



TH-40A

Hydraulic Proportioner

Parts Manual

Ref # 330.021



Carefully read all technical and safety information included in this manual before performing maintenance on TH Series Proportioners. This manual is intended to provide the user with key assembly information to understand how to avoid breakdowns and safely use the TH Series Proportioner.

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NOTES

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SAFETY AND HANDLING

The TH-40A Proportioner is designed and built to apply polyurethane foam, polyurea systems, and some other plural component applications.

This section contains important safety and handling information on your TH-40A series proportioner.

The following colored symbols are used to alert the operator to general warnings and or hazards. Refer back to this section for clarification.



WARNING! Take notice of situations that may cause serious injuries if instructions are not followed.



CAUTION! Take notice of information on how to avoid damaging the proportioner or how to avoid possible injury.



NOTE! Relevant information for an act or procedure being carried out.

Retain this manual for future reference. Copies of this manual are available at your local distributor, or directly contact TETON at (832)779-1008 or online at www.teton.com.

SAFETY AND HANDLING



WARNING! Do not operate the TH-40A in potentially explosive atmospheres. Do not exceed the pressure and temperature limits as described in the technical specifications section of this manual.



CAUTION! Only use chemicals, liquids, and solvents that are compatible with the materials-of-construction of this equipment. If in doubt, consult with the TETON Technical Service Center.



NOTE! Highly recommend that all operators wear proper PPE (Personal Protective Equipment) when operating this equipment. This includes but not limited to suitable clothing, gloves, protective goggles, safety footwear, and face masks. The use of respiratory protection is recommended when working in areas with insufficient ventilation.








NOTE! Health and Safety measures are not limited to those described in this manual. Contact your local, state, and federal agencies to determine the laws and regulations for your area.






NOTE! Before operating TETON equipment, an **Activity Hazard Analysis** should be performed. This analysis should account for the risks involved with products being dispensed, application hazards, and environmental hazards.

SAFETY AND HANDLING

<div style="display: flex; align-items: center; justify-content: center;">  <div style="background-color: red; color: black; padding: 10px 20px; margin-left: 20px;">WARNING</div> </div>	
<p>ELECTRICITY</p> <div style="text-align: center;">   </div>	<p>SEVERE ELECTRIC SHOCK HAZARD</p> <ul style="list-style-type: none"> • Power switch should be turned off and power cables disconnected before servicing equipment. • All electrical connections and wiring must be performed by a qualified electrician. Wiring must comply with all local codes and regulations. • Power Cables should be protected from wet, hot, and or surfaces with sharp edges. • Electrical Panel cover to remain closed unless power is turned off to the unit and power cables are disconnected. • Unit must be properly grounded. Connect only to a proper grounding source. • Machine equipment must stored indoors and kept dry. Rain could damage unit if stored outdoors.
<p>PERSONAL PROTECTIVE EQUIPMENT</p> <div style="text-align: center;">   </div>	<p>Personal Protective Equipment (PPE)</p> <p>PPE should be worn at all times when spraying, servicing, or when in the work area. PPE should cover all skin and is intended to prevent serious injury; including.</p> <ul style="list-style-type: none"> • Inhalation of toxic fumes, mists, or vapors. • Allergic reaction, burns, eye injury, or hearing loss. • PPE consists of properly fitting respirator, chemically impermeable gloves, protective clothing or suit, and foot covers as recommended by the fluid manufacturer and local regulatory authority. • Protective eyewear and hearing protection.

SAFETY AND HANDLING

<div style="display: flex; align-items: center; justify-content: space-around;">  <div style="background-color: red; color: white; padding: 10px 20px; font-weight: bold; font-size: 1.2em;">WARNING</div> </div>	
<p>FIRE AND EXPLOSION DANGER</p> 	<p>Flammable fumes in the work area can ignite or explode. Some liquids flowing through the equipment can cause static and ignite. Refer to liquid MSDS for proper precaution. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> Eliminate all ignition sources. Keep a working fire extinguisher in work area Use only grounded hoses. If static sparking occurs, STOP operation immediately and service equipment. Do not use equipment until problem is corrected. Keep your working area clean and clear of debris and or chemicals. Ground all equipment in the work area. Ensure that work area is well ventilated.
<p>MISUSE OF EQUIPMENT HAZARD</p> 	<p>Misuse of equipment may cause serious injury or death.</p> <ul style="list-style-type: none"> Do not operate equipment under the influence of drugs or alcohol or when fatigued. Do not operate equipment outside of the temperature and pressure ratings. See Technical Specifications in equipment manual. Use fluids that are compatible with the equipment. For additional information contact your distributor. Do not leave equipment on or under pressure when not in work area. Turn off and follow the pressure relief procedure when equipment is not in use. Check equipment daily. Replace all worn or damaged parts. Do not alter or modify equipment. This will void your warranty. Use equipment only for its intended purposes. Contact your distributor for more information. Do not kink or over strain hoses. Comply with all applicable safety regulations. Keep Children and animals away from the work area.

