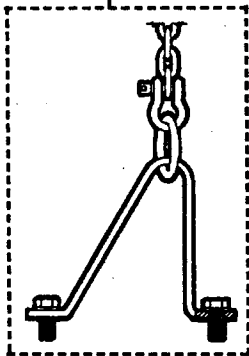
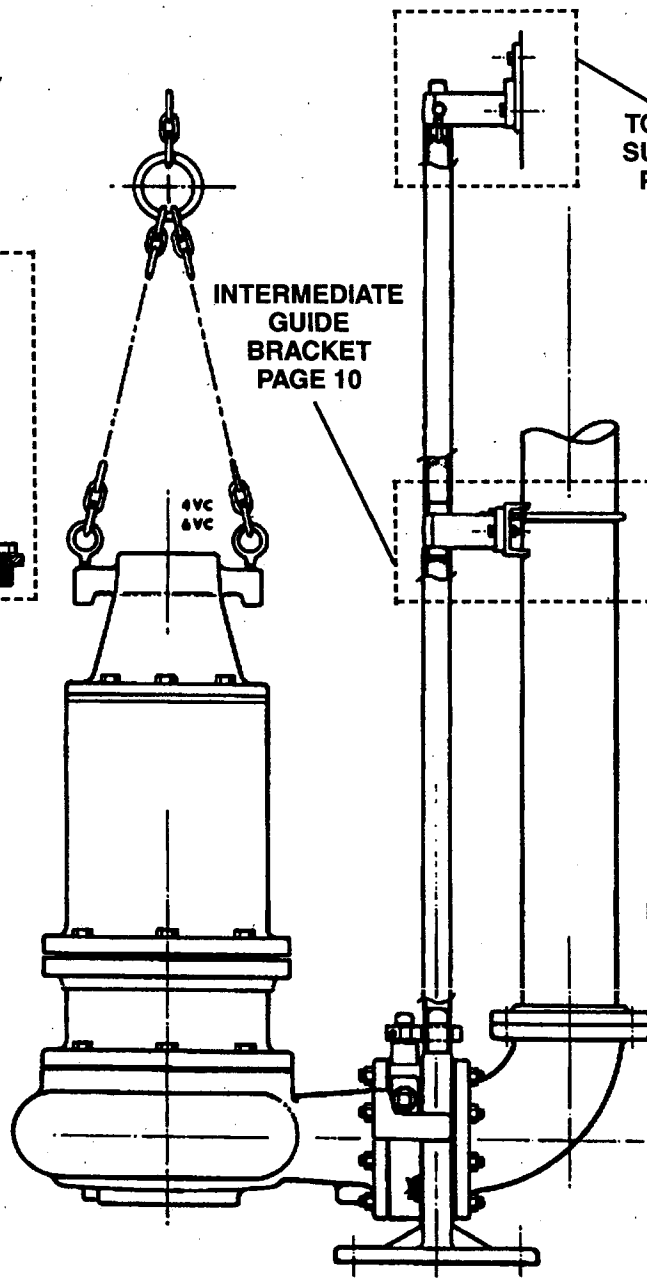


4" & 6" Lift-Out Installation Manual with Repair Parts List

BAIL ASSEMBLY
AND CHAIN
PAGE 9



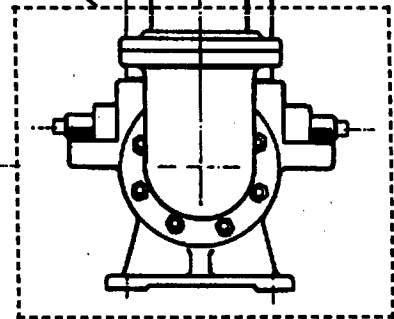
INTERMEDIATE
GUIDE
BRACKET
PAGE 10



TOP RAIL
SUPPORT
PAGE 8

SIDE
MOUNT
RAIL
SUPPORT
PAGE 11

LIFT-OUT
RAIL
SYSTEM
PAGE 5 or 6



These instructions cover the installation of 4" and 6" lift-out rail assemblies for 4R, 4V, 4VH, 6VH, 4VC, 6VC, 4RC, 4VE and 4VL pumps.

CAUTION

IN THE INITIAL INSTALLATION, BEFORE SEWAGE IS ADMITTED TO WET WELL, THERE IS NO DANGER ON ENTERING THE SUMP, BUT AFTER SEWAGE HAS BEEN IN THE SUMP THERE IS DANGER. SEWAGE WATER GIVES OFF METHANE AND HYDROGEN SULFIDE GASES, BOTH OF WHICH ARE HIGHLY POISONOUS. NEVER ENTER WET WELL UNLESS COVER IS OPEN AND AN OUTSIDE BLOWER IS USED TO FORCE FRESH AIR INTO THE WET WELL. ALSO, THE MAN IN THE WET WELL SHOULD WEAR A HARNESS - WITH ROPE TO THE SURFACE - SO THAT HE CAN BE PULLED OUT IN CASE OF ASPHYXIATION. ONE MAN SHOULD NOT WORK ALONE.

VALVES

It is recommended that all check valves and shut-off valves be mounted outside the sump in a valve box. See Typical drawing, Figure 1.

Shutoff valves should be of the water works approved type with resilient rubber disk seat.

BASIN BOTTOM

All cement pipe basins must have a smooth level troweled bottom for level mounting of discharge casting.

BASIN COVERS

Basin hatch type covers are made in either aluminum or steel and for mounting on a concrete basin top or on an aluminum or steel basin cover. When hatch cover is to be mounted on concrete top, it is generally poured in place with the concrete top. Pin lugs are provided to hold the cover in place. Bolts for mounting top rail support are screwed through the cover flange angles from the back side. This allows the bolts to be cemented in with basin top. All bolts are stainless steel and nuts are provided for securing the brackets. See Figure 6. If other than Myers hatch covers are used, dimensions must be similar to the Myers hatch drawing shown, Figure 6. Cover should be drilled and tapped at dimensions shown, Figure 6, and stainless steel bolts installed for mounting top rail support guide brackets. When complete basin cover is steel or aluminum, the cover is secured to concrete basin wall with expansion bolts.

