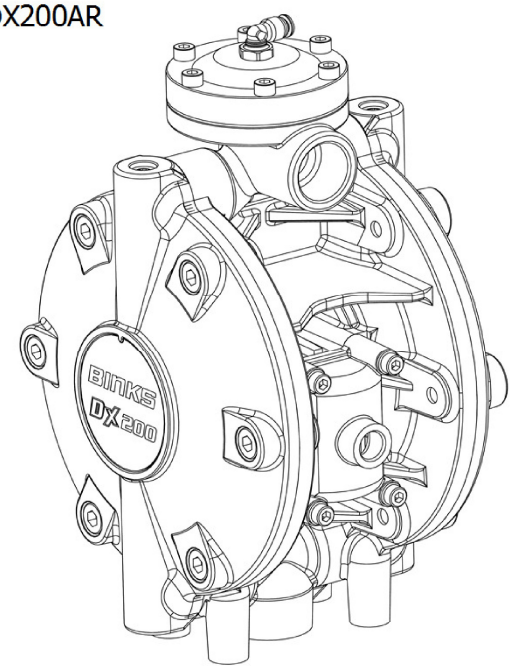
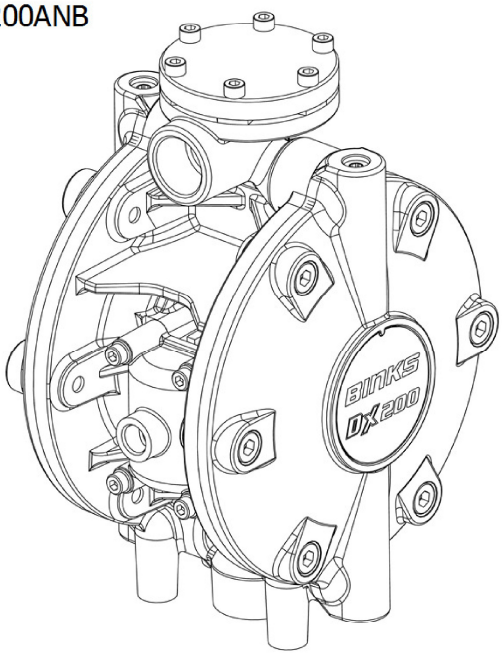
DX200 Diaphragm Pump

