1KCALPNM

1KC CONTINUES FLOW PRECISION DISPENSER

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

1KCALPNM	16:1	Continues Flow Dispenser	1 in.
1KCAHPNM	22:1	Continues Flow Dispenser	13/16 in.

SERVICE KITS

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

- 16:1 Repair Kit 1KCALPNMRK 1in.
- 22:1 Repair Kit 1KCAHPNMRK 13/16 in.

⚠ WARNING

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

SPECIFICATIONS

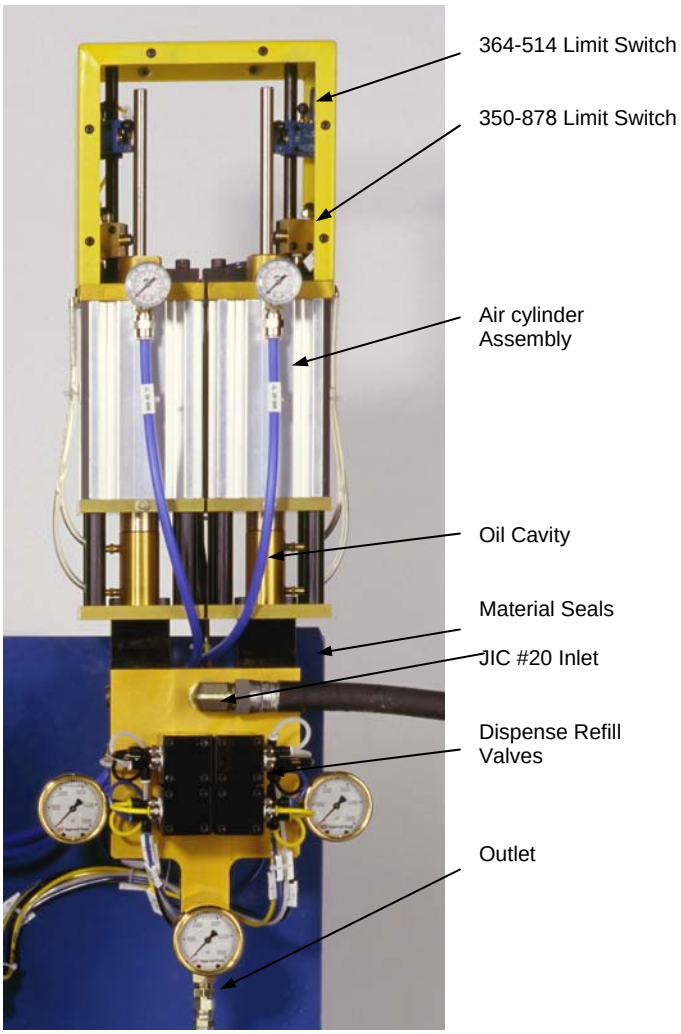
Air Inlet Port Size	1/4" NPT
Fluid Inlet Port Size	#20 JIC
Air Inlet Pressure Range	20 to 100 PSI
Static Pressure Ratio	16:1/ 22:1
Shot Volume	Continues

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.



Ingersoll-Rand
Assembly Solutions

Ingersoll-Rand
1872 Enterprise Drive
Rochester Hills MI 48309

Phone (248) 293-5700
Tech Support (866) 284-5509

Start-up / Re-pressurization

1. Connect the the yellow flexible air input line to the plant air supply source (90 to 100psi is desirable).
2. Open the plant air supply valve to pressurize the pneumatic control circuit inside the grey enclosure. The control circuit will now be active. You may select the appropriate dispense pressure by adjusting the air regulator (located on the outside-center of the grey control box door), upward or downward
3. Connect the ¾" material supply hose to the header-drop outlet (first make sure that the ball valve at the header drop outlet is "closed").
4. Check that all three (3) bleeder ports on the 1KC dispense head are "closed" (turned fully CW and tightened). The Bleeder ports are the black ¾" hex stems on the gold body of the 1KC dispenser.
5. Open the material supply ball-valve at the header outlet. This will make sealer available (at full header pressure) to the dispense head for re-filling.
6. Pull trigger on the Iwata applicator gun and dispense into purge bucket. Continue purging until both "A" & "B" shot cylinders have re-filled.

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. Turn off the air supply to the Grey control box.
3. Open the three bleeders on the 1KC Dispense head body to relieve material pressure from the inlet, and "A" and "B" displacement cylinders. Re-tighten after pressure is depleted.
4. Squeeze trigger on the Iwata applicator gun to deplete the outlet pressure to zero.

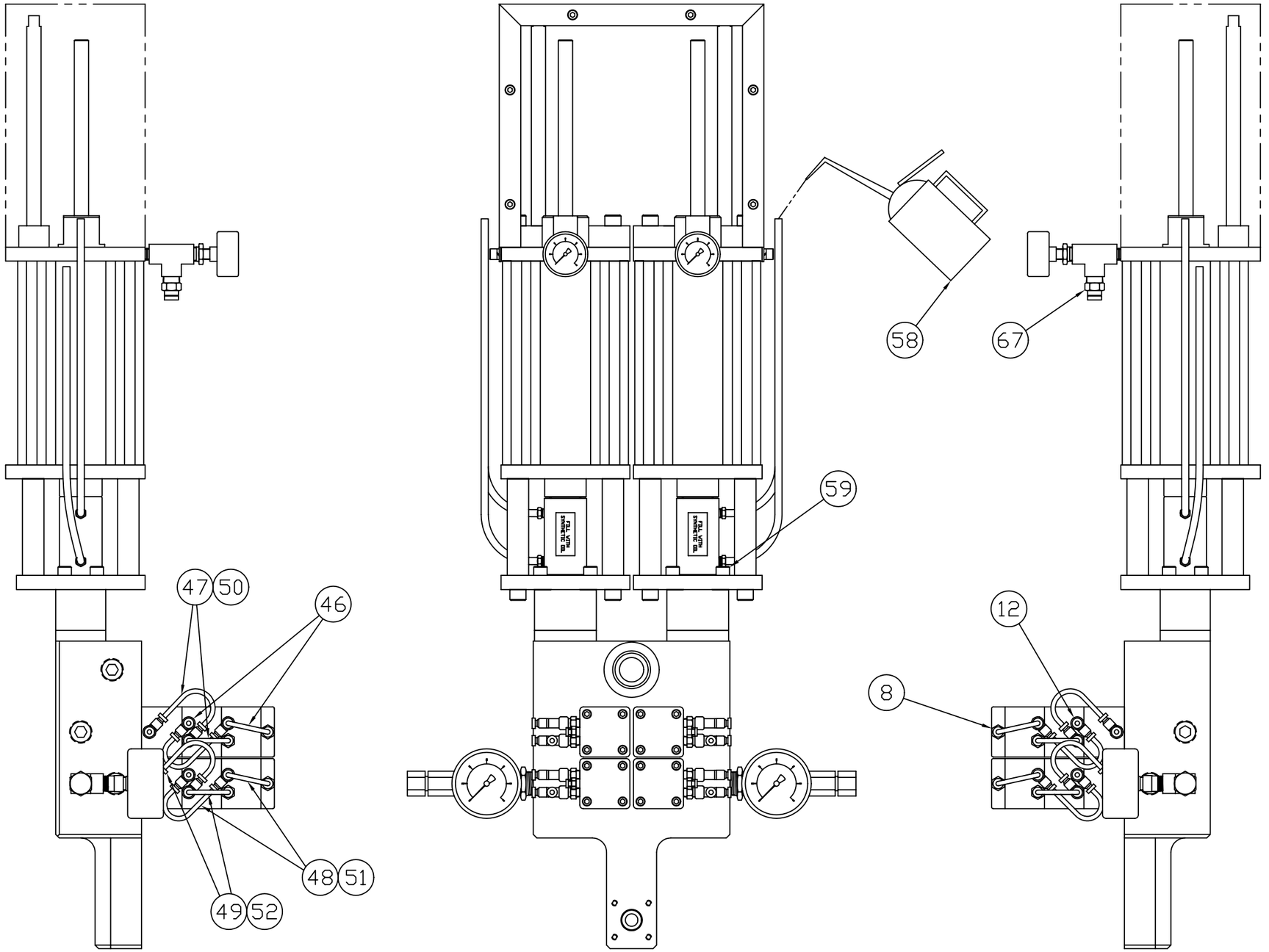
The unit is now fully shut down and de-pressurized.

