2.83 l/min [0.1 SCFM]
	Air flow @ 25 cycles / min 6.9 bar / 100psi:	71 l/min [2.5 SCFM]
	Air flow @ 60 cycles / min 6.9 bar / 100psi:	139 l/min [4.9 SCFM]
	Recommended air quality ISO 8573.1 Class 3.3.2 #:	Dirt: 5 µm
		Water: -20°C@7bar (940ppm)
		Oil: 0.1mg/m ³
		Non Lubricated
	Noise Level @ 30 cycles/min & 7 bar [100 psi]	71.2 dBA Leq
E	Earth connection resistance:	<1Ω
	Weight:	8.05Kg [17.75 lb's]
	Temperature range	0 - 40 °C [32 - 104 °F]

Installation



SECTION Z-Z

	Dimension
	Y
DX200SN	249mm
DX200SR	270mm
DX200SM	379mm
DX200SP	339mm

Prior To Use

This product should be flushed with a suitable compatible solvent prior to use.

Mount the pump securely and position the pump at a convenient height to allow for maintenance.

Attach flexible hoses to all connections. Connect a regulated air supply to the air connection.

Set the pump speed to a slow cycle rate and prime the pump to remove any air before increasing pressure.

Fluid Regulator Air Pilot

Set the air regulator pressure to give the desired fluid flow.

The pump inlet pressure should nominally be 1 bar [15 psi] higher.

ATEX special conditions for safe use:

Pump Earthing

The pump must be earthed at all times. A resistance $<1\Omega$ when measuring with an ohm-meter at the earth point

Earth connection, Binks Part No. 0114-011798

Paint section materials of construction

DX200S# Pumps

Item	Material
Pump body inserts	Stainless steel
End cap	Stainless steel
Diaphragms	PTFE
Seals	FKM/PE
Valve ball & spring	Stainless steel
End cap plugs	Stainless steel
Ball Cage	(Acetal) POM
Fluid regulator & pulsation chamber	Stainless steel