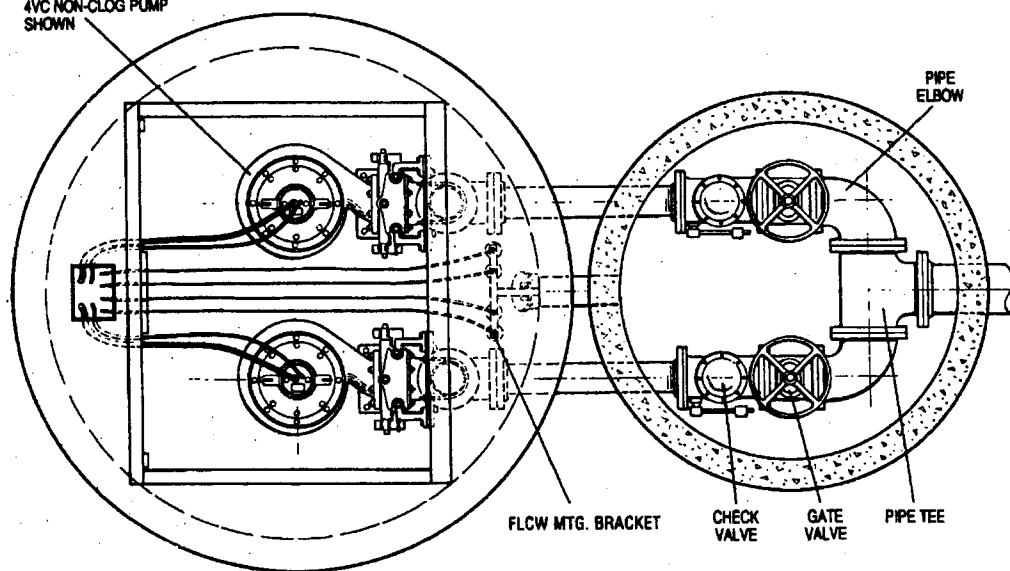
INSTALLING RAIL SYSTEM PARTS

(FIGURE 2 OR FIGURE 2A)

MOUNTING COVER, DISCHARGE BASE, AND RAILS

1. Set concrete cover with hatch opening in position.
2. Bolt top rail support plates, Figure 3, to hatch frame. Stainless steel bolts are screwed through frame angles when shipped and nuts are provided to hold the plate. Pipe support have vertical slots so that they can be adjusted for final fit on rails. The plate has slots so the two plates in a duplex system can be adjusted to obtain required center-to-center distance between pumps.
3. Lower the base or base/elbow assembly into the basin.
4. Position the base elbow assembly by dropping a plumb line from center of pipe supports, located on top rail support plate, to center of tapered pins protruding from the top of the base elbow assembly. Level the elbow flange in two directions, 90° to each other. Shims may be required under the base in order to obtain this level condition. Mark the position of the base hold down bolts through the holes in the base.
5. Move the base aside to allow drilling of the concrete for 3/4" expansion bolts, 2 1/2" long. Move the base over the bolt holes and recheck with level and plumb line. Install expansion bolts.
6. Cut the pipe guide rails to the proper length and install them between the pipe supports at the top of the basin and the pins on the base. Guide rails are Schedule 40 galvanized or stainless steel.
7. Install discharge pipe as required by the particular job specifications. If one larger size discharge pipe is required, such as 6" pipe on a 4" pump, a reducing elbow can be provided.
IMPORTANT: DISCHARGE PIPE AND GUIDE RAILS MUST BE PARALLEL IF INTERMEDIATE GUIDE BRACKET IS USED.
8. If the top rail support plate cannot be attached to the hatch cover frame, a special rail bracket, Figure 5, can be furnished for mounting directly to a pipe cemented in the basin wall. This bracket is set and aligned with discharge base the same as described for the rail guide plate attached to the frame.