Operator Settings for 1KC-M

1. Internal regulator inside grey control cabinet is to be set to 90psi
2. Confirm that ball-valve at material header outlet is "open" to supply sealer to the 1KC unit.
3. Select appropriate dispense pressure by adjusting the air regulator (center of door on grey control cabinet) upward (for higher material pressure) or lower (for lower material pressure).

Air Regulator psi	Material psi
20	240
40	480
60	720
80	960
100	1,200

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	JJT	3/23/0



* = 1KCALPNMRK REPAIR KIT

	DET	QTY	PART NUMBER	DESCRIPTION
	66	2	363-006S08	NIPPLE STEEL 1/2" NPTM X 1/4" NPTM
	65	2	362-497	TEE HP 1/4" NPT
	64	2	362-172	GAUGE LIQUID FILLED 0-5000 PSI 1/4" NPT
	63	2	364-512	SCREW SOC HD CAP #5-40 X .75" LG.
	62	2	364-511	SCREW SOC HD CAP #5-40 X 1.00" LG.
	61	2	402-763	BLEEDER VALVE BODY
	60	2	402-271	BLEEDER VALVE NEEDLE
	59	10	363-998	CAP
	58	1	364-225	OIL CAN MANUAL DISPENSE
*	57	2	363-096	GREASE PACKET 1 OZ.
	56	2	403-916	BUTTON SENSOR MOUNTING BRACKET
	55	4	403-915	PROX SWITCH POSITION COLLAR
	54	2	403-914	AIR PROX SWITCH POSITION ROD
	53	2	403-913	PROX SWITCH MOUNTING PLATE
	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 TUBE 5/32 BLACK
	45	2	403-912	PROX SWITCH POSITION ADJUSTING BRACKET
*	44	4	403-923	HIGH SPEED STEEL SEAT
	43	1	403-879	BODY 6" STROKE CONTINUOUS FLOW
	42	2	403-585	SEAL SPACER
	41	2	403-584	BUSHING W/ WIPER
	40	2	403-583	SEAL CARTRIDGE
*	39	2	403-582	DISPLACEMENT ROD
	38	2	403-571	CARTRIDGE WIPER SEAL
	37	2	403-932	CYLINDER TOP PLATE FOR 1KC
	36	2	403-342	PISTON
	35	2	403-340	CYLINDER BOTTOM PLATE
	34	2	403-339	CYLINDER HOUSING
	33	1	350-341	PIPE PLUG FLUSH MOUNT 1/4" NPT
	32	8	403-334	BODY SPACER
	31	2	403-909	ROD GUIDE
	30	2	364-223	POLY SEAL 1" OIL
	29	10	363-957	PIPE PLUG FLUSH MOUNT 1/2" NPT
	28	8	363-888	SCREW SOC HD CAP 5/16-18 X 2.75" LG.
*	27	6	363-872	POLYPAK SEAL FLOURATREL
*	26	2	363-850	POLYPAK SEAL URETHANE
*	25	4	363-841	BRONZE SCRAPER SEAL 1" DIA ROD
	24	2	363-673	LABEL
	23	8	363-166	SCREW SOC HD CAP 3/8-24 X 4.50" LG.
	22	4	363-165	SCREW SOC 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	403-910	GUIDE ROD ADAPTOR
	18	2	403-911	GUIDE ROD
	17	4	362-055	BARB FITTING STRAIGHT 1/*16" NPT .17 I.D. TUBE
*	16	4	364-509	SCREW SOC HD CAP 3/8-24 X 1.75" LG.
	15	4	360-745	SCREW SOC 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	16	363-229	MALE RUN TEE PUSHLOCK 5/32 T X 1/8" NPT
*	11	4	350-885	"O"-RING VITON 1 1/2 I.D. X 1 5/8 O.D. X 1/16 THK REF 029
*	10	2	350-561	"O"-RING VITON 1 I.D. X 1 1/4 O.D. X 1/8 THK REF 214
	9	2	350-490	REDUCING BUSHING 1/4" NPTM X 1/8" NPTF
	8	8	363-178	FITTING STRAIGHT PUSHLOCK 5/32 T X 1/8" NPT
*	7	4	350-360	"O"-RING BUNA 3 3/4 I.D. X 4 O.D. X 1/8 THK. REF 240
	6	2	364-514	ROLLER LEVER SWITCH PNEUMATIC
	5	2	350-878	VALVE 3-WAY 1/8" PORTS
	4	2	350-050	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	110-535	RETAINER PLATE AND SOLVENT CUP ASM.
	DET	QTY	PART NUMBER	DESCRIPTION

