

## 1KCALPNM

### 1KC CONTINUES FLOW PRECISION DISPENSER

**IMPORTANT: READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING, OR SERVICING THIS EQUIPMENT**

1KCALExR	16:1 Continues Flow Remote
1KCAHExC	22:1 Continues Flow Close Coupled

#### SERVICE KITS

Use only Johnstone replacement parts to insure compatibility and longest life.

- 16:1 Repair Kit 1KCALExRRK
- 22:1 Repair Kit 1KCAHExCRK

### **WARNING**

**DO NOT OPERATE DISPENSER AT AIR PRESSURES ABOVE RECOMMENDED MAXIMUM OF 150 PSI (10.3 BAR).**

#### SPECIFICATIONS

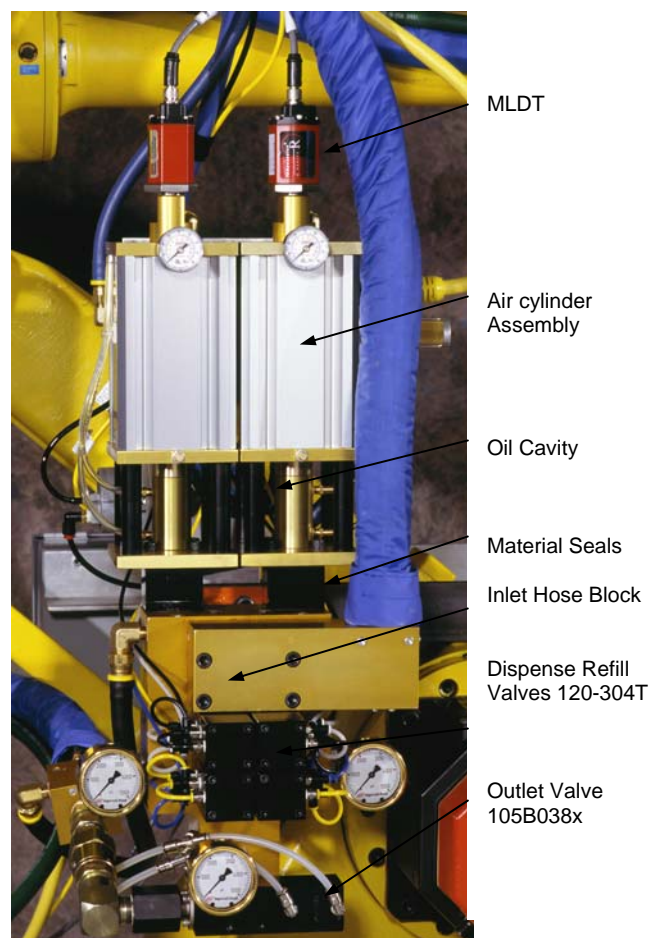
Air Inlet Port Size	1/4" NPT
Fluid Inlet Port Size	#20 JIC
Air Inlet Pressure Range	20 to 140PSI
Static Pressure Ratio	16:1/ 22:1
Shot Volume	Continues

#### MAINTENANCE SCHEDULE

**MONTHLY:**  
Check Air Lines and Material Filter Elements and replace if necessary.

**WEEKLY OR WITH EVERY SEAL CHANGE:**  
Change and add D.I.D.P. oil to the oil cup.  
Diisodecyl Phthalate

**EVERY SHUTDOWN:**  
Depressurize System.



Shown is a 1KC remote dispense head



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## **1KC-M Operating Instructions LGR unit**

### **Start-up / Re-pressurization**

1. Turn on the pumps
2. Turn on the Temperature conditioning unit and wait until temperature reaches the set valve.
3. Perform a manual purge by putting the panel in manual and depressing the manual dispense button.
4. Put the panel in the automatic position.

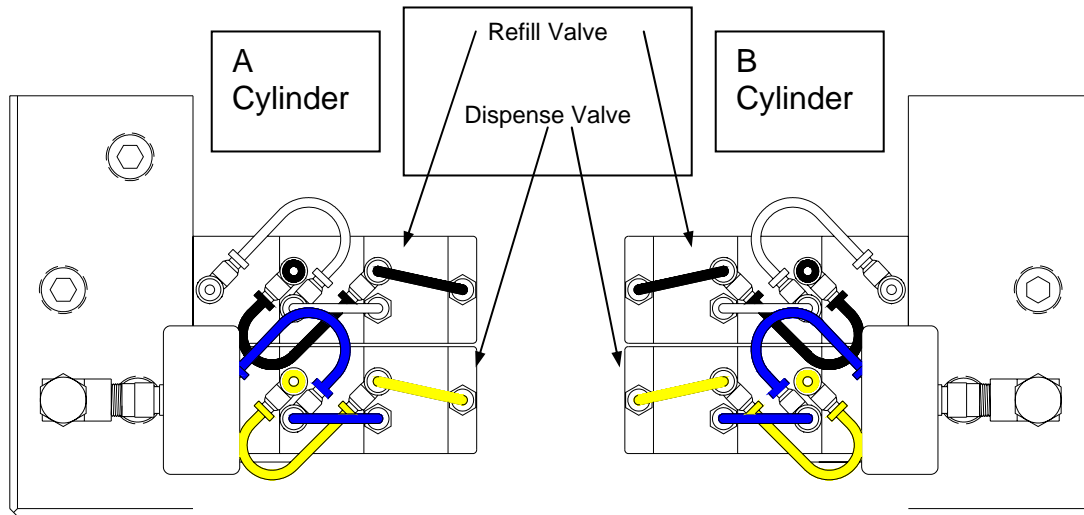
The unit is now ready for production use, and may remain in a ready / stand-by state for up to three (3) days. If the unit is to be left unused for periods longer than 3 days, then it should be shut down.