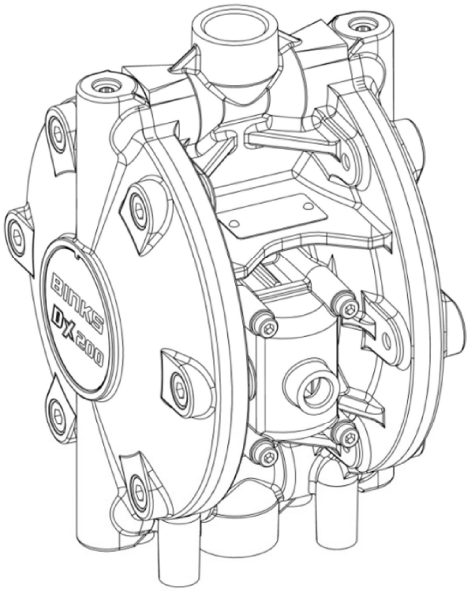
DX200AR



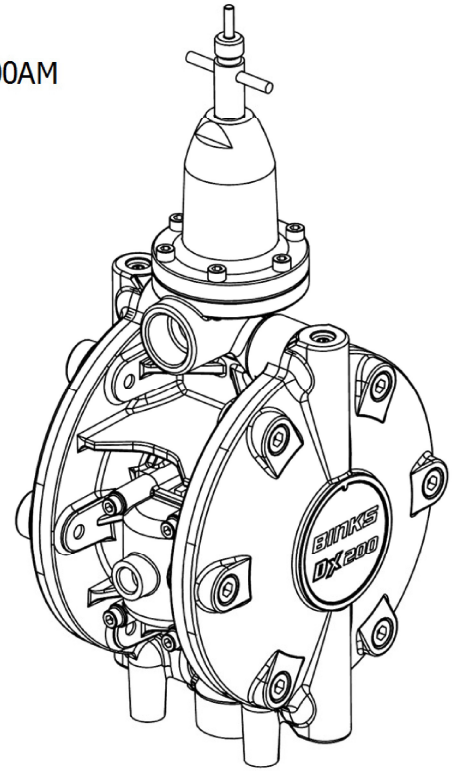
DX200ANB



DX200AN



DX200AM



Product Description	Diaphragm Pumps - DX70, DX200 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 & 2	
Protection Level:	II 2 G X IIB T4 (NB 0891)	
Manufacturer:	Binks, Ringwood Road, Bournemouth, BH11 9LH. UK	

EU Declaration of Conformity

We: Binks declare that the above product conforms with the Provisions of:

Machinery Directive 2006/42/EC

ATEX Directive 94/9/EC

by complying with the following statutory documents and harmonized standards:

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

EN ISO 4413: Hydraulic Fluid Power - General Rules and safety requirements

EN ISO 4414: Pneumatic Fluid Power - General Rules and safety requirements

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

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

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

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

Providing all conditions of safe use stated within the product manuals have been complied with and that the final equipment into which this product is installed has been re-assessed as required, in accordance with essential health and safety requirements of the above standards, directives and statutory instruments and also installed in accordance with any applicable local codes of practice.

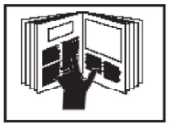
D Smith (General Manager)
10/2/15

In this part sheet, the words WARNING, CAUTION and NOTE are used to emphasize important safety information as follows:

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.



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



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.



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.



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.



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



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.



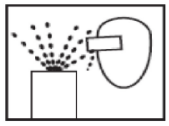
STATIC CHARGE. Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and alll other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or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



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



AUTOMATIC EQUIPMENT. Automatic equipment may start suddenly without warning.



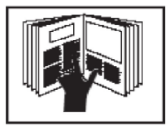
PROJECTILE HAZARD. You may be injured by venting liquids or gased that are released under pressure, or flying debris.



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



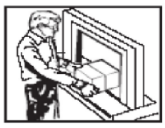
PRESSURE RELIEF PROCEDURE. Always follow the pressure relief procedure in the equipment instruction manual.