1KC X X X X X

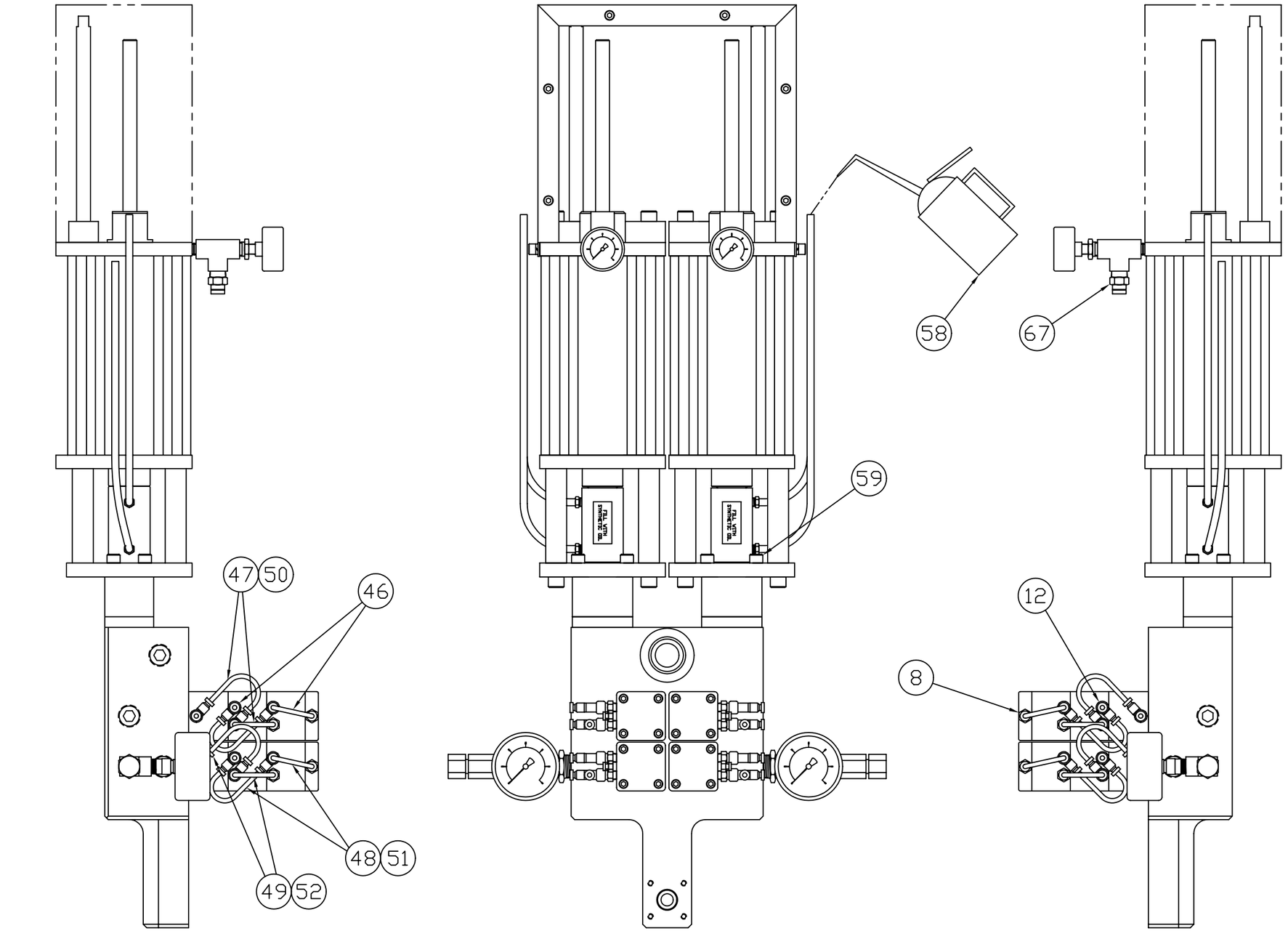
- STROKE LENGTH: A = 6", B = 12"
- PRESSURE RATIO: H = HIGH 22:1 (Ø13/16" ROD), L = LOW 16:1 (Ø1" ROD)
- CONTROL TYPE: E = ELECTRIC, P = PNEUMATIC
- CONDITIONING: T = TEMPERATURE CONDITIONING, N = NON-TEMP. CONDITIONING
- APPLICATION TYPE: C = CLOSE COUPLED, R = REMOTE, M = MANUAL

DET	QTY	PART NUMBER	DESCRIPTION
77	12	361-739	JAM NUT #10-24
76	16	350-188	SCREW BTN HD CAP #10-24 X 1/2" LG.
75	2	403-940	GUARD WINDOW
74	1	403-939	GUARD WALL
73	4	364-521	LOCK WASHER #5
72	2	364-510	SCREW SOC HD CAP #8-32 X 1/4" LG.
71	2	350-272	SCREW SOC HD. CAP #8-32 X 3/8" LG.
70	2	364-458	RETAINING RING 7/8" BORE
69	2	364-461	BUSHING 1/2" I.D. X 5/8" O.D. X 7/8" FLANGE O.D. X 1/2" LG.
68	2	364-457	SEAL FLOURATREL 1/2" I.D.
67	2	360-106	FITTING PUSH LOCK 3/8 T X 1/4" NPT
DET	QTY	PART NUMBER	DESCRIPTION

BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED
TOLERANCES UNLESS SPECIFIED: DECIMAL XX ±.01, XXX ±.005, XXXX ±.0005; ANGLE ±0.0°-30'

Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309

DRAWN	SHT SZ	TITLE	J.D.S. No.
JJT	D	CONTINUOUS FLOW 1K DISP HEAD WITH SEALED RESERVOIR	1KCALPNM
CHK'D	SCALE		SHT 1 OF 3 REV. A
DATE 3/23/04	1:2		DWG No. 1KCALPNM



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* = 1KCAHPNMRK REPAIR KIT

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*	10	2	363-078	"O"-RING VITON 51/64 I.D. X 1 1/16 O.D. X 1/8 TH REF 211
	9	2	350-490	REDUCING BUSHING 1/4" NPTM X 1/8" NPTF
	8	8	363-178	FITTING STRAIGHT PUSHLOCK 5/32 T X 1/8" NPT
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	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

1KC X X X X X

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DET	QTY	PART NUMBER	DESCRIPTION

BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED

TOLERANCES UNLESS SPECIFIED: DECIMAL XX ±.01, XXX ±.005, XXXX ±.0005; ANGLE ±0.0°-30'

DRAWN: JJT

CHK'D:

DATE: 3/23/04

SHT SZ: D

SCALE: 1:2

Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR.
ROCHESTER HILLS
MICHIGAN 48309

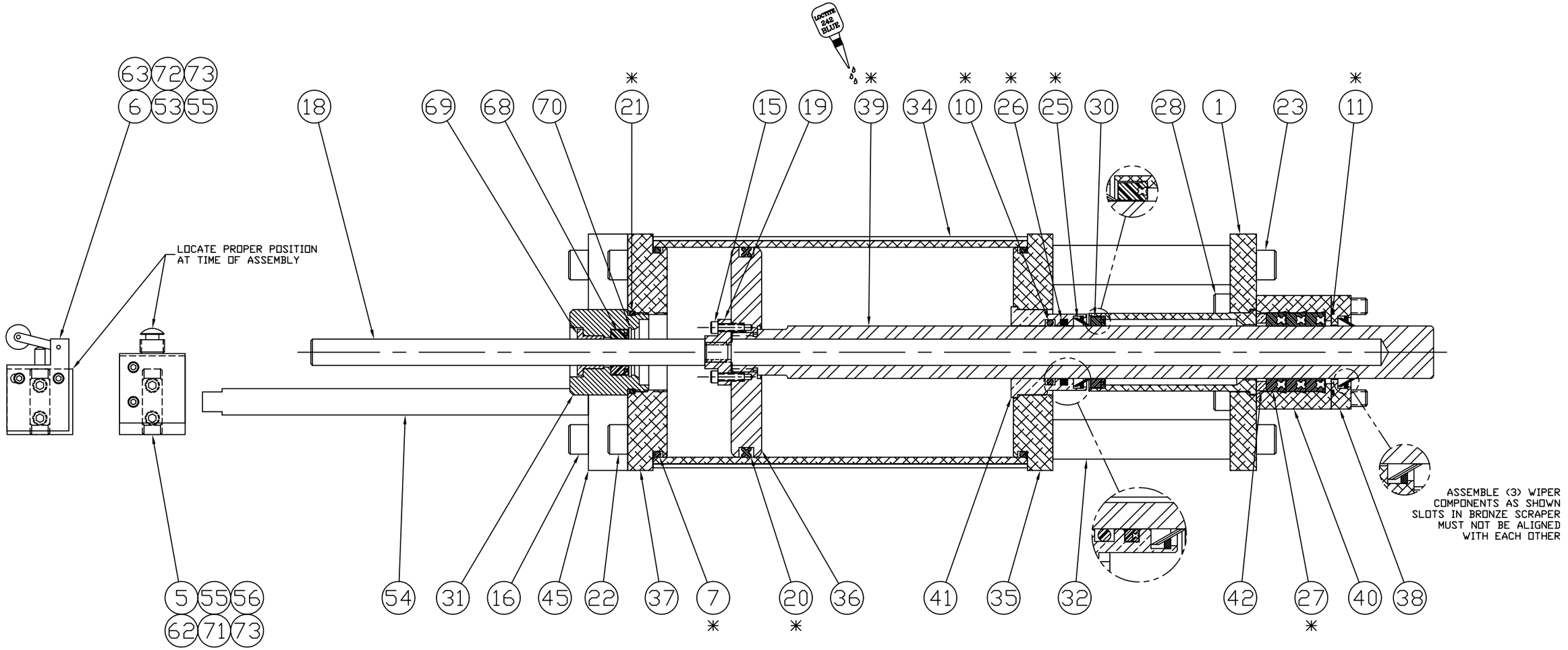
TITLE: CONTINUOUS FLOW 1K DISP HEAD WITH SEALED RESERVOIR

J.D.S. No. 1KCAHPNM

SHT 1 OF 3 REV. A

DWG No. 1KCAHPNM

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	JJT	3/23/0



TWO ASSEMBLIES PER DISPENSE HEAD

ASSEMBLY NOTE:
MARK ALL BOLTS AFTER TORQUE TO SPEC.

