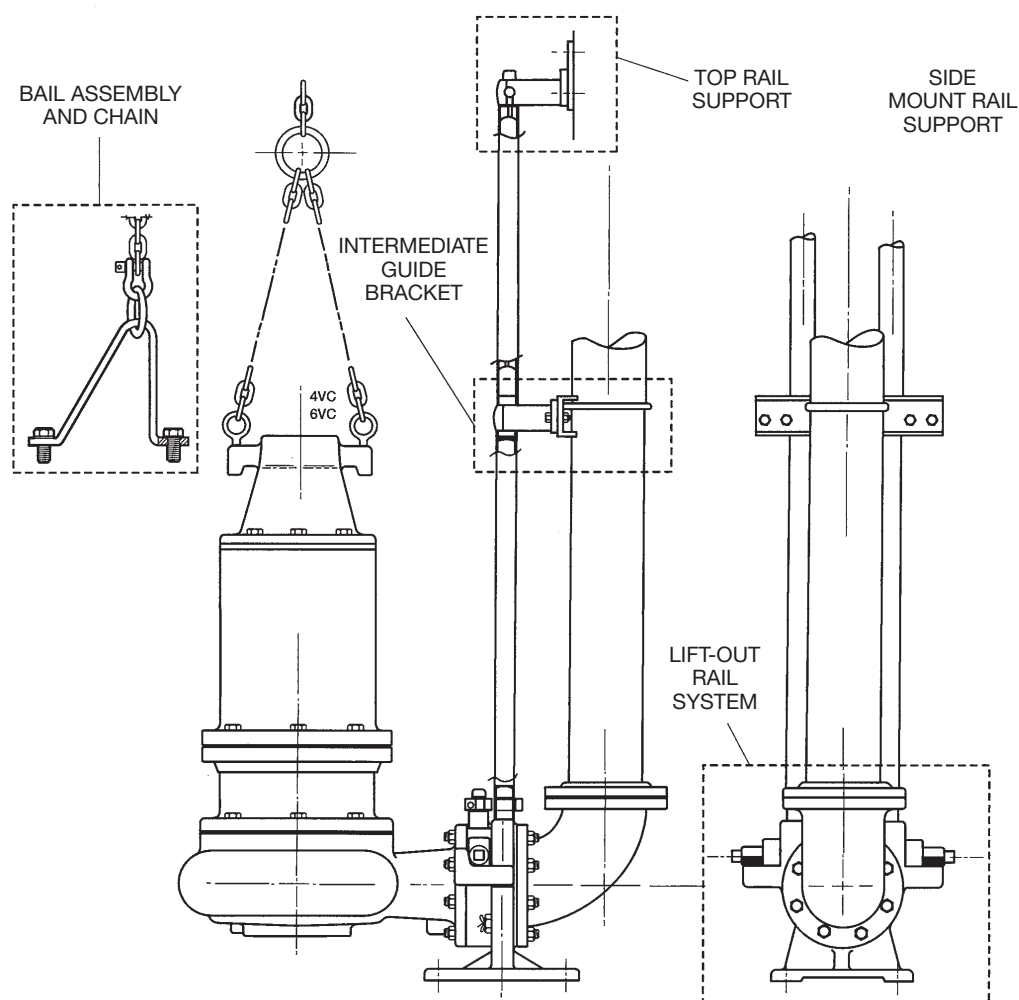




MYERS®



4" & 6" LIFT-OUT RAIL SYSTEMS

INSTALLATION MANUAL WITH REPAIR PARTS LIST

NOTE! To the installer: Please make sure you provide this manual to the owner of the equipment or to the responsible party who maintains the system.



CAUTION!

After the pump is installed and sewage has entered the basin, there is **DANGER**. Sewage water gives off methane and hydrogen sulfide gases which are poisonous. Never enter a wet well unless proper confined space entry procedures are followed.

