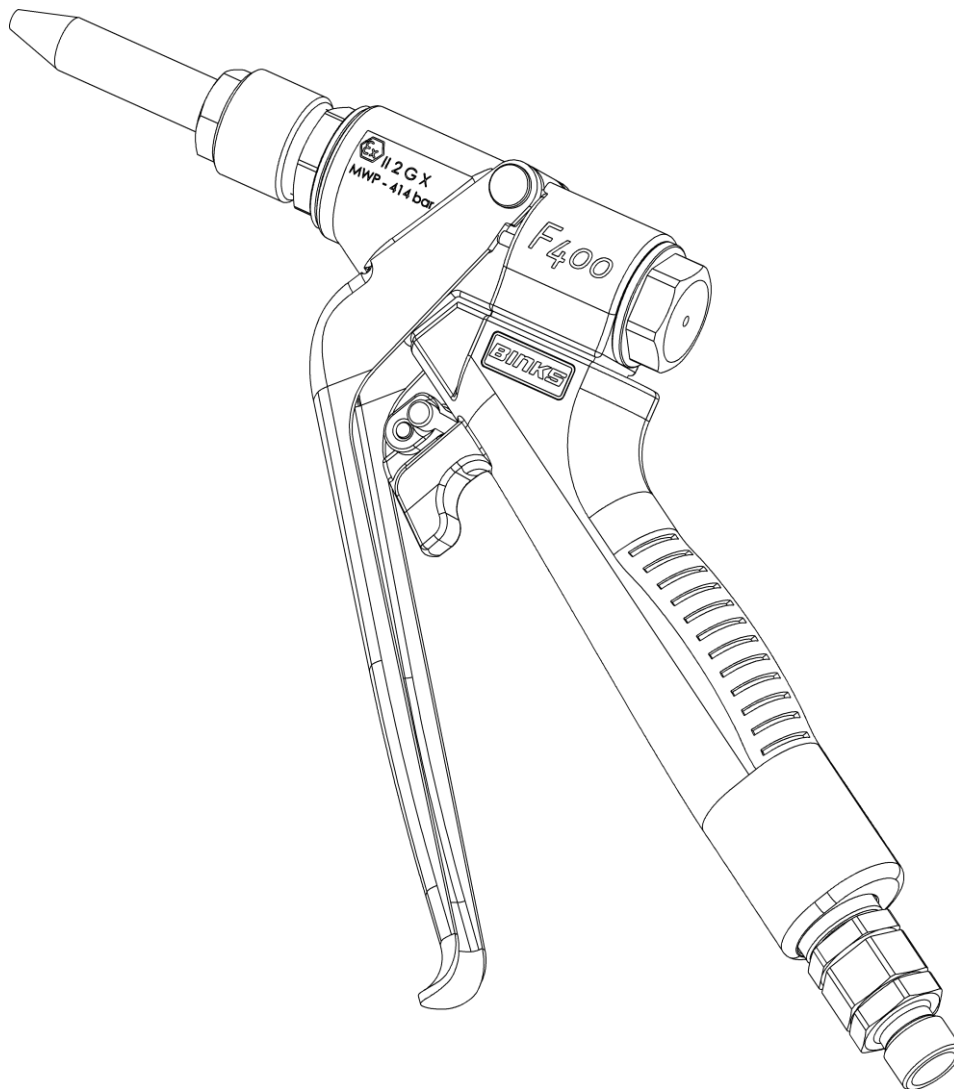


BINKS F200 & F400

Pistol Grip - Medium & High Pressure Flow Guns



IMPORTANT! DO NOT DESTROY

It is the Customer's responsibility to have all operators and service personnel read and understand this manual.

Contact your local Binks representative for additional copies of this manual.

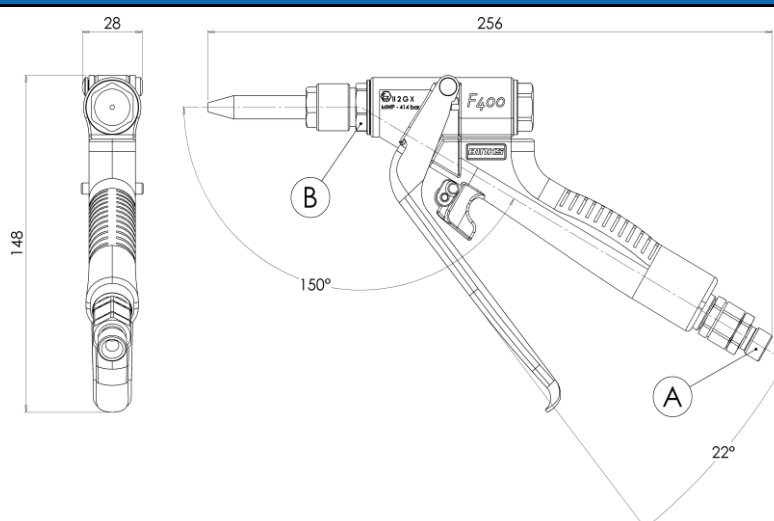
READ ALL INSTRUCTIONS BEFORE OPERATING THIS BINKS PRODUCT.

FUNCTIONAL DESCRIPTION

The Binks F200 and F400 pistol grip flow guns, offer precise control of extruded medium to high viscosity materials. Utilising a light trigger pull, the guns are easy to manipulate with an ergonomically designed handle, quick interchangeable nozzles and optional lightweight swivel joints. The guns also feature a discrete trigger lock to disable the trigger mechanism when not in use and are suitable for low abrasive water and solvent based sealants and adhesives.