MODELS

PART NO	MODEL	MAX WORKINGPRESSURE (PSI, BAR)	VOLTAGE	AMPS	TOTAL HEATER (WATTS)
120101	TH40-A	2000 PSI, 138 BAR	230V, 60 HZ, 1 PH		10,000
120102	TH40-A	2000 PSI, 138 BAR	230V, 60 HZ, 3 PH		10,000
120103	TH40-A	2000 PSI, 138 BAR	230V, 60 HZ, 1 PH		15,000
120104	TH40-A	2000 PSI, 138 BAR	230V, 60 HZ, 3 PH		15,000
120105	TH40-A	2000 PSI, 138 BAR	230V, 60 HZ, 3 PH		20,000
120106	TH40X-A	3500 PSI, 240 BAR	230V, 60 HZ, 3 PH		15,000
120107	TH40X-A	3500 PSI, 240 BAR	230V, 60 HZ, 3 PH		15,000

Chart 11.1

RELATED MANUALS


PRODUCT CODE (GUIDE)	EXPLANATION
330.020	TH40-A Hydraulic Proportioner Operators Manual
 330.021	TH40-A Hydraulic Proportioner Parts Manual
310.010	MULTI SPRAY 5 Setup, Service, and Maintenance
320.010	VT8-INOX Transfer Pump Setup, Service and Maintenance

Chart 11.2

TECHNICAL SPECIFICATIONS

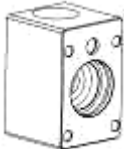
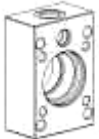
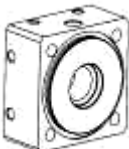

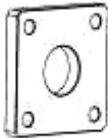


MODEL TH40-A	1PH x 208-230		3PH x 208-230	
PROPORTIONER	120101	120102	120103	120104
PRIMARY HEATER (kW = 1000W)	10 kW	15kW	10kW	15kW
PRIMARY HEATER (A)	48A/ 43A	72A/ 65A	28A/ 25A	42A/ 38A
FREQUENCY (Hz)	50/60 Hz		50/60 Hz	
TOTAL SYSTEM LOAD (kW) [410 ft of heated Hose]	18.5kW	23.5kW	18.5kW	23.5kW
FULL PEAK CURRENT (A)	90A/ 81A	110A/ 103A	52A/ 47A	66A/ 60A
MAX. FLUID OUTPUT (AMB. TEMP. 75°F)	30.3lb/min (13.75kg/min)		30.3lb/min (13.75kg/min)	
MAX. FLUID WORKING PRESSURE	2000 psi		2000 psi	
MOTOR HORSEPOWER HP - (KW)	6.0 HP (4.5kW)		6.0 HP (4.5kW)	
MOTOR CURRENT (A)	23A/ 21A		13A/ 12A	
MOTOR POWER FACTOR	0.85		0.85	
AGENCY APPROVALS	CE		CE	
MAX. HOSE LENGTH	410 ft		410 ft	
HOSE HEATER (kW = 1000W)	4kW		4kW	
HOSE HEATER (A)	19A/ 17A		11A/ 10A	
FLUID OUTPUT CONNECTION (ISO)	JIC # 5		JIC # 5	
FLUID OUTPUT CONNECTION (POLY)	JIC # 6		JIC # 6	
FLUID INPUT CONNECTION (ISO)	3/4" NPT		3/4" NPT	
MAX FLUID TEMPERATURE	190°F		190°F	
HYDRAULIC CAPACITY	17 GALLONS		17 GALLONS	
WEIGHT	566 lbs.		566 lbs.	



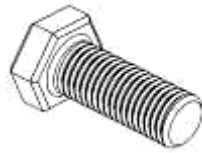





Chart 10.1









VOLTAGE CONFIGURATION TYPES	
Ø	SINGLE PHASE
Δ	THREE PHASE DELTA
Y	THREE PHASE WYE



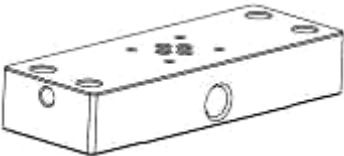
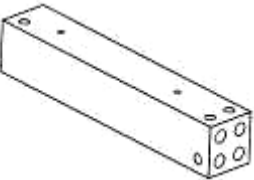


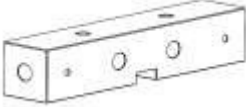

Chart 10.2

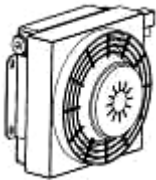
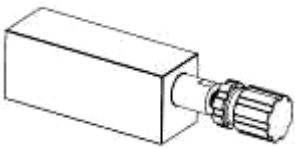
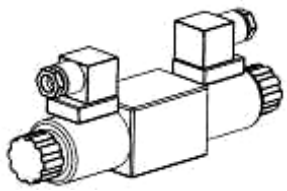
VISUAL PARTS LIST

PRODUCT VISUAL	PART NUMBER
	YMO-001
	YMO-002
	YMO-003
	YMO-004
	YMO-005
	YMO-006
	YMO-007

PRODUCT VISUAL	PART NUMBER
	YMO-008
	YMO-009
	YMO-010
	YMO-011
	YMO-012
	YMO-013
	YMO-014
	YMO-015

PRODUCT VISUAL	PART NUMBER
	YMO-016
	YMO-017
	YMO-018
	YMO-019
	YMO-020 YMO-020-H
	YMO-021
	YMO-022
	YMO-023

PRODUCT VISUAL	PART NUMBER
	YMO-024
	YMO-025
	YMO-026
	YMK-001 (A) YMK-002 (B)
	YMK-003
	YMK-004
	YMHK-001
	YMPPM-001

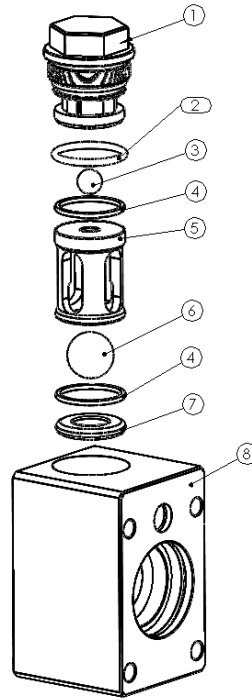
PRODUCT VISUAL	PART NUMBER
	YMF-001
	YMP-001
	YMV-001

Note: Use “Part Number” when ordering replacement parts.

