

# **AX55S AIR MOTOR ASSEMBLY**



SPECIFICATIONS						
	AX55S-5	AX55S-6	AX55S-7	AX55S		
Maximum air inlet pressure:	72.5 psi [5 bar]	87 psi [6 bar]	101.5 psi [7 bar]	116 psi [8 bar]		
Maximum recommended continuous cycle rate:	20 cycles/min. [40 strokes]					
Maximum recommended intermittent cycle rate:	40 cycles/min. [60 strokes]					
Air consumption @ 20 cycles/min and 116 psi [8 bar] air inlet pressure:	n/a	n/a	n/a	2.2 SCFM [62.5 LPM]		
Sound level:	n/a	n/a	n/a	88 dB		
Air inlet connection:	3/8" NPS / BSPP (female)					
Piston diameter:	2.2 in (55 mm)					
Nominal motor stroke:	3 in [75 mm]					
Maximum operating temperature:	160°F [71° C]					
Weight:	6.6 Lb [3 Kg]					



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

# WARNING

Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

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Hazards or unsafe practices which could result in minor personal injury, product or property damage.

# NOTE

Important installation, operation or maintenance information

## 🛦 WARNING

## Read the following warnings before using this equipment.



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#### **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, DEPRESSURIZE, 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.



### **OPERATOR TRAINING**

All personnel must be trained before operating finishing equipment.



#### EQUIPMENT MISUSE HAZARD

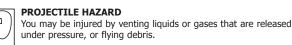
Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



## **KEEP EQUIPMENT GUARDS IN PLACE**



Do not operate the equipment if the safety devices have been removed.





#### **PINCH POINT HAZARD**

Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



#### PACEMAKER WARNING

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

#### AUTOMATIC EQUIPMENT

Automatic equipment may start suddenly without warning.



#### 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.



#### NEVER MODIFY THE EQUIPMENT

Do not modify the equipment unless the manufacturer provides written approval.



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.



#### NOISE HAZARD

You may be injured by loud noise. Hearing protection may be required when using this equipment.



#### **HIGH PRESSURE CONSIDERATION**

High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the spray 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 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.

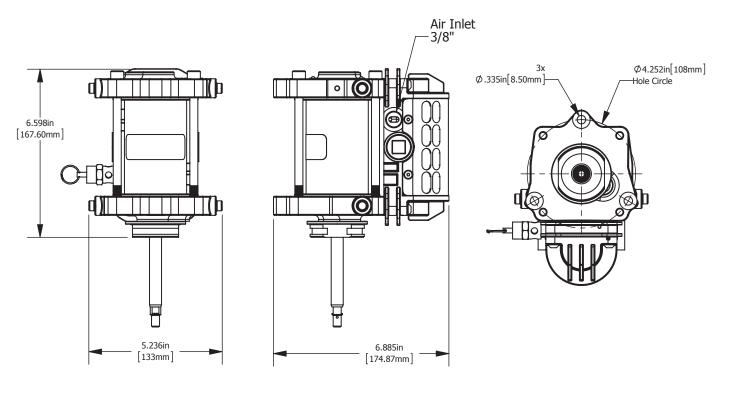


#### **PROP 65 WARNING**

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

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EOUIPMENT. FOR FURTHER SAFETY INFORMATION REGARDING THIS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).