SPECIFICATIONS		
FLUID INLET PRESSURE		
Max Fluid Input Pressure	F200	276 bar [4000 psi]
	F400	414 bar [6000 psi]
ENVIRONMENTAL		
Ambient Operating Temperature	0-40°C Nominal [0-104°F]	
MATERIALS OF CONSTRUCTION		
Gun Body and Fluid Passageways	F200	Anodised Aluminium
	F400	17-4 Stainless Steel
Gun Handle	Anodised Aluminium	
Fluid Needle and Seat Construction	Tungsten Carbide	
Seals	Polyethylene	
	Fluoroelastomer [FKM]	
CONNECTIONS		
A	Fluid Inlet Options	STRAIGHT ADAPTOR G1/4" BSPP / NPSM Universal Thread Male
		STRAIGHT ADAPTOR 1/4" NPT Thread Male Or Female
		STRAIGHT SWIVEL WITH G1/4" BSPP / NPSM Universal Or 1/4" NPT Thread Male
		Z-SWIVEL G1/4" BSPP or 1/4" NPSM
B	Fluid Nozzle Adaptor Options	G3/8" BSPP Male / 1/4" NPT Female
		3/4" UNF Male / 1/4" NPT Female
		M18 x 1.5 Male
WEIGHT		
With Nozzle	F200	430g [0.95lbs]
	F400	610g [1.34lbs]

DIMENSIONS WITH NOZZLE & STRAIGHT SWIVEL



Product Description / Object of Declaration: F200, F400

This Product is designed for use with: Solvent and water based materials

Suitable for use in hazardous area: Zone 1 / Zone 2

Protection Level: II 2 G X

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 harmonised standards:

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

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

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

Although this product is not covered by standard EN 1953:2013, this is the closest standard that safely covers this type of product.

EN 60079-0:+A11:2013 Explosive atmospheres - Equipment. General requirements

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:


A handwritten signature in black ink, appearing to read 'D Smith'.

D Smith
20/4/17

Director of Sales (EMEA)

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

EN

 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.



SOLVENTS AND COATING MATERIALS. Can be highly flammable or combustible when sprayed. Always refer to the coating material supplier's instructions and safety sheets before using this equipment.



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.



READ THE MANUAL. Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual. Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation and house-keeping of working areas.



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



FIRE AND EXPLOSION HAZARD. Never use 1,1,1-Trichloroethane, Methylene Chloride, other Halogenated Hydrocarbon solvents or fluids containing such solvents in equipment with aluminium wetted parts. Such use could result in a serious chemical reaction, with the possibility of explosion. Consult your fluid suppliers to ensure that the fluids being used are compatible with aluminium parts.



GLOVES. Must be worn when spraying or cleaning the equipment.



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



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.



WEAR RESPIRATOR. The use of respiratory protective equipment is recommended at all times. The type of equipment must be compatible with the material being sprayed.



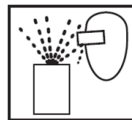
TOXIC VAPOURS. When sprayed, certain materials may be poisonous, create irritation, or are otherwise harmful to health. Always read all labels, safety sheets and follow any recommendations for the material before spraying. If in doubt contact your material supplier.



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



LOCK OUT / TAG-OUT. Failure to de-energise, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.



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



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.



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



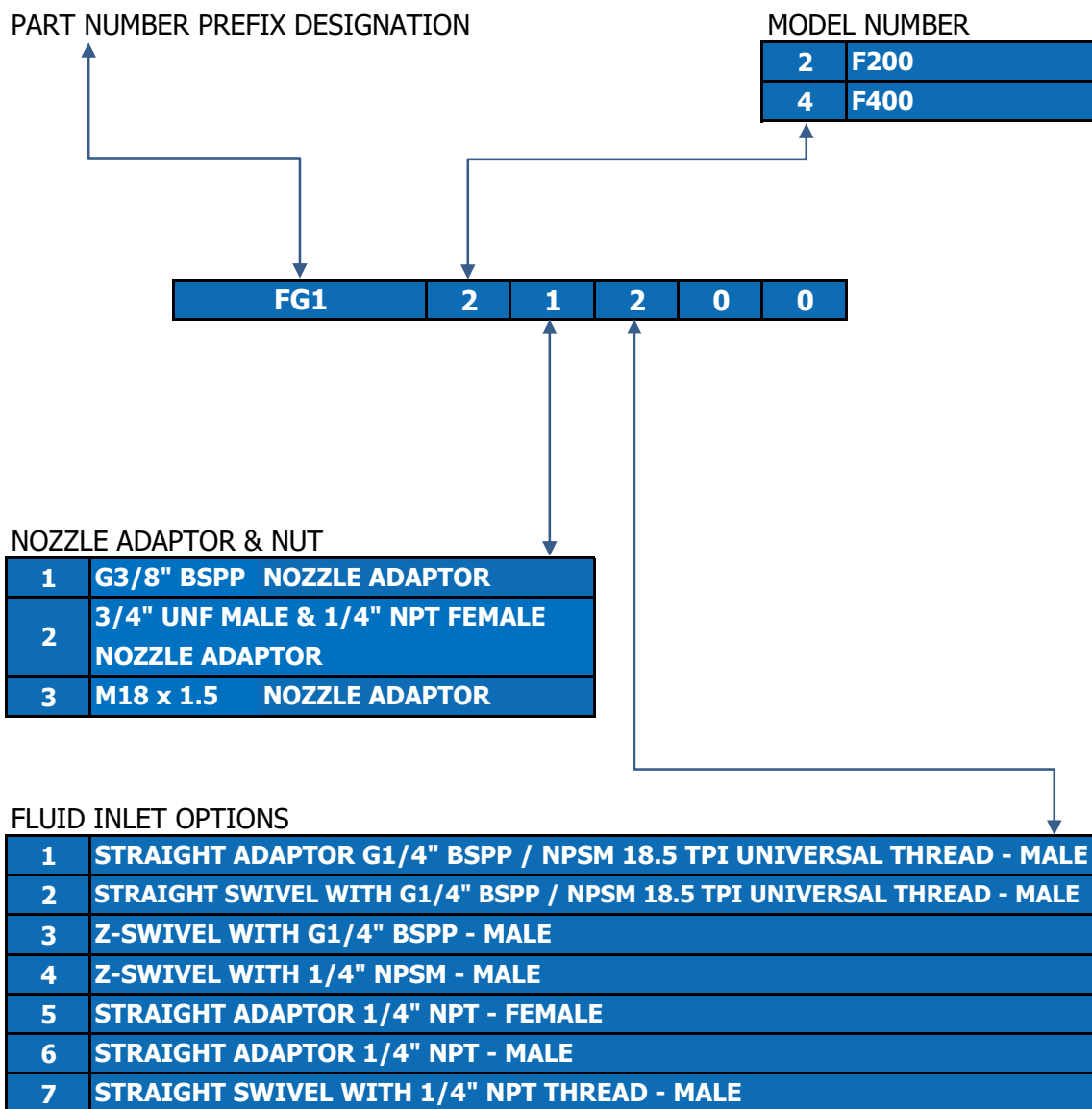
HIGH PRESSURE CONSIDERATION. High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the gun, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury.