Parts list shown in next Table.

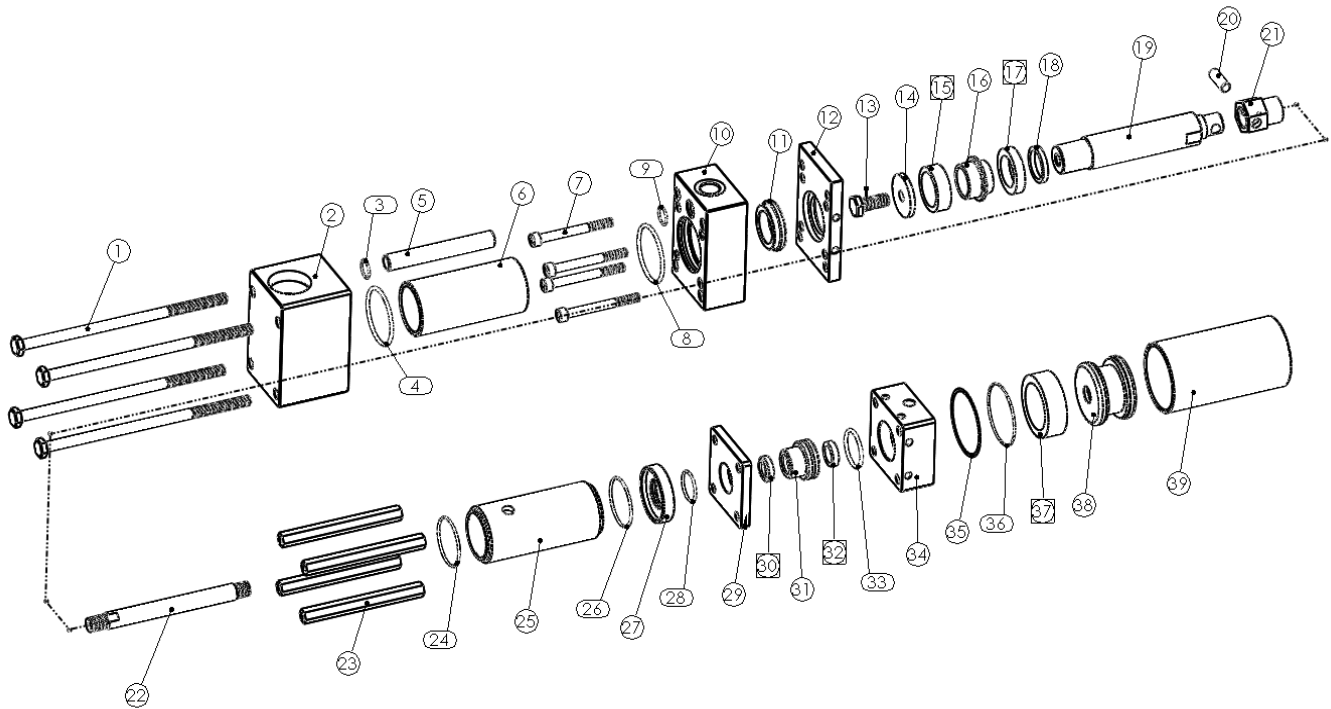
PART NUMBER	DESCRIPTION
YMO-001	Proportioner Back Block
YMO-002	Proportioner Gap Block
YMO-003	Proportioner Hydraulic Block
YMO-004	Proportioner Gap Block Cover
YMO-005	Proportioner Hydraulic Block Cover
YMO-006	Back Block Check Valve Bolt
YMO-007	Back Block Check Valve
YMO-008	Check Valve Ball Bearing
YMO-009	Raw Material Felt Bearing Cover
YMO-010	Raw Material Felt Bearing Cover Bolt
YMO-011	Raw Material Felt Bearing
YMO-012	Raw Material Felt Bearing Stamp
YMO-013	Back Block Long Connection Bolt
YMO-014	Hexagon Connection Part
YMO-015	Raw Material Transfer Pipe
YMO-016	Raw Material Shaft
YMO-017	Shaft Connection Part
YMO-018	Shaft Connection Part Pin
YMO-019	Hydraulic Shaft
YMO-020	Raw Material Shell
YMO-020-H	Hydraulic Oil Shell
YMO-021	Greasing Shell
YMO-022	Raw Material Shaft Bearing
YMO-023	Hydraulic Shaft Bearing
YMO-024	Greasing Shell Cover
YMO-025	Hydraulic Shaft Felt Bearing
YMO-026	NG Valve Block
YMK-001	Heater Block (A)
YMK-002	Heater Block (B)
YMK-003	Resistance
YMK-004	Thermocouples
YMHK-001	Hose Outlet Block
YMPM-001	Pump-Engine Unit
YMF-001	Hydraulic Oil Cooler Fan
YMP-001	Pressure Adjustment Plate
YMV-001	NG Direction Valve