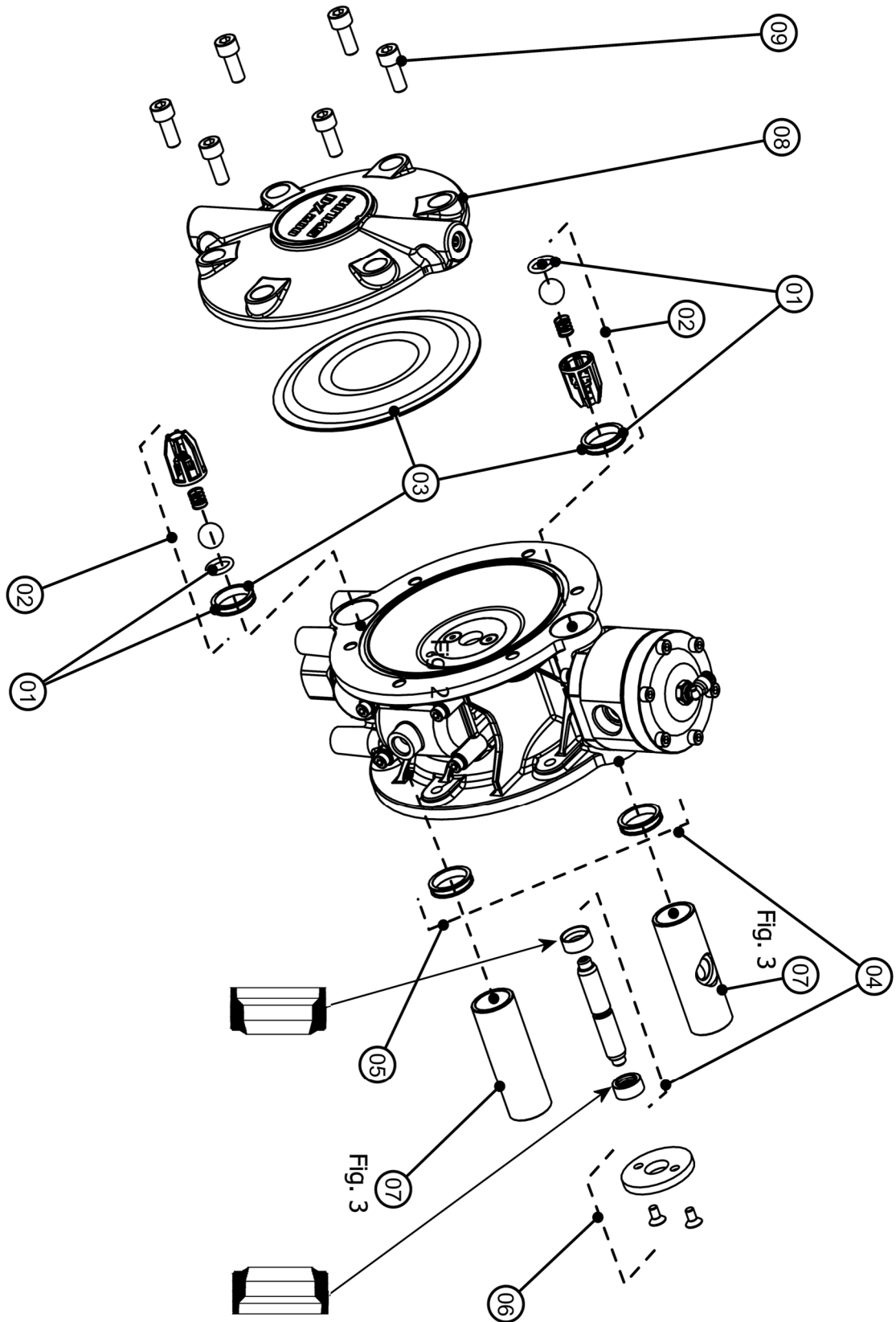
DX200SE# Pumps

Item	Material
Pump body inserts	Stainless steel
End cap	Stainless steel
Diaphragms	PTFE
Seals	PU/PE
Valve ball	PU
End cap plugs	Stainless steel
Ball Cage	(Acetal) POM

Spare parts

Item	Part No.	Description
1	DXK-222	Check valve seal kit x4
	DXK-260	Enamel check valve seal kit x4
2	DXK-223	Check valve kit x4
	DXK-262	Enamel check valve kit x4
3	DXK-224	Diaphragm kit x2
4	DXK-225	Shaft & seal kit
5	DXK-226	End cap seal kit x4
6	DXK-206	Caps & screws x2
7	DXK-283	Stainless steel inserts
8	DXK-227	End cap x1 - Includes Item 5 x2
9	DXK-207	End cap bolts x12