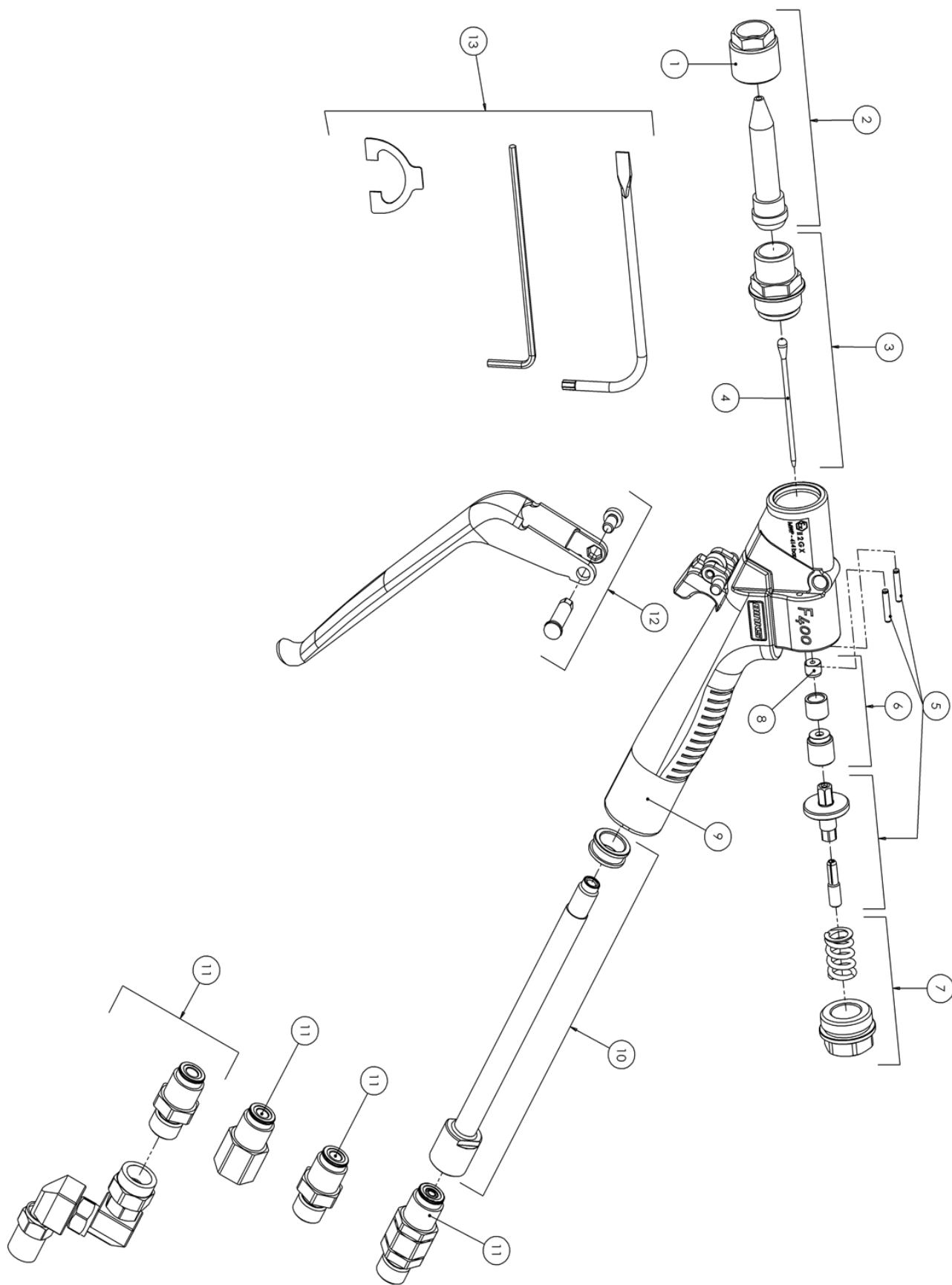
OPERATOR TRAINING. All personnel must be trained before operating finishing equipment.

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

GUN PART NUMBER FORMAT & PART SELECTION GUIDE



EXPLODED VIEW



SPARE PARTS LIST

REF.	PART No.	DESCRIPTION
1	FG200011	3/4" UNF RETAINING NUT KIT
	FG200012	M18 X 1.5 RETAINING NUT KIT
2	FG200013	G3/8" BSPP RETAINING NUT & NOZZLE KIT
3	FG200014	G3/8" BSPP NOZZLE ADAPTOR & NEEDLE KIT
	FG200015	3/4" UNF NOZZLE ADAPTOR & NEEDLE KIT
	FG200016	M18 x 1.5 NOZZLE ADAPTOR & NEEDLE KIT
4	FG200031	NEEDLE KIT
5	FG200017	NEEDLE RETAINER, COLLET & TRIGGER PINS KIT
6	FG200018	SEAL ASSEMBLY KIT
7	FG200019	F200 - SPRING & END CAP KIT
	FG200029	F400 - SPRING & END CAP KIT
8	FG200020	SEAL (KIT OF 5)
9	FG200021	GUN HANDLE, TRIGGER LOCK, LABELS & SCREWS KIT
10	FG200022	F200 - FLUID TUBE & SPOOL KIT
	FG200030	F400 - FLUID TUBE & SPOOL KIT
11	FG200023	STRAIGHT SWIVEL WITH G1/4" BSPP / NPSM 18.5 TPI UNIVERSAL THREAD - MALE KIT
	FG200034	STRAIGHT SWIVEL WITH 1/4" NPT THREAD - MALE KIT
	FG200024	STRAIGHT ADAPTOR G1/4" BSPP / NPSM 18.5 TPI UNIVERSAL THREAD - MALE KIT
	FG200033	STRAIGHT ADAPTOR 1/4" NPT THREAD - MALE KIT
	FG200032	STRAIGHT ADAPTOR 1/4" NPT THREAD - FEMALE KIT
	FG200025	G1/4" BSPP / NPSM 18.5 TPI UNIVERSAL THREAD & Z-SWIVEL G1/4" BSPP - MALE KIT
	FG200026	G1/4" BSPP / NPSM 18.5 TPI UNIVERSAL THREAD & Z-SWIVEL 1/4" NPSM - MALE KIT
12	FG200027	TRIGGER ASSEMBLY KIT
13	FG200028	T20 TORX DRIVER & 2.5mm HEX WRENCH & TRIGGER TRAVEL SETTING TOOL KIT

SPECIAL REQUIREMENTS FOR ATEX**WARNING**

The flow gun must be earthed to dissipate any electrostatic charges which may be created by fluid flows.