CALIFORNIA PROPOSITION 65 WARNING:

⚠ WARNING This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

VALVES

It is recommended that all check valves and shutoff valves be mounted outside the sump – in a valve box. See Typical drawing. Shut-off 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 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. If other than Myers hatch covers are used, dimensions must be similar to the Myers hatch drawing shown. Cover should be drilled and tapped at dimensions shown, 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

Mounting Cover, Discharge Base and Rails

1. Set concrete cover with hatch opening in position.
2. Bolt top rail support plates, to hatch frame.
Stainless steel bolts are screwed through frame angles when shipped and nuts are provided to hold the plate. Pipe supports 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 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 top hatch cover frame, a special rail bracket, 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.

INSTALLING INTERMEDIATE GUIDE BRACKET

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

1. Remove guide rails, 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 in 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. 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 to 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, to hold the upper end of the chain when not in use.

5. Mount the guide plate, 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 relocated 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.

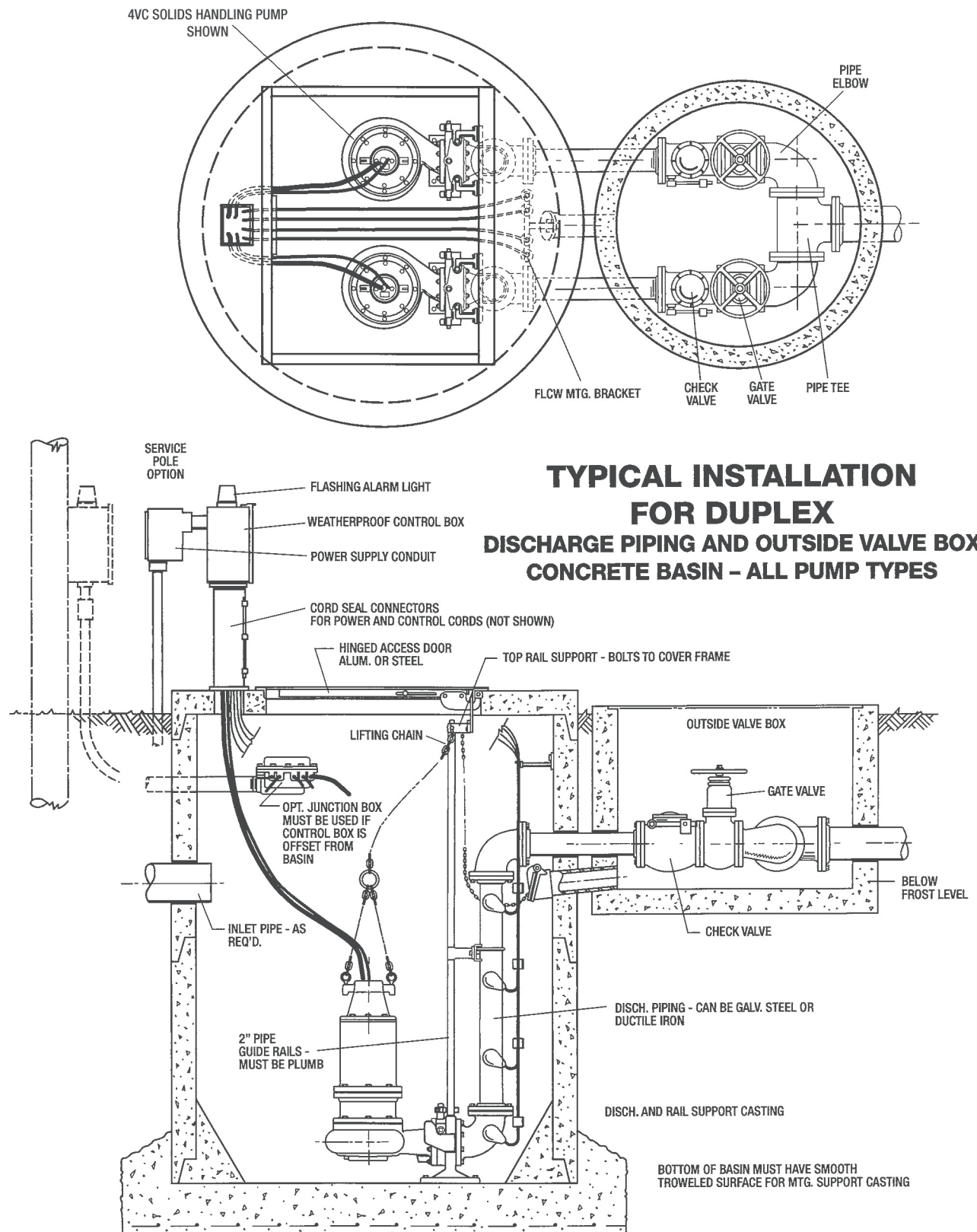
FLOAT SWITCH INSTALLATION

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. **BE SURE THIS VENT HOLE IS CLEAN AFTER ANY SERVICE WORK ON PUMP.** Air venting is not a problem after initial start.





Technical drawing showing a side view of a hook assembly and a detail view of the side mount rail support.

Labels and dimensions:

- 10 STUD
- 11 NUT
- 9 1/2
- 13 3/4
- HOOK - TO HOLD CHAIN
- *PLATE, MOUNTING