### **Shut-down / De-pressurization**

1. Close the material supply ball-valve at the header outlet.
2. Open the dispense gun to deplete the outlet pressure to zero by depressing the manual dispense button.

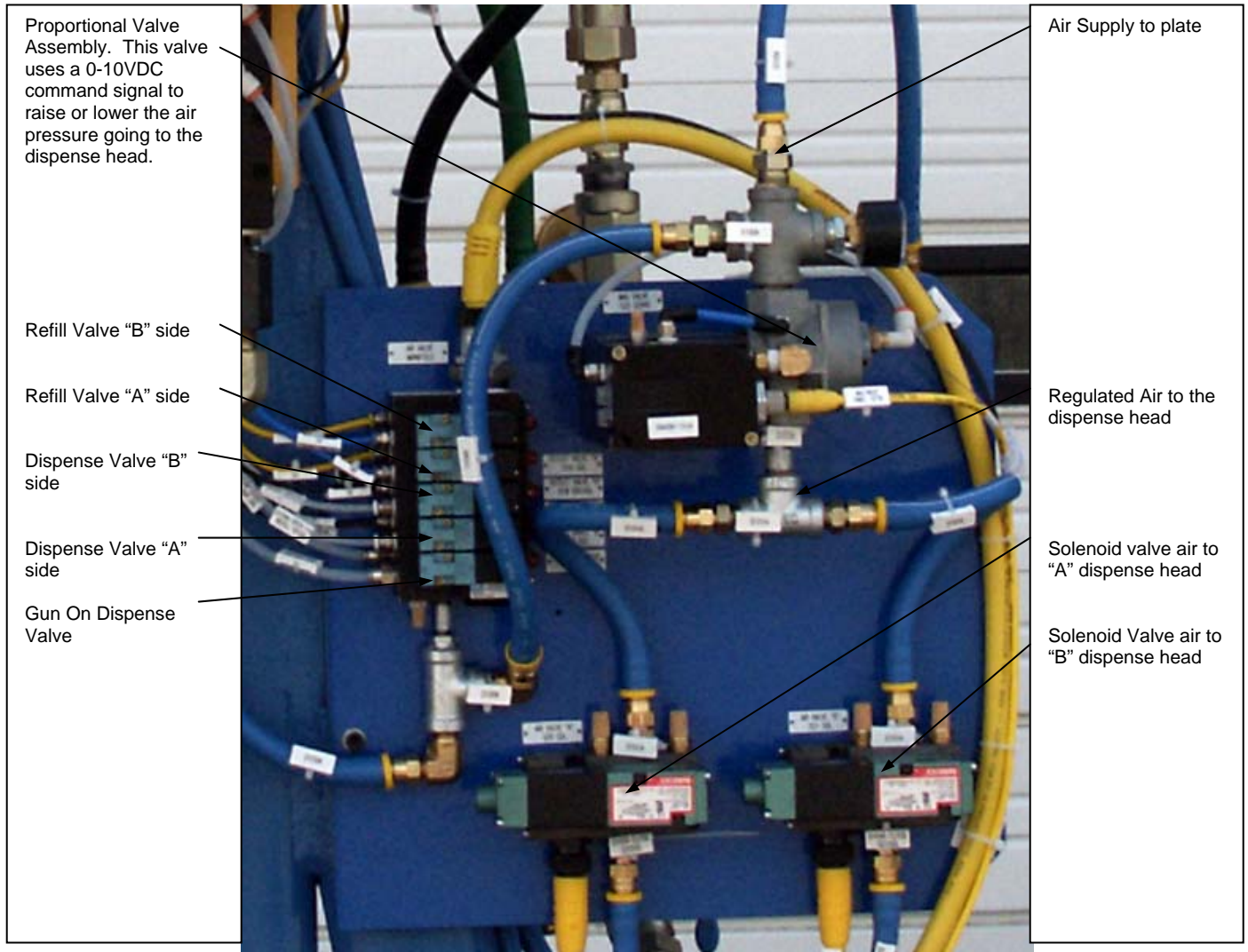
The unit is now fully shut down and de-pressurized.

