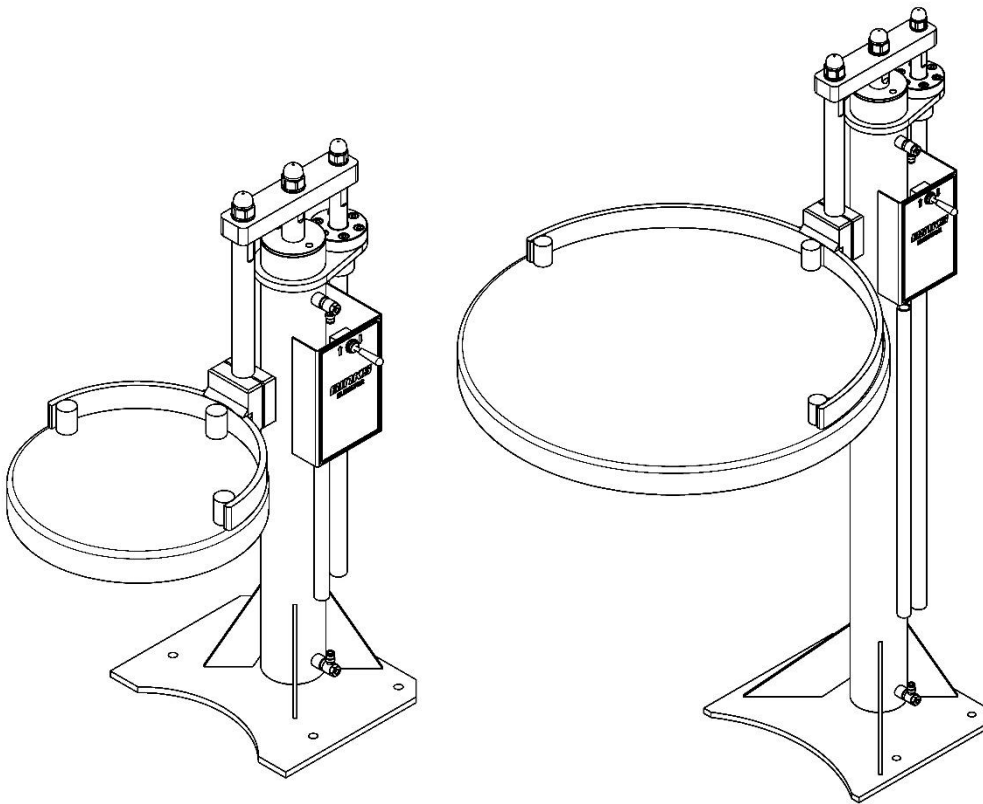


# **BINKS**

## **Instruction Manual**

# **25L & 205L Elevator**

- **104153 – 25L Elevator**
- **104112 – 205L Elevator**
- **104154 – 25L Elevator + Agitator Control**
- **104155 – 205L Elevator + Agitator Control**



**CARLISLE**  
FLUID TECHNOLOGIES

<b>Product Description / Object of Declaration:</b>	<b>Pneumatic Elevator 104112, 104153, 104154, 104155.</b>	<b>EN</b>
<b>This Product is designed for use with:</b>	Solvent and Water based materials	
<b>Suitable for use in hazardous area:</b>	Zone 1 / Zone 2	
<b>Protection Level:</b>	II 2 G X T4	
<b>Notified body details and role:</b>	Element Materials Technology (0891) Lodging of Technical file	
<b>This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer:</b>	Carlisle Fluid Technologies UK Ltd, Ringwood Road, Bournemouth, BH11 9LH. UK	

## EU Declaration of Conformity



**This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer:**

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 ISO 4414:2010 Pneumatic Fluid Power - General Rules and safety requirements

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

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

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  
6/12/17

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

# **WARNING**

**Directions for Working Safety**

This Product has been constructed according to advanced technological standards and is operationally reliable. Damage may, however, result if it is used incorrectly by untrained persons or used for purposes other than those for which it was constructed.

The locally current regulations for safety and prevention of accidents are valid for the operation of this product under all circumstances.

International, national and company safety regulations are to be observed for the installation and operation of this product, as well as the procedures involved in maintenance, repairs and cleaning.

These instructions are intended to be read, understood and observed in all points by those responsible for this product. These operating and maintenance instructions are intended to ensure trouble free operation. Therefore, it is recommended to read these instructions carefully before start-up. Binks PCE cannot be held responsible for damage or malfunctions resulting from the non-observance of the operating instructions. These instructions including regulations and technical drawings may not be copied, distributed, used for commercial purposes or given to others either in full or in part without the consent of Binks PCE. We reserve the right to alter drawings and specifications necessary for the technical improvement of this product without notice.



**Equipment Misuse Hazard**

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

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose.
- Do not alter or modify this equipment. Use only genuine Binks PCE parts and accessories.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure stated on the equipment or in the Technical Data for your equipment. Do not exceed the maximum working pressure of the lowest rated component in your system.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the Technical Data section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose hoses to temperatures above 82°C (180°F) or below -40°C (-40°F).
- Do not lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.



**Fire, Explosion and Electric Shock Hazard**

Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire, explosion, or electric shock.

When installed and operated in accordance with its instructions, the pump is approved for operation in Zone 1 (Europe) & Division 1 (North America), hazardous locations. (ATEX Cat 2)

- Electrical equipment must be installed, operated, and serviced only by trained, qualified personnel who fully understand the requirements stated in this instruction manual.
- Ground the equipment and all other electrically conductive objects in the spray area. After grounding test with ohmmeter to ensure earth continuity is 1 ohm or less.
- Keep all covers tight while the motor is energized.
- If there is any static sparking or you feel an electric shock while using this equipment, stop spraying/dispensing immediately. Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the build up of flammable fumes from solvents or the fluid being pumped.
- Keep the pumping area free of debris, including solvent, rags, and gasoline.
- Electrically disconnect all equipment in the pumping area.
- Extinguish all open flames or pilot lights in the spray/dispense area.
- Do not smoke in the spray/dispense area.
- Do not turn on or off any light switch in the spray/dispense area while operating or if fumes are present.





# WARNING



**READ THE MANUAL**

Before operating 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.



**NOISE HAZARD**

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

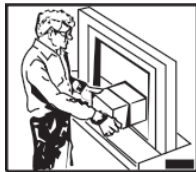


**OPERATOR TRAINING**

All personnel must be trained before operating equipment.



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



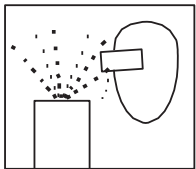
**KEEP EQUIPMENT GUARDS IN PLACE**

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



**HIGH PRESSURE CONSIDERATION**

High pressure can cause serious injury. Relieve all pressure before servicing. Hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury.



**PROJECTILE HAZARD**

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



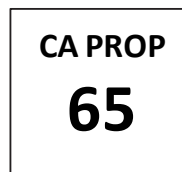
**AUTOMATIC EQUIPMENT**

Automatic equipment may start suddenly without warning.



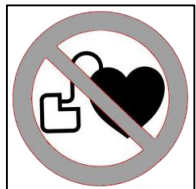
**PINCH POINT HAZARD**

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



**PROP 65 WARNING**

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



**MAGNETIC FIELD PRESENT**

You may be subjected to magnetic fields which may interfere with the operation of certain pacemakers.



**MAGNET HAZARD**

Take care when handling magnets. Avoid getting magnets in close proximity of each other. Injury or damage to magnets may result.