4VC NON-CLOG PUMP
SHOWN



TYPICAL INSTALLATION FOR DUPLEX

DISCHARGE PIPING AND OUTSIDE VALVE BOX
CONCRETE BASIN - ALL PUMP TYPES

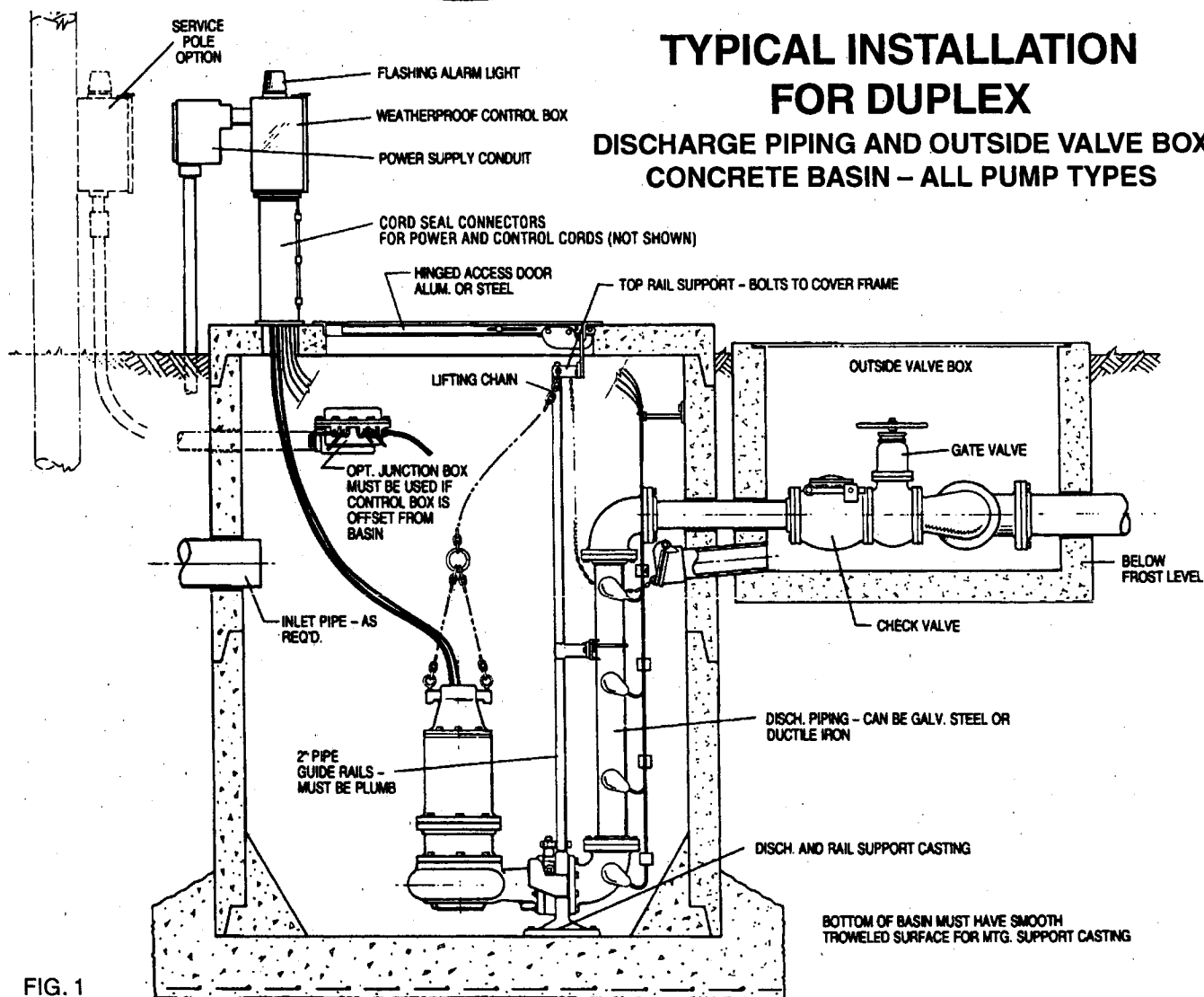


FIG. 1

INSTALLING INTERMEDIATE GUIDE BRACKET

(FIGURE 4)

GUIDE RAIL LENGTH	IGB REQUIRED
21 Ft. or less	0
21 Ft. to 40 Ft.	1
Over 40 Ft.	2

1. Remove guide rails, Figure 2 or 2A, and cut a piece from each one. These pipes must be exactly the same length and of a length that will permit installing the intermediate guide bracket in the desired location.
2. Place the cut pieces of pipe over the guide rail pins located in the base.
3. Set the intermediate guide bracket in position with tapered guides into pipes. Put U-bolt around discharge pipe and tighten lightly.
4. Measure from joint on tapered plug on intermediate guide bracket to joint of tapered plug on top rail support and cut two rails to this length. Put rails in place and tighten screws in top rail support. Holes are slotted to adjust for any error in rail pipe length.
5. Recheck rails; they must be straight and plumb. Move intermediate guide bracket if necessary to perfectly align rails. Spacers may be added or removed from the intermediate guide bracket to obtain alignment. After alignment is secured, tighten nuts on U-bolt.
6. If a second intermediate guide bracket is used, the above procedure is followed for installation.

ATTACHING MOUNTING PLATE TO PUMP

1. With a gasket between the mounting plate and pump discharge, attach the mounting plate with the studs and nuts supplied. See Figure 2 or 2A. The mounting plate should be turned so that two pins are horizontal and one pin vertical - pointing up.

INSTALLING PUMP AND MOUNTING PLATE

1. Check pump rotation if 3 phase. Connect power cords to pump control panel and lay pump on its side so impeller can be seen. Turn all switches to "off" position.
2. Close main circuit breaker, then jog manual switch to ON and then OFF. Note rotation of impeller. Impeller must turn counterclockwise when looking into the inlet of the impeller. If rotation is wrong, interchange any two line leads to the motor. **BE SURE MAIN BREAKER IS OFF WHEN THIS CHANGE IS MADE. MARK WIRES SO THEY CAN BE REPLACED IN THE SAME ORDER.**

3. Attach lifting chains to pump. This is done by installing two eye bolts provided with lifting chain. The short leg of chain is installed on discharge flange side of pump.

WARNING! Do not exceed working load limit of chains and other lifting devices. Do not use chains or lifting devices where failure could result in loss of life. Examine chains and lifting devices for deformation or damage before and after each lift.

4. A hook is located on the top rail support, Figure 3, to hold the upper end of the chain when not in use.
5. Mount the guide plate, Figure 2 or 2A, on the vertical pin of the mounting plate. Vertical pin should not be tight; it should be permitted to turn about 1/2 turn. Tighten the two set screws.
6. Position the pump so the guide rails are located in the slots of the guide plate. Slowly lower the pump down the guide rails to the base. Lower the pumps until the locating pins (horizontal pins on the mounting plate) seat on the inclined surface of arms on the base.
7. The pump is now properly positioned for operation.