Spare Parts



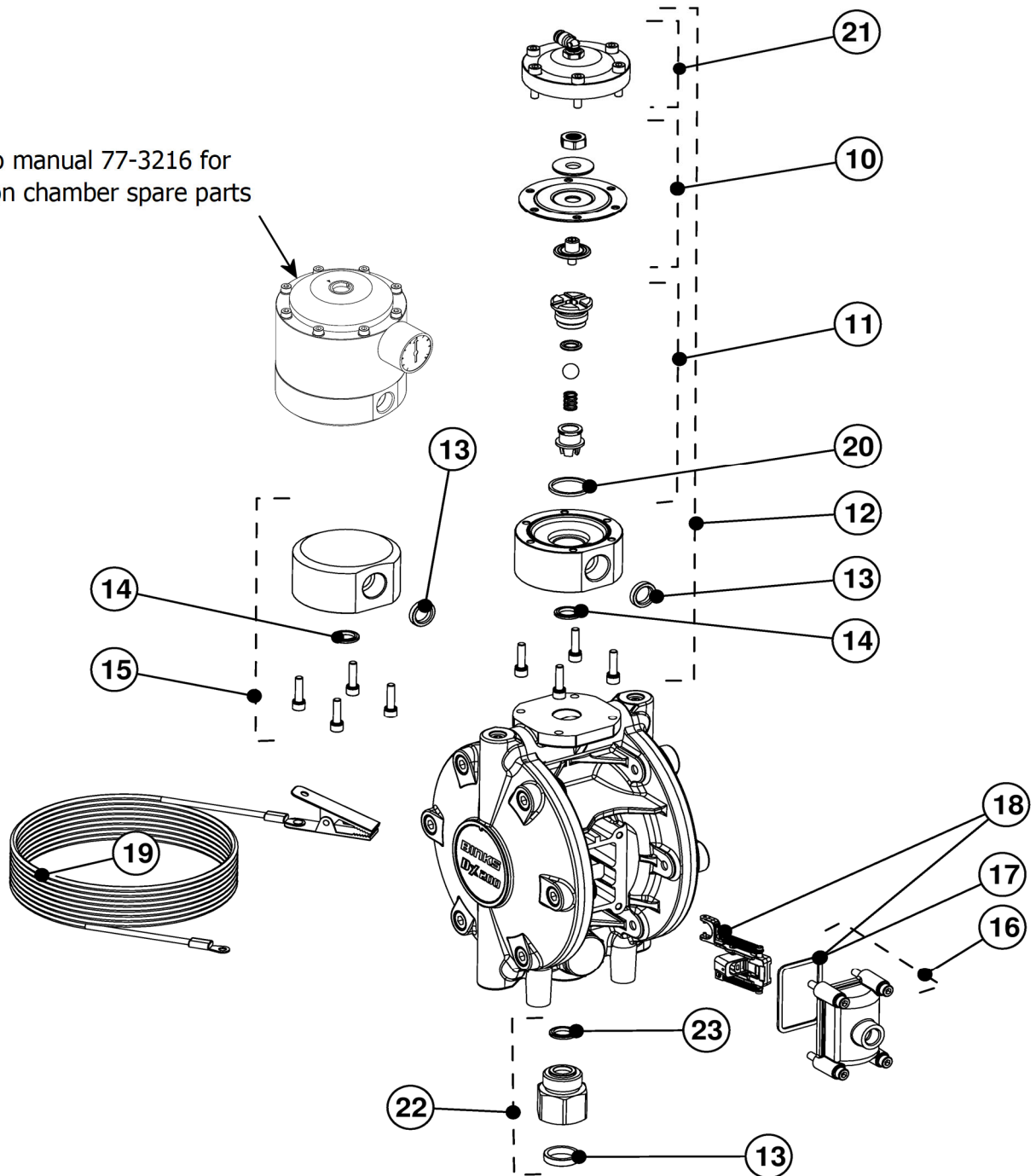
Spare Parts

Item	Part No.	Description
10	DXK-213	Diaphragm assembly
11	DXK-214	Regulator Insert
12	DXK-228	Fluid regulator assembly
13	DXK-229	Inlet/outlet seal x4
14	DXK-230	Insert seal x4
15	DXK-231	Non regulated assembly
16	DXK-18	Cover, seal & screws
17	DXK-25	Gasket x4
18	DXK-216	Air valve kit
19	0114-011798	Grounding cable 4m
20	DXK-215	Seal x4
21	DXK-212	Regulator cap & screws
22	DXK-232	1/2" Female inlet connector kit, with seals

Spare parts

Note:

Refer to manual 77-3216 for pulsation chamber spare parts

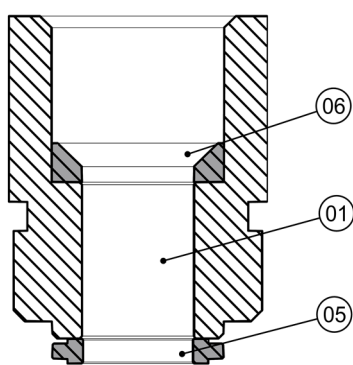


Spare parts

Item	Part No.	Description
1	DXK-232	1/2" Female inlet connector kit, with seals
2	DXK-233	1/2" Male inlet connector kit, with seals
3	DXK-234	3/4" Female inlet connector kit, with seals
4	DXK-235	1/2" - 3/8" Male inlet connector kit, with seals
5	DXK-230	Seal x4
6	DXK-229	Seal x4
7	DXK-221	Seal x4