Specification			
Feature			Remarks
Maximum Working Air Pressure		7 Bar / 101 psi	
Air Inlet		1/4" BSP F	
Air Quality		ISO 8573-1 Class 5/5/4	Dirt 40 Microns Water +7°C @ 7 bar Oil 25mg/m <sup>3</sup>
Stroke	25L Elevator	500 mm / 19.7"	
	205L Elevator	955 mm / 37.6"	
Unit Height - Fully Extended	25L Elevator	1380 mm / 54"	
	205L Elevator	2270 mm / 89"	
Weight	25L Elevator	45.5 Kg / 100 lbs	
	205L Elevator	64 Kg / 140 lbs	
Maximum load capacity	25L Elevator	50kg @ 375mm Bare (194402) 43kg @ 375mm With lid (104153 & 104154)	From lift cylinder centre line to load centre of gravity. Note additional reinforcement may be required to the lid/support, depending on load shape and size.
	205L Elevator	75kg @ 375mm Bare (104109) 61kg @ 375mm With lid (104112 & 104155)	

## ***General Description***

This equipment is designed for use with Solvent based and Waterborne materials. Suitable for use in Zone 1 and 2, Protection Level: II 2 G X

The pneumatic operated elevator is driven both upwards and downwards by an air cylinder. Typical applications are raising and lowering of a drum cover which has a paint pump and mixer or other accessories mounted to it. This allows the changing of drums with a minimum of inconvenience to the operator.

- Clean and simple air operated
- 25L - 500mm / 19.7" Stroke, maximum drum size Ø340mm
- 205L - 955mm / 37.6" Stroke, maximum drum size Ø640mm
- Speed control is possible in both directions
- Elevator can be positioned anywhere along its stroke and will not drop
- ATEX marked.

## ***Installation – Setting to work***

When the control valve lever is operated upward the elevator will lift, when the lever is operated back to the central position the elevator will stop.

When the control valve lever is operated downward the elevator will lower, when the lever is operated back to the central position the elevator will stop.

The drum cover/lid position should be set by moving the drum lid support on the support bar so there is a small clearance with the top of the drum when the elevator is in the bottom position.

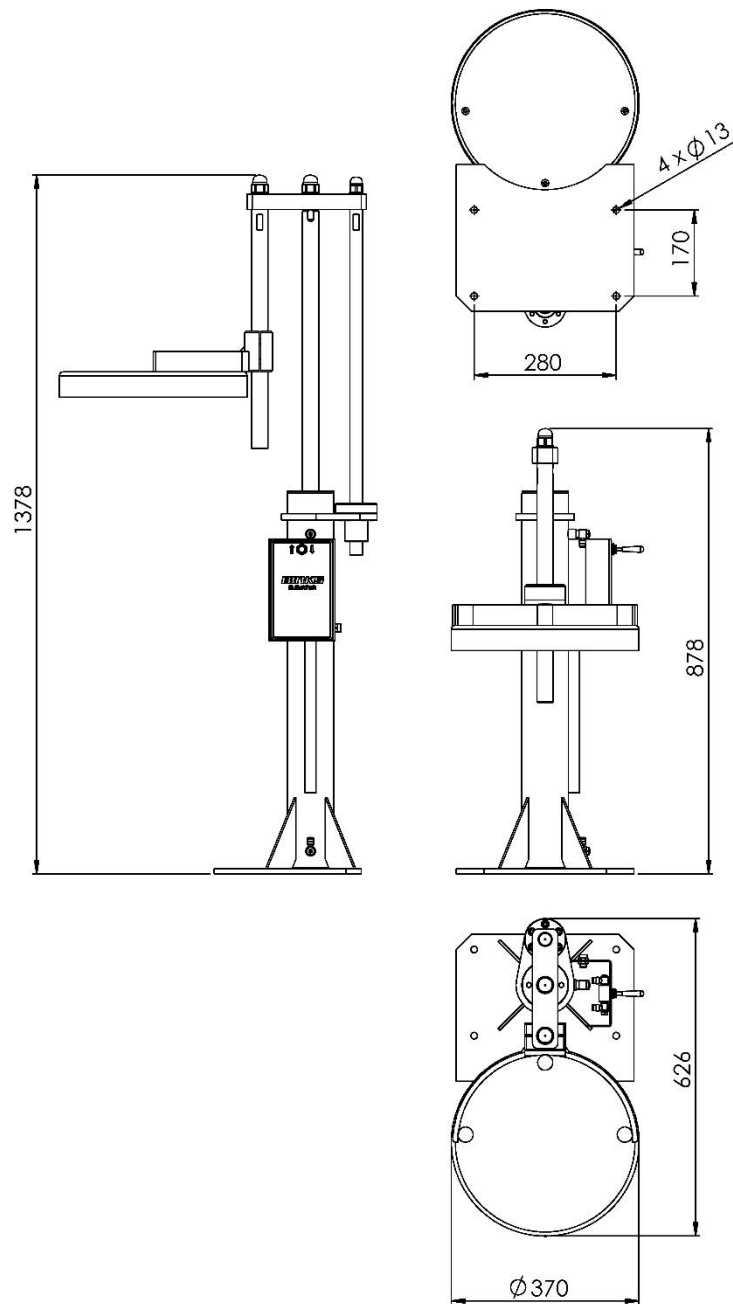
To control the speed of the elevator, adjust the flow restrictors mounted to the cylinder. Note these control on the exhaust stroke only.

**CAUTION:** The elevator should not be used as a permanent support Air may leak and allow a gradual lowering.

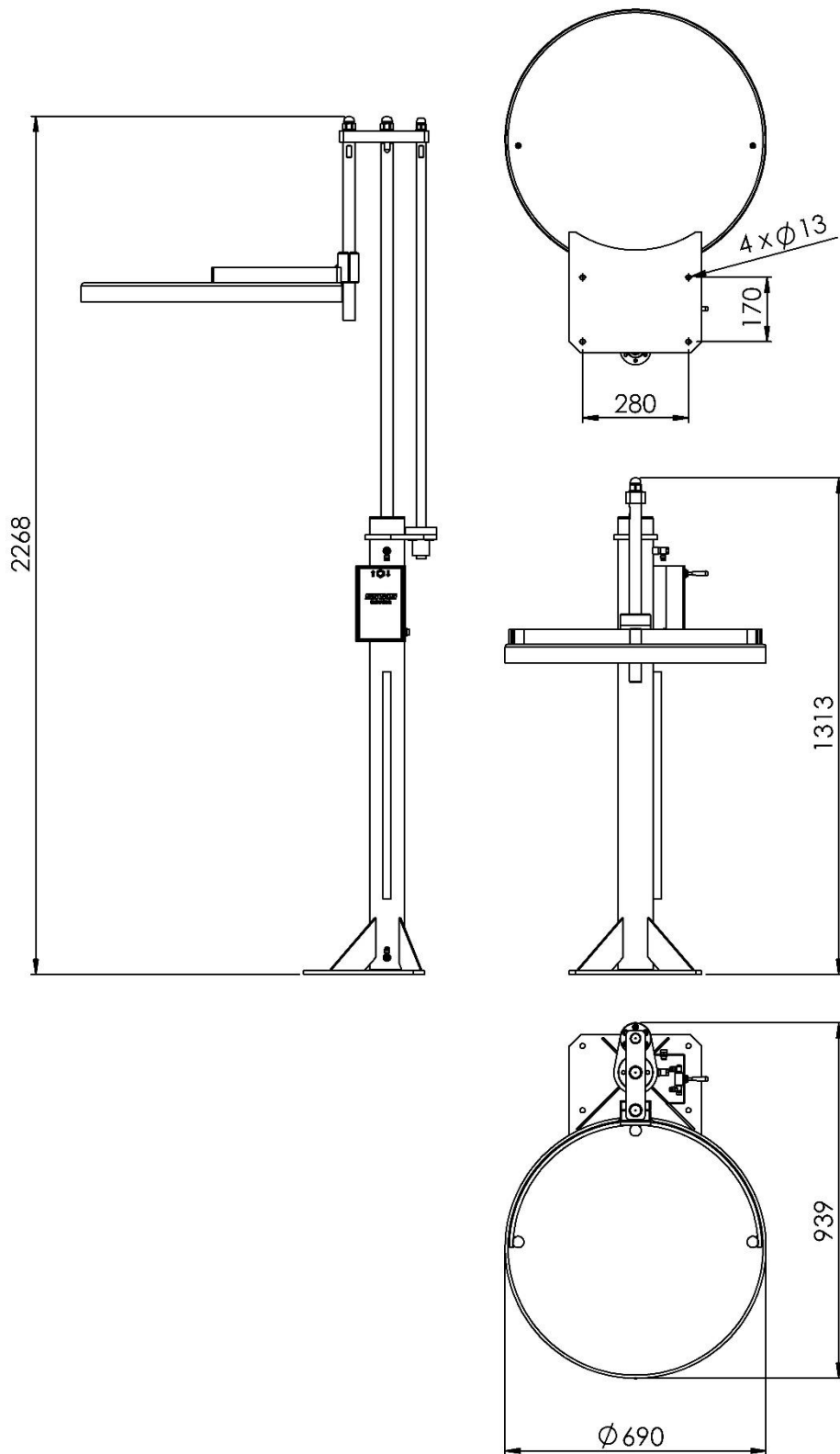
Ensure personnel are clear of the elevator prior to operating and the operator has an unobstructed view of the unit.