- SIDE MOUNT RAIL SUPPORT

* Standard parts are cast iron.
Hazardous location parts are non-sparking brass.

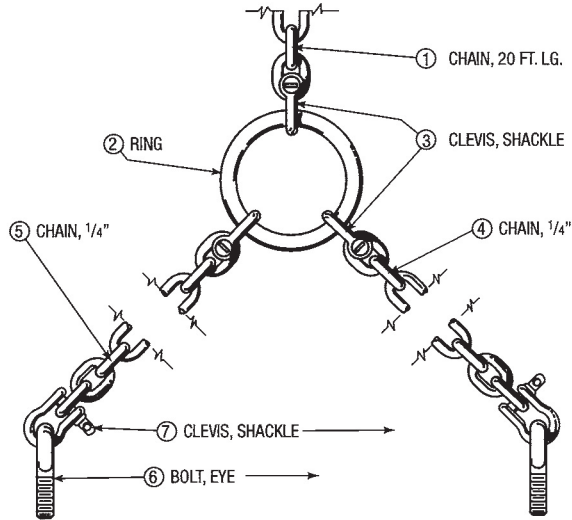


COMMON PARTS LIST

Ref. No.	Description	Part No.	SRA44HH	SRA44HH-LE	SRA46HH	SRA48HH	SRAM4HH	SRA44HH	SRA44HH-LE	SRA46HH	SRA48HH	SRAM44HH	SRA6-LE	SRA66	SRA68	SRA610	SRA612	SRA6X-LE	SRA666	SRA688	SRA610	SRA612
1	BASE W/PINS 4"	25068D002	1	1	1	1		1	1	1	1			1	1	1	1	1	1	1	1	1
1	BASE W/PINS 6"	25070D000										8										
2	CAP SCREW	19105A038																				
2	CAP SCREW	19105A036	8	8	8	8		8	8	8												
2	CAP SCREW	19106A018											8	8	8	8	8	8	8	8	8	8
3	4x4 ELBOW	23497A101	1					1														
3	4x6 ELBOW	25046A101			1					1												
3	4x8 ELBOW	25046A103				1					1											
3	6x6 ELBOW	23497A102												1					1			
3	6x8 ELBOW	25046A102													1					1		
3	6x10 ELBOW	25046A104														1					1	
3	6x12 ELBOW	25046A105															1					1
4	GASKET, NEOPRENE	05863A019	2	2	2	2	2	2	2	2	2	2										
4	GASKET, NEOPRENE	05863A020											2	2	2	2	2	2	2	2	2	2
5	GUIDE PLATE	25072C000	1	1	1	1	1						1	1	1	1	1					
5	GUIDE PLATE	25072C001						1	1	1	1	1						1	1	1	1	1
6	MOUNTING PLATE PIN	25073A001	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	SET SCREW	06024A010	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	LOCATING PIN	25073A002	2	2	2	2	2						2	2	2	2	2					
8	LOCATING PIN	25074A000						2	2	2	2	2						2	2	2	2	2
9	4" MOUNTING PLATE	25069D000																				
9	4" MOUNTING PLATE	25069D001																				
9	4" MOUNTING PLATE	25069D014	1	1	1	1	1															
9	4" MOUNTING PLATE	25069D016						1	1	1	1	1										
9	6" MOUNTING PLATE	25071D000											1	1	1	1	1					
9	6" MOUNTING PLATE	25071D001																1	1	1	1	1
10	STUD	05659A103	8	8	8	8	8	8	8	8	8	8										
10	STUD	05659A110											8	8	8	8	8	8	8	8	8	8
11	NUT	19109A082	8	8	8	8	8	8	8	8	8	8										
11	NUT	19109A080											8	8	8	8	8	8	8	8	8	8
12	O-RING	05876A126	1	1	1	1	1	1	1	1	1	1										
12	O-RING	05876A128											1	1	1	1	1	1	1	1	1	1