BEFORE TIGHTENING DET. 22 AND DET. 23 BOLTS MAKE SURE DET. 1 AND 37 ARE ON A FLATE SURFACE

LUBRICATION NOTE:
MAKE SURE ALL O-RINGS, QUAD RINGS, SEALS, WIPERS & CYLINDER WALL IS LUBRICATED WITH MOBIL-LITH SYNTHETIC GREASE DET. 57 ✳

BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED
TOLERANCES UNLESS SPECIFIED
DECIMAL: XX ±.01 | XXX ±.005 | XXXX ±.0005
ANGLE ±0.0°-30'

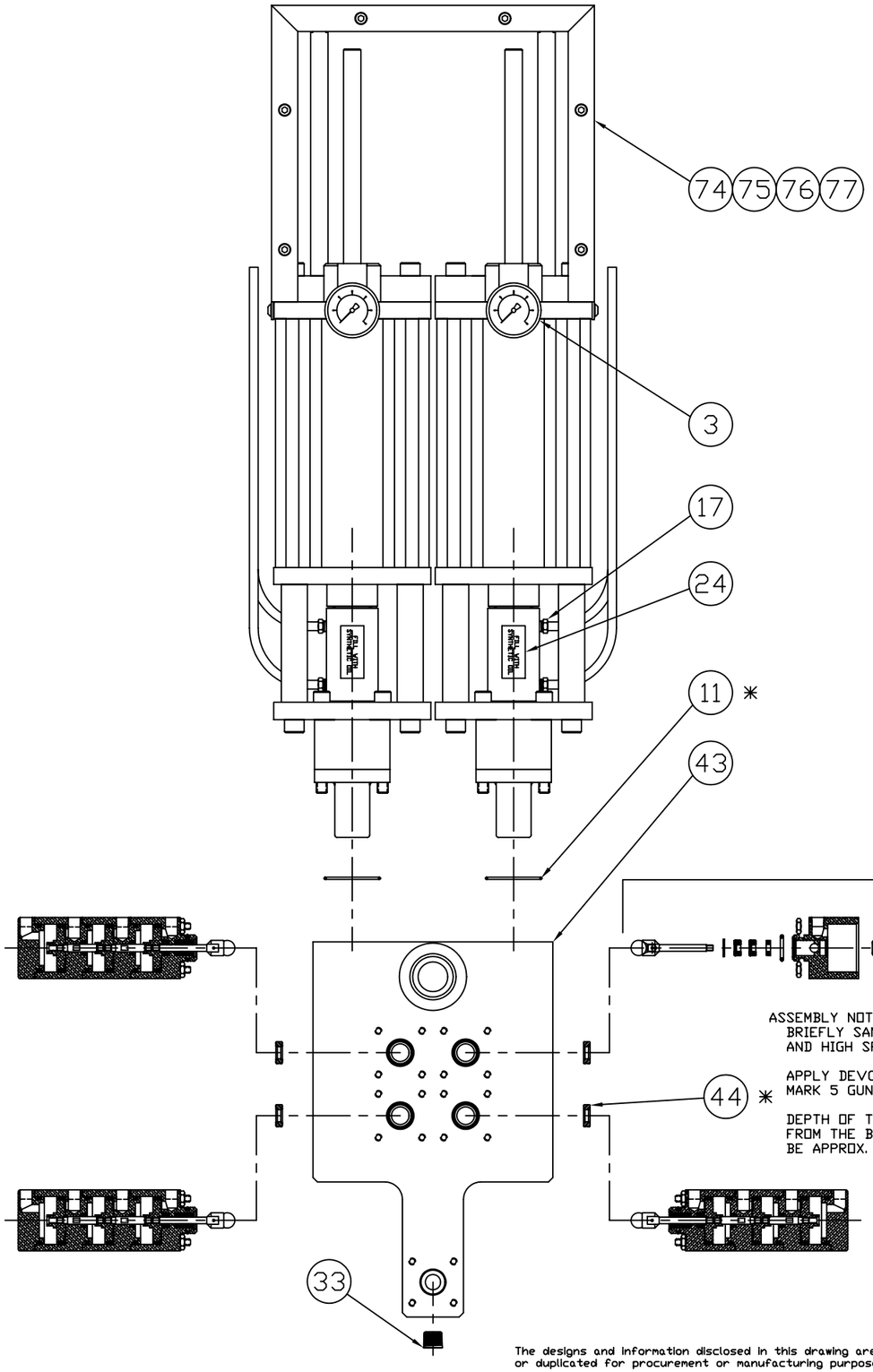
DRAWN: JJT
CHK'D:
DATE: 3/23/04
SHT SZ: D
SCALE: 1:1

Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309

TITLE: PNEUMATIC ASSEMBLY CONTINUOUS FLOW DISPENSE HEAD WITH SEALED RESERVOIR

J.D.S. No. 1KCALPNM
SHT 2 OF 3 REV. A
DWG No. 1KCALPNM

REV	DESCRIPTION	BY	DATE
A	FIRST RELEASE	JJT	3/23/04

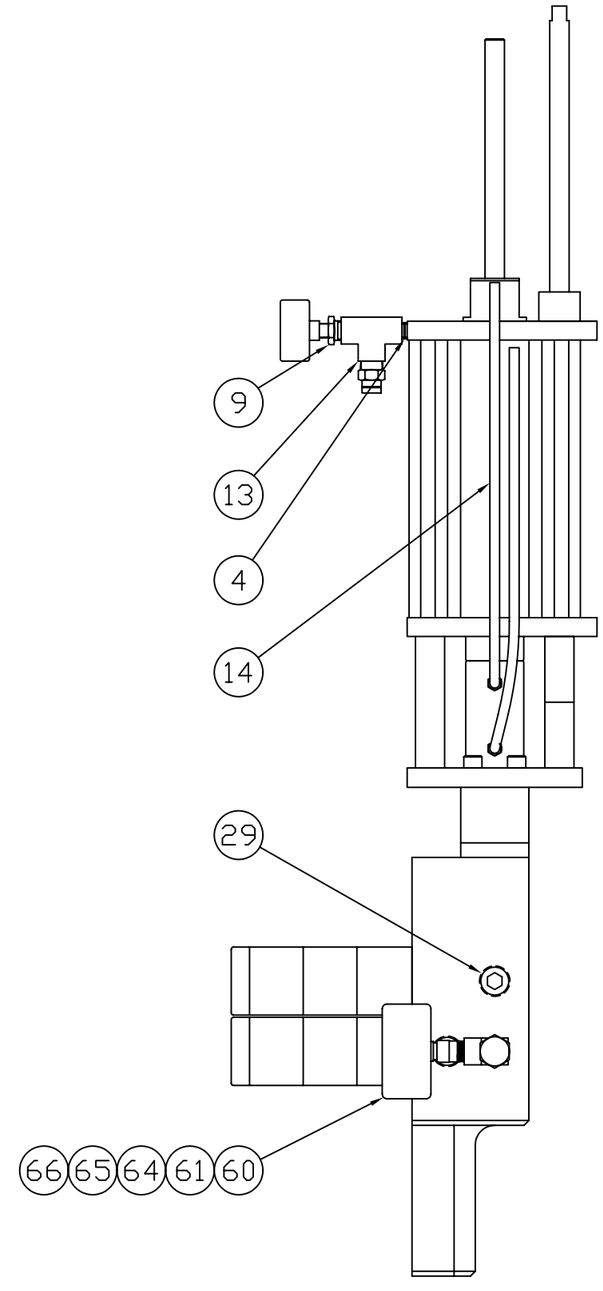


2 * REF. 120-304TRK

ASSEMBLY NOTE:
BRIEFLY SANDBLAST COUNTER BORE AND HIGH SPEED STEEL SEAT.

APPLY DEVCON HP250 EPOXY WITH MARK 5 GUN W/ 10:1 INSERT TOOL

DEPTH OF THE TOP OF THE SEAT FROM THE BODY SURFACE SHOULD BE APPROX. 1.400"



BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED

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DRAWN: JJT

CHK'D:

DATE: 3/23/04

SHT SZ: D

SCALE: 1:2

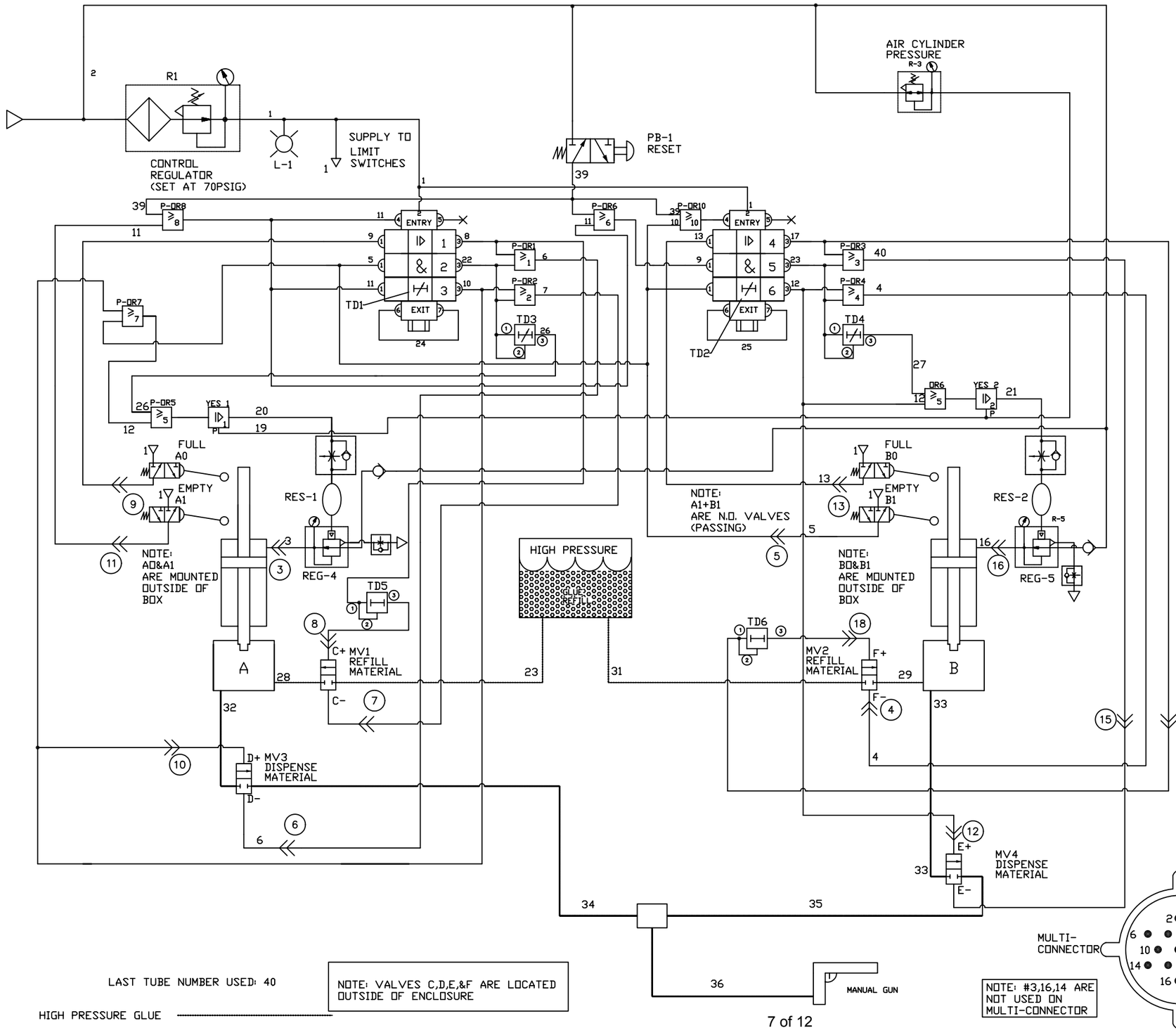
Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR.
ROCHESTER HILLS
MICHIGAN 48309

TITLE: CONTINUOUS FLOW DISPENSE HEAD WITH SEALED RESERVOIR

J.D.S. No. 1KCALPNM

SHT 3 OF 3 REV. A

DWG No. 1KCALPNM



MATERIALS

MARK	QTY.	DESCRIPTION	MANUFACTURER	PART #
A	1	20 x 16 x 8 ENCLOSURE	SCE	SCE201608CH
B	1	17 x13 PANEL	SCE	SCE2016P
C	6	TIMER 0-30SEC.	CROUZET	81 503 720
D	4	"OR" ELEMENT	CROUZET	81 540 001
E	6	SUBBASE END STYLE	CROUZET	81 532 104
F	1	CONNECTING BASE	CROUZET	81 532 102
G	4	"YES" ELEMENTS	CROUZET	81 501 025
H	6	PAC ELEMENT	CROUZET	81 550 001
I	6	PAC SUBBASE	CROUZET	81 551 101
J	1	ENTRY EXIT MODULE	CROUZET	81 552 102
K	1	DUAL ENTRY/EXIT	CROUZET	81 552 601
L	2	"AND" ELEMENT	CROUZET	81 522 501
M	1	FILTER/REGULATOR	SMC	NAW2000-N02BG
N	1	INDICATOR	CROUZET	84 150 202
O	1	TOGGLE VALVE 4 WAY	SMC	NVM130-N01-08
P	1	PUSH BUTTON	SMC	NVM230-N02-33
Q	2	"OR" ELEMENT	CROUZET	81 521 501
R	.2	10" DIN RAIL	CROUZET	11 313 318
S	.25	TUBING 5/32	ATP	PU532CBK-S107
T	1	5/32 BULKHEAD	SMC	KQ2E03-00
U	1	1/4" NPT BULKHEAD	WHEATHERHEAD	W21204
V	2	1/8" MINI REGULATOR	SMC	84 150 202
W	2	3/8" BULKHEAD	SMC	KQ2E11-00
X	2	1/4" NPT REGULATOR	SMC	IR3120-N04
Y	1	SHUTTLE VALVE	SMC	VR1220F-07
Z	2	0-160 GAUGE, LIQ. FILLED	DYNAMIC	CF-1P-010-B