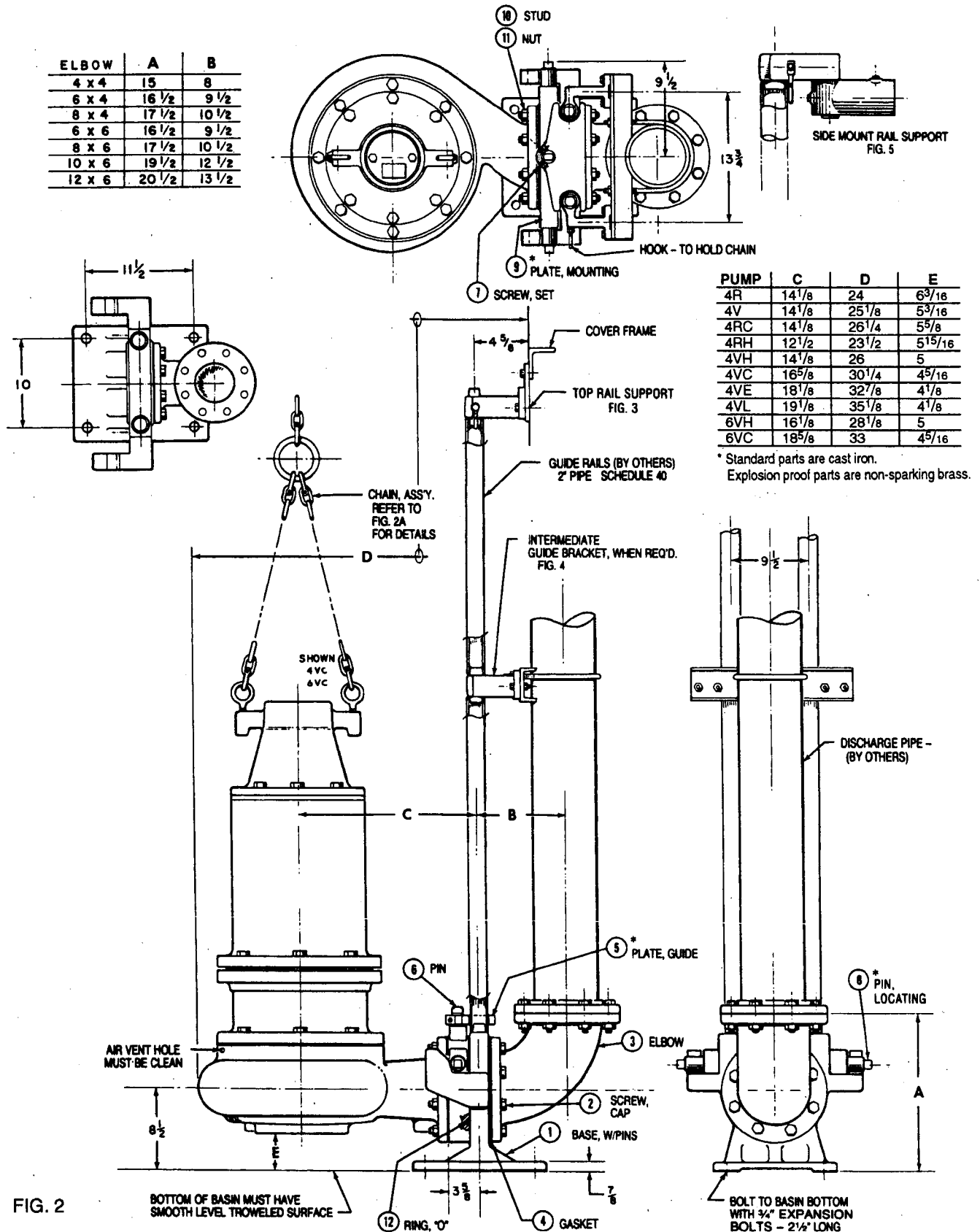
FLOAT SWITCH INSTALLATION, FIGURE 1

1. Level Controls are held by support-bracket and cords are adjusted for proper depth.
 - a. Lower Turn-Off Control should be set so that pump stops when water level is about at the top of the volute.
 - b. First Turn-On Control is set to start pump when level is at height specified above pump.
 - c. Second Turn-On Control of a duplex pump system is set at height specified above first Turn-On Control.
 - d. Alarm control is set about 6" to 12" above the highest Turn-On Control.
 - e. No Control should be set above basin inlet invert or in front of inlet.
 - f. Pump is now completely operational.

AIR VENTING

Air tends to trap in the pump volute when water rises in the sump or when the pump is lowered into water after service. To vent off this air, a small hole is drilled into the pump volute, Figure 2 or 2A. **BE SURE THIS VENT HOLE IS CLEAN AFTER ANY SERVICE WORK ON PUMP.** Air venting is not a problem after initial start.

ELBOW	A	B
4 x 4	15	8
6 x 4	16 1/2	9 1/2
8 x 4	17 1/2	10 1/2
6 x 6	16 1/2	9 1/2
8 x 6	17 1/2	10 1/2
10 x 6	19 1/2	12 1/2
12 x 6	20 1/2	13 1/2



REF. NO.	DESCRIPTION	PART NO.	NUMBER REQUIRED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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1	Base, w/Pins, Ductile Iron 4"	25068D000	1	1	1	1														1	1	1	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

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 SRA6 25136F000
 SRA6 25136F001
 SRA6 25136F002
 SRA610 25136F003
 SRA612 25136F004
 SRA4RV, VH 25135F010
 SRA44RV, VH 25135F011
 SRA46RV, VH 25135F012
 SRA48RV, VH 25135F013
 SRA6VH 25136F010
 SRA66VH 25136F011
 SRA68VH 25136F012
 SRA610VH 25136F013
 SRA612VH 25136F014
 SRA4VC 25135F020
 SRA44VC 25135F021
 SRA46VC 25135F022
 SRA48VC 25135F023
 SRA6VC 25136F020
 SRA66VC 25136F021
 SRA68VC 25136F022
 SRA610VC 25136F023
 SRA612VC 25136F024

CHAIN ASSEMBLY

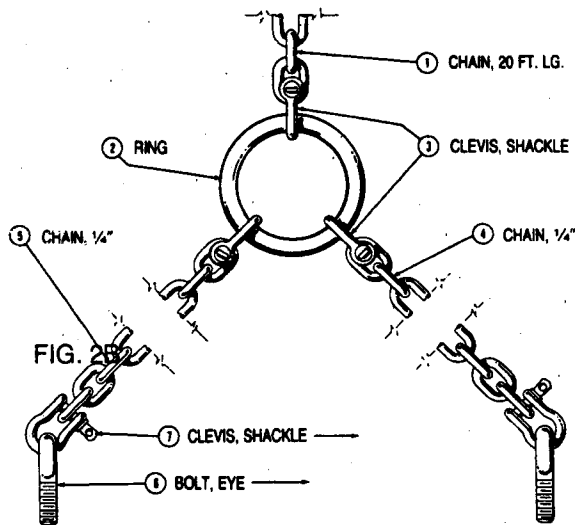


FIG. 2B

This side toward volute.

REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.	
			CP 1	CP 2
1	Chain w/Rings, Galv. St. 1/4" x 20 Ft. Long	23531A002	1	1
2	Ring, Galv. St. 3 I.D. x 1/2" Dia.	23532A001	1	1
3	Clevis, Galv. St. 5/16" Screw Type	22417A002	5	3
4	Chain, Galv. St. 1/4" x 16 5/8" Long	07741A058	1	1
5	Chain, Galv. St. 1/4" x 18 1/4" Long	07741A059	1	1
6	Bolt, Eye, Galv. St. 1/2"-13 Thr'd.	21929A003	2	
6	Bolt, Eye, Galv. St. 3/4"-10 Thr'd.	21929A005		2
7	Clevis, Galv. St. 7/16" Screw Type	22417A004		2

TOP RAIL SUPPORT

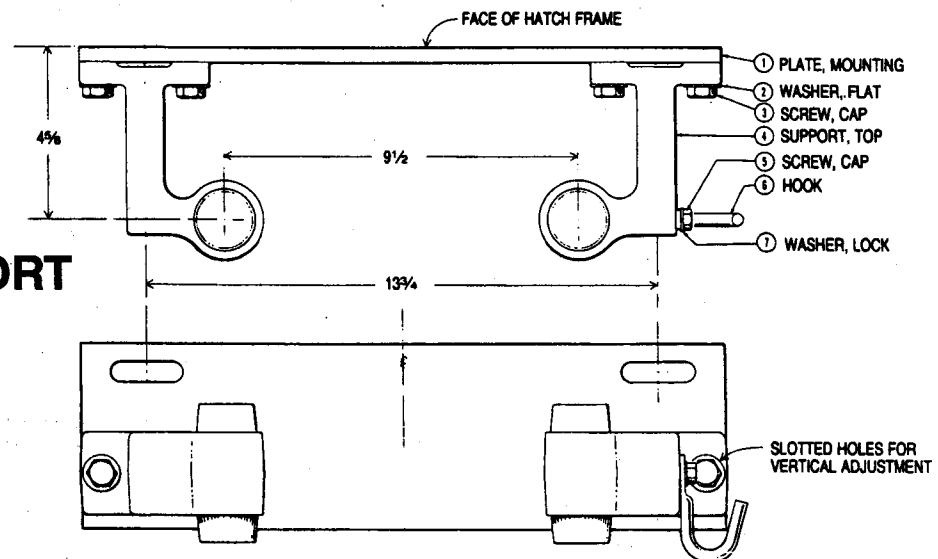
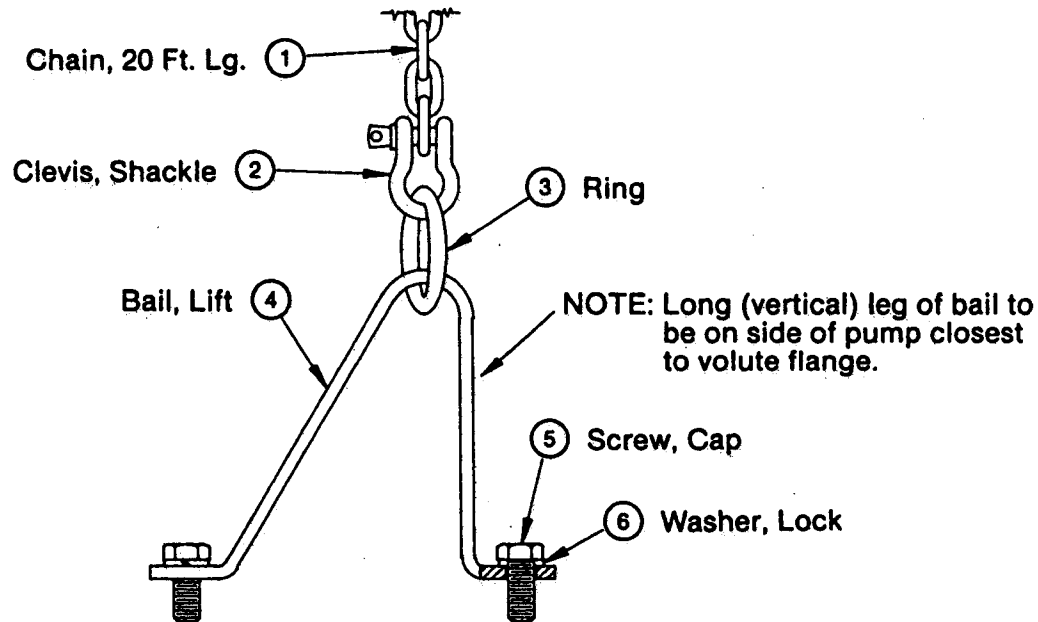


FIG. 3

REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.	
			TRB-20	24981D000
1	Plate 5" x 17 1/4" x 3/8"	23830C000	1	
2	Washer, Flat, SST	05030A196	4	
3	Screw, Cap, SST 7/16"-14 x 1 1/4"	19102A020	4	
4	Support	24968C000	2	
5	Screw, Cap, SST 5/16"-18 x 3/4" Long	19100A004	1	
6	Hook, SST	23788A001	1	
7	Washer, Lock SST	05454A014	1	