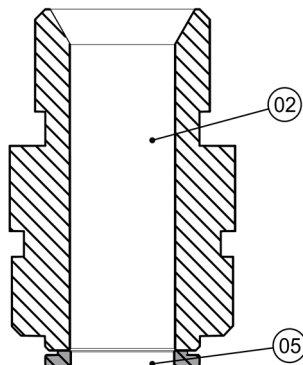
Inlet Connectors

1/2" BSPP Female



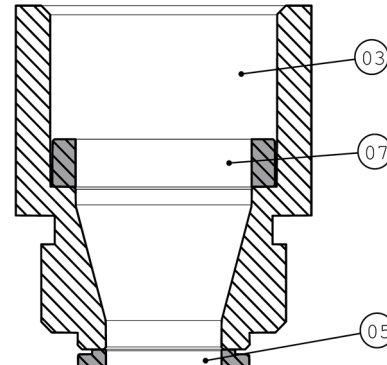
Pump Inlet

1/2" BSPP Male



Pump Inlet

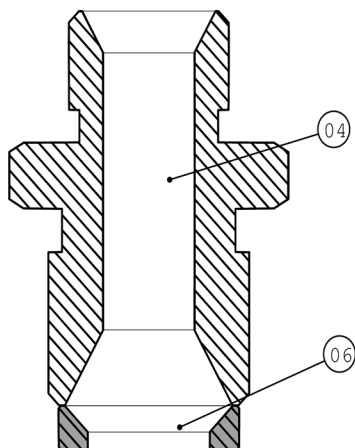
3/4" BSPP Female



Pump Inlet

Accessories**Outlet Adaptor**

Male inlet connector kit, with seals



Pump Outlet

Maintenance

Key - Maintenance symbols



= Order for dis-assembly
= (reverse for assembly)



= Grease (AGMD-010)