This should be achieved with a conductive fluid hose.

Electrical resistance from the flow gun to earth should be checked and a resistance of less than 10^6 Ohms is required.

START-UP & OPERATION SEQUENCE**NOTE**

The flow gun has been tested with demineralised water.

Please purge fluid passageways through with air before use.

1. Ensure a suitable nozzle is fitted to the gun.
2. Connect the gun to a suitable conductive hose. (If used in a hazardous area).
3. Ensure trigger lock is in the un-locked position.
4. Trigger the gun and slowly increase the pressure at fluid supply regulator, to ensure all air is removed from hose and gun, until full flow of material is achieved.
5. Adjust supply pressure to determine optimal material flow rate.
6. Trigger off the gun.
7. Ensure material supply is turned off and pressure is relieved from gun when not in use.
8. Set trigger lock to the locked position.

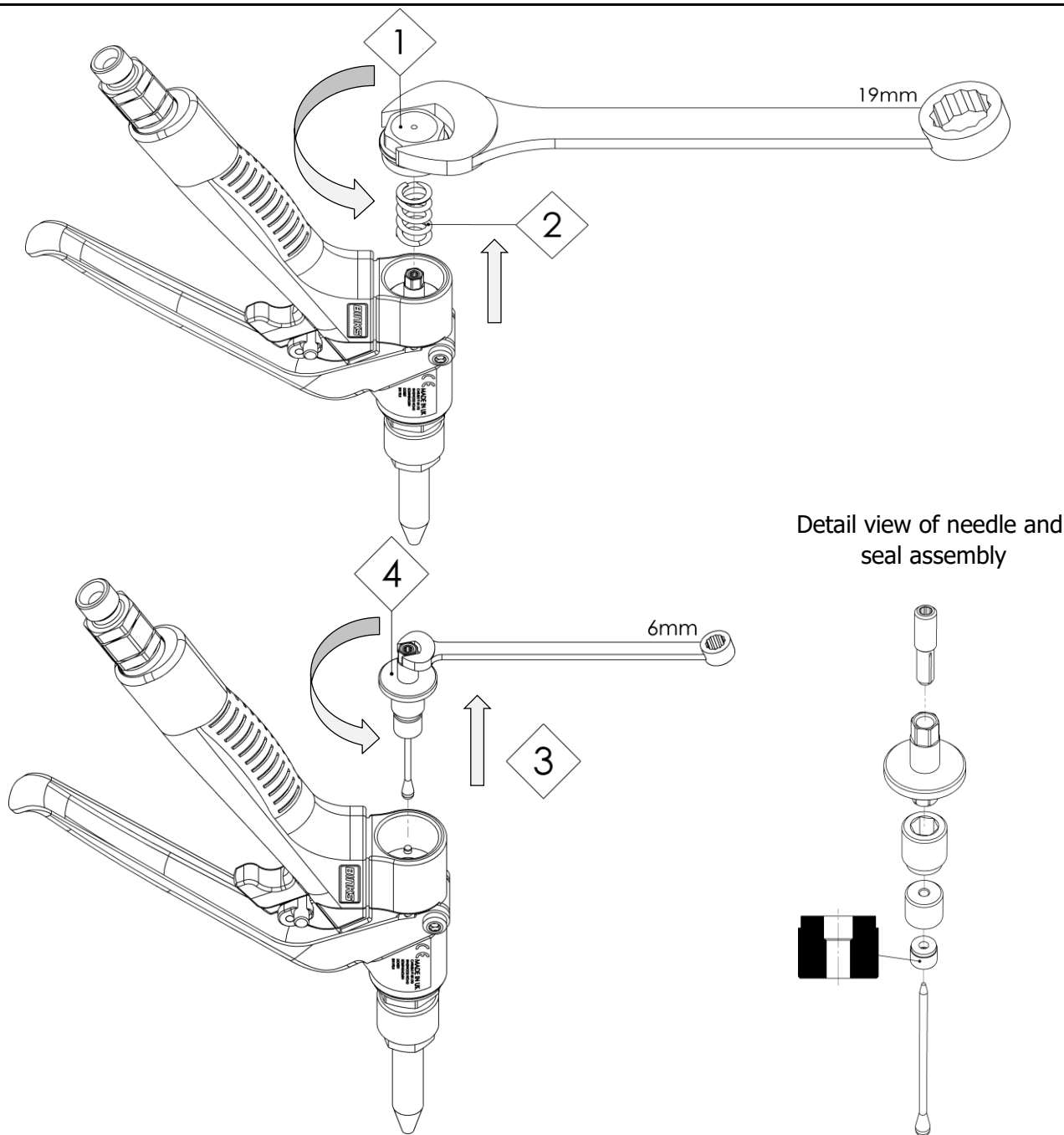
NOTE

If the gun is to be left for a long period of time, it may be necessary to flush through with solvent to avoid a possible blockage of the fluid passageways.