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



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



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



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



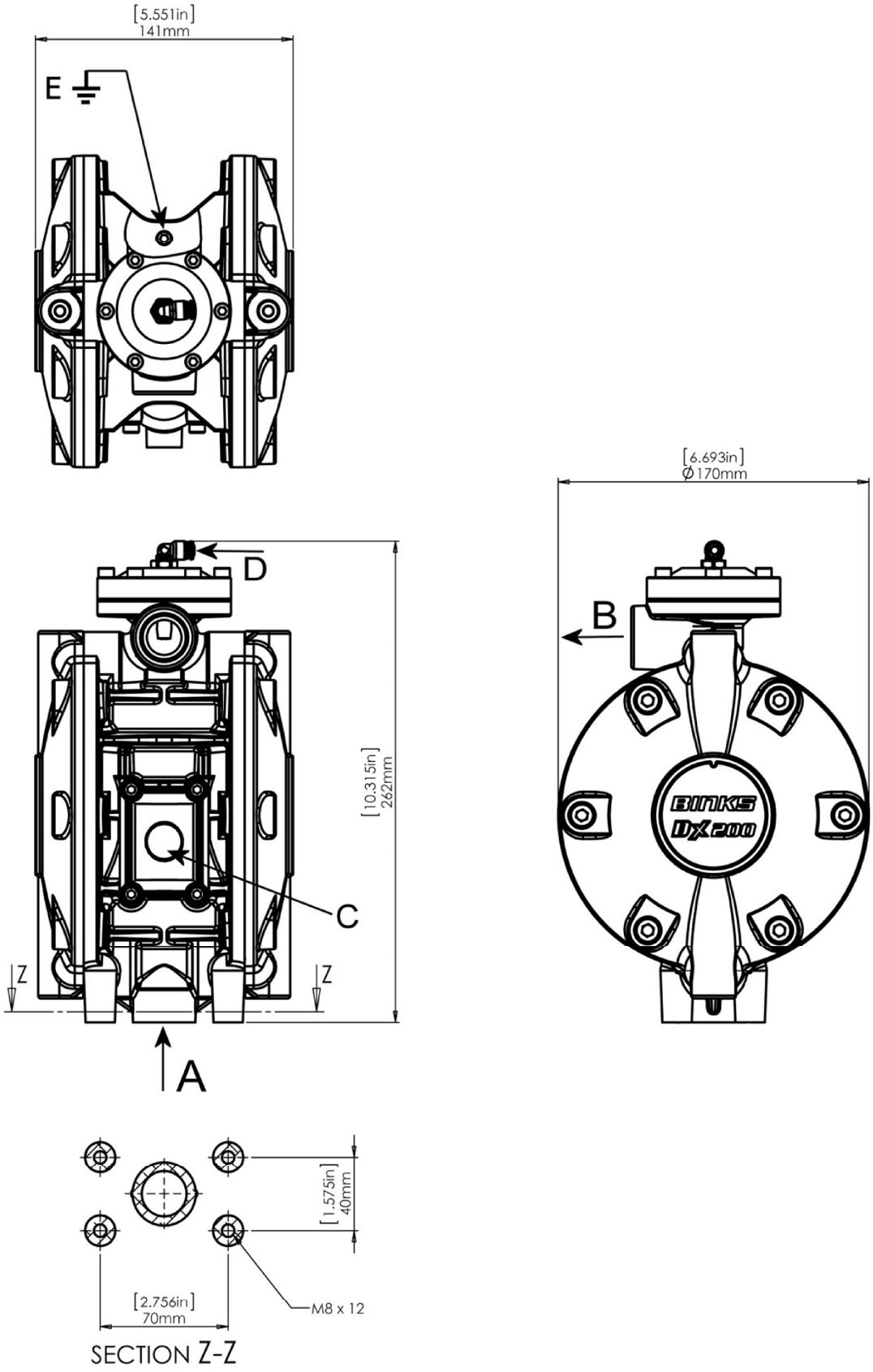
PINCH POINT HAZARD. Moving parts can crush and cut. Pinch points are any areas where ther are moving parts.

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:	3/4" BSPP Female	
B	Fluid outlet connection:	3/4" 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:	2.83L [0.1 SCFM]	
	Air flow @ 10 cycles / min 6.9 bar / 100psi:	28.3L [1 SCFM]	
	Air flow @ 30 cycles / min 6.9 bar / 100psi:	84.9L [3 SCFM]	
	Recommended air quality ISO 8573.1 Class 3.3.2 #:	Dirt:	5 µm
		Water:	-20ºC@7bar (940ppm)
		Oil:	0.1mg/m³
		Non Lubricated	
	Noise Level @ 30 cycles/min & 7 bar [100 psi]	71.2 dBA Leq	
E	Earth connection resistance:	<1Ω	
	Weight:	9.5Kg [20.94lb's]	
	Temperature range	0 - 40 °C [32 - 104 °F]	

Installation



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.