***Installation – Mounting***

- Fix the base of the elevator securely and rigidly to the floor or mounting surface.
- Air supply connection: 3 Bar minimum; 7 Bar maximum.
- Operating valves should be located within two metres of the elevator.
- Speed of travel 0.1 m/s (full stroke in 9seconds +/- 1 second).
- Use one of the floor mounting bolts to fully earth the unit back to a clean earth connection point.



**25L OVERALL DIMENSIONS**

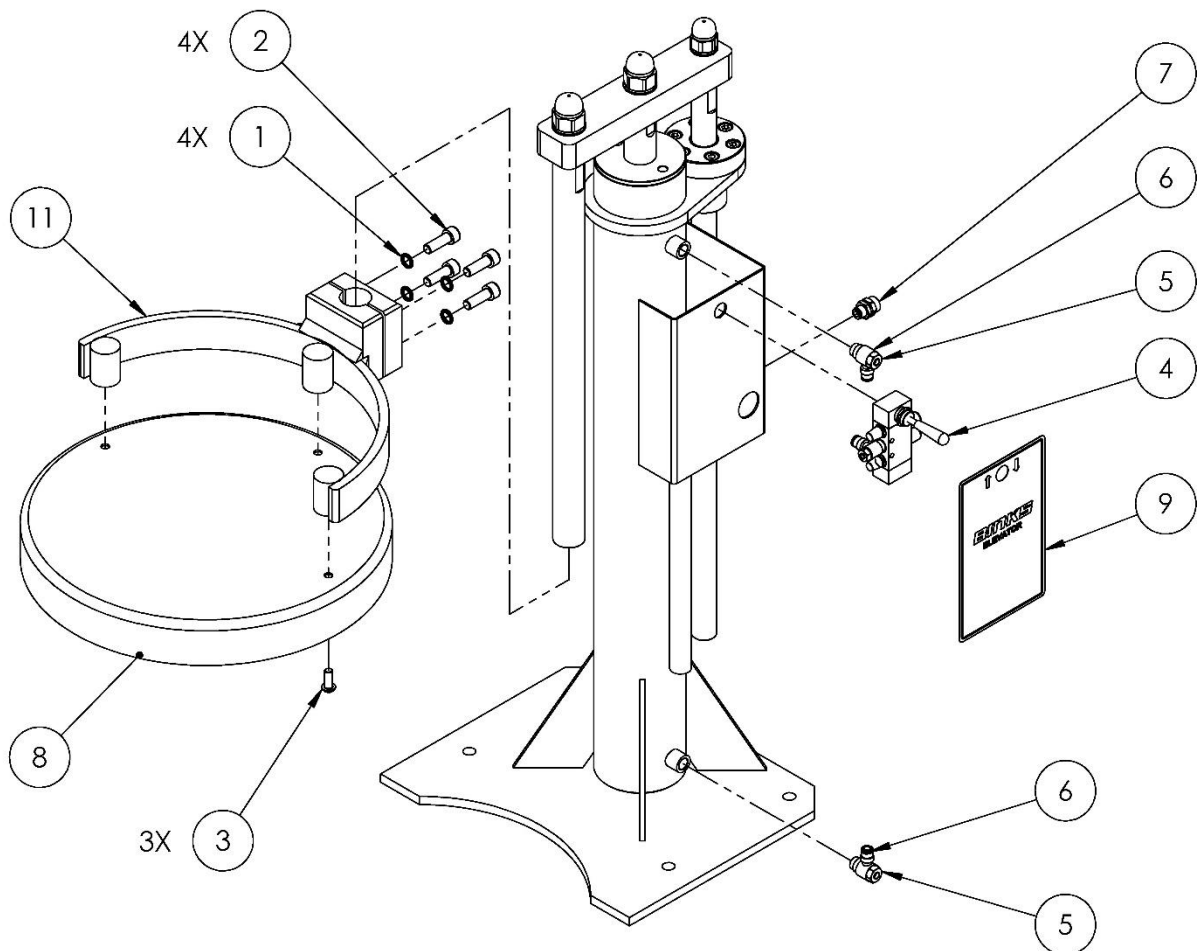


**205L OVERALL DIMENSIONS**



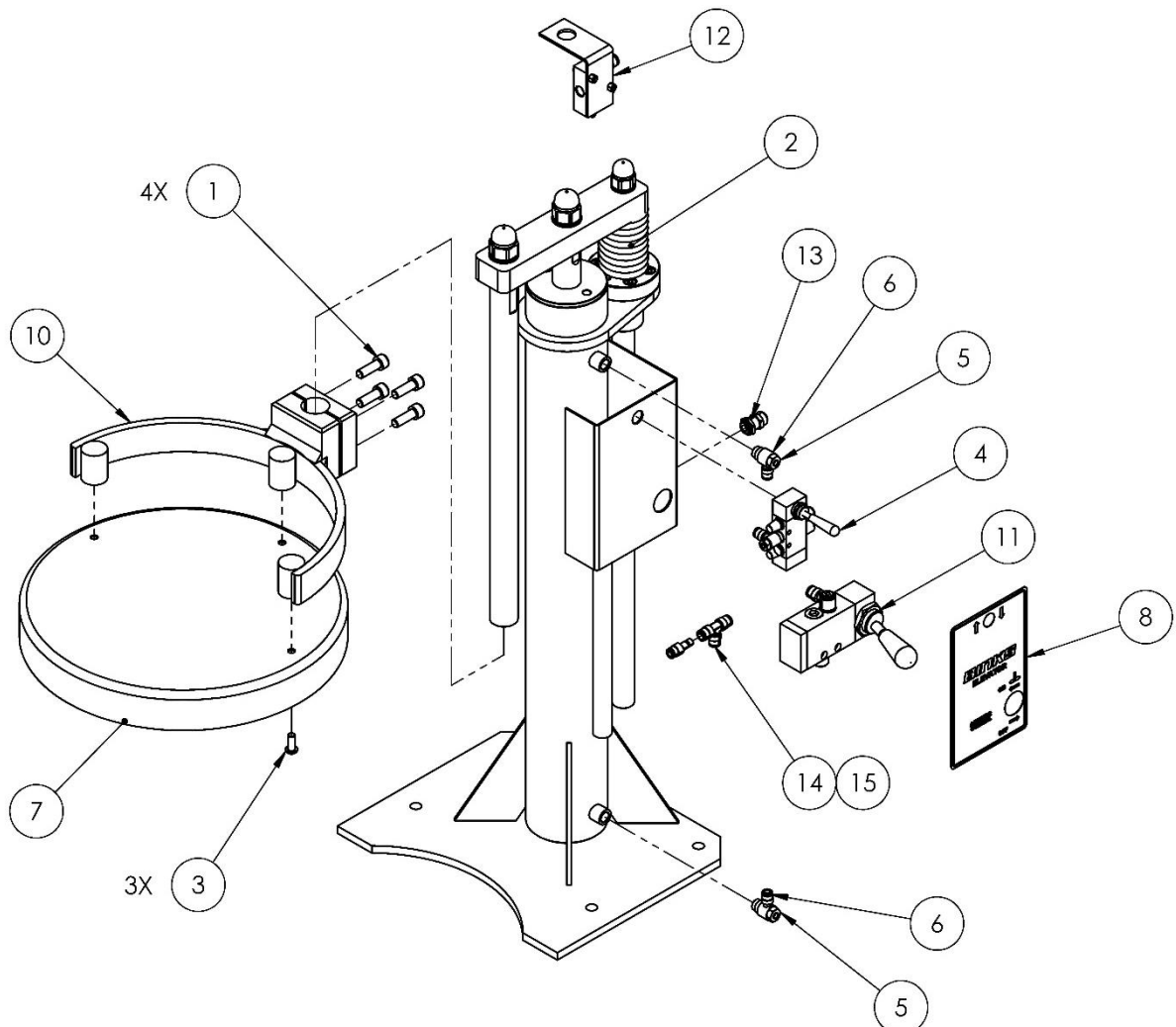
**25L Elevator (104153) - Parts Lists**

Parts List - 104153 25L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	165123	M10 SPRING WASHER	4	
2	165988	M10 x 30 CAPHEAD SCREW	4	
3	177021	M8 x 20 BUTTON HD SCREW	3	
4	193925	AIR CONTROL ASSEMBLY	1	#
5	193965	1/4" FLOW RESTRICTOR	2	#
6	193966	Ø6 1/4" SINGLE BANJO CONNECTOR	2	
7	193967	Ø6 - 1/4" FEMALE BULKHEAD	1	INLET
8	194346	DRUM LID	1	
9	194400	ELEVATOR DECAL	1	