## 120-304T Refill and Dispense Hose Routings



DESCRIPTION	MULTI-PINNED CONNECTOR		
	ADDRESS	LINE #	CONNECTOR #
"A" LIMIT SWITCH UP	A0	9	9 WHITE
"A" LIMIT SWITCH DOWN	A1	11	11 BLACK
"B" LIMIT SWITCH UP	B0	13	13 WHITE
"B" LIMIT SWITCH DOWN	B1	5	5 BLACK
"A" REFILL GUN OPEN	C+	8	8 WHITE
"A" REFILL GUN CLOSED	C-	7	7 BLACK
"A" DISPENSE GUN OPEN	D+	10	10 BLUE
"A" DISPENSE GUN CLOSED	D-	6	6 YELLOW
"B" DISPENSE GUN OPEN	E+	12	12 BLUE
"B" DISPENSE GUN CLOSED	E-	15	15 YELLOW
"B" REFILL GUN OPEN	F+	1	1 WHITE
"B" REFILL GUN CLOSED	F-	4	4 BLACK
LIMIT SWITCHES AIR SUPPLY		2	2 BLUE

## 110-543 Pneumatics Sub Assembly



This Pneumatic assembly is controlled by the PC and through a device net junction box. The valves have manual over-rides to help in trouble-shooting.

The Proportional Valve uses a 0-10vdc signal to control the air pressure to the dispense head. The output of the Proportional Valve is 0-150 psi. There are two types of pressure outputs can be achieved – Intensified air system and non-Intensified air system.

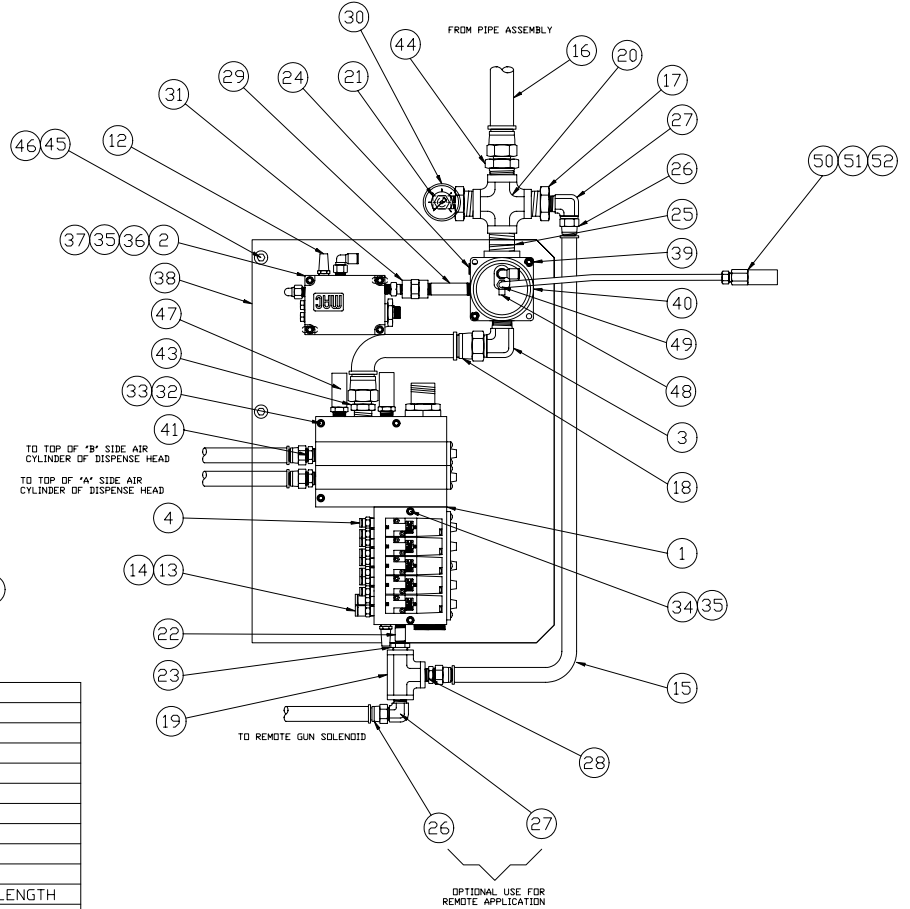
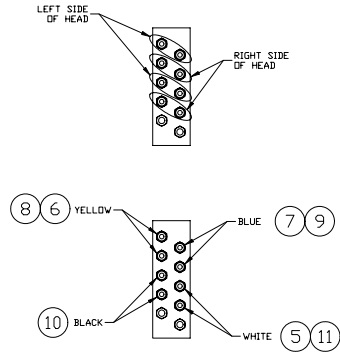
Voltage to pressure output ranges would be:

Intensified air.	0v=0psi	5v=75psi	10v=140psi.
Non-Intensified Air	0v=0psi	5v=75psi	6.7v =100psi

The non-intensified air systems use the same Proportional Valve as Intensified air system the flow command range is 0 – 6.7vdc