Pump Earthing

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

Earth connection, Binks Part No. 0114-011798

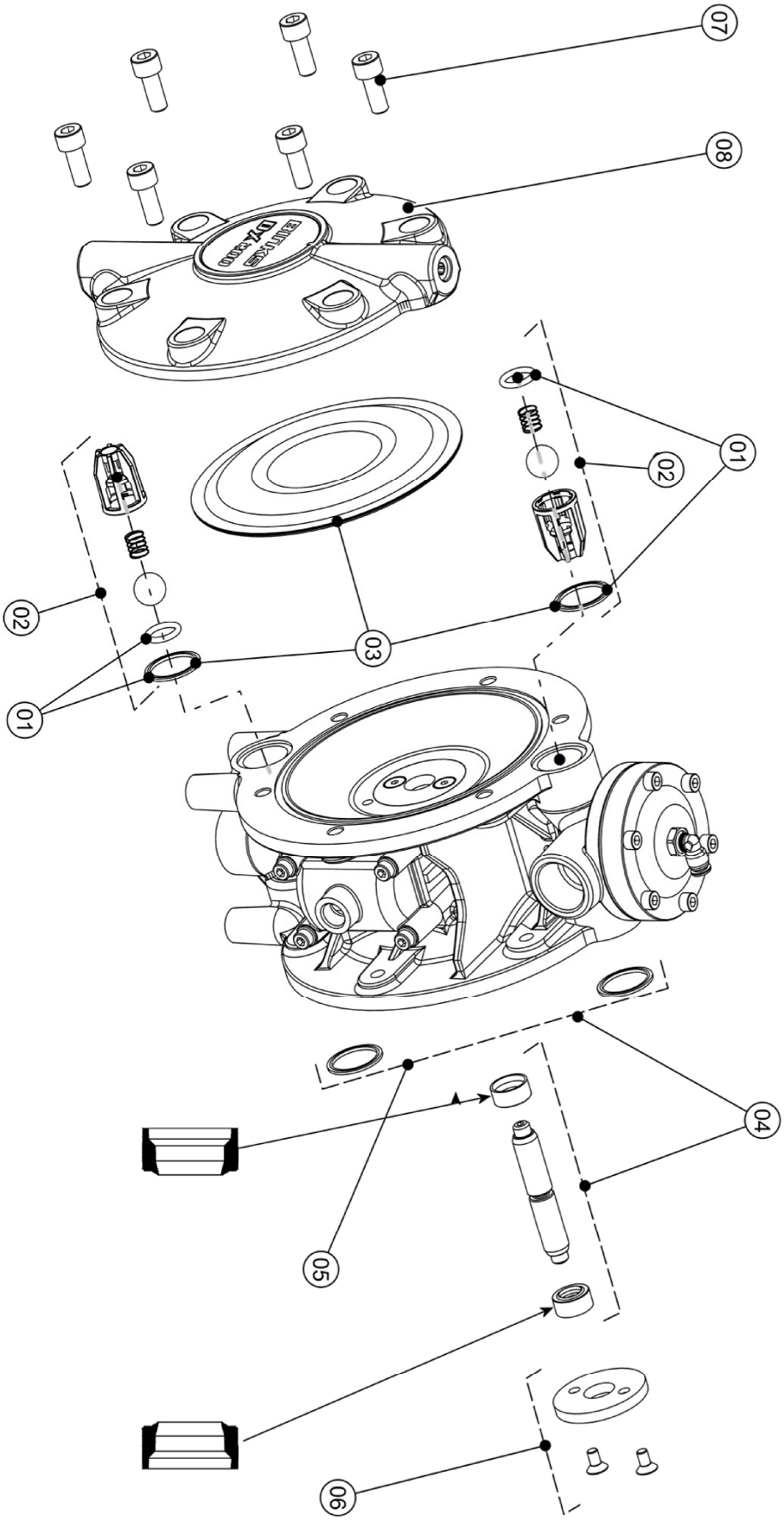
Paint section materials of construction

Item	Material
Pump body	Aluminium
End cap	Aluminium
Diaphragms	PTFE
Seals	FKM/PE
Valve ball & spring	Stainless steel
End cap plugs	Stainless steel
Ball Cage	PE