10	194402	BARE 25L ELEVATOR	1	
11	194423	LID SUPPORT	1	
12	170244	Ø6 x 4 PU HOSE - BLACK	1.25m	NOT SHOWN



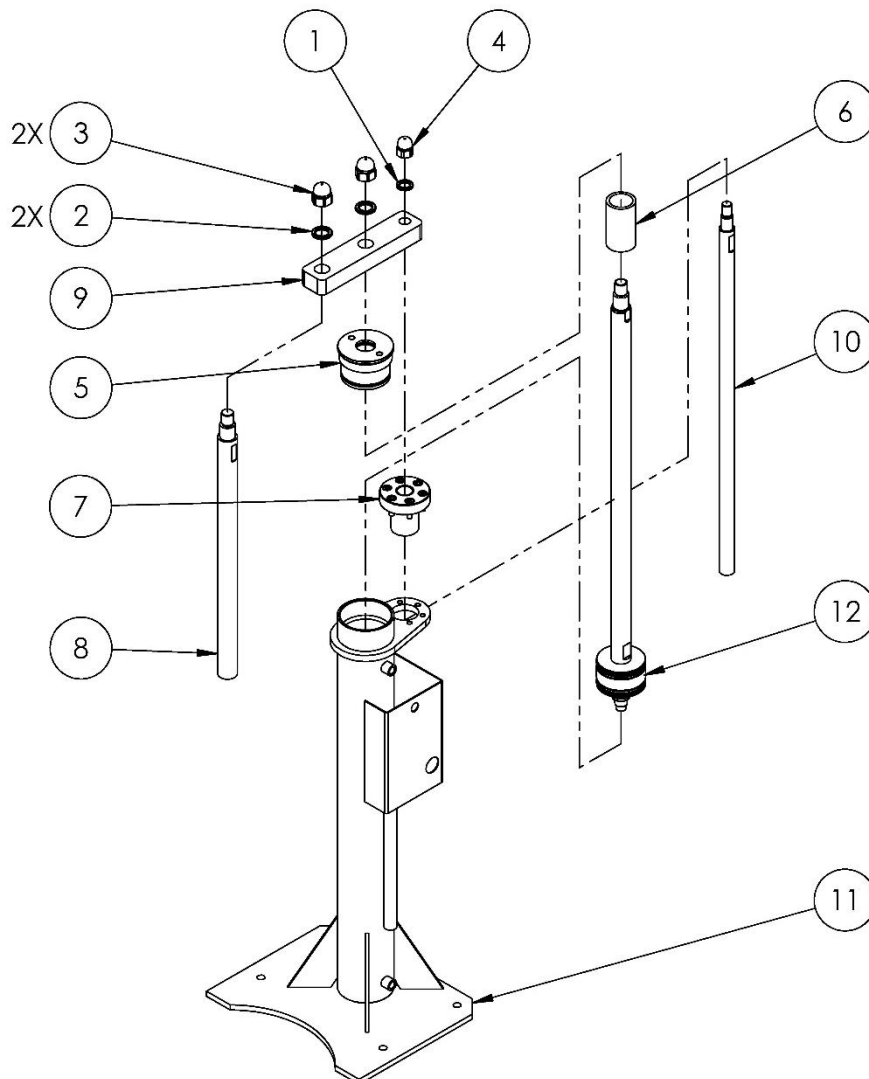
**25L Elevator + Agitator Control (104154) – Parts Lists**

Parts List - 104154 25L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	165988	M10 x 30 CAPHEAD SCREW	4	
2	170252	2m x Ø8mm X Ø5.5mm - COILED HOSE	1	
3	177021	M8 x 20 BUTTON HEAD CAP SCREW	3	
4	193925	AIR CONTROL ASSEMBLY	1	
5	193965	1/4" UNI-DIRECTIONAL FLOW RESTRICTOR	2	
6	193966	Ø6 1/4" SINGLE BANJO RING CONNECTOR	2	
7	194346	DRUM LID	1	
8	194401	ELEVATOR DECAL WITH AGITATOR CONTROL	1	
9	194402	BARE 20/30L ELEVATOR	1	
10	194423	LID SUPPORT	1	
11	194426	AGITATOR CONTROL VALVE ASSEMBLY	1	#
12	194427	AGITATOR SAFETY VALVE ASSEMBLY	1	#
13	194933	Ø8mm - 1/4" BULKHEAD	1	
14	194934	Ø8mm PUSH FIT TEE	1	
15	194935	Ø8mm TO Ø6mm REDUCER	1	
16	170244	Ø6 x 4 PU HOSE - BLACK	1.25m	NOT SHOWN
17	170254	Ø8 x 5 PU HOSE - BLACK	0.5m	NOT SHOWN