BAIL ASSEMBLY AND CHAIN



REF. NO.	DESCRIPTION	PART NO.	NUMBER REQUIRED							
			CP-10 25193A010	CP-20 25193A020	CP-30 25193A030	CP-40 25193A040	CP-0-SST 25193A011	CP-20-SST 25193A021	CP-30-SST 25193A031	CP-40-SST 25193A041
1	Chain w/Rings, Galv. St. 1/4" x 20 Ft. Long	23531A002	1	1	1					
1	Chain w/Rings, SST., 1/4" x 20 Ft. Long	23531A012					1	1	1	
1	Chain, 9/32 Galv. Alloy Ass'y.	25479A000				1				
1	Chain, 1/2 SST Ass'y.	25479A010								1
2	Clevis, Galv. St. 5/16" Screw Type	22417A002	1	1	1					
2	Clevis, SST., 5/16" Screw Type	22417A003					1	1	1	
3	Ring, Galv. St. 3" I.D. x 1/2" Dia.	23532A001			1					
3	Ring, SST., 3" I.D. x 1/2" Dia.	23532A002							1	
4	Bail, Lifting 4V, 4R Pumps, SST.	25371B000	1				1			
4	Bail, Lifting, 4VH, 6VH Pumps, SST.	25371B001		1				1		
4	Bail, Lifting, 4RC, 4VC, 4VE, 6VC Pumps, SST.	25371B003			1				1	
5	Screw, Cap Hex., SST. 1/2-13UNC x 1 1/4" Long	19103A052	1	1			1	1		
5	Screw, Cap Hex., SST. 3/4-10UNC x 1 3/4" Long	19106A017			1				1	
6	Washer, Lock, SST., 1/2"	05454A016	1	1			1	1		
6	Washer, Lock, SST., 3/4"	05454A030			1				1	