DISASSEMBLY NEEDLE RETAINER, SEAL & NEEDLE ASSEMBLY

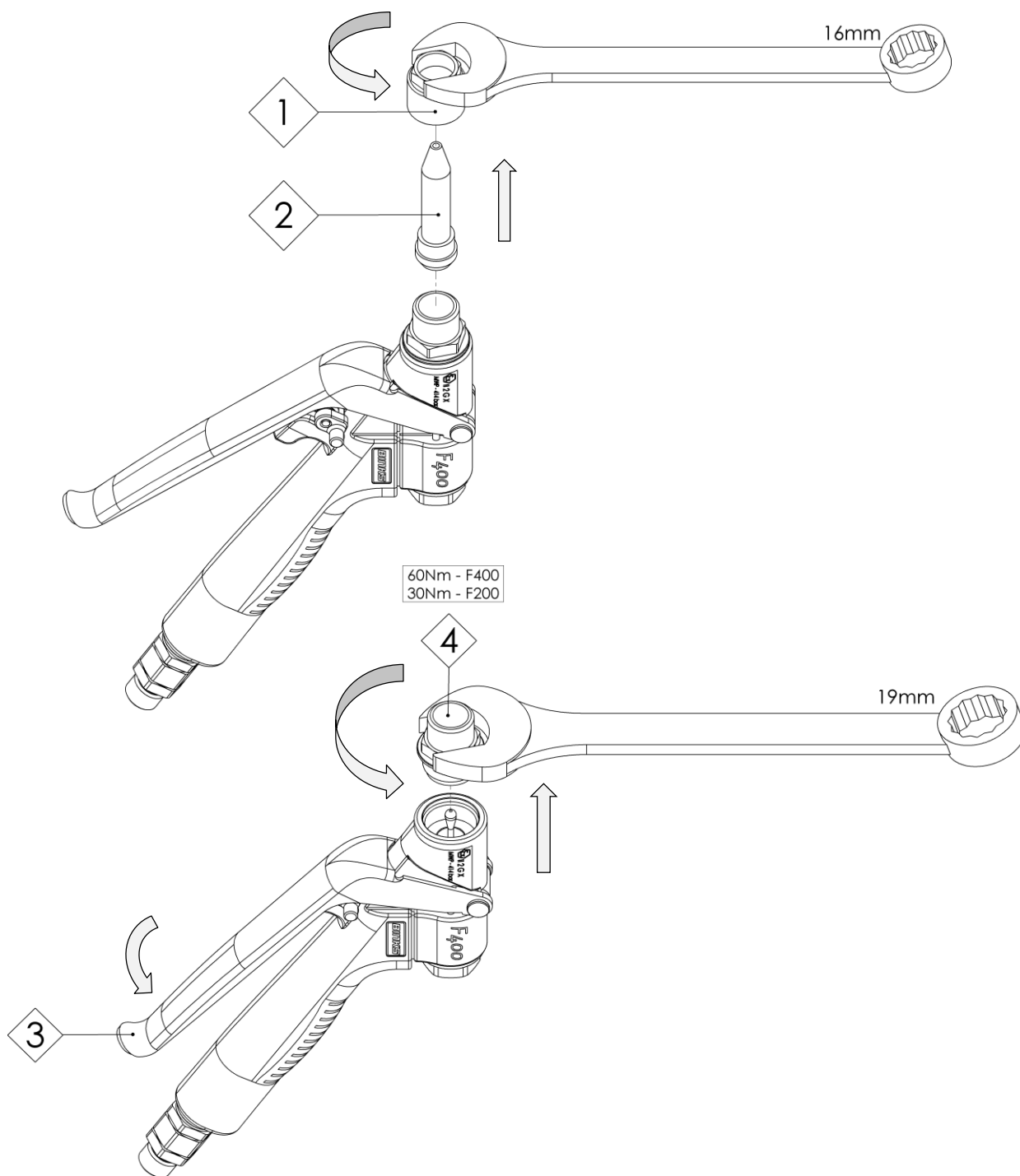
WARNING

Ensure gun is disconnected from the material supply system before carrying out any maintenance.



MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

DISASSEMBLY NOZZLE & NOZZLE ADAPTOR



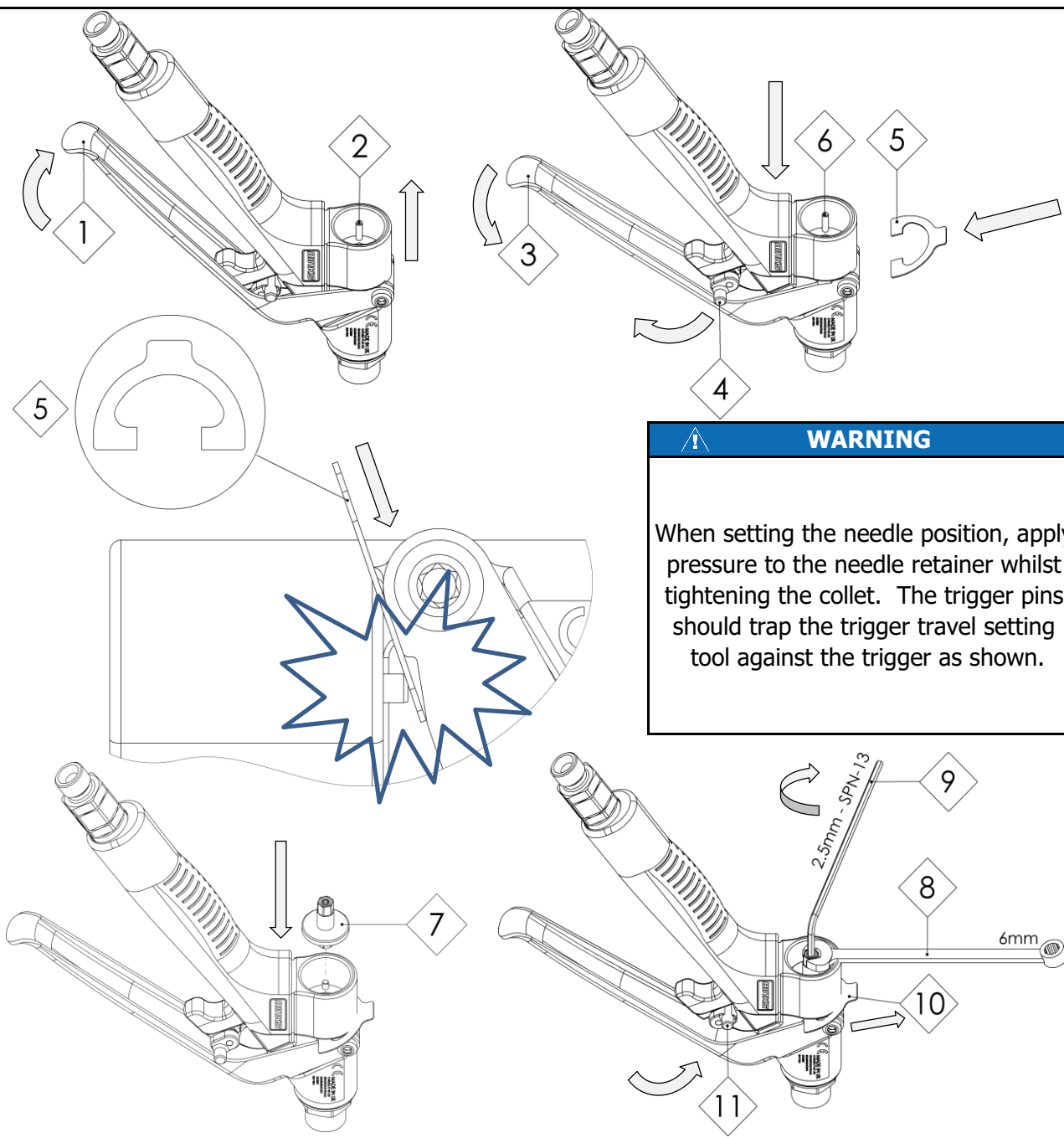
MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