PROPORTIONAL CHECK VALVE ASSEMBLY

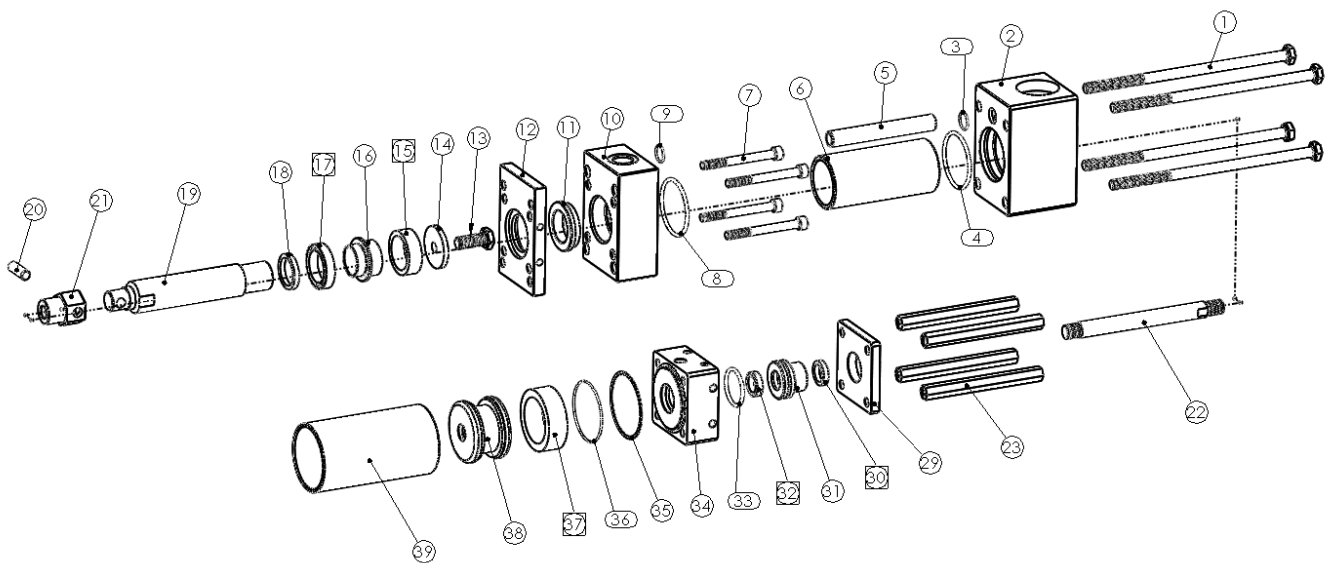


ITEM ID	DESCRIPTION	PART NUMBER
1	Back Block Check Valve Stopper	YMO-006
2	O-ring	OR-001
3	Ball	YB-001
4	Teflon	YT-001
5	Back Block Check Valve	YMO-007
6	Ball	YB-002
7	Check Valve Ball Bearing	YMO-008
8	Proportioner Back Block	YMO-001

PROPORTIONER ASSEMBLY (A)

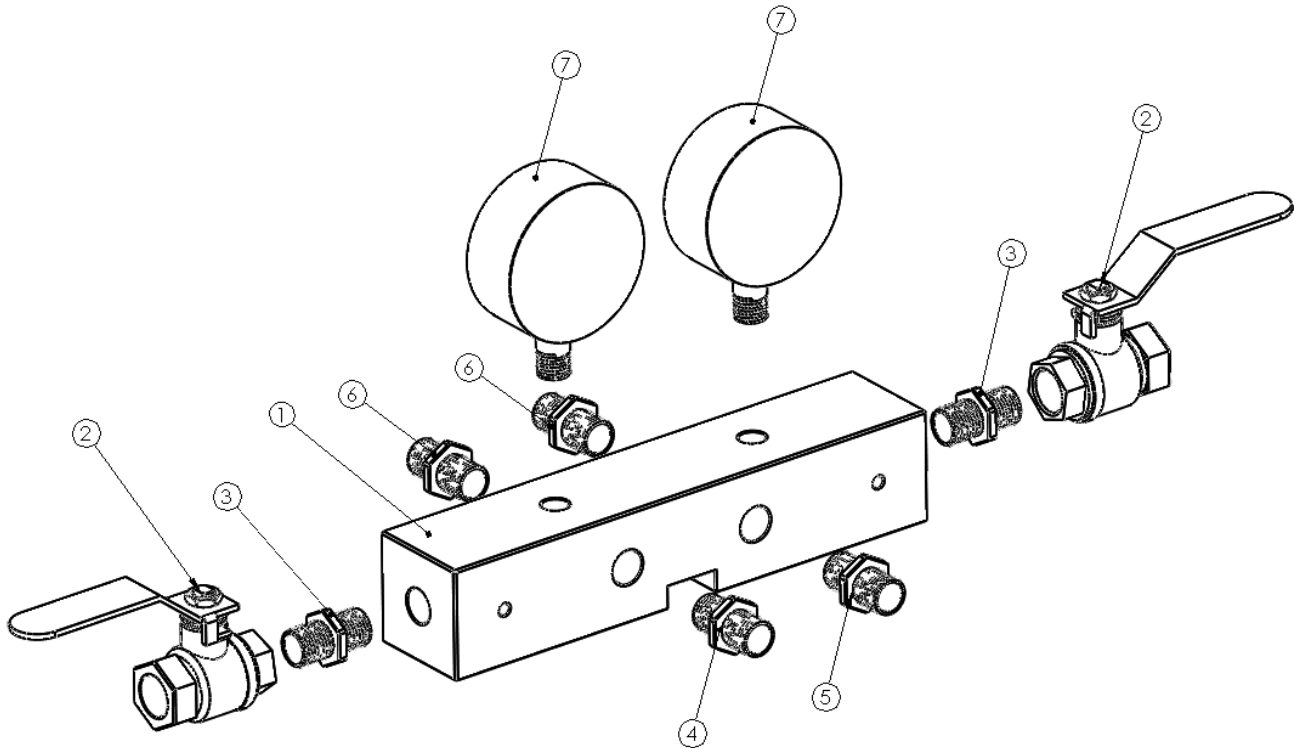


PROPORTIONER ASSEMBLY (B)