SEQUENCE OF OPERATIONS

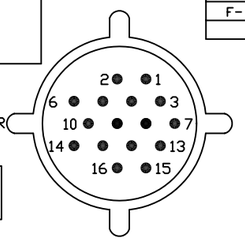
DISPENSING ON "A" SIDE

1. DEPRESS TRIGGER ON MANUAL GUN TO DISPENSE GLUE.
2. DISPENSING UNIT "A" SUPPLIES MANUAL GUN UNTIL IT ACTUATES THE NEAR EMPTY LIMIT VALVE A1
3. TIMER 1 STARTS AND DISPENSING UNIT B IS NOW OPEN AND SUPPLING MATERIAL TO THE MANUAL GUN.
4. AFTER TIMER 1 DELAY, MV3 CLOSES AND MV1 OPENS TO REFILL DISPENSING UNIT A.
5. LIMIT VALVE A0 IS ACTUATED AFTER A DISPENSING UNIT IS RE-FILLED.
6. VALVE MV1 CLOSES AND TIME DELAY TD3 STARTS.
7. AFTER TD3 IS COMPLETE DISPENSING UNIT A IS PRESSURIZED.

DISPENSING ON "B" SIDE

8. DISPENSING UNIT B SUPPLIES MANUAL GUN UNTIL IT ACTUATES THE NEAR EMPTY LIMIT VALVE B1.
9. TIMER 2 STARTS AND DISPENSING UNIT A IS NOW OPEN AND SUPPLING MATERIAL TO THE MANUAL GUN.
10. AFTER TIMER 2 DELAY MV4 CLOSES AND MV2 OPENS TO REFILL DISPENSING UNIT B.
11. LIMIT VALVE B0 IS ACTUATED AFTER B DISPENSING UNIT IS RE-FILLED.
12. VALVE MV2 CLOSES AND TIME DELAY TD4 STARTS.
13. WHEN TD4 IS COMPLETE, DISPENSING UNIT B IS PRESSURIZED.
14. THE CYCLE IS COMPLETE

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



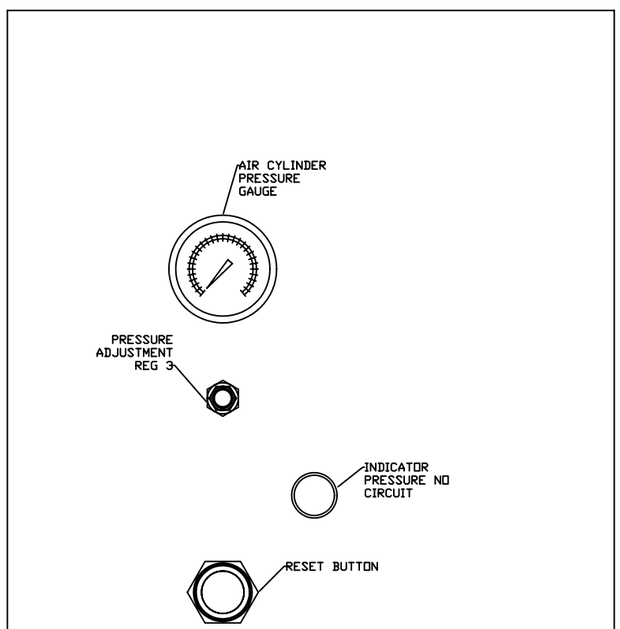
BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED
TOLERANCES UNLESS SPECIFIED: DECIMAL XX ±.01, XXX ±.005, XXXX ±.0005; ANGLE ±0°-30'
DRAWN: MAZUR
CHK'D:
DATE: 02/06/05
SHT SZ: D
SCALE: 1:1

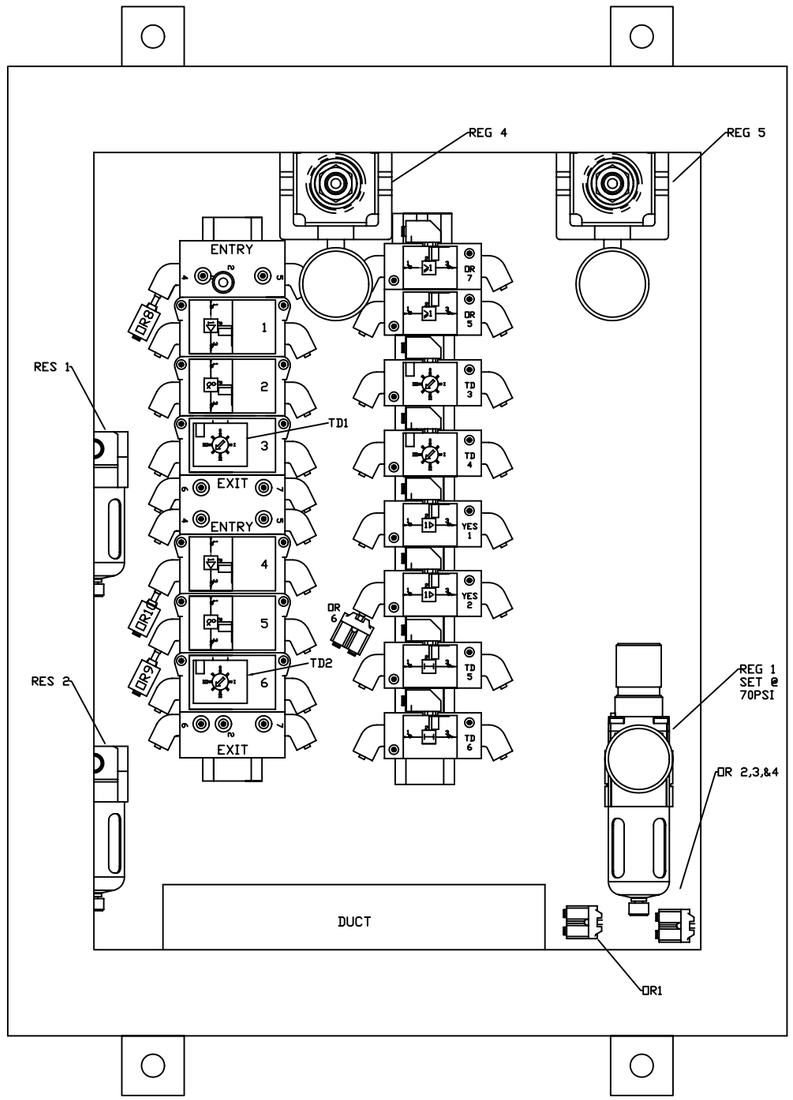
Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309

TITLE: 1KC MANUAL DISPENSE SYSTEM SINGLE REGULATOR

J.D.S. No. 1KC MANUAL
SHT 1 OF 2 REV. A
DWG No. 1KC MANUAL

OUTSIDE OF DOOR



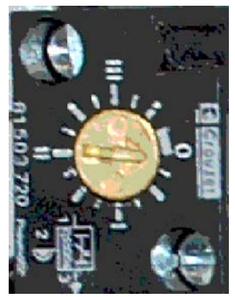


DEVICES AND WHAT THEY DO:

1. PAC VALVE 1 - OPENS REFILL VALVE AND CLOSES DISPENSE VALVE CYL. A.
2. PAC VALVE 2 - KEEPS REFILL VALVE CLOSED AND PRECHARGES CYL A.
3. PAC VALVE 3 (td1 timer) 0-30 SECOND TIMER. HOLDS THE A CYL. DISPENSE VALVE OPEN AND CYLINDER PRESSURE ON. ALLOWS FOR TIME REQUIRED FOR THE B CYLINDER TO START.
4. PAC VALVE 4 - OPENS REFILL VALVE AND CLOSES DISPENSE VALVE CYL. B.
5. PAC VALVE 5 - KEEPS REFILL VALVE CLOSED AND PRECHARGES CYL B.
6. PAC VALVE 6 (td2 timer) 0-30 SECOND TIMER. HOLDS THE B CYL. DISPENSE VALVE OPEN AND CYLINDER PRESSURE ON. ALLOWS FOR TIME REQUIRED FOR THE A CYLINDER TO START.
7. TD3 (0-30 SEC.) ALLOWS THE REFILL VALVE TO CLOSE BEFORE THE A CYL. IS PRESSURIZED.
8. TD4 (0-30 SEC.) ALLOWS THE REFILL VALVE TO CLOSE BEFORE THE B CYL. IS PRESSURIZED.
9. TD5 (NON-ADJUSTABLE .4SEC) PREVENTS THE REFILL VALVE AND DISPENSE VALVE FROM OPENING AT THE SAME TIME.
10. TD6 (NON-ADJUSTABE .4 SEC) PREVENTS THE REFILL VALVE AND DISPENSE VALVE FROM OPENING AT THE SAME TIME.
11. R1 LOGIC CONTROL REGULATOR SET TO 70 PSI.
12. R3 AIR CYLINDER PRESSURE - CONTROLS DISPENSE PRESSURE.
13. RESET BUTTON - IF AIR LOGIC PAC VALVES ARE OUT OF SEQUENSE WILL RESET THEM.

INITIAL SETTINGS:

1. R1 SET TO 70 PSI.
2. R3 RANGE 20 TO 100 PSI. SETS MATERIAL PRESSURE.
3. TD1 & TD2 SETTING 1/2 OF A MARK (SEE PICTURE 1)
4. TD3 & TD4 SETTING 1 MARK (SEE PICTURE 2)

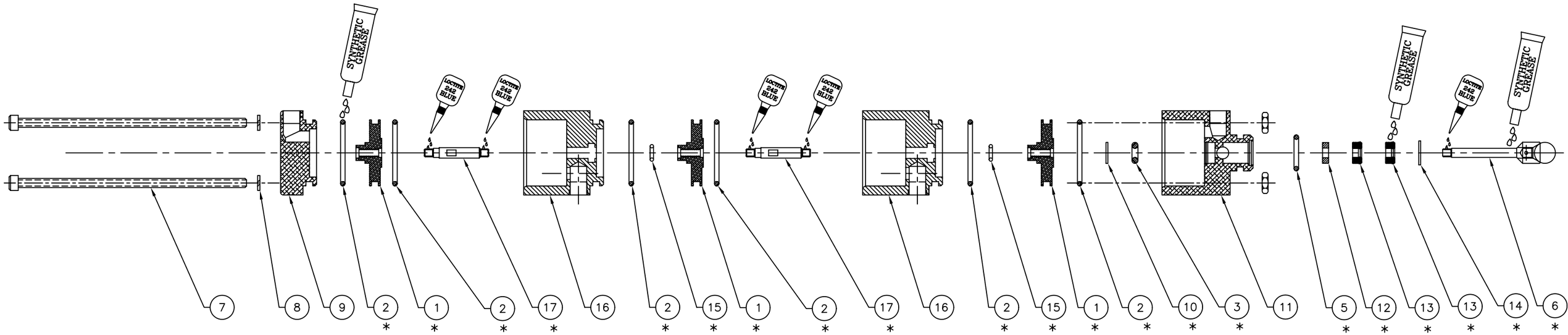


PICTURE 1

PICTURE 2

BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED		Johnstone DISPENSING SYSTEMS	1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309
TOLERANCES UNLESS DECIMAL XX ±.01 XXX ±.005 XXXX ±.0005	SPECIFIED ANGLE ±0.0°-30'	TITLE: 1K MANUAL PNEUMATIC CONTROL BOX	J.D.S. No. 1KC MANUAL
DRAWN: MAZUR	SHT SZ: D		SHT 2 OF 2 REV. A
CHK'D	SCALE: 1:1		DWG No. 1KC MANUAL
DATE: 02/6/05			

REV.	DESCRIPTION	BY	DATE
A	FIRST RELEASE	JJT	3/11/0



* 120–304TRK REPAIR KIT

	DET.	QTY	PART NUMBER	DESCRIPTION
*	17	2	403–881	MODULAR VALVE INTERMEDIATE STEM
	16	2	402–999AD	DUAL CYLINDER HOUSING
*	15	2	360–469	O RING BUNA 7/32 X 13/32 X 3/32 REF107
*	14	1	363–321	RETAINING RING ø1/2"
*	13	2	363–367	POLYPAK SEAL ø.190 X ø.438
*	12	1	403–411	SEAL SPACER
	11	1	402–999A	CYLINDER HOUSING
*	10	1	363–320	RETAINING RING ø7/16"
	9	1	403–000	CYLINDER CAP
	8	4	361–904SS	LOCK WASHER HI–COL. #10 SS
	7	4	364–491	S.H.C.S. #10–24 X 4.75" LG.
*	6	1	403–882	MODULAR VALVE STEM
*	5	1	360–012	"O"–RING VITON 9/16 X 3/4 X 3/32 REF113
	4	4	361–739	HEX NUT #10–24
*	3	1	362–718	"O"–RING VITON 3/16 X 7/16 X 1/8 REF201
*	2	6	360–208	"O"–RING VITON 1 3/16 X 1 3/8 X 3/32 REF123
*	1	3	403–880	PISTON

LUBRICATION NOTE:
ALL "O"–RINGS, SEALS AND CYLINDER WALLS TO BE LUBRICATED WITH MOBIL–LYTH SYNTHETIC GREASE

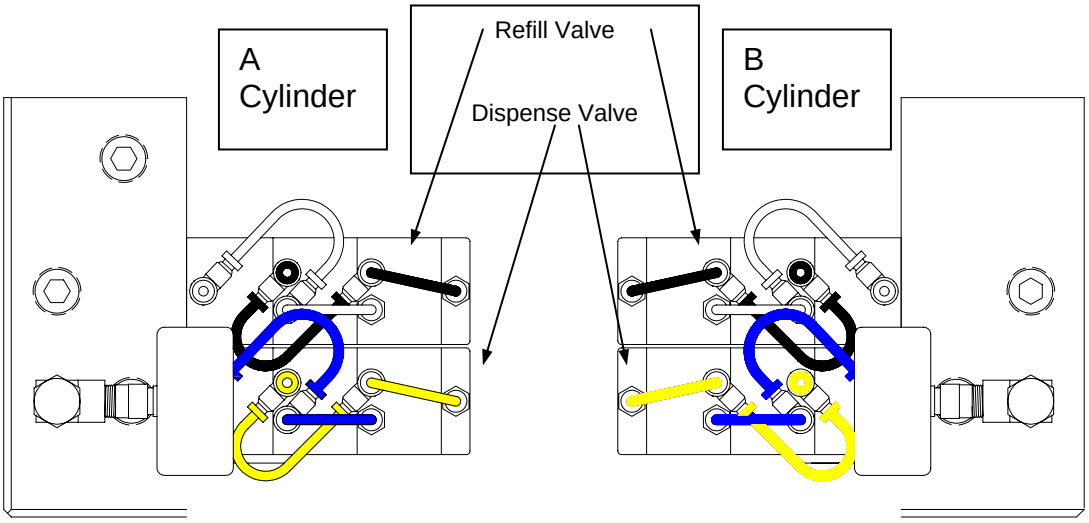
ASSEMBLY NOTE:
ALL THREADED COMPONENTS TO BE ASSEMBLED WITH LOCTITE BLUE #242

BREAK ALL SHARP CORNERS AND EDGES UNLESS NOTED
TOLERANCES UNLESS SPECIFIED: DECIMAL XX ±.01, XXX ±.005, XXXX ±.0005; ANGLE ±0.0°–30'