Spare parts

Item	Part No.	Description
1	DXK-201	Check valve seal kit x4
2	DXK-202	Check valve kit x4
3	DXK-203	Diaphragm kit x2
4	DXK-204	Shaft & seal kit
5	DXK-205	End cap seal kit x2
6	DXK-206	Caps & screws x2
7	DXK-207	End cap bolts x12
8	DXK-208	End cap - Includes Item 5

Spare Parts

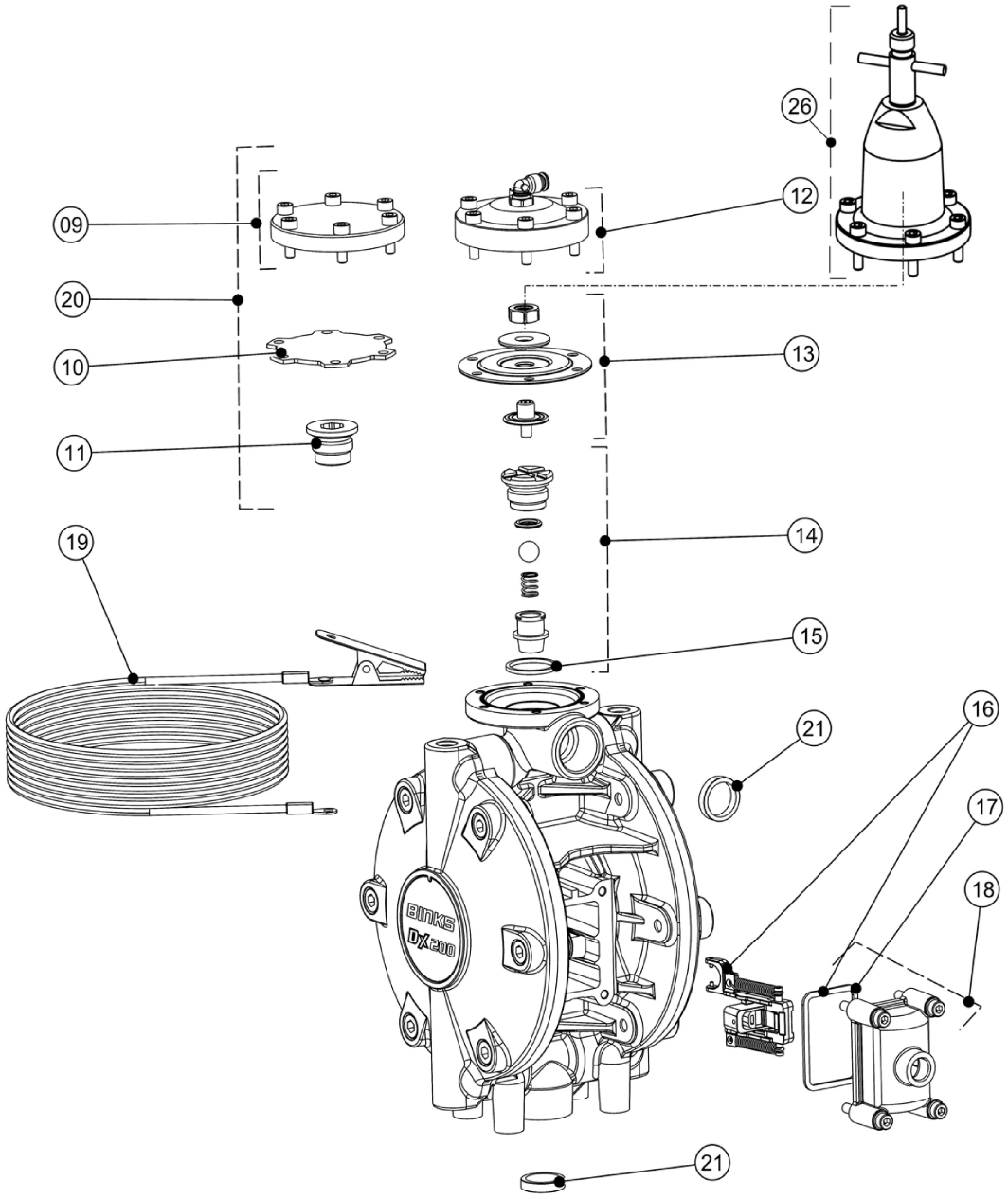


Spare Parts

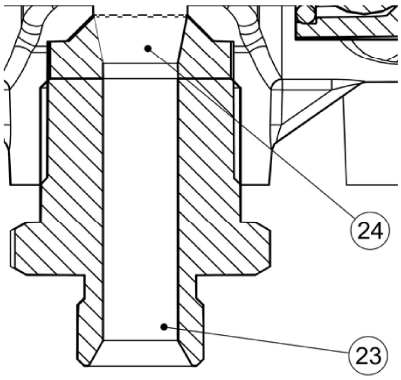
Item	Part No.	Description
9	DXK-209	Blanking plate & screws ‡
10	DXK-210	Blanking gasket x4 ‡
11	DXK-211	Insert ‡
12	DXK-212	Regulator cap & screws
13	DXK-213	Diaphragm assembly
14	DXK-214	Regulator Insert
15	DXK-215	Gasket x4
16	DXK-216	Air valve kit