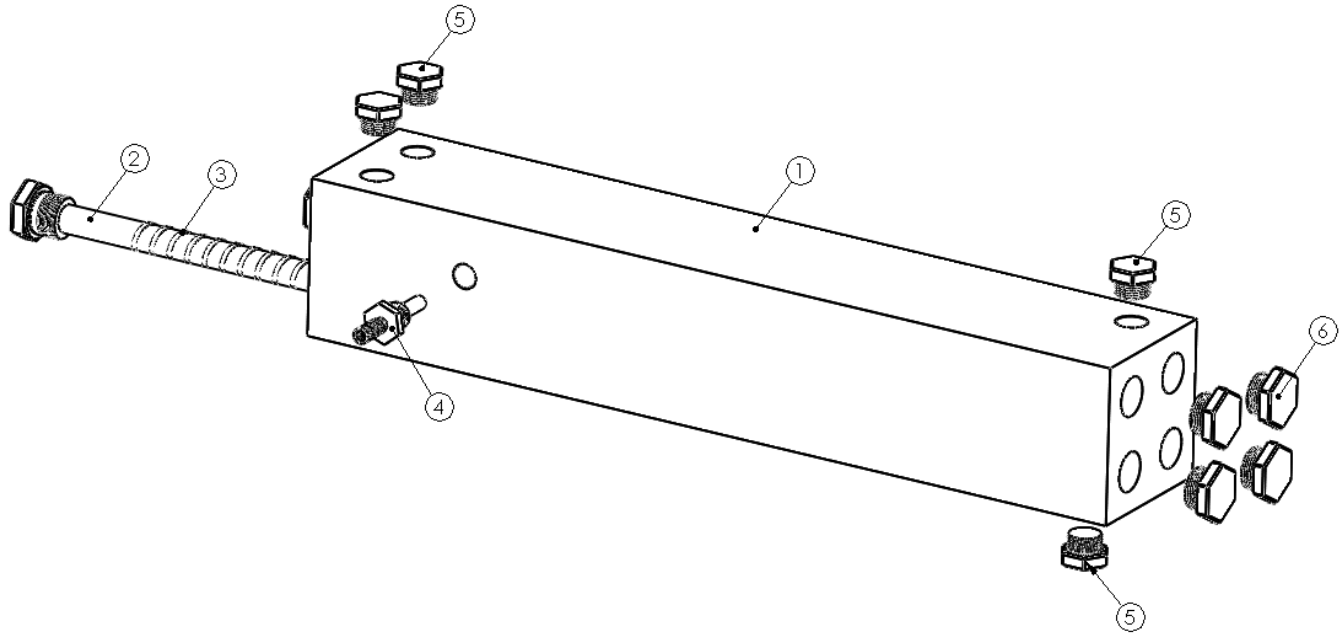
ITEM ID	DESCRTIPTION	PART NUMBER
1	Back Block Long Connection Bolt	YMO-013
2	Proportioner Back Block	YMO-001
3	O-ring	OR-002
4	O-ring	OR-003
5	Raw Material Transfer Pipe	YMO-015
6	Raw Material Shell	YMO-020
7	Bolt	CV-001
8	O-ring	OR-003
9	O-ring	OR-002
10	Proportioner Gap Block	YMO-002
11	Raw Material Shaft Bearing	YMO-022
12	Proportioner Back Block Cover	YMO-004
13	Bolt	CV-002
14	Raw Material Felt Bearing Cover	YMO-009
15	Felt	KC-001
16	Raw Material Felt Bearing	YMO-011
17	Felt	KC-002
18	Raw Material Felt Bearing Stamp	YMO-012
19	Raw Material Shaft	YMO-016
20	Shaft Connection Part Pin	YMO-018
21	Shaft Connection Part	YMO-017
22	Hydraulic Shaft	YMO-019
23	Hexagon Connection Part	YMO-014
24	O-ring	OR-004
25	Greasing Shell	YMO-021
26	O-ring	OR-004
27	Greasing Shell Cover	YMO-024
28	O-ring	OR-005
29	Proportioner Hydraulic Block Cover	YMO-005
30	Felt	KC-003
31	Hydraulic Shaft Bearing	YMO-023
32	Felt	KC-004
33	O-ring	OR-006
34	Proportioner Hydraulic Block	YMO-003
35	Teflon	YT-002
36	O-ring	OR-007
37	Felt	KC-005
38	Hydraulic Shaft Felt Bearing	YMO-025
39	Hydraulic Oil Shell	YMO-020-H