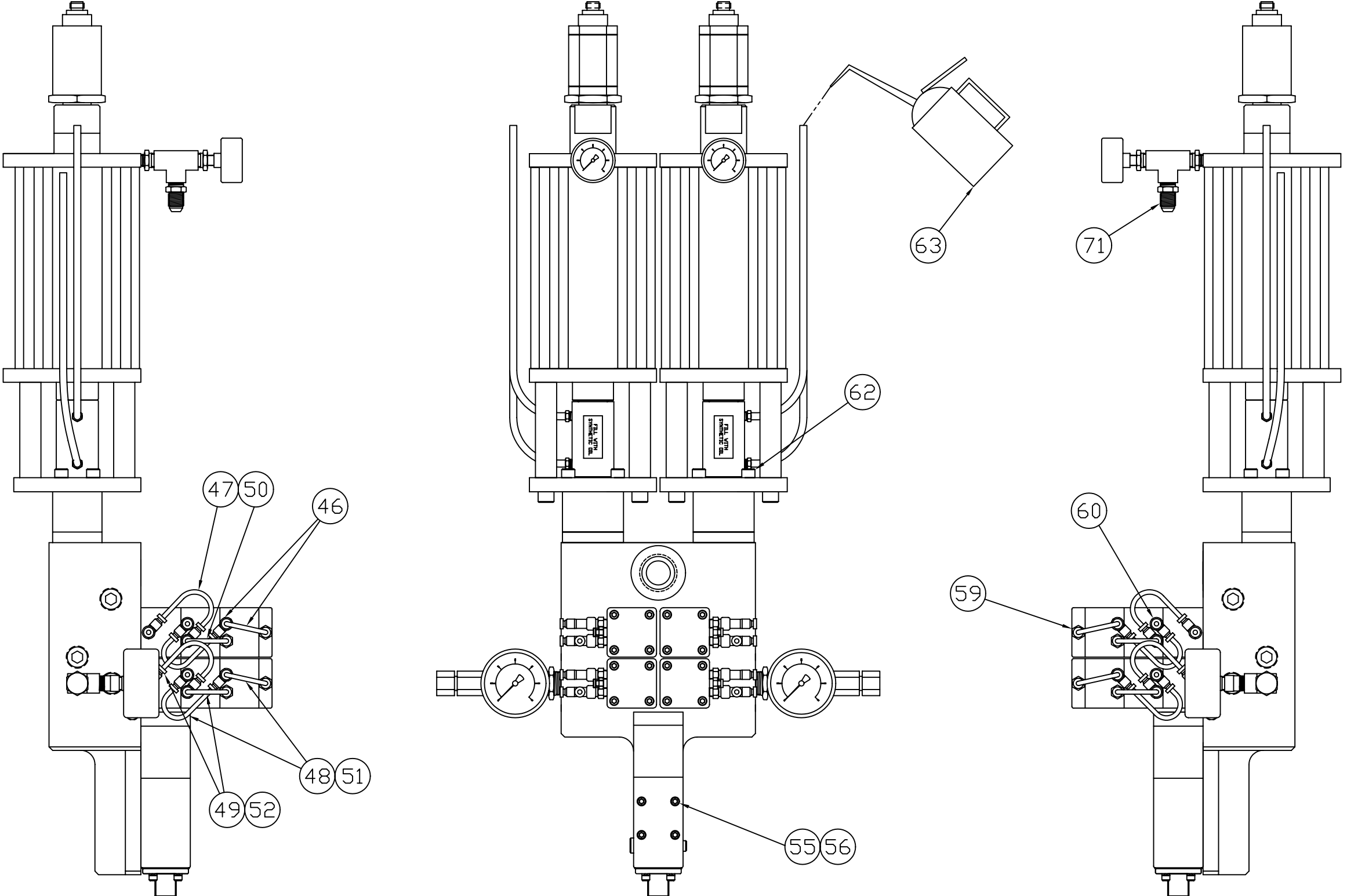
The dispense valves run independently of the Gun on signal. If using a remote dispense head another solenoid valve is provided at the remote gun. Both Gun on dispense valve are fired at the same time.