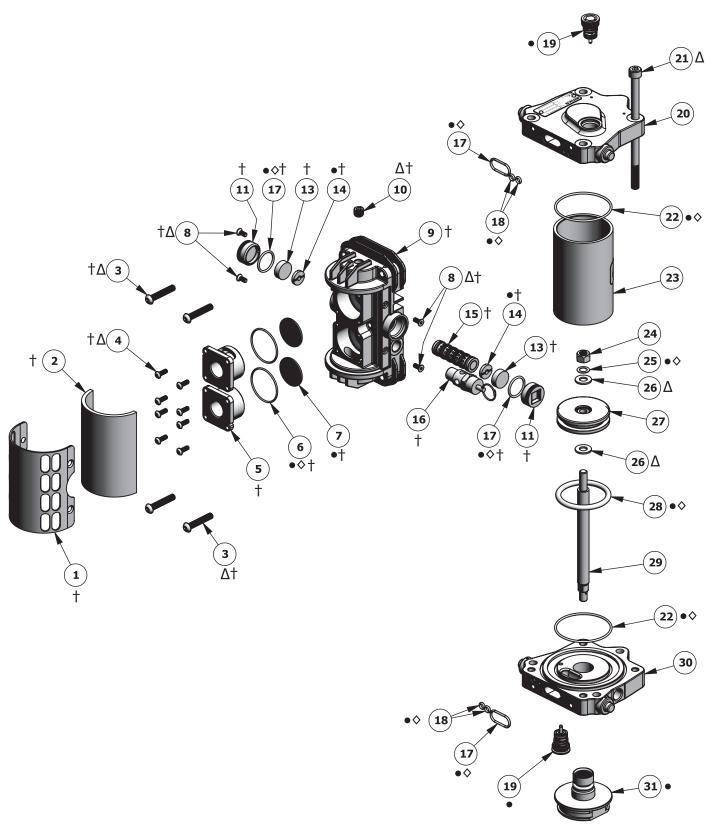


## MAINTENANCE

INSPECTION	OPERATION		
Daily	Check for general air leakage and correct motor operation.		
6 Month Test	Perform a pump stall test to ensure correct operation.		
	Perform a stall test on the pump assembly. If air is escaping through exhaust, check air motor piston seal and QEV piston, replace as required.		
12 to 36 Months (Typically 10 million pump cycles, dependant on air	Replace air piston seal. Replace motor rod cartridge assembly. Replace poppet assemblies.	Order a 0115-010216 Seal kit.	
quality)	Inspect and replace if required: Main valve assembly parts	Order a 0115-010226 Valve repair kit.	

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	REMEDY		
	No air supply.	Check air and fluid supply ball valves and supply hoses.		
	Air piston seal worn.	Replace piston seal.		
Motor will not run	Poppet assemblies are not working.	Switch/interchange poppet assemblies to isolate the faulty poppet, and clean or replace.		
	Main valve assembly is not working.	Check the main valve assembly, and clean or replace.		
	QEV's are not working.	Check for constant exhaust air when pump is not in a stalled condition. Check the QEV pistons, and clean or replace.		
	Worn piston seal.	Replace piston seal.		
	Worn/failed motor rod seals.	Replace motor rod cartridge assembly.		
Pump runs but has excessive pulsation	Damaged QEV.	Inspect, clean and replace as required.		
	Damaged poppet assembly.	Inspect, clean and replace as required.		
	Air exhaust restricted	Inspect, clean and replace as required.		



<sup>+</sup> 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.
- $\hfill\square$  Parts are included in 0115-010226 Air Motor Valve Repair Kit.
- $\Delta$  Parts are included in 0115-010213 AX55 Hardware Kit.

### **AX55S AIR MOTOR ASSEMBLY**

ITEM NO.			DESCRIPTION		QTY.	
1	0115-010023	+	EXHAUST COVER SCREEN			
2	0115-010022	+	EXHAUST COVER			
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	†∙ <b>◊</b> □	O-RING		2	
7	0115-010020	†∙□	DIAPHRAGM		2	
8	0115-010024	†Δ	FLAT HEAD CAP SCREW		4	
9	0115-010097	+	VALVE BLOCK		1	
10	0115-010107	+Δ	PIPE PLUG		1	
11	0115-010018	10	VALVE BLOCK END CAP		2	
13	0115-010017	10	MAGNET		2	
14	0115-010016	†∙□	BUMPER		2	
15	0115-010015	†¤	SPOOL AND SLEEVE ASSEMBLY		1	
	0114-014716	+	MINI BLOW-OFF VALVE (5 BAR)	AX55S-5	1	
10	193538	+	MINI BLOW-OFF VALVE (6 BAR)	AX55S-6		
16	193539	+	MINI BLOW-OFF VALVE (7 BAR)	AX55S-7		
	0114-014774	+	MINI BLOW-OFF VALVE (8 BAR)	AX55S		
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	
20	0115-010034		MOTOR ROD (ROD LENGTH = 8 IN. [203mm])		4	
29	0115-010713		MOTOR ROD (ROD LENGTH = 6.1 IN. [155mm])		_ 1	
30	0115-010006		LOWER END CAP MACHINING		1	
31	0115-010657	•	MOTOR ROD CARTRIDGE ASSEMBLY			

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

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

 $\Delta$  Parts are included in 0115-010213 AX55 Hardware Kit.