TRIGGER TRAVEL ADJUSTMENT

CAUTION

It should not be possible to trigger the gun when the trigger lock is set to on.

When adjusting the trigger travel, this must be observed at all times.



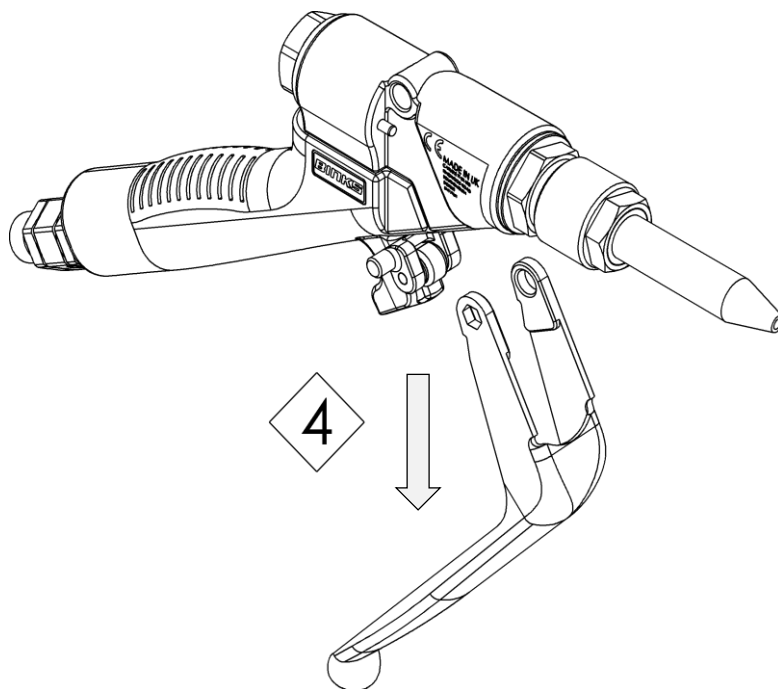
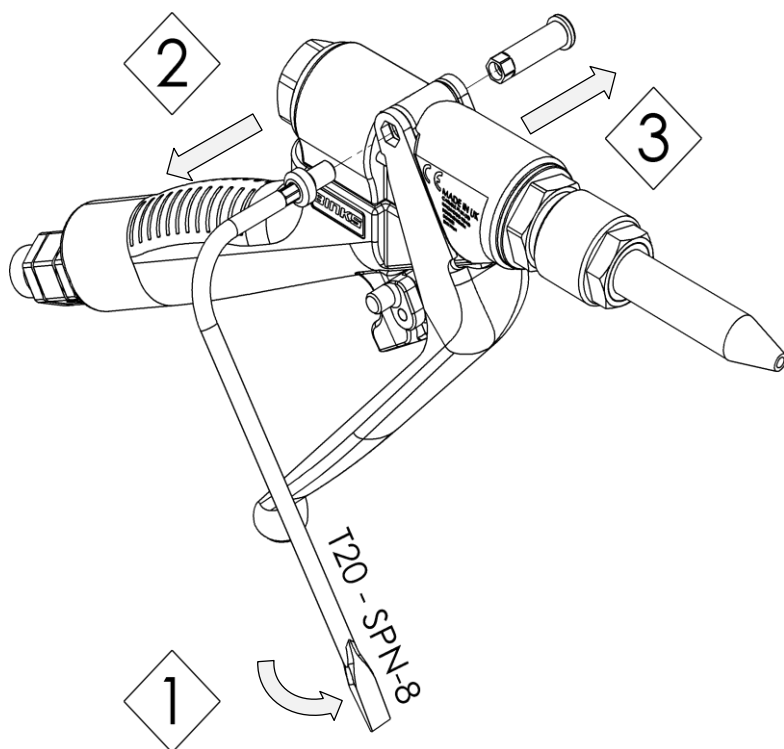
WARNING

When setting the needle position, apply pressure to the needle retainer whilst tightening the collet. The trigger pins should trap the trigger travel setting tool against the trigger as shown.