INTERMEDIATE GUIDE BRACKET

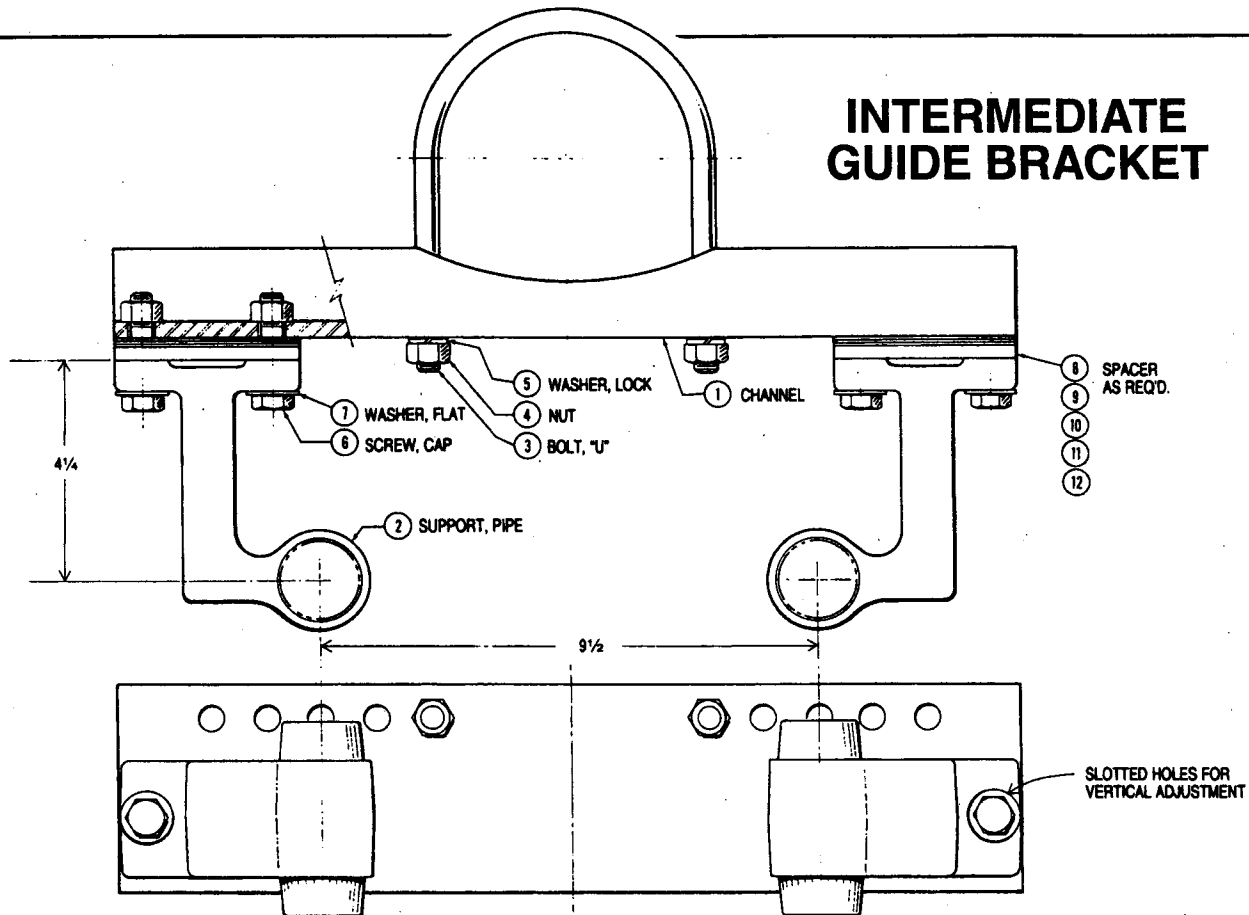


FIG. 4

REF. NO.	DESCRIPTION	PART NO.	NUMBER REQUIRED							
			IGB 2-4-4 CI 24968D000	IGB 2-4-4 ST 24968D001	IGB 2-4-6 CI 24968D002	IGB 2-4-6 ST 24968D003	IGB 2-4-8 CI 24968D004	IGB 2-4-10 CI 24968D005	IGB 2-4-12 CI 24968D006	
1	Channel 4" x 7.25 x 17 1/4" Long	24967D000	1	1	1	1	1	1	1	
2	Support, Pipe	24968C000	2	2	2	2	2	2	2	
3	U-Bolt, 7/16" Dia. SST	16731A011	1	1						
3	U-Bolt, 7/16" Dia. SST	16731A018			1	1				
3	U-Bolt, 7/16" Dia. SST	16731A019					1			
3	U-Bolt, 7/16" Dia. SST	16731A020						1		
3	U-Bolt, 7/16" Dia. SST	16731A021							1	
4	Nut, SST 7/16"-14	19109A081	6	6	6	6	6	6	6	
5	Washer, Lock, SST	05454A024	2	2	2	2	2	2	2	
6	Screw, Cap, SST 7/16"-14 x 2" Long	19102A022	4	4						
6	Screw, Cap, SST 7/16"-14 x 2 1/4" Long	19102A023			4		4			
6	Screw, Cap, SST 7/16"-14 x 3 1/4" Long	19102A025						4	4	
6	Screw, Cap, SST 7/16"-14 x 2 1/2" Long	19102A026				4				
7	Washer, Flat SST	05030A196	4	4	4	4	4	4	4	
8	Spacer, 18 Gauge Thick	24969A000		4	6	4		2		
9	Spacer, 16 Gauge Thick	24969A001		2	2			2	2	
10	Spacer, 10 Gauge Thick	24969A002					2			
11	Spacer, 1/4" Thick	24969A003	2	2	4	6	4	4	4	
12	Spacer, 1" Thick	24969A004						2	2	

SIDE MOUNT RAIL SUPPORT

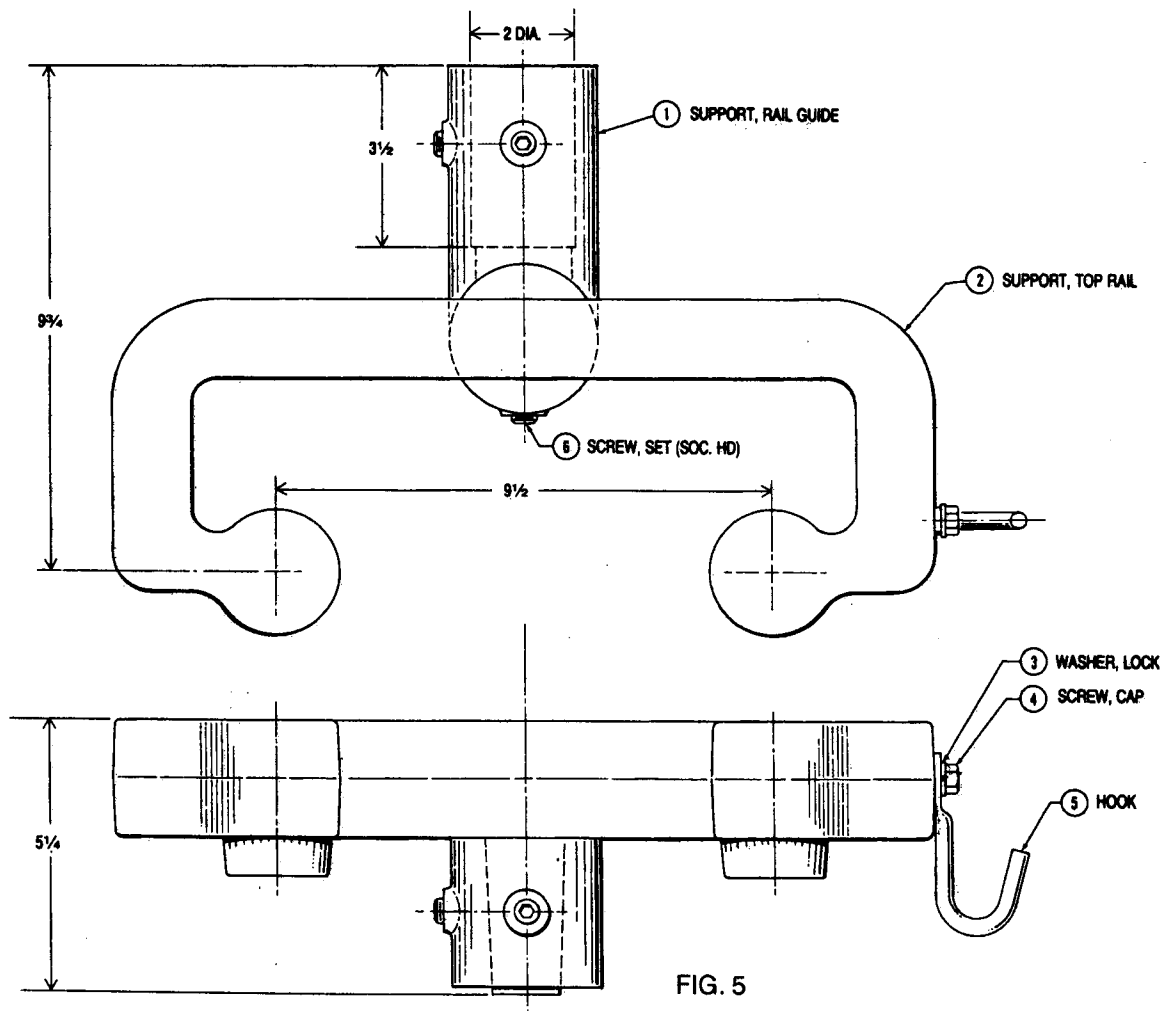


FIG. 5

			SMRS-2 24982D000
REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.
1	Support, Rail Guide	226118000	1
2	Support, Top Rail	24983D000	1
3	Washer, Lock, SST	05454A014	1
4	Screw, Cap, SST 5/16"-18 x 3/4" Long	19100A004	1
5	Hook, SST	23788A001	1
6	Screw, Cap, Socket Head SST 7/16"-14 x 5/8" Long	06024A010	4