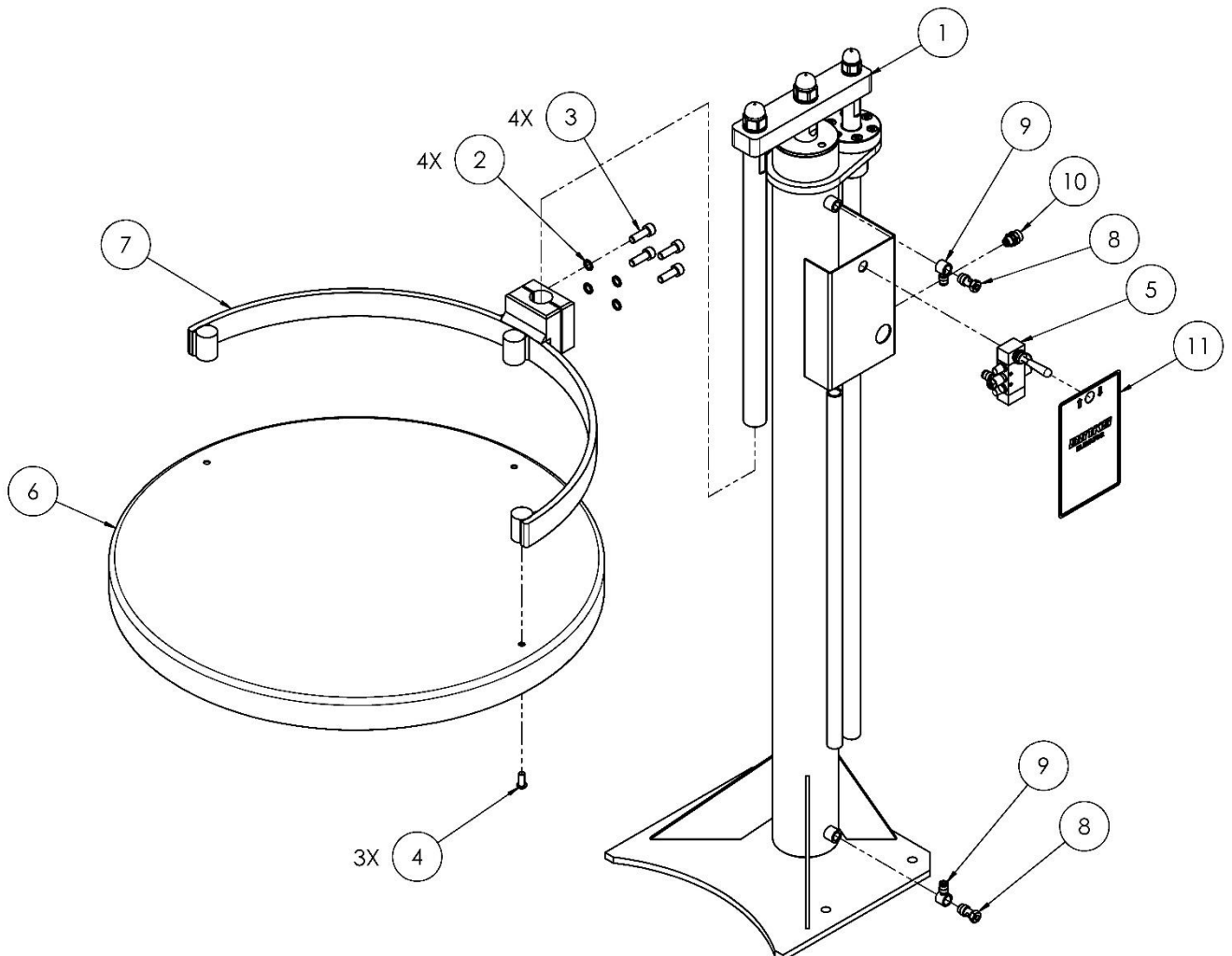
**Bare 25L Elevator (194402) - Parts Lists**

Parts List - 194402 Bare 25L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	165100	M16 SPRING WASHER	1	
2	165139	M20 SPRING WASHER	2	
3	177040	M20 DOME NUT	2	
4	177052	M16 DOME NUT	1	
5	194356	Ø80 CYLINDER ROD HOUSING	1	
6	194364	ROD SPACER	1	
7	194413	ANTI ROTATION BEARING ASSY	1	#
8	194416	TANK LID BAR	1	
9	194418	TOP BAR	1	
10	194419	ANTI ROTATION BAR	1	
11	194420	25L BARE ELEVATOR FABRICATION	1	
12	194421	25L ELEVATOR SHAFT ASSEMBLY	1	



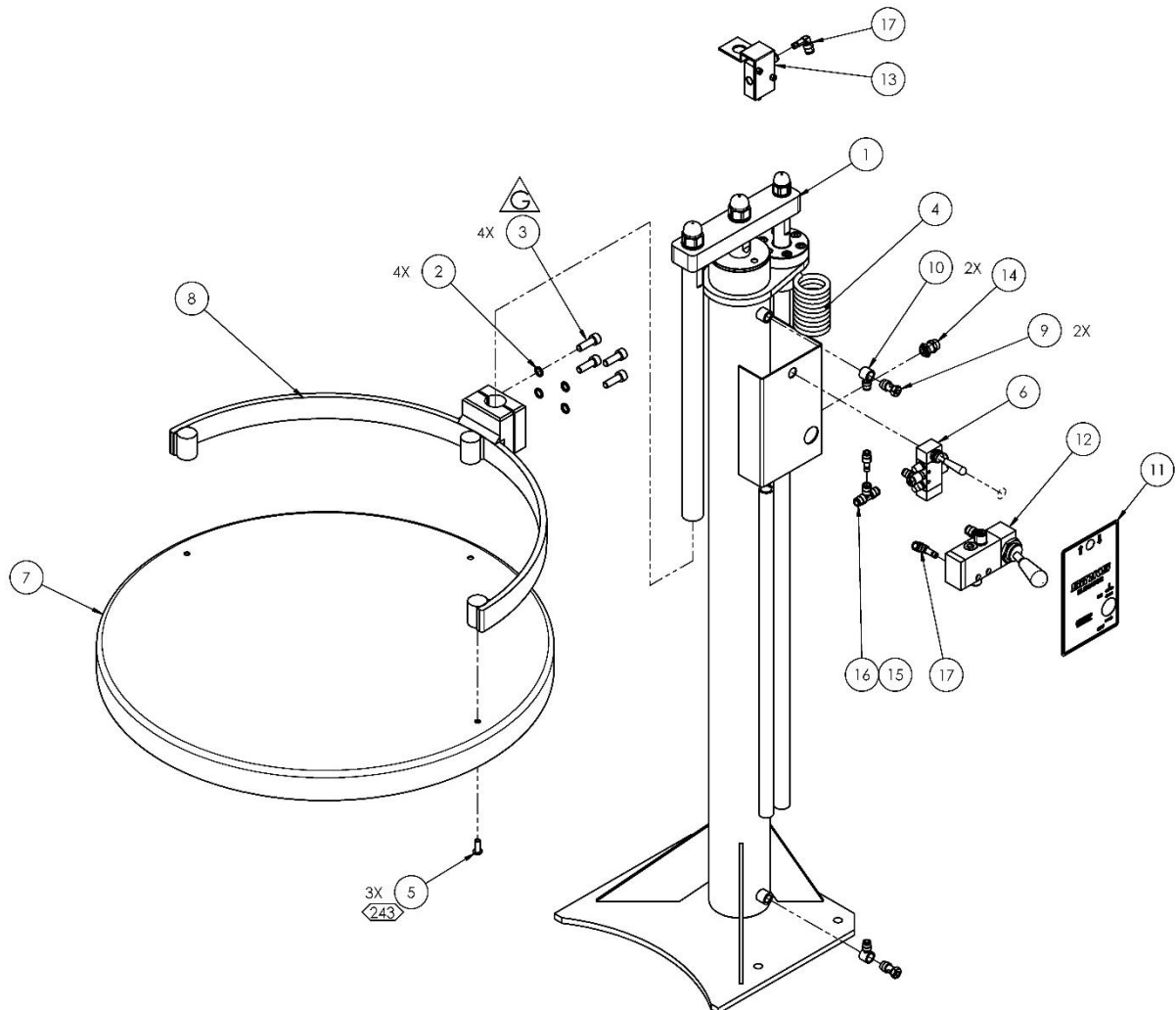
**205L Elevator (104112) - Parts Lists**