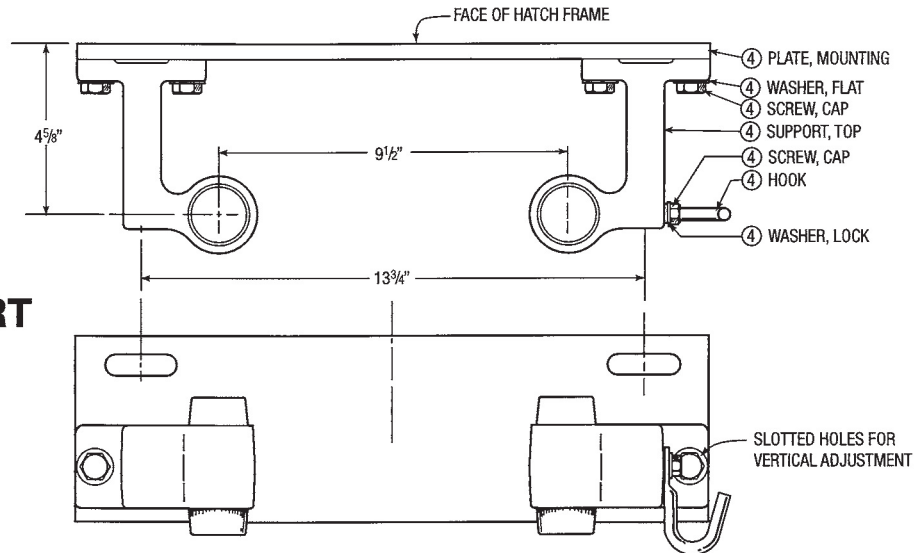
CHAIN ASSEMBLY



				CP 1 25193A000	CP 2 25194A000
REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.		
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	

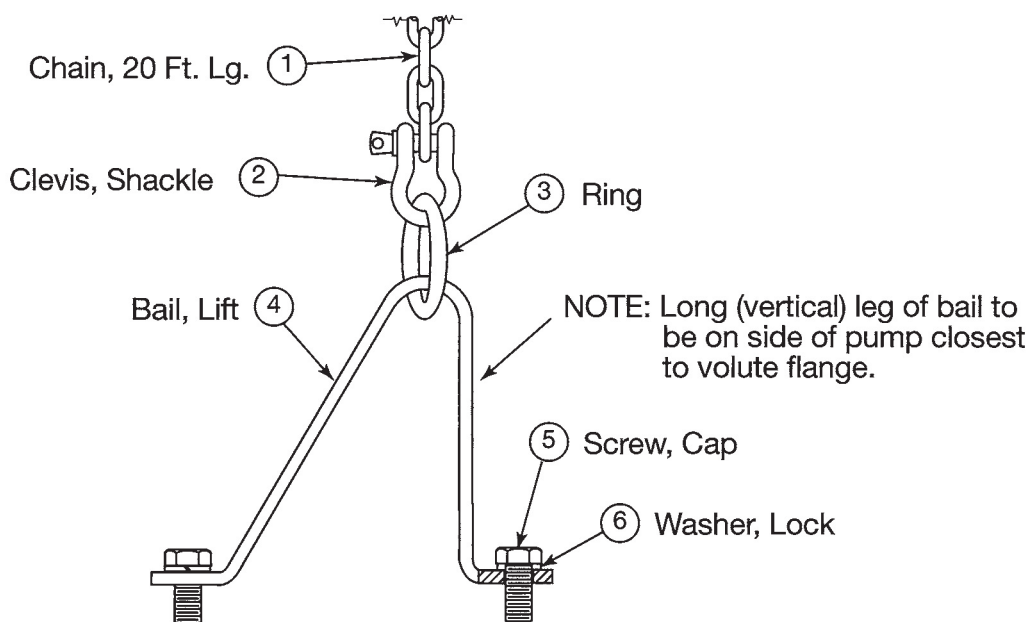
This side
toward volute.