17	DXK-25	Gasket x4
18	DXK-18	Cover, seal & screws
19	0114-011798	Grounding cable 4m
20	DXK-217	Non-Regulated Conversion Kit
21	DXK-221	Seal x4
22	DXK-218	3/4" BSP(M) - 3/8" BSP(F) Connector with seals
23	DXK-219	3/4" BSP(M) - 3/8" BSP(M) Connector with seals
24	DXK-220	Seal x4
25	DXK-19	Seal x4
26	DXK-247	Manual regulator control

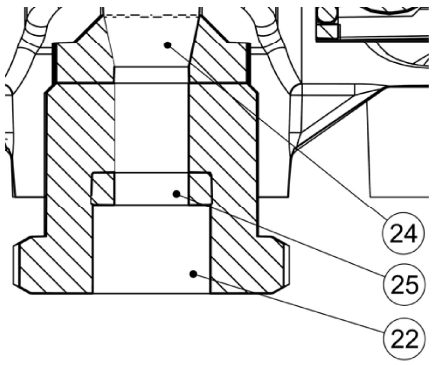
‡ = parts for non-fluid regulator model

Spare parts



Inlet Connectors





Maintenance

Key - Maintenance symbols

#	= Order for dis-assembly (reverse for assembly)
G	= Grease (AGMD-010)
Fig. 1	= refer to figure
13MM	= Spanner or socket size
8 Nm	= Torque required