MAINTENANCE SYMBOLS

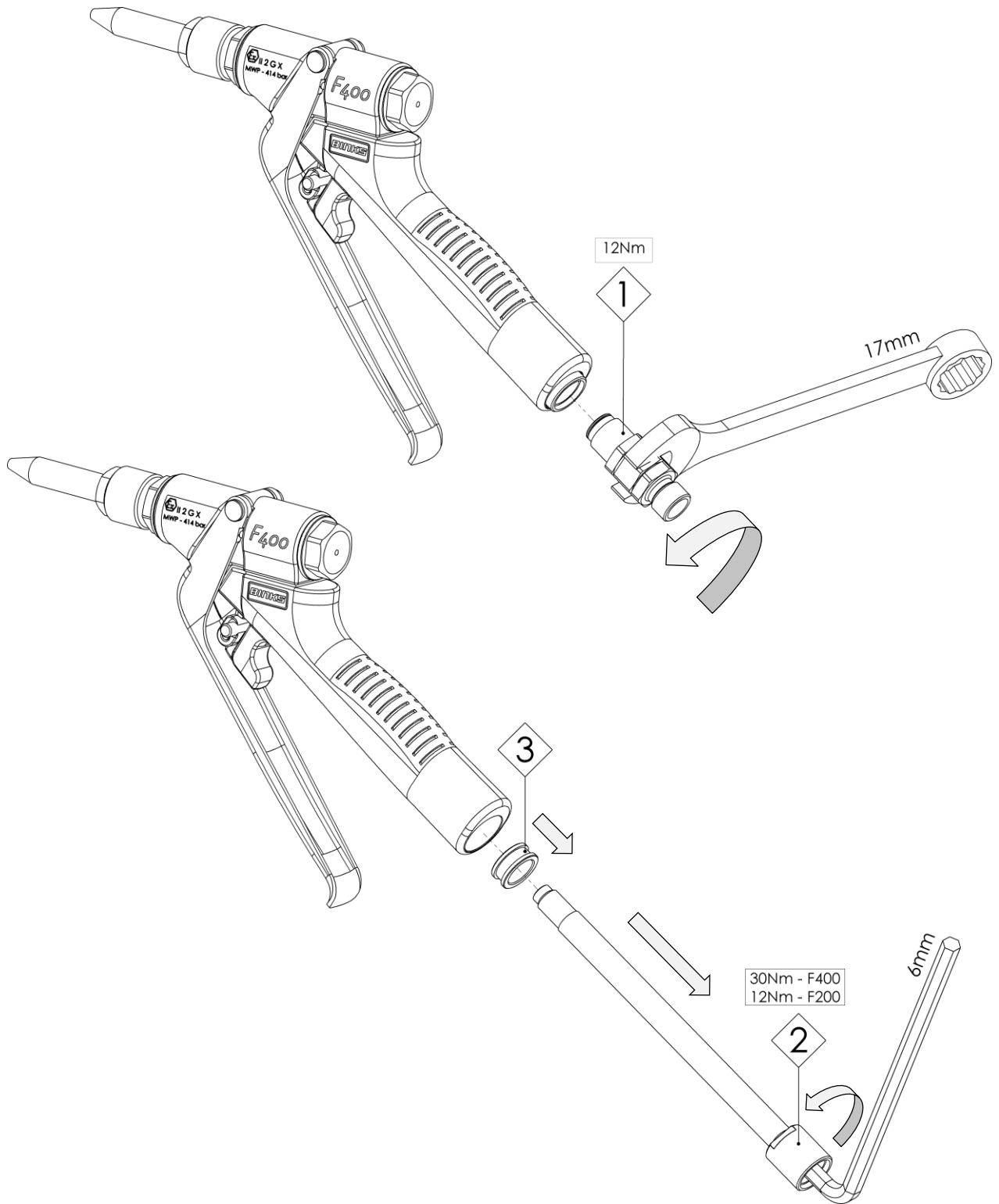
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

TRIGGER DISASSEMBLY



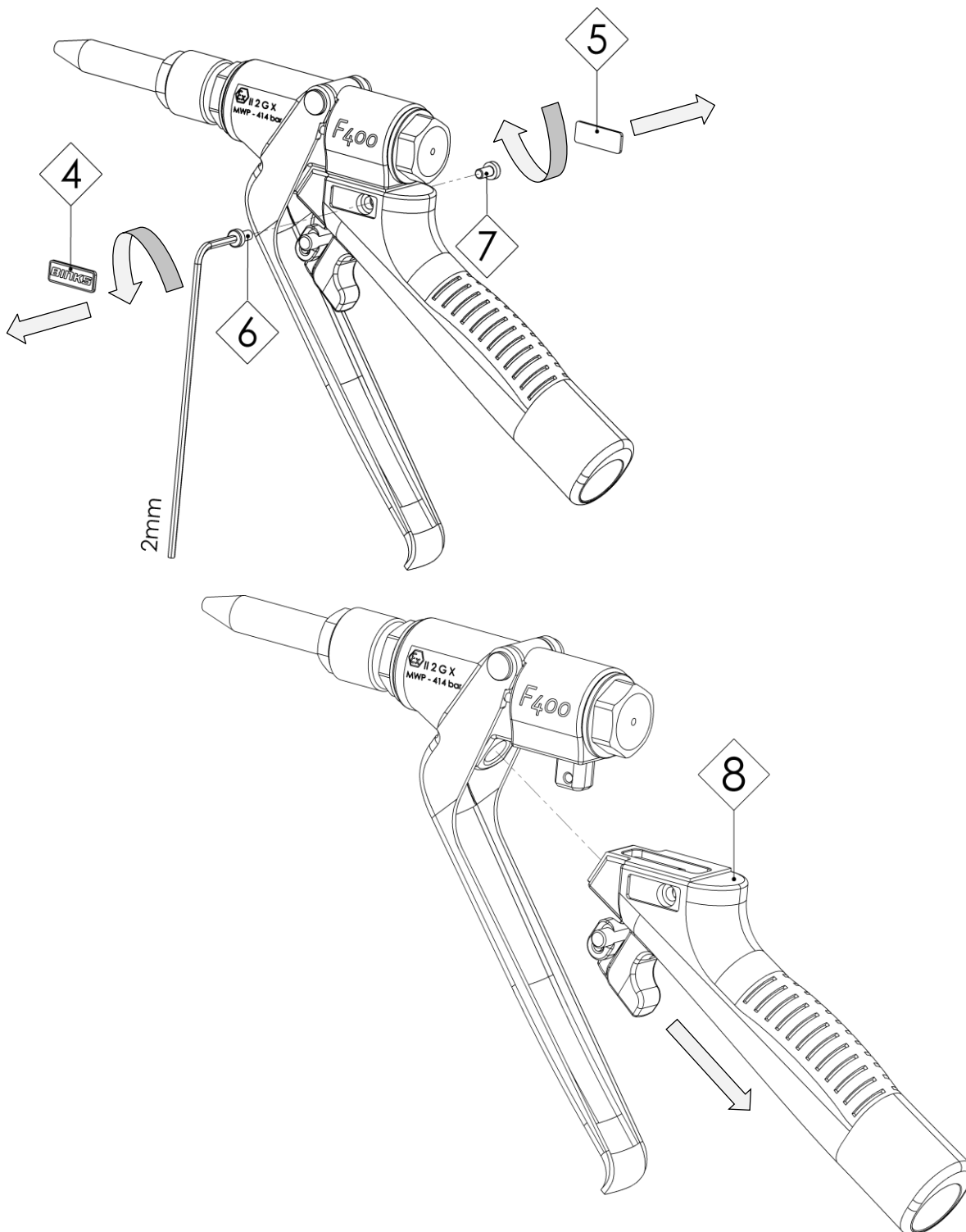
MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