HOSE OUTLET BLOCK ASSEMBLY



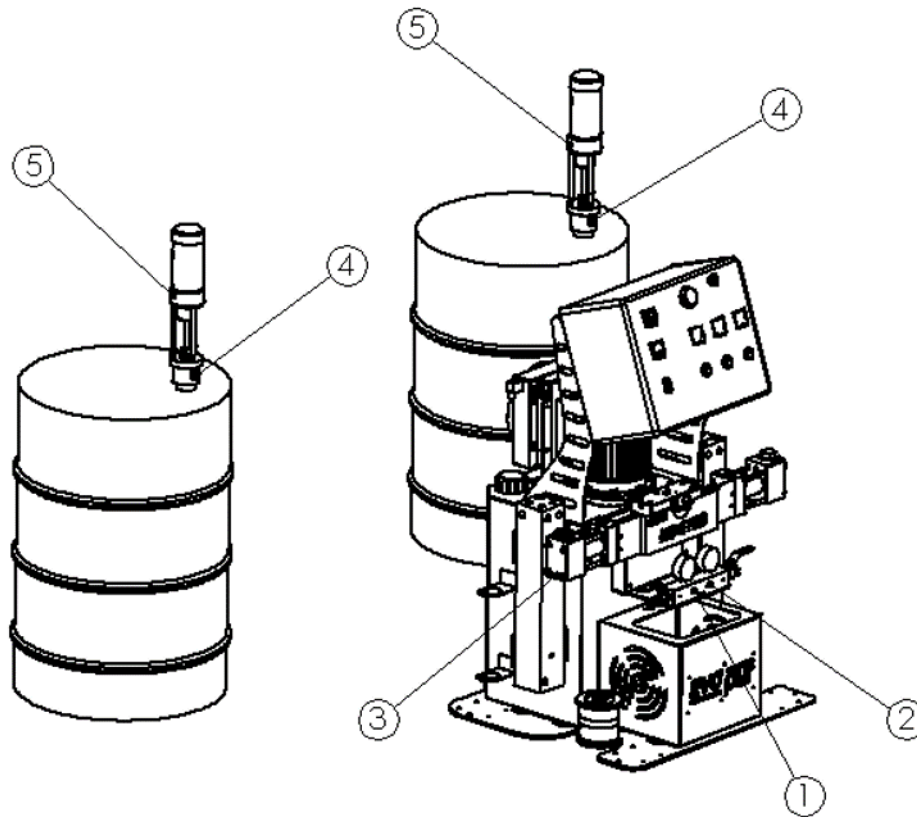
ITEM ID	DESCRIPTION	PART NUMBER
1	Hose Outlet Block	YMHK-001
2	Relief Valve	TV-001
3	Connection Part	NP-001
4	Connection Part	NP-002
5	Connection Part	NP-003
6	Connection Part	NP-004
7	Pressure Gauge Clock	BGS-001

HEATER BLOCK ASSEMBLY



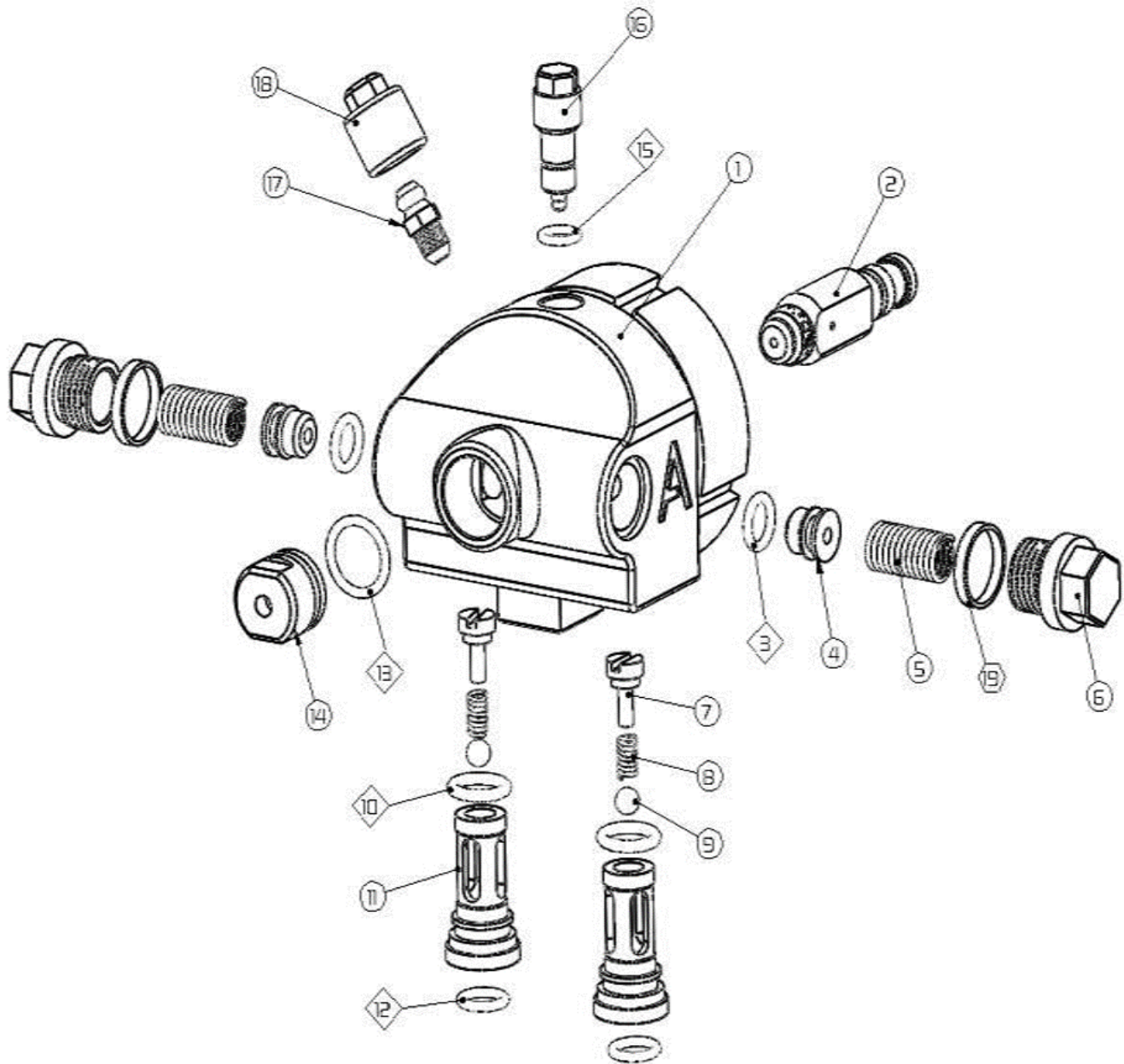
ITEM ID	DESCRIPTION	PART NUMBER
1	Heater Block	KMK-001
2	Resistance	KMK-002
3	Spring	KY-001
4	Thermo Couple	KMK-003
5	Blind Plug	KT-001
6	Blind Plug	KT-002