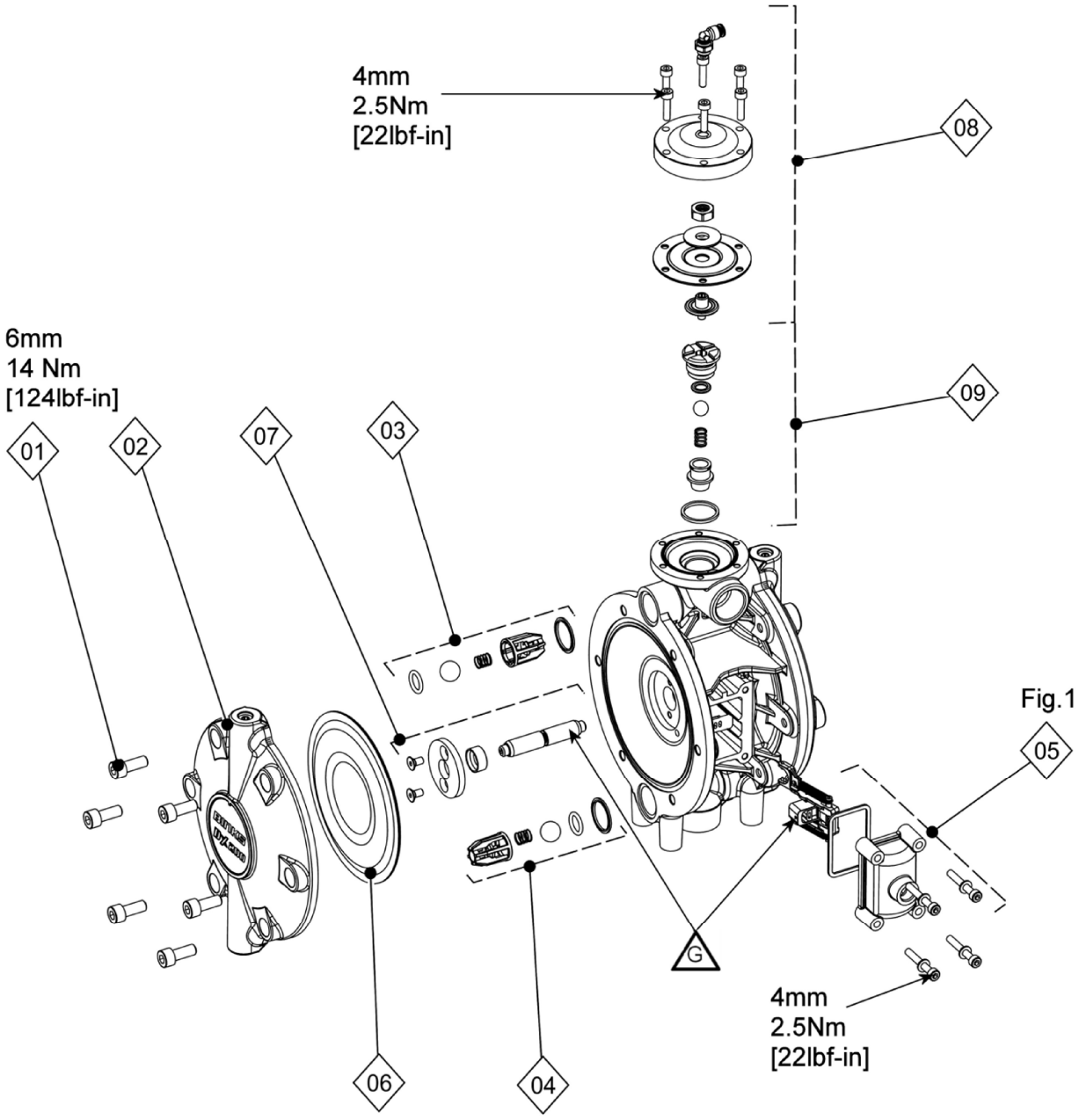
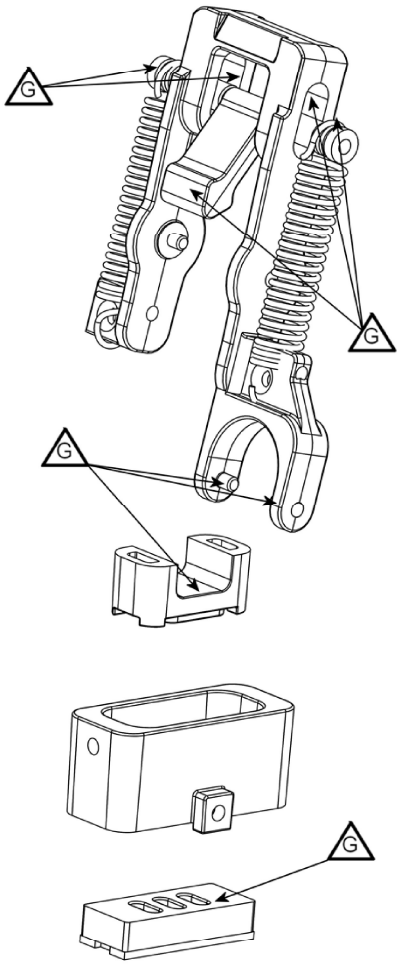