TYPICAL DIMENSIONS FOR BASIN HATCH WHEN MOUNTED IN CONCRETE – ALSO WITH OPTIONAL STEEL COVER

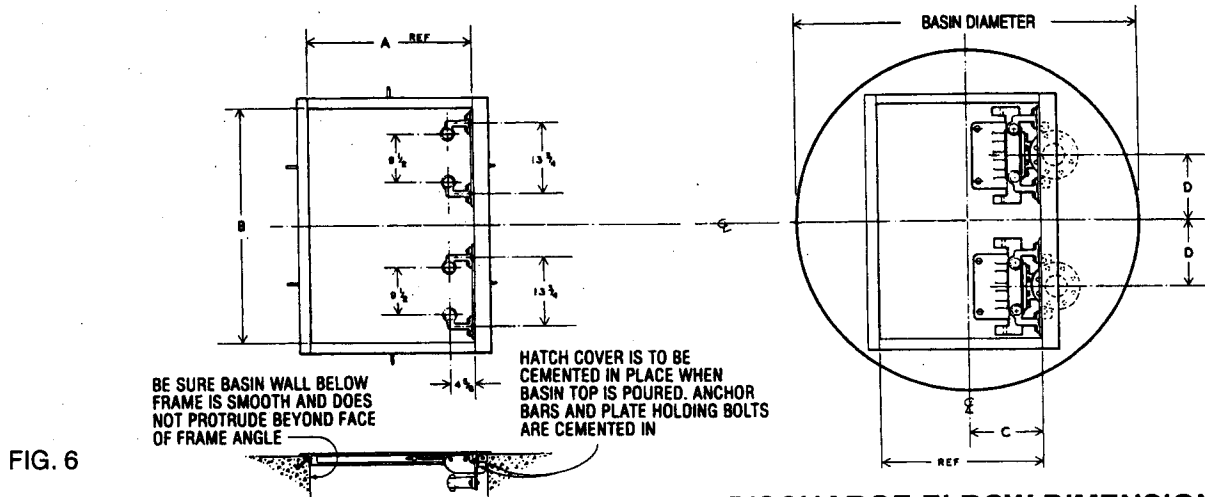


FIG. 6

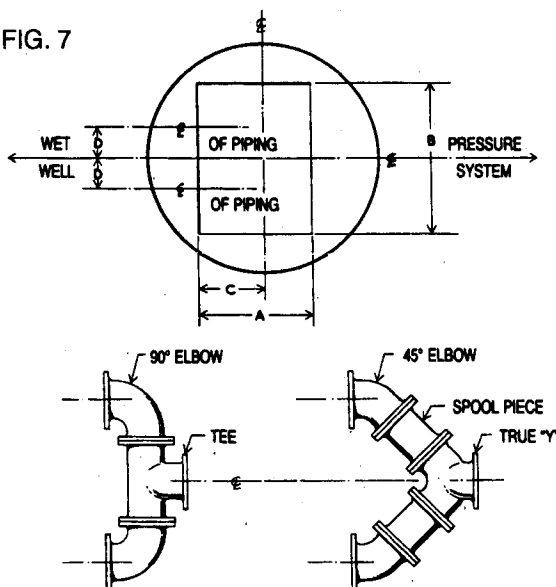
DISCHARGE ELBOW DIMENSIONS

Basin Diameter	D	Pump	90° Elbow	Discharge Pipe	A & B Hatch	C Hatch Offset
60	13	4R 4V 4VH/4RH	4 x 4	4	30 x 48	12
72	13	4VL	4 x 4	4	36 x 54	18
72	13	4R 4V 4VH/4RH 6VH	6 x 4 6 x 6	6	30 x 48	12 ^{7/8}
72	13	4RC/4VC/4VE	6 x 4	6	36 x 48	12 ^{7/8}
72	13	6VC	6 x 6	6	36 x 54	12 ^{7/8}
72	16	4R 4V 4VH/4RH 6VH	6 x 4 6 x 6	6	30 x 54	12 ^{7/8}
72	16	4RC/4VC/4VE	6 x 4	6	36 x 54	12 ^{7/8}
72	16	4R 4V 4VH/4RH 6VH	8 x 4 8 x 6	8	30 x 54	9 ^{3/4}
96	16	4VL	6 x 4 6 x 6	6	36 x 60	22
96	16	6VH	10 x 6	10	30 x 54	16 ^{1/4}
96	16	6VC	10 x 6	10	36 x 60	16 ^{1/4}
96	16	6VH	12 x 6	12	30 x 54	16 ^{1/4}
96	16	6VC	12 x 6	12	36 x 60	16 ^{1/4}

VALVE BOX DIMENSIONS

Valve Box Dia.	D	Valve Size	90° Elbow 2 Req'd.	Tee 1 Req'd.	45° Elbow 2 Req'd.	True "Y" 1 Req'd.	Spool-PC Length 2 Req'd.	A & B Hatch	C Hatch Offset
60	13	4	4 x 4	4 x 4 x 4				24 x 36	15
60	16	4	6 x 4	6 x 6 x 6				24 x 48	15
72	16	6	6 x 6	6 x 6 x 6				30 x 48	15
72	13	6			6	6	5 ^{1/4}	30 x 36	24
96	16	8			8	8	7 ^{1/4}	30 x 48	26 ^{3/4}

FIG. 7



Myers®

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 Myers (Canada), 269 Trillium Drive, Kitchener, Ontario N2G 4W5
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