# 110-533 Pneumatic Sub Assembly



52	1	10465	COUPLING - 1/8" NPT
51	1	360-860	BARB FITTING - 1/8" NPT
50	1	360-957	MUFFLER
49	1	362-055	BARB FITTING - 1/16" NPT
48	1	360-613SS	PLUG, PIPE 1/16" NPT
47	2	350-558	3/8" SILENCER
46	2	351-038	M8 LOCK WASHER
45	2	350-251	SCREW SDC HD CAP 5/16-18 X .75" LG.
44	1	8-8FTX-B	ADAPATOR BRASS #8 JICM X 1/2 NPT
43	2	363-001B13	ADAPATOR BRASS #8 JICM X 3/8 NPT
42	1	364-537	CABLE ASS'Y 12-PIN MICRO FEMALE 18' LENGTH
41	2	6FTX-S	ADAPTOR STEEL #6 JICM X 1/4 NPTM
40	1	350-341	PIPE PLUG - 1/4"
39	2	403-957	SPACER
38	1	403-955	MOUNTING PLATE FOR 1KC PNEUMATICS
37	1	403-954	PROPORTIONAL VALVE SPACER PLATE
36	4	362-036	SCREW SDC HD CAP #10-24 X 2.50" LG.
35	6	361-904	LOCK WASHER #10 HI COL.
34	2	350-448	SCREW SDC HD CAP #10-24 X 2" LG.
33	3	350-915	SCREW SDC HD CAP 1/4-20 X 2 1/2" LG.
32	3	361-233	LOCK WASHER 1/4" HI COL.
31	1	350-651	COUPLING, 1/4 NPT, 3/4-HEX HP
30	1	363-163	AIR GAUGE 0-160 PSI
29	1	351-071B	NIPPLE BRASS 1/4 X 2-1/2
28	1	363-001S11	FITTING STEEL 3/8" NPTM X #6 JICM
27	2	363-002B11	FITTING 90° BRASS 3/8" NPTM X #6 JICM
26	5	363-000B03	HOSE ADAPT. SWIVEL #6 JICF X 3/8" BARB
25	1	350-074	NIPPLE CLOSE 1/2" NPT
24	1	362-902	TUBE FITTING STRAIGHT
23	2	350-323	RED. BUSH. 3/8" NPTM X 1/8" NPTF
22	1	350-999	NIPPLE 1/8" NPT X 1 1/2" LG.
21	1	350-196	STREET ELBOW 90 BRASS 1/4 NPT
20	1	364-543	CROSS - 1/2 NPT
19	1	350-489	TEE 3/8" NPT
18	3	30682-8-8B	SWIVEL, HOSE ADAPTOR #8 JICF X 1/2 BARB
17	2	350-984	RED. BUSH. 1/2" NPTM X 3/8" NPTF
16	3'	362-738WBL	HOSE AIR BLUE 1/2"
15	20'	362-738ABL	HOSE AIR BLUE 3/8"
14	4'	360-112	TUBING 1/4"
13	2	360-110	FITTING PUSHLOCK 1/8" NPT X 1/4" TUBE
12	2	363-481	MUFFLER SINTERED 1/8" NPT
11	3'	363-234	TUBING 5/32" WHITE
10	3'	363-235	TUBING 5/32" BLACK
9	3'	363-236	TUBING 5/32" BLUE
8	3'	363-237	TUBING 5/32" YELLOW
7	2	363-232	MANUAL RELEASE BUTTON BLUE
6	2	363-233	MANUAL RELEASE BUTTON YELLOW
5	2	363-230	MANUAL RELEASE BUTTON WHITE
4	8	363-178	FITTING PUSHLOCK 1/8" NPT X 5/32 TUBE
3	1	363-002B13	ADAPTOR 90 DEG. MALE # 8 JICM X 1/2 NPTM
2	1	364-494M	PROPORTIONAL VALVE MODIFICATION
1	1	364-536	7 VALVE BANK
DET QTY			PART NUMBER DESCRIPTION

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	MGB	6/4/0



1KC X X X X X

APPLICATION TYPE  
C = CLOSE COUPLED  
R = REMOTE  
M = MANUAL

CONDITIONING  
T = TEMPERATURE CONDITIONING  
N = NON-TEMP. CONDITIONING

CONTROL TYPE  
E = ELECTRIC  
P = PNEUMATIC

PRESSURE RATIO  
H = HIGH 22:1 (#13/16" ROD)  
L = LOW 16:1 (#1" ROD)

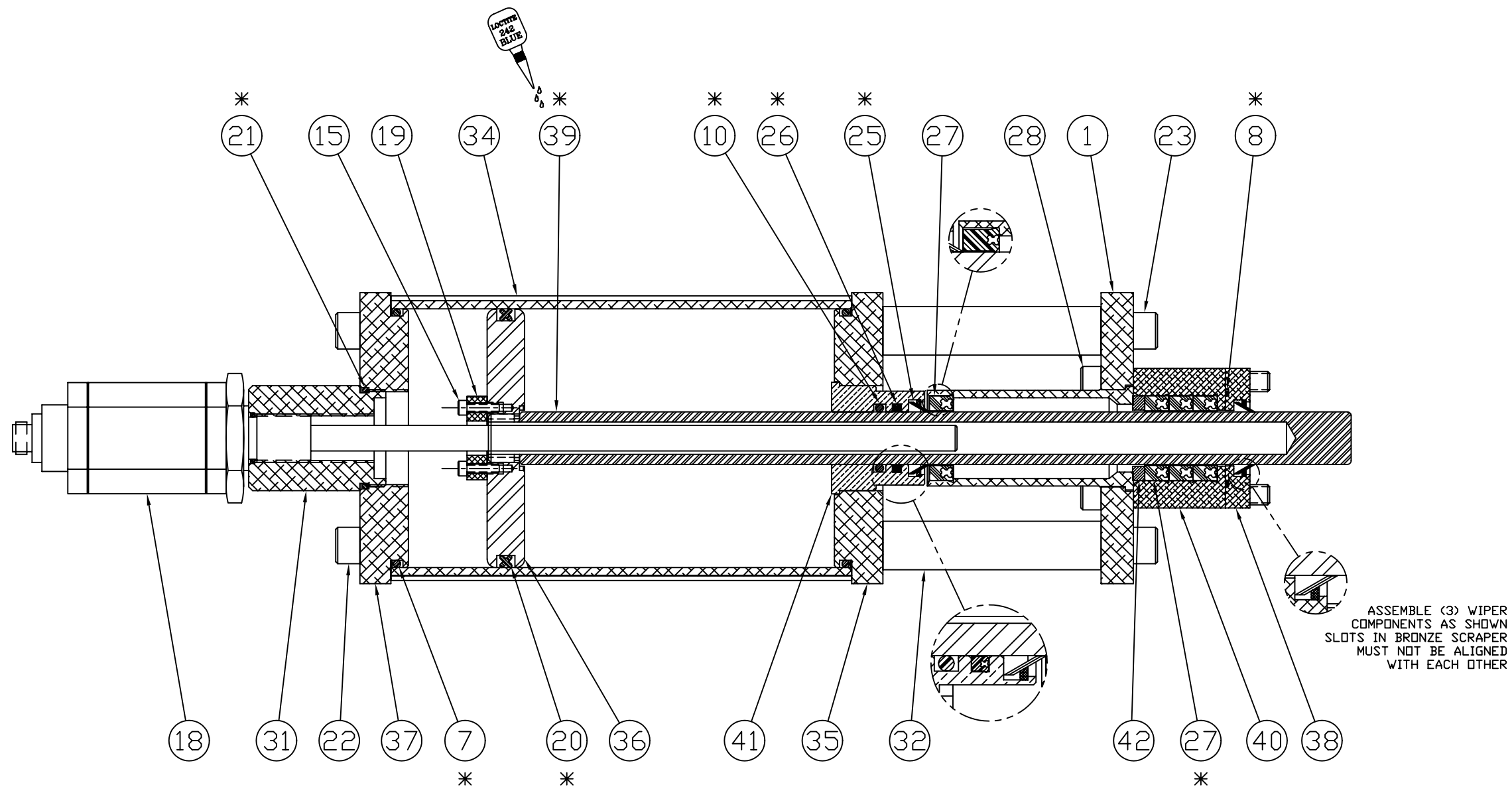
STROKE LENGTH  
A = 6"  
B = 12"