Johnstone DISPENSING SYSTEMS
1872 ENTERPRISE DR. ROCHESTER HILLS MICHIGAN 48309

DRAWN: JJT
CHK'D:
DATE: 3/11/04
SHT SZ: D
SCALE: 1:1
TITLE: TRIPLE PISTON VALVE SUBASSEMBLY
J.D.S. No.: 120–304T
SHT 1 OF 1 REV. A
DWG No.: 120–304T

120-304T Refill and Dispense Hose Routings



	MULTI-PINNED CONNECTOR		
DESCRIPTION	ADDRESS	LINE #	CONNECTOR #
"A" LIMIT SWTICH 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 SWITCHS AIR SUPPLY		2	2 BLUE

1KC PNEUMATIC ADJUSTMENTS

Initial Settings:

1. Set regulator R1 to 70 PSI.

2. Adjust regulator R3 to desired material pressure. (range 20 to 100 PSI)

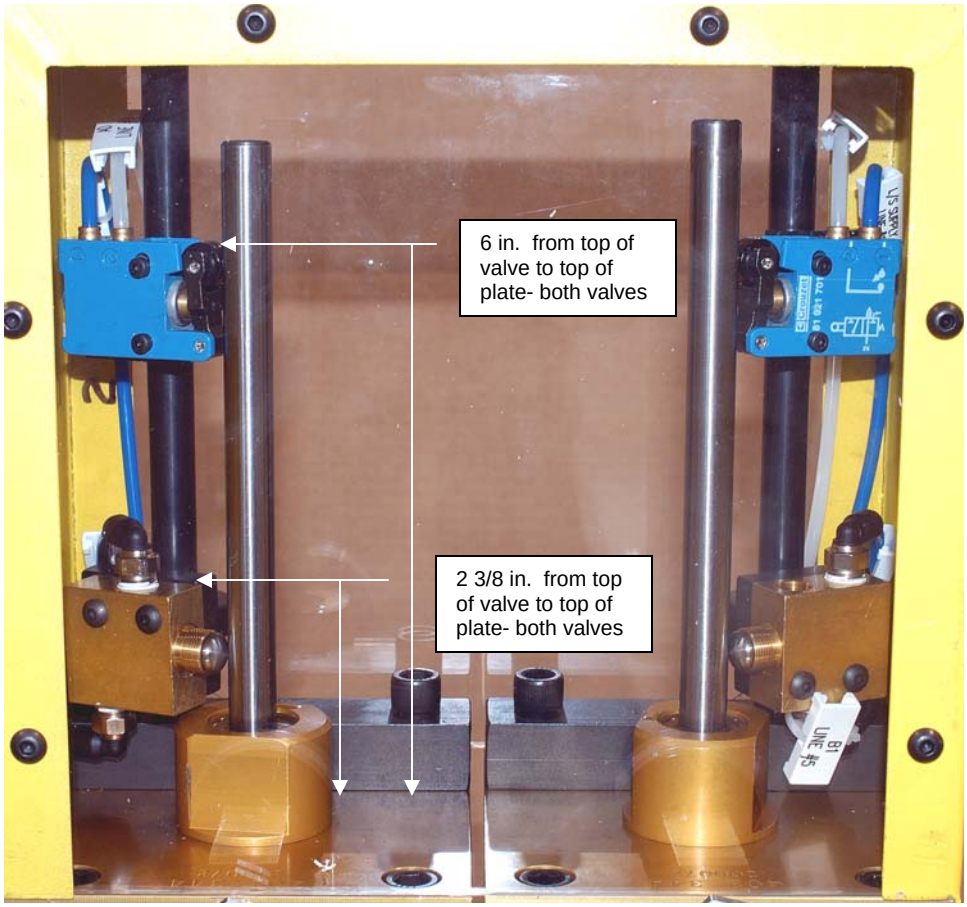
3. TD1 and TD2 timer settings ½ mark from the zero mark (see picture 1).

4. TD3 and TD4 timer setting 1 mark from the zero mark (see picture 2).

Picture 1

Picture 2

5. To adjust empty and full valve see picture below.



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Material Leakage Past Rod Seals	Seals are worn	Replace Seals in Seal Cartridge.
	Rod is worn or scored	Clean off or replace rod.
	Cured Material on Rod	Clean off or replace rod.
Material Leakage from Seal Cartridge	Loose Connecting Parts	Tighten four cartridge Bolts that attach the air cylinder to the Body.
	Cut or missing O-Ring	Disassemble using directions in this manual and replace O-Ring.
	Cracked Body	DISCONTINUE USE OF DISPENSER Replace Body immediately.
Material Leakage from Refill/Dispense Valve Bleeder hole	Valve Seals are worn	Replace Seals in Refill Valve.
	Valve Rod is worn or scored	Clean off or replace rod.
	Cured Material on Valve Rod	Clean off or replace rod.
Dispenser Not Refilling Properly	Low Material Pressure from Pumps	Raise the pump pressure
	Refill Valve malfunctioning	Rebuild or replace Refill Valve.
	Dispense rod binding or seal cartridge	Rebuild Air Cylinder and Seal Cartridge.
	Air logic valves not sequencing.	Depress Reset button to sequence valves.
	Empty or Full limit switches not adjusted or working	Readjust and check operation of limit valves.
Dispenser Not Dispensing	Dispense Valve malfunctioning	Rebuild or replace Dispense Valve.
	Dispense rod binding or seal cartridge	Rebuild Air Cylinder and Seal Cartridge.
	Air logic valves not sequencing.	Depress Reset button to sequence valves.
	Empty or Full limit switches not adjusted or working	Readjust and check operation of limit valves.
Pulsing Dispense Bead	Cylinder not refilling fast enough	Raise pump pressure
	Cylinder binding or sticking	Rebuild cylinder and seal cartridge.
	Limit valves not adjusted correctly	Readjust limit valves.
	Air timers not adjusted	Adjust Air timers TD1&2 (1/2 mark) TD3&4 (1 mark)
	Refill/Dispense valve sticking or leaking	Replace Refill/Dispense Valve
Low Flow of Material	Material has changed viscosity	Change system parameters to account for change.
	Tip is plugging	Clean out or replace Dispense Tip.
	Air cylinder pressure not high enough	Adjust air cylinder pressure regulator
High Flow of Material	Material has changed viscosity	Change system parameters to account for change.
	Tip is worn	Replace Dispense Tip.
	Air Cylinder Pressure to High	Adjust Air Cylinder Pressure Regulator.