HOSE INLET—OUTLET ASSEMBLY



ITEM ID	DESCRIPTION
1	Heated Hose Outlet (A)
2	Heated Hose Outlet (B)
3	Raw Material Filter Inlet
4	Transfer Pump Raw Material Hose Outlet
5	Transfer Pump Air Hose Inlet

MULTI SPRAY 5 MIXING HEAD ASSEMBLY



Note: Use the parts breakdown for the " **MULTI SPRAY 5** " Head Assembly as a guide for servicing and repairing the unit.

ITEM ID	DESCRIPTION	PART NUMBER
1	Mixing Head	MS-001
2	Chamber	MS-002
4	Side Seal	MS-003
6	Side Cover	MS-004
7	Check Valve Screw	MS-005
8	Check Valve Spring	MS-006
9	Check Valve Ball	MS-007
11	Check Valve	MS-008
14	Chamber Front Cover	MS-009
16	Air Adjusting Screw	MS-010
17	Grease	MS-011
18	Grease Cover	MS-012

MIXING HEAD SEALS:

ITEM ID	DESCRIPTION	PART NUMBER
3	Side Seal O-ring	OR-008
10	Check Valve O-ring	OR-009
12	Check Valve O-ring	OR-010
13	Chamber Front Cover O- ring	OR-011
15	Air Adjusting Screw O-ring	OR-012
19	Side Cover Teflon	YT-003

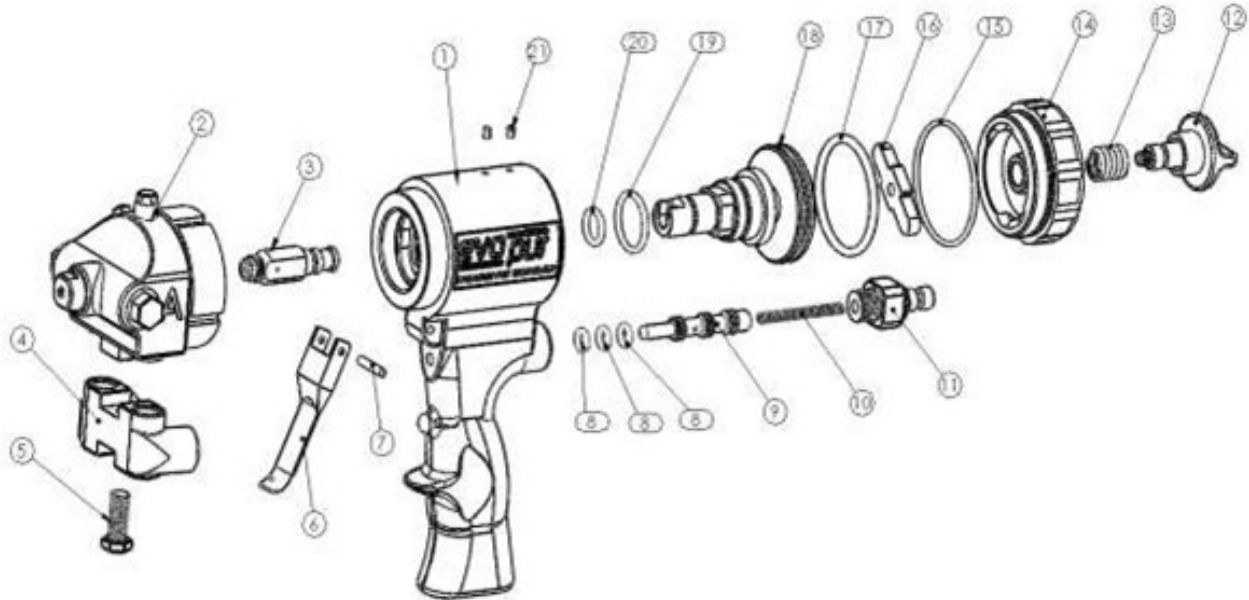


NOTE! Replace all the mixing head seals during each maintenance cycle.



NOTE! Do not forget to grease the o-rings and seals during maintenance.

MULTI SPRAY 5 GUN ASSEMBLY



ITEM ID	DESCRIPTION	PART NUMBER
1	Body	MS-013
2	Mixing Head	MS-001
3	Chamber	MS-002
4	Coven	MS-014
5	Coven Bolt	MS-015
6	Trigger Plate	MS-016
7	Trigger Plate Pin	MS-017
9	Trigger Shaft	MS-018
10	Trigger Spring	MS-019
11	Trigger Shaft Bolt	MS-020
12	Locking Mechanism Bolt	MS-021
13	Locking Mechanism Spring	MS-022
14	Body Back Cover	MS-023
16	Locking Mechanism	MS-024
18	Piston	MS-025
21	Screw	MS-026

Note: Use the parts breakdown for the " **MULTI SPRAY 5** " Gun Assembly as a guide for servicing and repairing the unit.