71	2	6FTX-S	ADAPTOR STEEL #6 JICM X 1/4" NPTM
70	2	363-006S08	NIPPLE STEEL 1/2" NPTM X 1/4" NPTM
69	2	362-497	TEE HP 1/4" NPT
68	2	362-172	GAUGE LIQUID FILLED 0-5000 PSI 1/4" NPT
67			
66			
65	2	402-763	BLEEDER VALVE BODY
64	2	402-271	BLEEDER VALVE NEEDLE
DET	QTY	PART NUMBER	DESCRIPTION

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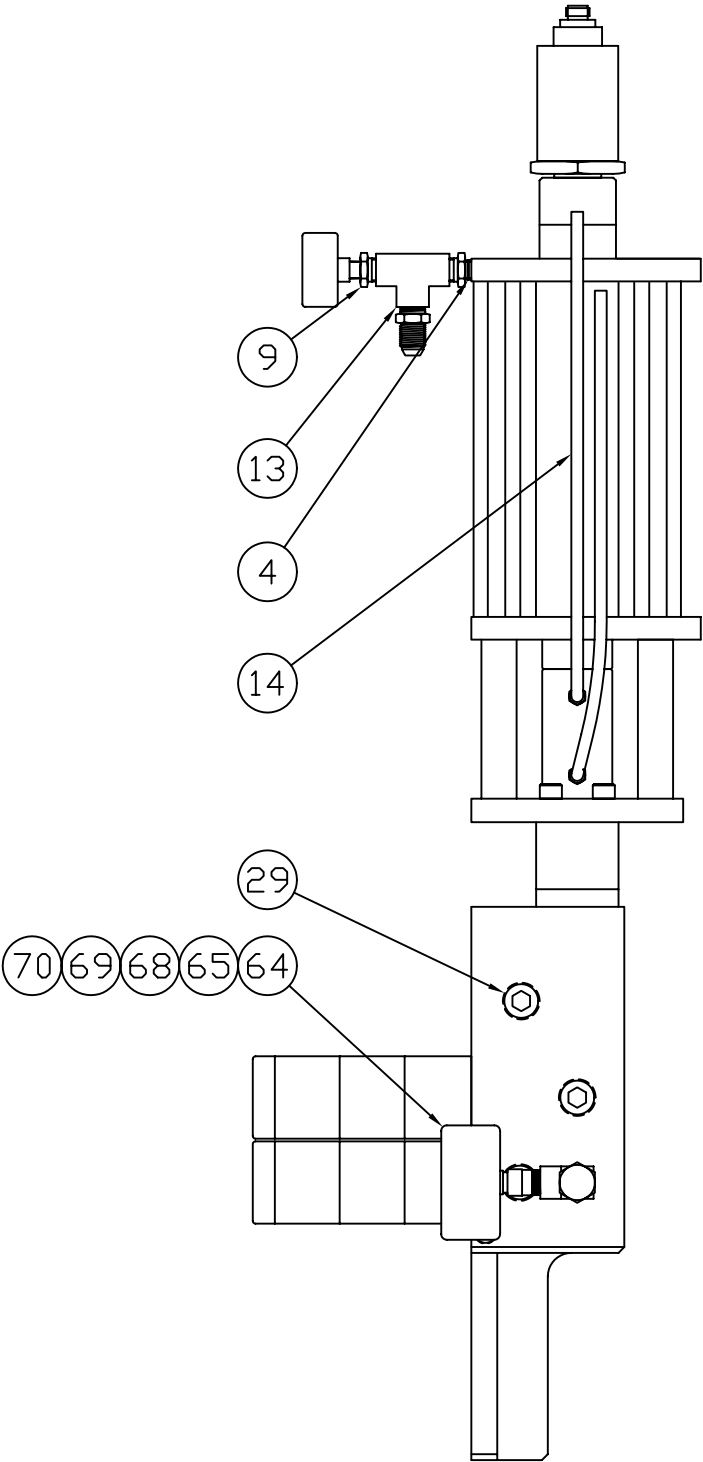
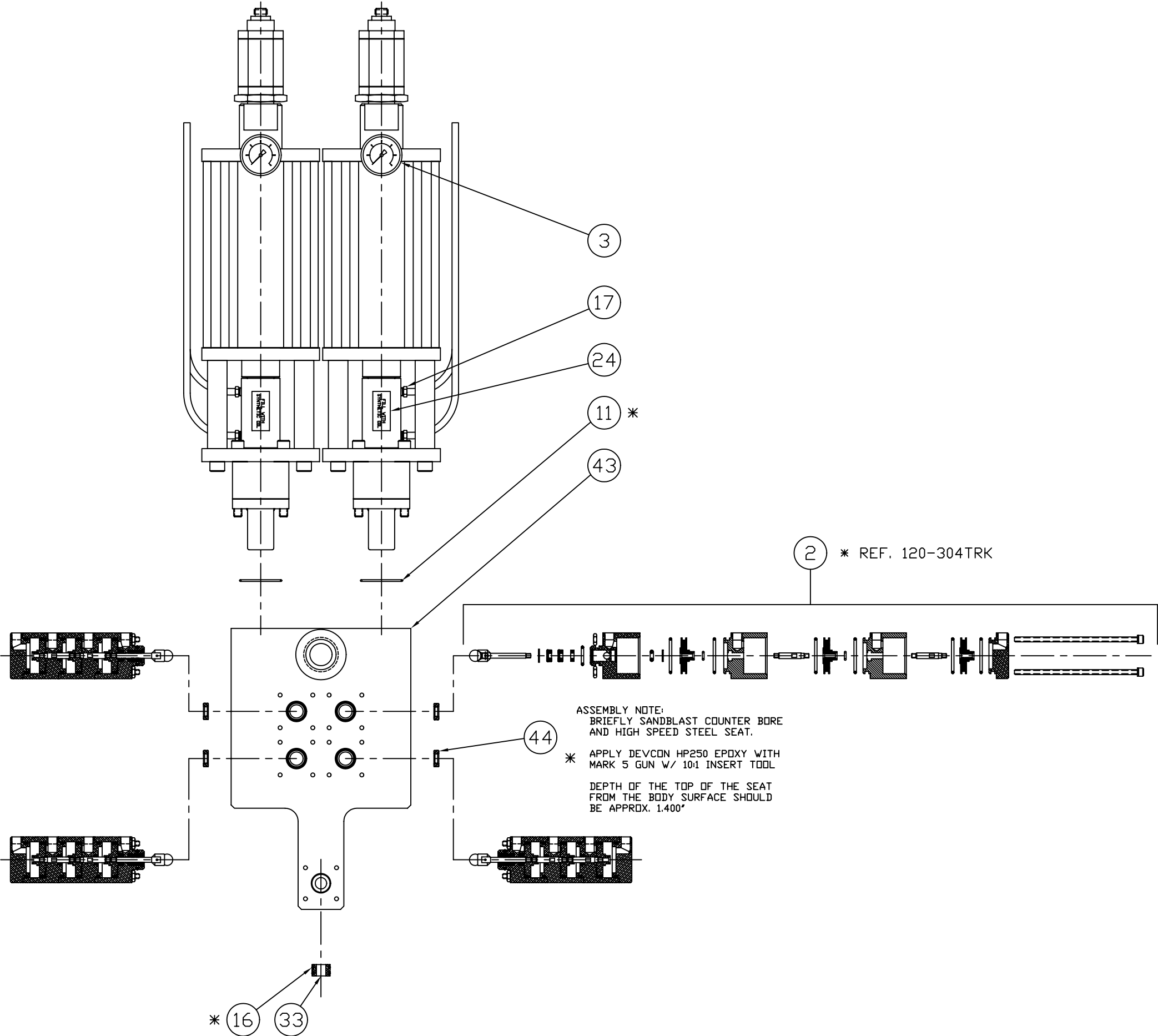
* = 1KCAHENC RK REPAIR KIT			
	63	1	364-225 OIL CAN
	62	10	363-998 CAP
*	61	2	363-096 GREASE PACKET 10Z.
	60	16	363-229 FITTING PUSHLOCK MALE RUN TEE 5/32" T X 1/8" NPT
	59	8	363-178 FITTING PUSHLOCK STRAIGHT 5/32" T X 1/8" NPT
	58		
	57		
	56	4	361-904SS LOCK WASHER #10 HI COL.
	55	4	350-363 SCREW SDC HD CAP #10-24 X 1.75' LG.
	54		
	53		
	52	10	363-232 MANUAL RELEASE BUTTON BLUE
	51	10	363-233 MANUAL RELEASE BUTTON YELLOW
	50	10	363-230 MANUAL RELEASE BUTTON WHITE
	49	1'	363-236 POLYETHYLENE TUBING 5/32" BLUE
	48	1'	363-237 POLYETHYLENE TUBING 5/32" YELLOW
	47	1'	363-234 POLYETHYLENE TUBING 5/32" WHITE
	46	1'	363-235 POLYETHYLENE TUBING 5/32" BLACK
	45		
*	44	4	403-923 HIGH SPEED STEEL SEAT
	43	1	403-879 BODY 6' STROKE CONTINUOUS FLOW
	42	2	403-581 SEAL SPACER
	41	2	403-904 BUSHING W/ WIPER
	40	2	403-905 SEAL CARTRIDGE
*	39	2	403-903 PISTON ROD
	38	2	403-906 CARTRIDGE WIPER SEAL
	37	2	403-344 CYLINDER TOP PLATE
	36	2	403-342 PISTON
	35	2	403-340 CYLINDER BOTTOM PLATE
	34	2	403-339 CYLINDER HOUSING