HANDLE DISASSEMBLY



MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

HANDLE DISASSEMBLY Continued...




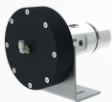
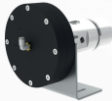


MAINTENANCE SYMBOLS	
#	ITEM NUMBER
#	MAINTENANCE ORDER <i>(Reverse for assembly)</i>
PG	PETROLEUM JELLY
TS	THREAD SEALANT (PTFE tape)

FAULT FINDING

SYMPTOM	POSSIBLE CAUSE	REMEDY
Material continually flows from the nozzle.	<ul style="list-style-type: none"> a. Damage to needle ball and or seat. b. Trigger travel is incorrectly adjusted. c. Contamination preventing needle from seating correctly. d. Needle spring broken. 	<ul style="list-style-type: none"> a. Replace nozzle adaptor and needle. b. Check trigger travel adjustment. c. Thoroughly clean gun through, replace material if necessary. d. Replace spring.
Material flows from the end cap.	<ul style="list-style-type: none"> a. Needle packing assembly installed incorrectly / loose. b. Needle packing worn. 	<ul style="list-style-type: none"> a. Check needle packing installation / tighten. b. Replace needle packing.
Swivel leaking.	<ul style="list-style-type: none"> a. Swivel assembly installed incorrectly / loose. b. Swivel assembly worn. 	<ul style="list-style-type: none"> a. Check swivel assembly installation / tighten. b. Replace swivel assembly.
Material flows down the outside of the fluid tube.	<ul style="list-style-type: none"> a. Fluid tube installed incorrectly / loose. b. Fluid tube or gun body damaged. 	<ul style="list-style-type: none"> a. Check fluid tube installation / tighten. b. Replace fluid tube or complete flow gun assembly.
Material leaks from the outside of the fluid nozzle adaptor.	<ul style="list-style-type: none"> a. Nozzle adaptor installed incorrectly / loose. b. Nozzle adaptor or gun body damaged. 	<ul style="list-style-type: none"> a. Check nozzle adaptor assembly installation / tighten. b. Replace nozzle adaptor or complete flow gun assembly.
Gun spits when triggered.	<ul style="list-style-type: none"> a. Air in the system. b. Material contaminated. 	<ul style="list-style-type: none"> a. Continually trigger gun until all air is removed from the system or check supply system. b. Change material.
No material flows when gun triggered.	<ul style="list-style-type: none"> a. Fluid pressure set too low. b. Fluid passageways blocked. c. Gun incorrectly adjusted. 	<ul style="list-style-type: none"> a. Increase material pumping pressure. b. Remove blockage from fluid passageways. c. Check trigger setting / needle.
Trigger lock won't engage.	<ul style="list-style-type: none"> a. Trigger damaged. b. Trigger lock worn. 	<ul style="list-style-type: none"> a. Replace trigger. b. Replace gun handle and trigger lock.

ACCESSORIES
GENERAL

PART No.	DESCRIPTION	
FG300011	NOZZLE SPIGOT TO SUIT BINKS NOZZLE ADAPTOR FOR NOZZLES WITH 1/8 NPT THREADS	
104170	1/4" NPSM Z-SWIVEL 550 bar [8000 psi]	
104171	1/4" BSP Z-SWIVEL 550 bar [8000 psi]	
107906	HIGH PRESSURE REGULATOR 345 bar [5000 psi]	
107908	HIGH PRESSURE BACK PRESSURE REGULATOR 345 bar [5000 psi]	

ACCESSORIES
HOSE ASSEMBLIES

PART No.	LENGTH	BORE	CONNECTIONS	MAX WORKING PRESSURE
H-5811	1M	3/16"	1/4" NPSM(F)	350 bar
H-5837	1M	1/8"	1/4" NPSM (F)	350 bar
H-5851	1M	3/16"	1/4" NPSM (F)	500 bar
H-5850	1.8M	1/4"	1/4" NPSM (F)	500 bar
H-5813	7.5M	3/16"	1/4" NPSM(F)	350 bar
H-5818	7.5M	1/4"	1/4" NPSM(F)	310 bar
H-5706	7.5M	1/4"	1/4" NPSM (F)	500 bar
H-5813-10	10M	3/16"	1/4" NPSM (F)	350 bar
H-5818-10	10M	1/4"	1/4" NPSM (F)	325 bar
H-5819	15M	1/4"	1/4" NPSM(F)	325 bar
H-5852	15M	1/4"	1/4" NPSM (F)	500 bar
H-5853	15M	3/8"	3/8" NPSM (F)	500 bar
12227-20	20M	1/4"	1/4" NPSM (F)	325 bar
12227-30	30M	1/4"	1/4" NPSM (F)	325 bar

NOTES

NOTES

WARRANTY POLICY

Binks products are covered by Carlisle Fluid Technologies one 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.

Carlisle Fluid Technologies reserves the right to modify equipment specifications without prior notice. DeVilbiss®, Ransburg®, MS®, BGK® and Binks® are registered trademarks of Carlisle Fluid Technologies, Inc.

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Binks is part of Carlisle Fluid Technologies, a global leader in innovative finishing technologies. For technical assistance or to locate an authorized distributor, contact one of our international sales and customer support locations below.

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