Parts List - 104112 205L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	104109	205L BARE ELEVATOR ASSEMBLY	1	
2	165123	M10 SPRING WASHER	4	
3	165988	M10 x 30 CAPHEAD SCREW	4	
4	177021	M8 x 20 BUTTON HD SCREW	3	
5	193925	AIR CONTROL ASSEMBLY	1	#
6	193926	DRUM LID	1	
7	193927	LID SUPPORT	1	
8	193965	1/4" FLOW RESTRICTOR	2	#
9	193966	Ø6 1/4" SINGLE BANJO CONNECTOR	2	
10	193967	Ø6 - 1/4" FEMALE BULKHEAD	1	INLET
11	194400	ELEVATOR DECAL	1	
12	170244	Ø6 x 4 PU HOSE - BLACK	2m	NOT SHOWN



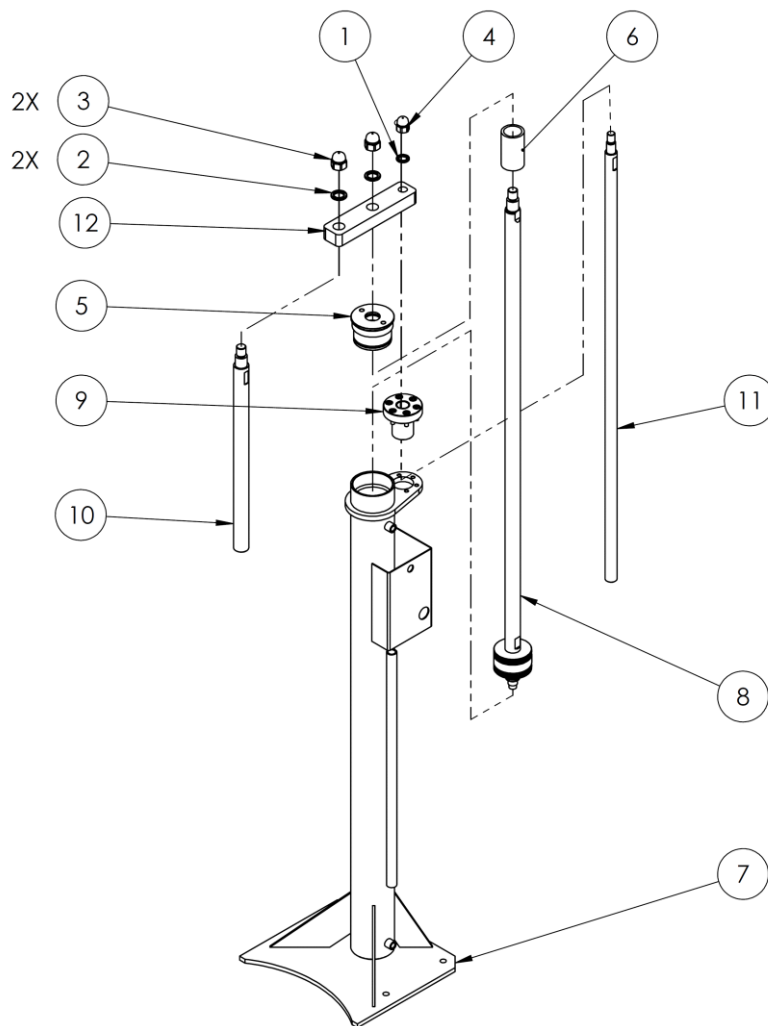
**205L Elevator + Agitator Control (104155) - Parts Lists**

Parts List - 104155 205L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	104109	205L BARE ELEVATOR ASSEMBLY	1	
2	165123	Ø10 SPRING WASHER (STST)	4	
3	165565	M10 x 30 CAP HD SCREW (PLATED)	4	
4	170252	2m x Ø8mm X Ø5.5mm - COILED HOSE	1	
5	177021	M8 x 20 BUTTON HEAD CAP SCREW	3	
6	193925	AIR CONTROL ASSEMBLY	1	
7	193926	DRUM LID	1	
8	193927	LID SUPPORT	1	
9	193965	1/4" UNI-DIRECTIONAL FLOW RESTRICTOR	2	
10	193966	Ø6 1/4" SINGLE BANJO CONNECTOR	2	
11	194401	ELEVATOR DECAL	1	
12	194426	AGITATOR CONTROL VALVE ASSEMBLY	1	#
13	194836	AGITATOR SAFETY VALVE ASSEMBLY	1	#
14	194933	Ø8mm - 1/4" BULKHEAD	1	
15	194935	Ø8mm TO Ø6mm REDUCER	1	
16	194934	Ø8mm PUSH FIT TEE	1	
17	194939	Ø8n PUSH IN ELBOW - PLATED	2	
18	170244	Ø6 x 4 PU HOSE - BLACK	3m	NOT SHOWN
19	170254	Ø8 x 5 PU HOSE - BLACK	0.5m	NOT SHOWN



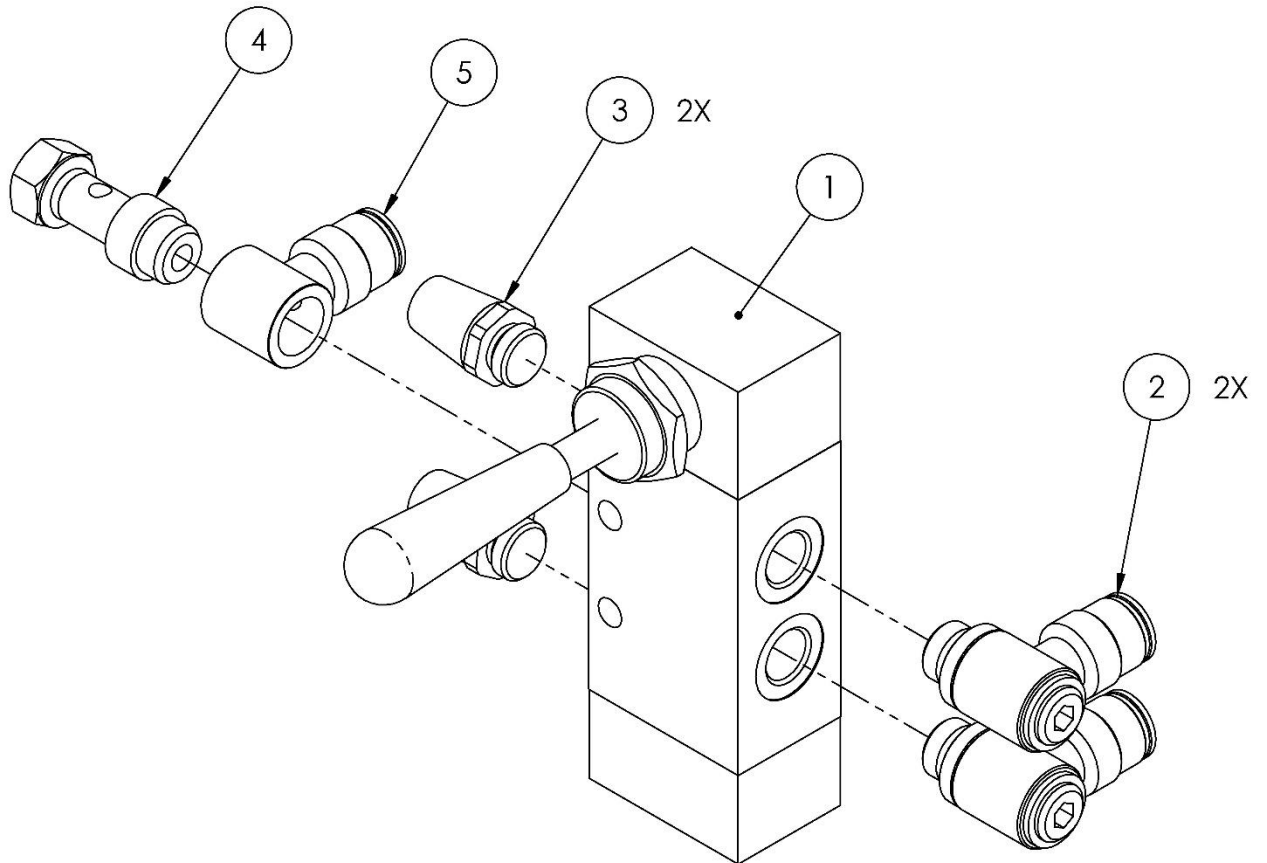
**Bare 205L Elevator (104109) - Parts Lists**