	33	1	403-337 BUTTON ADAPTOR
	32	8	403-334 BODY SPACER
	31	2	403-322 SENSOR SPACER
	30		
	29	10	363-957 PIPE PLUG FLUSH MOUNT 1/2" NPT
	28	8	363-888 SCREW SDC HD CAP 5/16-18 X 2.75" LG.
*	27	8	363-517 POLYPAK SEAL FLOURATREL
*	26	2	363-849 POLYPAK SEAL VITON
*	25	4	363-843 BRONZE SCRAPER SEAL 13/16" DIA ROD
	24	2	363-673 LABEL
	23	8	363-166 SCREW SDC HD CAP 3/8-24 X 4.50" LG.
	22	8	363-165 SCREW SDC HD CAP 3/8-24 X 1.00" LG.
*	21	2	363-160 "O"-RING BUNA 1 3/8 I.D. X 1 9/16 O.D. X 3/32 THK REF 12
*	20	2	363-156 QUAD RING BUNA 3 5/8 I.D. X 3/16 THK
	19	2	363-141 LINEAR TRANSDUCER MAGNET
	18	2	363-140 LINEAR TRANSDUCER 6' STROKE
	17	4	362-055 BARB FITTING STRAIGHT 1/*16" NPT .17 I.D. TUBE
*	16	2	361-889 "O"-RING VITON 9/16 I.D. X 11/16 O.D. X 1/16 THK REF 015
	15	4	360-745 SCREW SDC HD CAP #6-32 X .50" LG.
	14	1'	360-112 POLYETHANE TUBING 1/8 I.D. X 1/4 O.D.
	13	2	360-079 TEE BRASS 1/4" NPT
	12		
*	11	2	350-885 "O"-RING VITON 1 1/2 I.D. X 1 5/8 O.D. X 1/16 THK REF 025
*	10	2	363-078 "O"-RING VITON 1 I.D. X 1 1/4 O.D. X 1/8 THK REF 214
	9	4	350-490 REDUCING BUSHING 1/4" NPTM X 1/8" NPTF
*	8	2	363-223 "O"-RING VITON 1-3/8 I.D. X 1-1/2 O.D. X 1/16 REF 028
*	7	4	350-360 "O"-RING BUNA 3 3/4 I.D. X 4 O.D. X 1/8 THK. REF 240
	6		
	5		
	4	2	350-143 NIPPLE CLOSE 1/8" NPT
	3	2	363-163 AIR PRESSURE GAUGE 0-160 PSI
	2	4	120-304T TRIPLE PISTON REFILL VALVE ASM.
	1	2	110-549 RETAINER PLATE AND SOLVENT CUP ASM.