MULTI Spray Gun Seals:

ITEM ID	DESCRIPTION	PART NUMBER
8	Trigger Shaft O-ring	OR-013
15	Body Back Cover O-ring	OR-014
17	Piston O-ring	OR-015
19	Piston O-ring	OR-016
20	Piston O-ring	OR-017

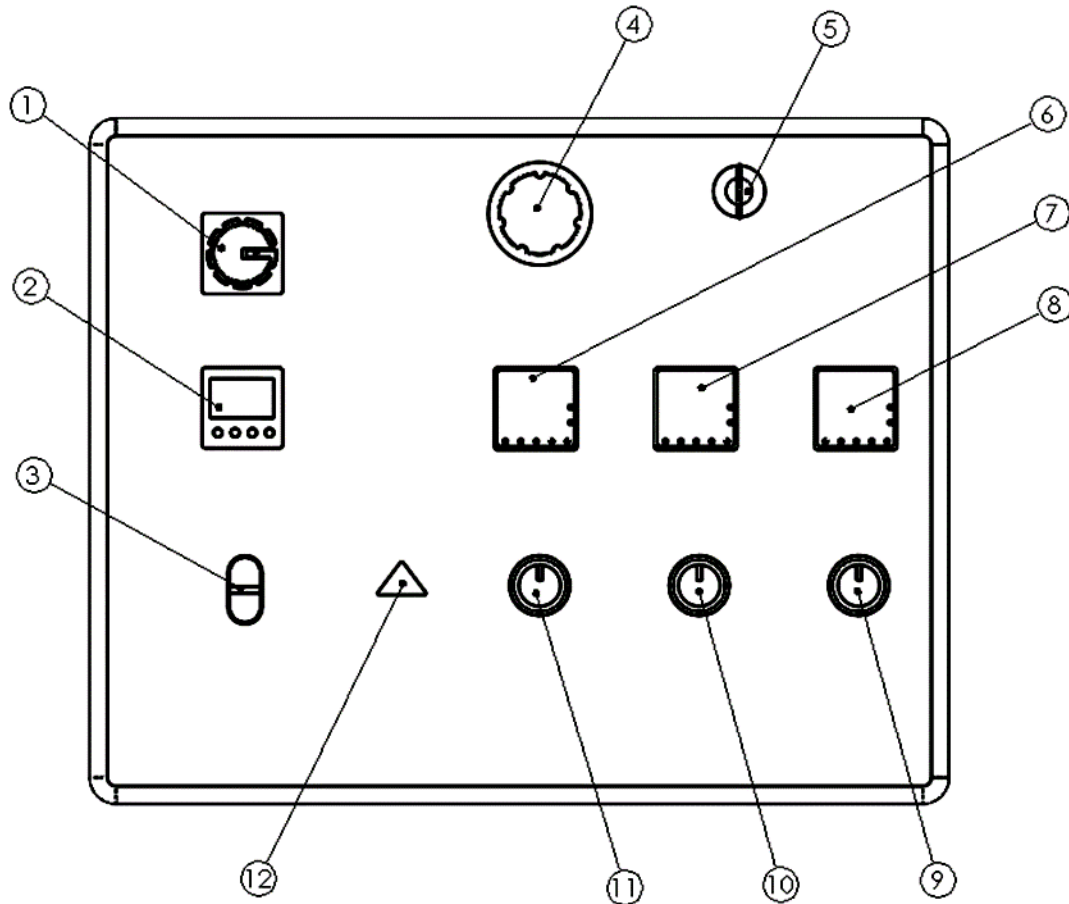


NOTE! Replace all O-rings during each maintenance cycle.


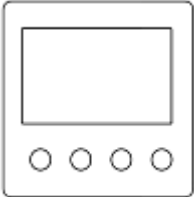


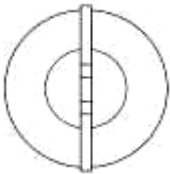





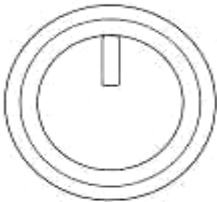
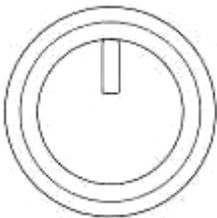
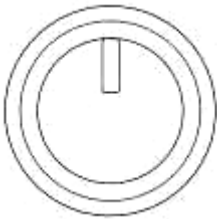
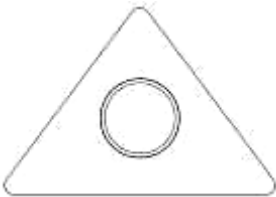
NOTE! Do not forget to grease the o-rings during maintenance.

FRONT CONTROL PANEL:



ITEM ID	DESCRIPTION
1	On-Off Switch
2	Counter
3	Machine On-Off Button
4	Emergency Stop Button
5	Panel Locking Mechanism
6	Isocyanate (A) Heater Screen
7	Polyol (B) Heater Screen
8	Hose Heater Screen
9	Hose Heater Button
10	Polyol Heater Button
11	Isocyanate Heater Button
12	Fault Light

VISUAL ID	ITEM ID	DESCRIPTION
	1	Control Panel Power Switch
	2	Piston Movement Counter
	3	Powers the Hydraulic Pump, Proportioner and Fan
	4	Emergency Stop Button
	5	Panel locking mechanism
	6	Temperature Module shows the set-point and reading of the Isocyanate (A).

VISUAL ID	ITEM ID	DESCRIPTION
	7	Temperature Module shows the set-point and reading of the Polyol (B).
	8	Temperature Module shows the set-point and reading of the hose.
	9	Hose Heater Power Switch
	10	Polyol (B) Heater Power Switch
	11	Isocyanate (A) Heater Power Switch
	12	Fault Lamp

Retain this manual for future reference. Copies of this manual are available at your local distributor, or directly contact TETON at (832)779-1008 or online at www.teton.com.