Parts List - 104109 Bare 205L Elevator				
Item	Part No.	Description	Qty.	Remarks
1	165100	M16 SPRING WASHER	1	
2	165139	M20 SPRING WASHER	2	
3	177040	M20 DOME NUT	2	
4	177052	M16 DOME NUT	1	
5	194356	Ø80 CYLINDER ROD HOUSING	1	
6	194364	ROD SPACER	1	
7	194403	205L BARE ELEVATOR FABRICATION	1	
8	194411	205L ELEVATOR SHAFT ASSEMBLY	1	
9	194413	ANTI ROTATION BEARING ASSY	1	#
10	194416	TANK LID BAR	1	
11	194417	ANTI ROTATION BAR	1	
12	194418	TOP BAR	1	



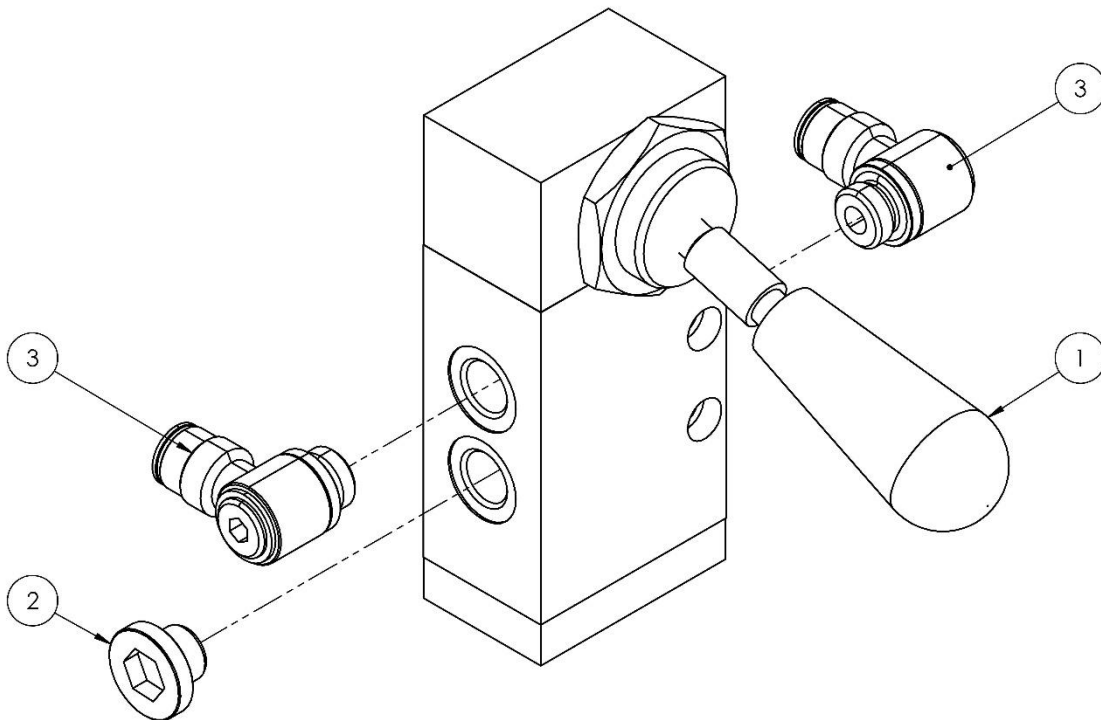
**193925 Elevator Control Detail**

Parts List - 193925 Elevator Control				
Item	Part No.	Description	Qty.	Remarks
1	193960	5/3 LEVER VALVE - NON LATCHING	1	#
2	193963	1/8" FLOW RESTRICTOR	2	#
3	193962	1/8" SINTED BRASS SILENCER	2	
4	193961	SINGLE Ø6 - 1/8" BANJO	1	
5	193964	Ø6-1/8" SINGLE BANJO CONNECTOR	1	



**194426 Agitator Control Detail**

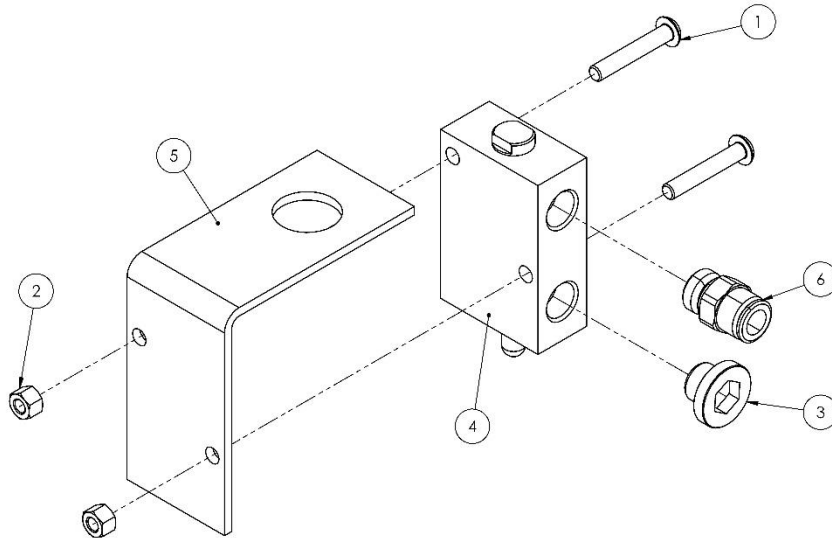
Parts List - 194426 Agitator Control				
Item	Part No.	Description	Qty.	Remarks
1	194314	1/4" LEVER VALVE	1	
2	193246	1/4" PLATED BLANKING PLUG	1	
3	194936	1/4" - Ø8 SINGLE BANJO	2	





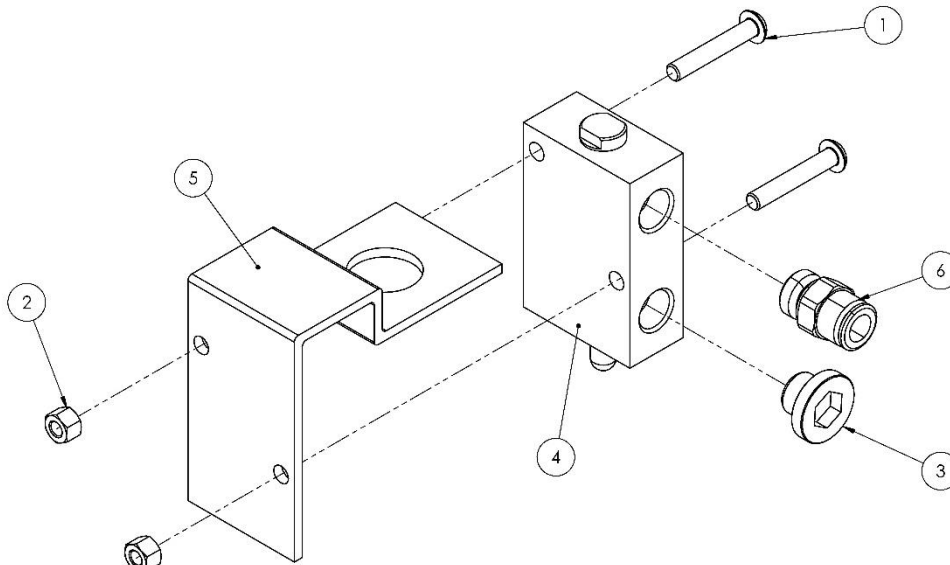
**Parts List - 194427 Agitator Safety Valve**