DET QTY PART NUMBER DESCRIPTION			
BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED			
TOLERANCES UNLESS SPECIFIED			
XX .XXX   .0005   .0005		ANGLE .0005   .0005	
DRAWN MGB		D	
CHK'D		SCALE	
DATE 6/4/04		1:2	
		TITLE CONTINUOUS FLOW 1K DISP HEAD WITH SEALED RESERVOIR	
		J.D.S. No. 1KCAHENC	
		1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309	
		REV. 1 3 A	
		DWG No. 1KCAHENC	

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	MGB	6/8/04




BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED		TOLERANCES UNLESS SPECIFIED		DECIMAL ANGLE		XX XXXX XXXX ±.01 ±.005 ±.0005 ±0.0°-30°	
DRAWN	MGB	SHY SZ	D	SCALE	1:1	DATE 6/8/04	
CHR'D		DATE		6/8/04		1:1	
TITLE		PNEUMATIC ASSEMBLY CONTINUOUS FLOW DISPENSE HEAD WITH SEALED RESERVOIR		U.D.S. No.		1KCAHENC	
REV		2		3		A	
DVG No.		1KCAHENC		1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309			

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	MGB	6/8/04



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BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED				 <b>Johnstone</b> DISPENSING SYSTEMS		1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309	
TOLERANCES UNLESS SPECIFIED		DECIMAL	ANGLE				
XX   XXX   XXXX		±.01   ±.005   ±.0005	±0.0°-30°				
DRAWN	MGB	SHT SZ	D	TITLE			
CHK'D		SCALE	1:2	CONTINUOUS FLOW DISPENSE HEAD WITH SEALED RESERVOIR			
DATE	6/7/04			U.I.S. No.			
				1KCAHENC			
				SHT OF REV. A			
				DWG No. 1KCAHENC			