TOP RAIL SUPPORT



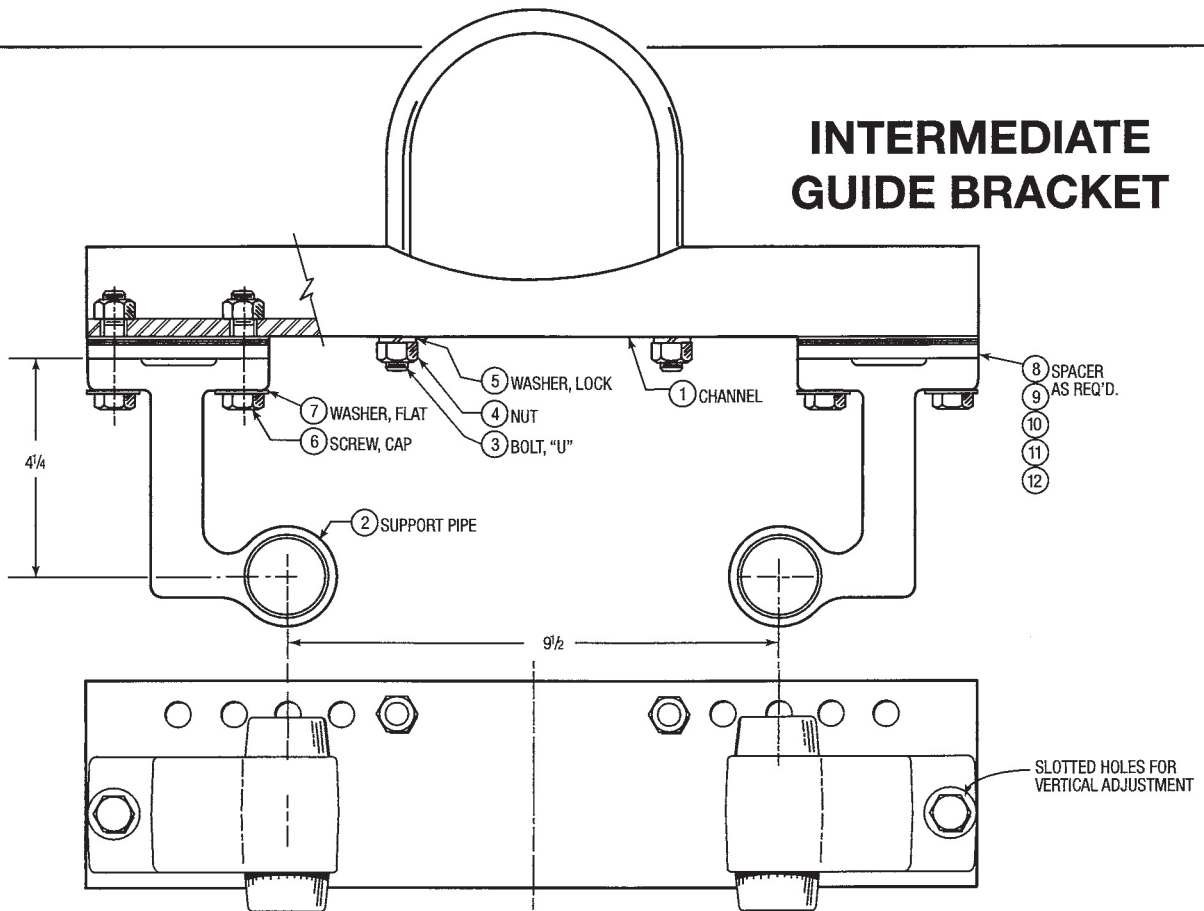
				TTS-20 24961D000
REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.	
1	Plate 5" x 17 1/4" x 3/8"	23830C000	1	
2	Washer, Flat, SST	05030A196	4	
3	Screw, Cap, SST 7/16"-14 x 1 1/4"	19102A020	4	
4	Support	24968C000	2	
5	Screw, Cap, SST 5/16"-18 x 3/4"	19100A004	1	
6	Hook, SST	23788A001	1	
7	Washer, Lock SST	05454A014	1	