Item	Part No.	Description	Qty.	Remarks
1	177117	M5 x 30 BUTTON HD CAP SCREW	2	
2	177118	M5 NUT	2	
3	193246	1/4" PLATED BLANKING PLUG	1	
4	194312	3/2 PLUNGER VALVE	1	
5	194313	PLUNGER VALVE BRACKET	1	
6	194937	Ø8 - 1/4" MALE STUD	1	



**Parts List - 194836 Agitator Safety Valve**

Item	Part No.	Description	Qty.	Remarks
1	177117	M5 x 30 BUTTON HD CAP SCREW	2	
2	177118	M5 NUT	2	
3	193246	1/4" PLATED BLANKING PLUG	1	
4	194312	3/2 PLUNGER VALVE	1	
5	194837	PLUNGER VALVE BRACKET	1	
6	194937	Ø8 - 1/4" MALE STUD	1	

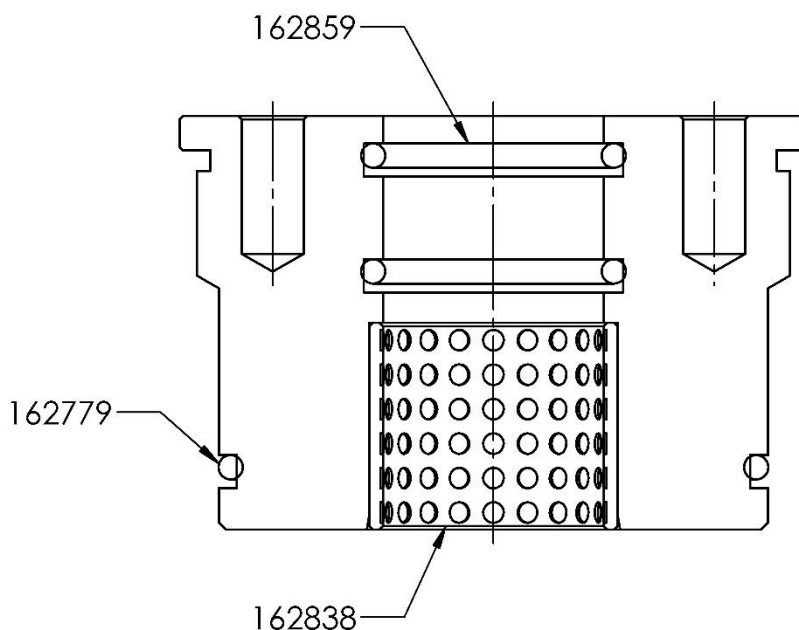


# Spare Parts For – (104153 & 104154) 25L Elevator				
Item	Part No.	Description	Qty	Remarks
1	250724	CYLINDER SEAL KIT	1	
2	193925	ELEVATOR CONTROL	1	
3	193960	5/3 LEVER VALVE – NON LATCHING	1	
4	193963	1/8" FLOW RESTRICTOR	1	
5	193965	1/4" FLOW RESTRICTOR	2	
6	194413	ANTI ROTATION BEARING ASSY	1	
7	194426	AGITATOR CONTROL ASSEMBLY	1	
8	194427	AGITATOR SAFETY VALVE ASSEMBLY	1	

# Spare Parts For – (104112 & 104155) 205L Elevator				
Item	Part No.	Description	Qty	Remarks
1	250724	CYLINDER SEAL KIT	1	
2	193925	ELEVATOR CONTROL	1	
3	193960	5/3 LEVER VALVE – NON LATCHING	1	
4	193963	1/8" FLOW RESTRICTOR	1	
5	193965	1/4" FLOW RESTRICTOR	2	
6	194413	ANTI ROTATION BEARING ASSY	1	
7	194426	AGITATOR CONTROL ASSEMBLY	1	
8	194836	AGITATOR SAFETY VALVE ASSEMBLY	1	

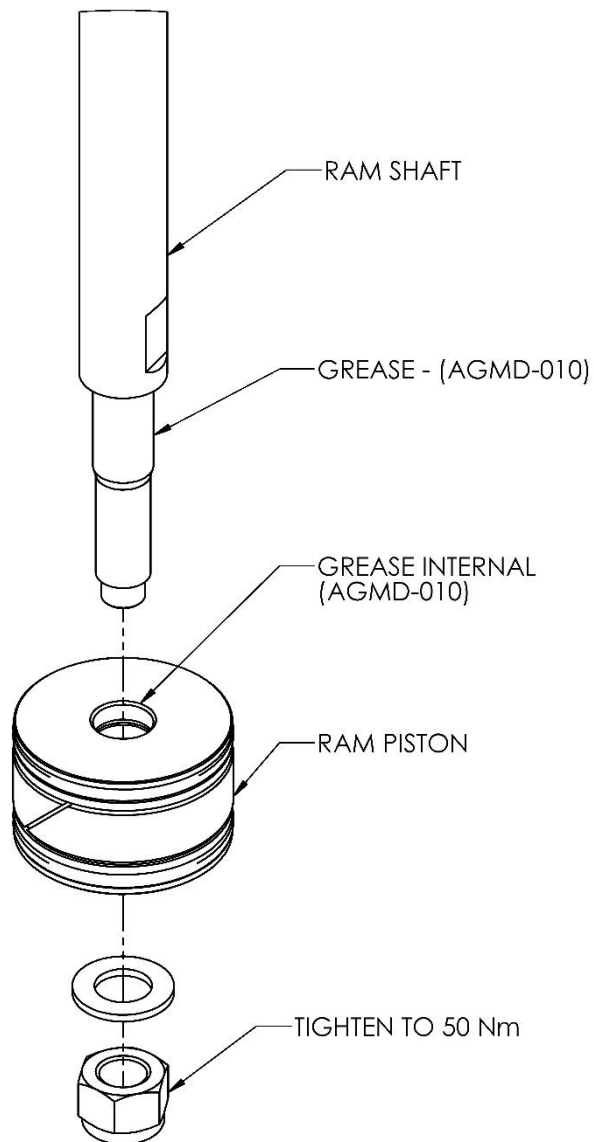
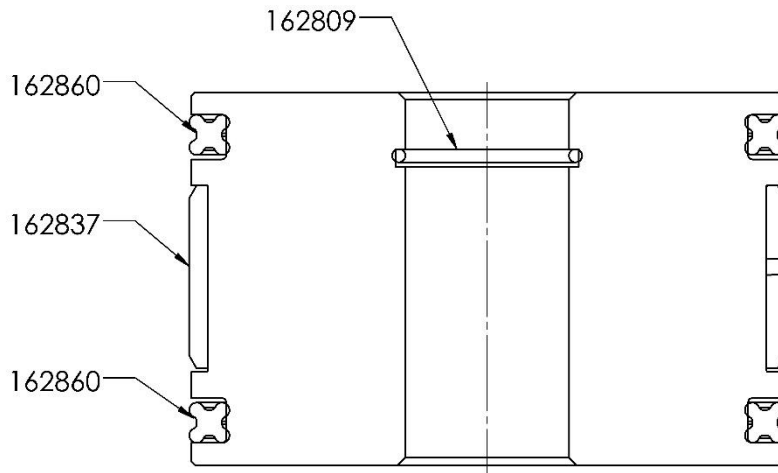
**Cylinder Service Reference – Spares Kit 250724**

**CYLINDER ROD HOUSING ASSEMBLY**



**Cylinder Service Reference – Spares Kit 250724**

**RAM PISTON**



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