Fig.1

Maintenance

Figure 1



Maintenance schedule

Typical period	Recommended operation
Monthly	- 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	- 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. - Check fluid regulator adjusts fluid pressure correctly. Replace if faulty
12 Months	- 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'	a. Air getting into the suction hose/manifold b. Check valve ball/seal damaged	a. Check hose connections b. Inspect, clean/replace balls/seats
Pump will not run	a. No Air or Fluid supply b. Air valve worn or defective	a. Check air and fluid supply ball valves and supply hoses. b. Replace valve module.
Pump runs but has excessive pulsation	a. Air getting into fluid line, air supply restricted. b. Fluid check valves damaged c. Worn centre shaft/seals d. Worn air valve	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 selection

DX200 [A] [N] [B] - [1]

Pump body

A	Aluminimum
S	Stainless Steel

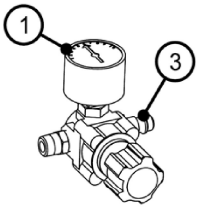
Fluid regulator

R	Regulator
N	No regulator
NB	No regulator, Front outlet
M	Manual Regulator

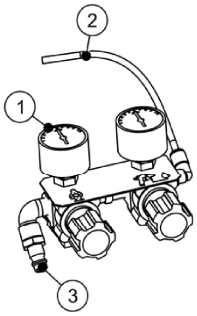
Air regulators

		For use with
-	No regulator	-
1	1 Regulator	DX200#N/M
2	2 Regulators	DX200#R
3	3 Regulators	DX200#R

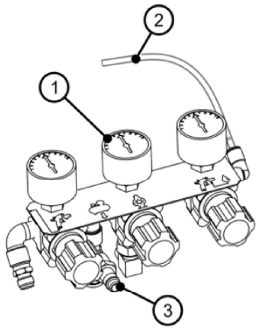
Air regulators



DXA-AC1-200 1 Regulator
- Pump



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



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

WARRANTY POLICY

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

Finishing Brands reserves the right to modify equipment specifications without prior notice.
DeVilbiss, Ransburg, BGK, and Binks are registered trademarks of Finishing Brands.
© 2015 Finishing Brands. All rights reserved.

Binks is part of Finishing Brands, a global leader in innovative spray finishing technologies. For technical assistance or to locate an authorized distributer, contact one of our international sales and customer support locations below.

USA/Canada
www.binks.com
info@finishingbrands.com
Toll Free Tel: 1-800-992-4657
Toll Free Fax: 1-888-246-5732

Mexico
www.finishingbrands.com.mx
sales@finishingbrands.com.mx
Tel: 011 52 55 5321 2300
Fax: 011 52 55 5310 4790

Brazil
www.devilbiss.com.br
sales@devilbiss.com.br
Tel: +55 11 5641 2776
Fax: +55 11 5641 1256

United Kingdom
www.finishingbrands.eu
info@finishingbrands.eu
Tel: +44 (0)1202 571 111
Fax: +44 (0)1202 573 488

France
www.finishingbrands.eu
info@finishingbrands.eu
Tel: +33(0)475 75 27 00
Fax: +33(0)475 75 27 59

Germany
www.finishingbrands.eu
info@finishingbrands.eu
Tel: +49 (0) 6074 403 1
Fax: +49 (0) 6074 403 281

China
www.finishingbrands.com.cn
mkt@finishingbrands.com.cn
Tel: +8621-3373 0108
Fax: +8621-3373 0308

Japan
www.ransburg.co.jp
binks-devilbiss@ransburg.co.jp
Tel: 081 45 785 6421
Fax: 081 45 785 6517

Australia
www.finishingbrands.com.au
sales@finishingbrands.com.au
Tel: +61 (0) 2 8525 7555
Fax: +61 (0) 2 8525 7575

Finishing Brands
finishingbrands.eu