## NOTE

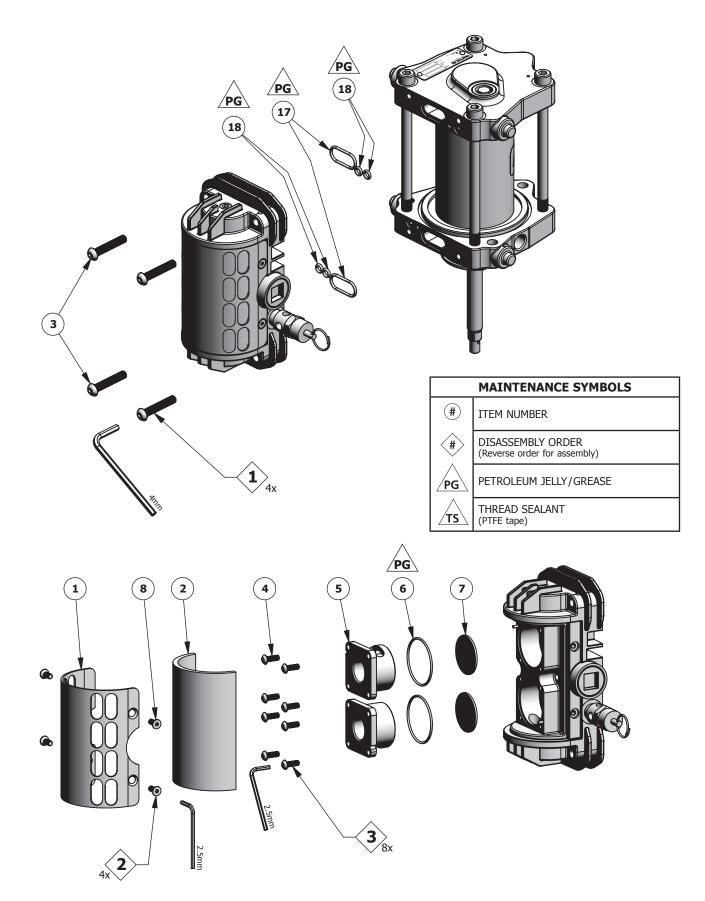
See page 6 for kits details.

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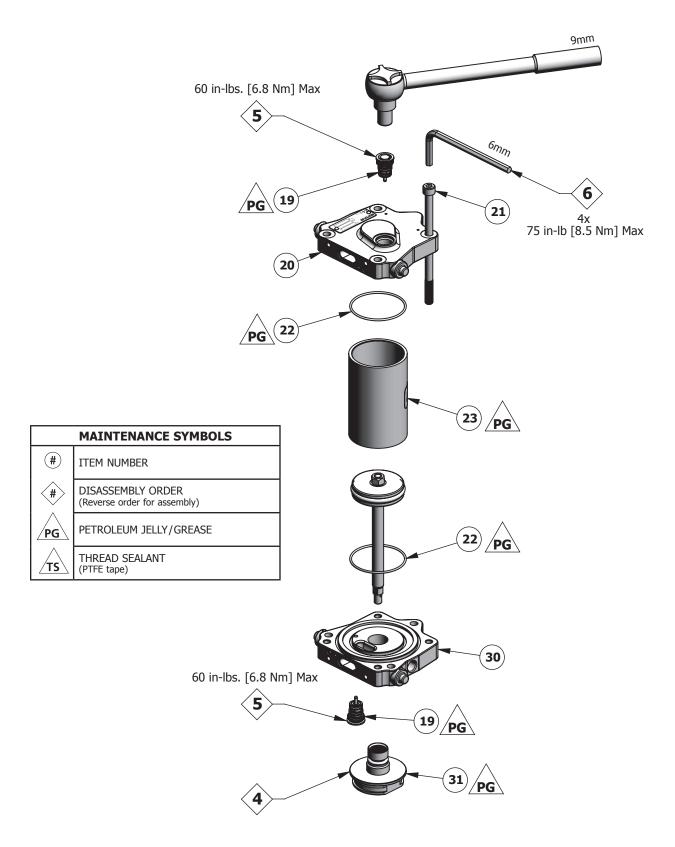
## AX55S SERVICE KITS