Fig. 1

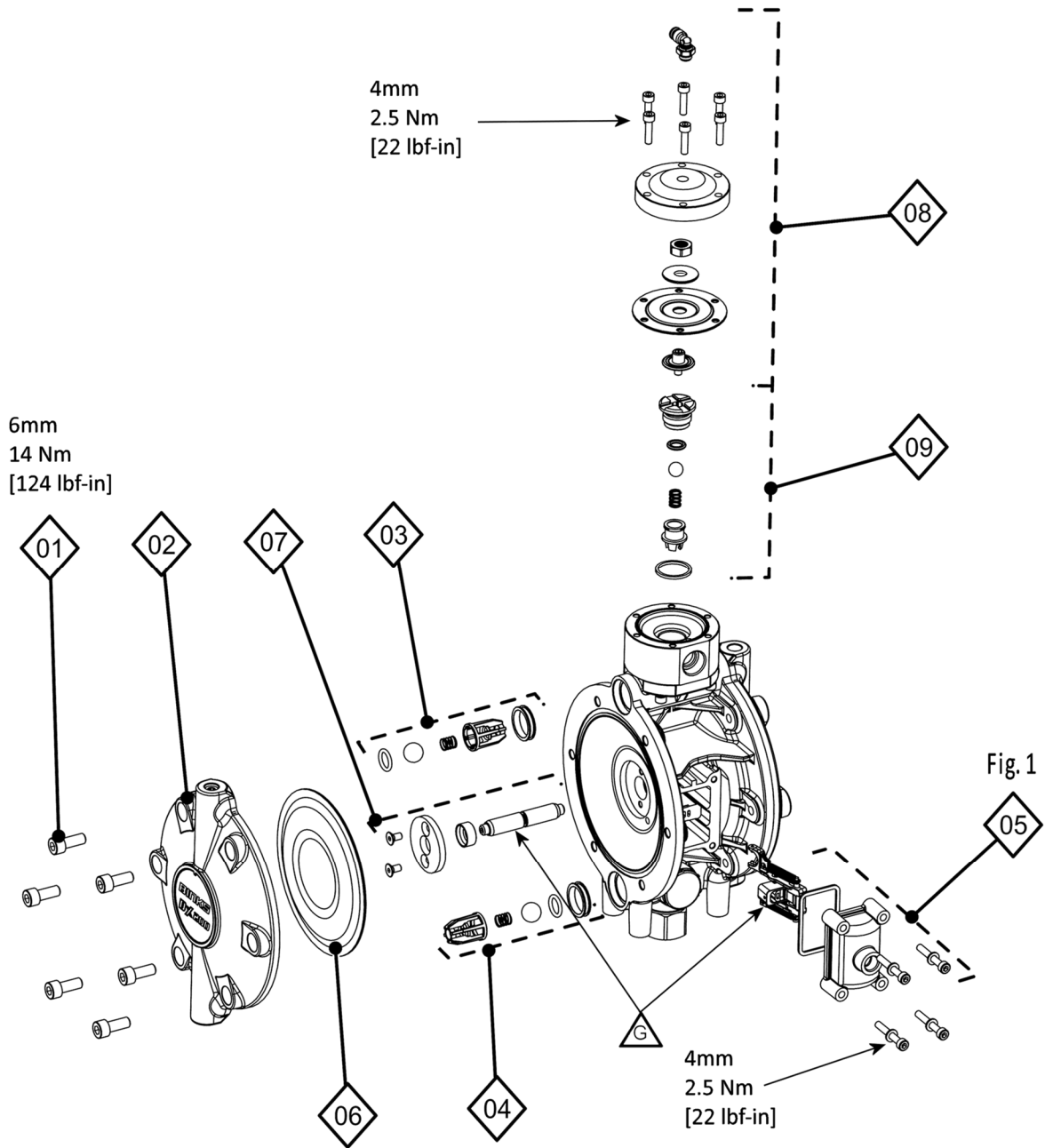
= refer to figure

13MM

= Spanner or socket size

8 Nm

= Torque required



Maintenance