BAIL ASSEMBLY AND CHAIN



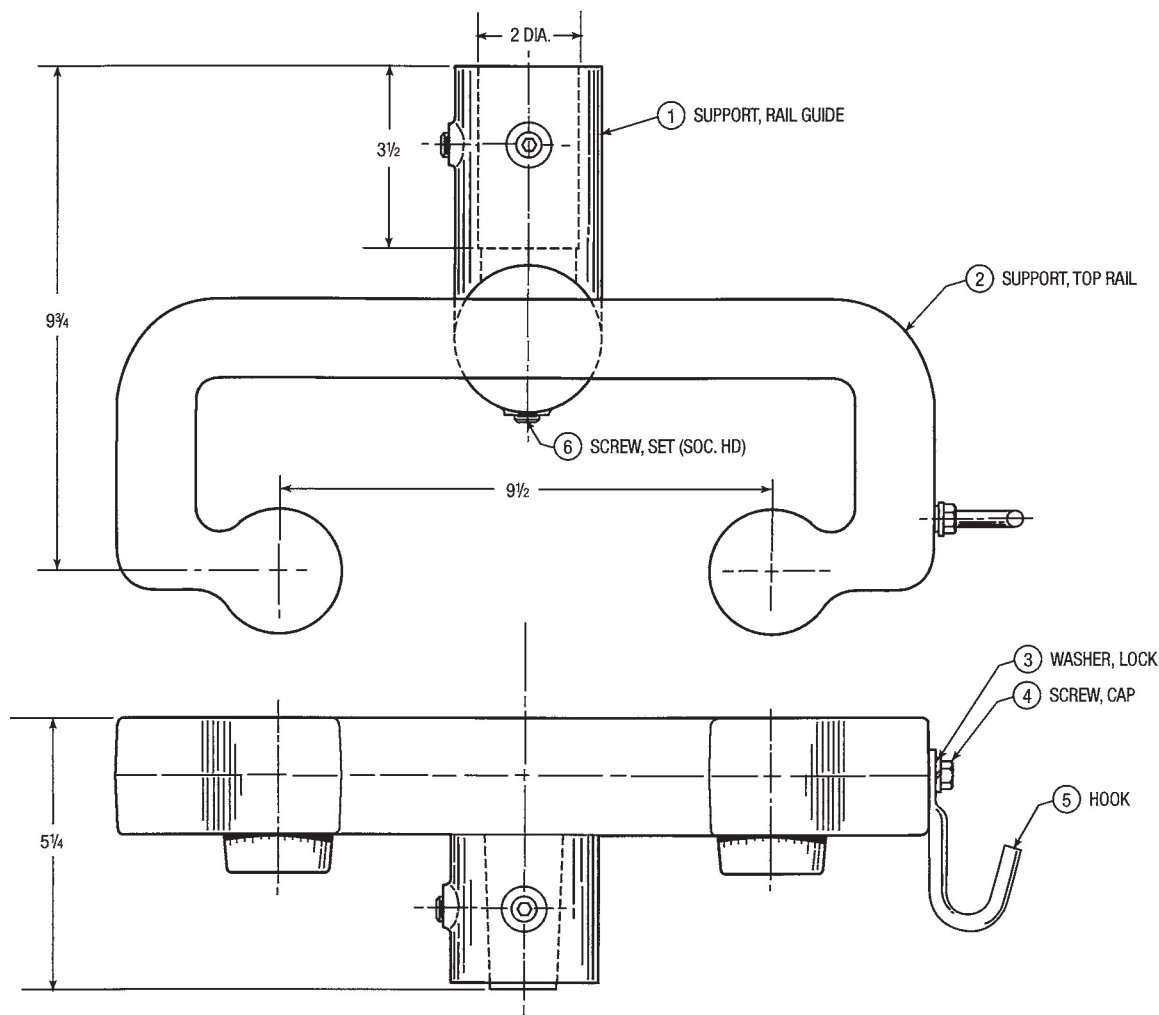
REF. NO.	DESCRIPTION	PART NO.	NUMBER REQUIRED							
			CP 10 25193A010	CP 20 25193A020	CP 30 25193A030	CP 40 25193A040	CP-Q-SST 25193A011	CP 20-SST 25193A021	CP30-SST 25193A031	CP40-SST 25193A041
1	Chain w/Rings, Galv. St. 1/4" x 20 Ft. Long	23531A002	1	1	1					
1	Chain w/Rings, SST. 1/4" x 20 Ft. Long	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