			0115-010214	0115-010216	0115-010226	0115-010213
ITEM NO.	PART NO.	DESCRIPTION	REPAIR KIT	SEAL KIT	VALVE REPAIR KIT	HARDWARE KIT
3	0115-010026	BUTTON HEAD CAP SCREW				4
4	0115-010073	BUTTON HEAD CAP SCREW				8
6	0115-010021	O-RING	2	2	2	
7	0115-010020	DIAPHRAGM	2		2	
8	0115-010024	FLAT HEAD CAP SCREW				4
10	0115-010107	PIPE PLUG				1
11	0115-010018	VALVE BLOCK END CAP			2	
13	0115-010017	MAGNET			2	
14	0115-010016	BUMPER	2		2	
15	0115-010015	SPOOL AND SLEEVE ASSEMBLY			1	
17	0115-010049	O-RING	4	4	4	
18	0115-010051	O-RING	4	4	4	
19	0115-010037	POPPET ASSEMBLY	2			
21	0115-010029	SOCKET HEAD CAP SCREW				4
22	0115-010086	CYLINDER SEAL, 55mm	2	2		
24	0115-010096	LOCKNUT				1
25	0115-010036	SEALING RING	1	1		
26	0115-010035	FLAT WASHER				2
28	0115-010025	PISTON SEAL, 55mm	1	1		
31	0115-010657	MOTOR ROD CARTRIDGE ASSEMBLY	1			

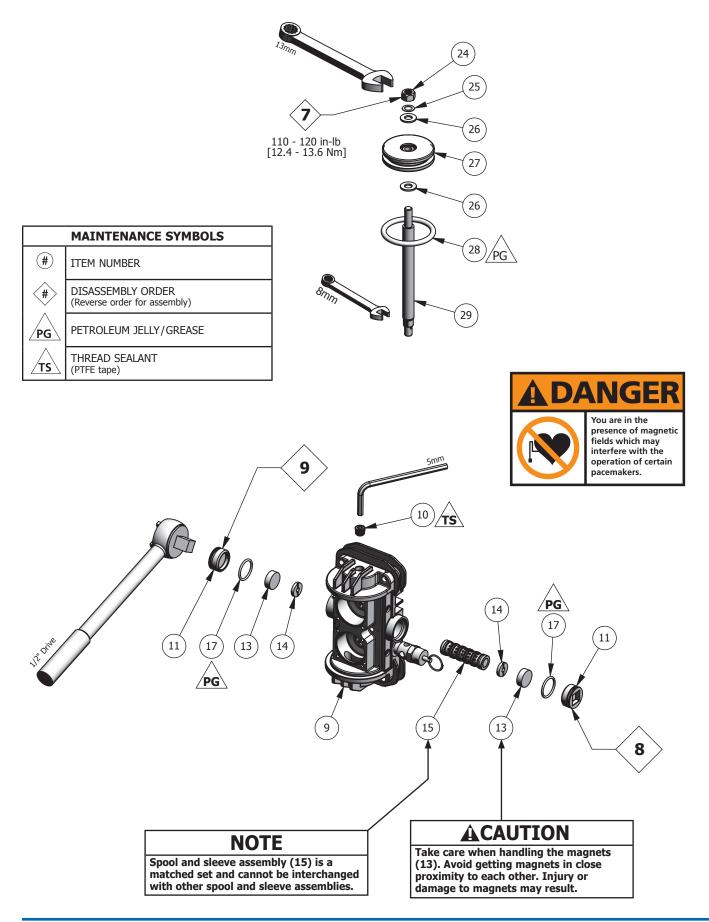
## **AX55S AIR MOTOR ASSEMBLY – MAINTENANCE**



## **AX55S AIR MOTOR ASSEMBLY – MAINTENANCE**



### AX55S AIR MOTOR ASSEMBLY – MAINTENANCE



## 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.

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