Figure 1

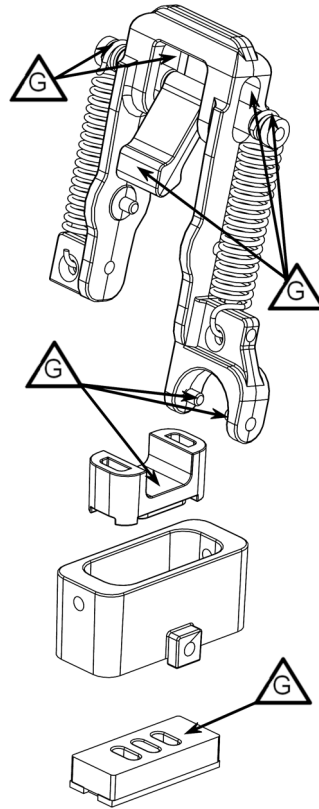
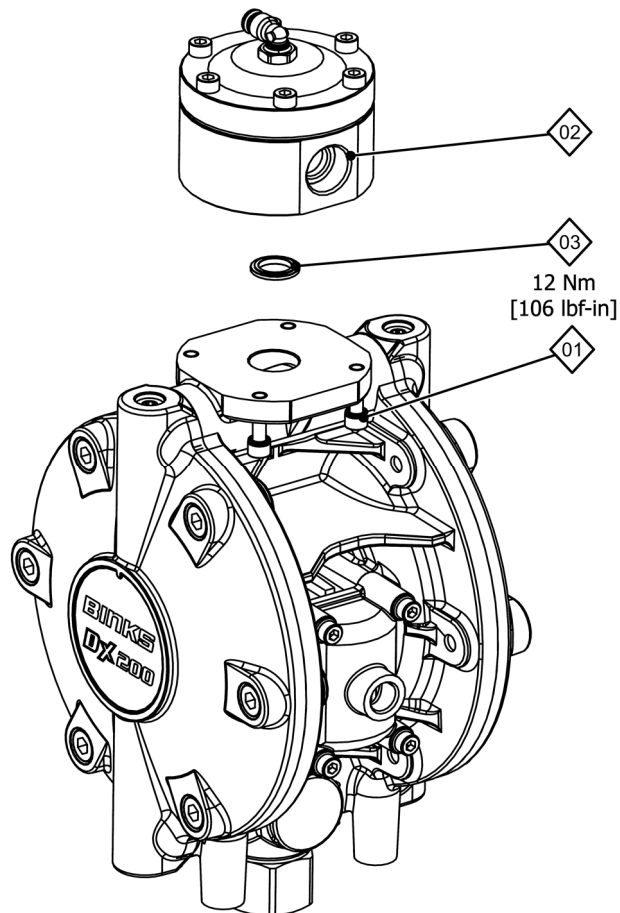
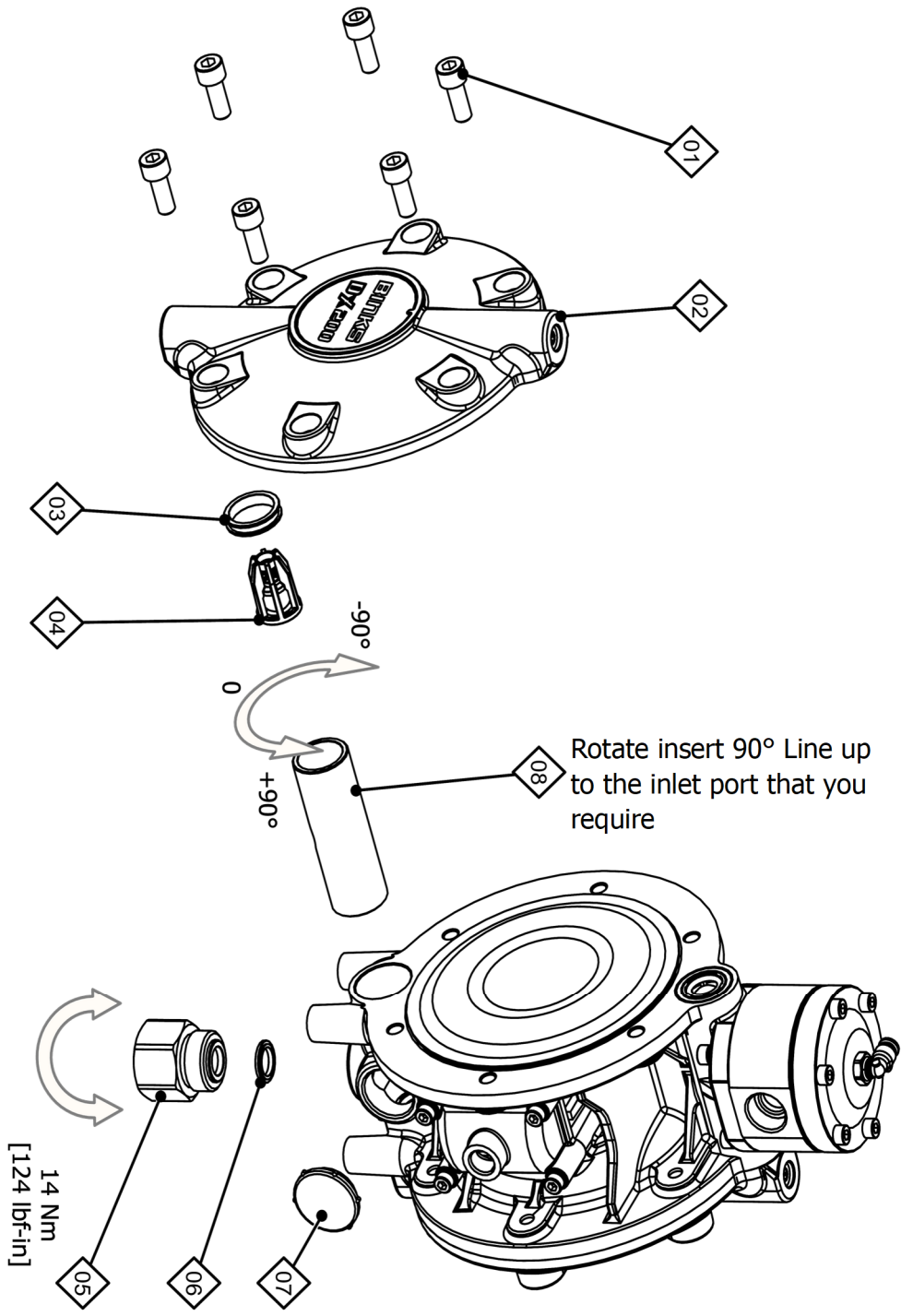


Figure 2



Maintenance

Figure 3



Maintenance schedule**EN**

Typical period	Recommended operation
Monthly	<ul style="list-style-type: none"> - Check for fluid or air leaks - Inspect Pump for Correct operation - Check for any excessive mechanical noise - Check for excessive fluid pressure pulsation
6 Months	<p>Perform a pump stop test to ensure correct operation, by ensuring pump stops when the spraygun trigger is closed and there is no fluid flow. If pump does not stop inspect ball check valves, replace as required.</p> <ul style="list-style-type: none"> - Check fluid regulator adjusts fluid pressure correctly. Replace if faulty
12 Months	<ul style="list-style-type: none"> - Replace Diaphragms - Replace fluid regulator seat and diaphragm - Replace centre shaft and seals - Replace Check valves - Inspect and replace if required:- Air Valve module

Fault finding

Symptom	Possible Cause	Remedy
Pump will not 'Prime'	<ul style="list-style-type: none"> a. Air getting into the suction hose/manifold b. Check valve ball/seal damaged 	<ul style="list-style-type: none"> a. Check hose connections b. Inspect, clean/replace balls/seats
Pump will not run	<ul style="list-style-type: none"> a. No Air or Fluid supply b. Air valve worn or defective 	<ul style="list-style-type: none"> a. Check air and fluid supply ball valves and supply hoses. b. Replace valve module.
Pump runs but has excessive pulsation	<ul style="list-style-type: none"> a. Air getting into fluid line, air supply restricted. b. Fluid check valves damaged c. Worn centre shaft/seals d. Worn air valve 	<ul style="list-style-type: none"> a. Check seals and hose connections. Check air supply b. Remove, clean, and inspect seat, ball, and ball cage. Replace if suspect or worn. c. Replace shaft and seals. d. Replace air valve module

Bare pump selectionDX200

S	N
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 -

1

Pump body

S	Stainless Steel
SE	Stainless Steel - Enamel

Air regulators

For use with

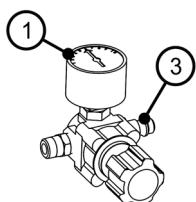
-	No regulator	DX200##
1	1 Regulator	DX200#N & P
2	2 Regulators	DX200#R
22	2 Regulators	DX200#N
3	3 Regulators	DX200#R

Fluid regulator

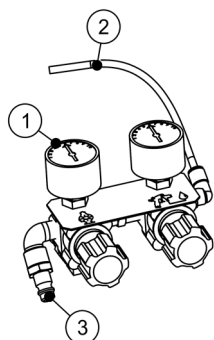
R	Regulator
N	No regulator
M	Manual Regulator
P	Pulsation Chamber

Note

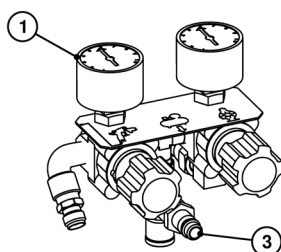
Fluid regulator versions DX200SER & DX200SEM are not suitable for use with enamel

Air regulators

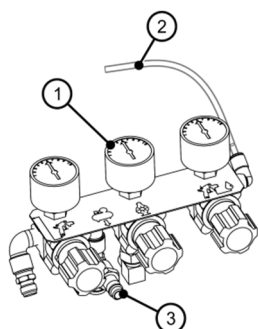
DXA-AC1-200 1 Regulator
- Pump



DXA-AC2-200 2 Regulators
- Pump
- Fluid regulator



DXA-AC22-200 2 Regulators
- Pump
- Spraygun



DXA-AC3-200 3 Regulators
- Pump
- Spraygun
- Fluid regulator

Item	Part No.	Description
1	GA-382-P	Gauge
2	S-1817	Ø4mm Hose
3	MPV-10	QD stem 1\4" male

NOTES

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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