REF. NO.	DESCRIPTION	PART NO.	NUMBER REQUIRED							
			IGB 2-4-4 CI 24966D000	IGB 2-4-4 ST 24966D001	IGB 2-46-6 CI 24966D002	IGB 2-46-6 ST 24966D003	IGB 2-46-8 CI 24966D004	IGB 2-6-10 CI 24966D005	IGB 2-6-12 CI 24966D006	
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	

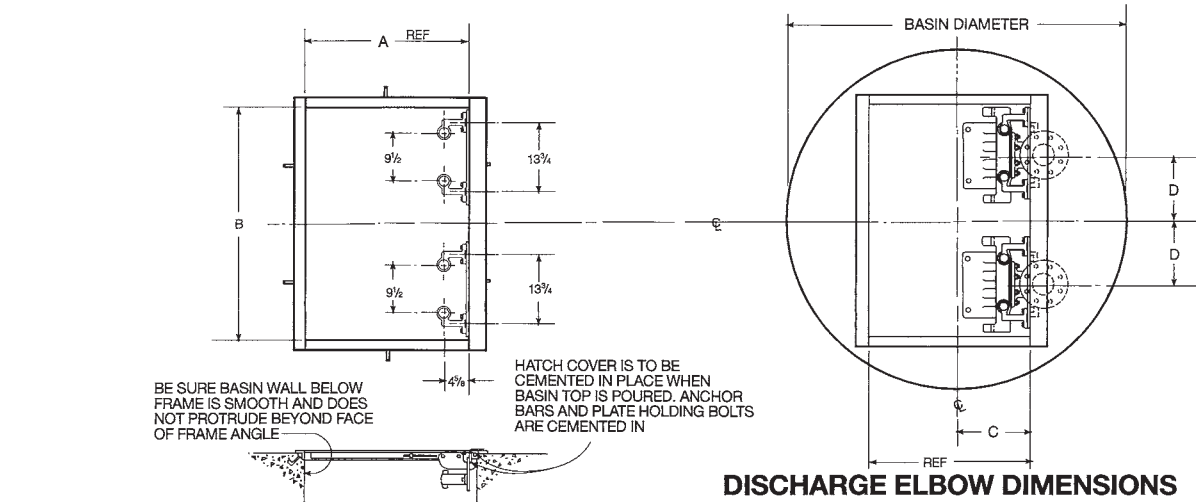
SIDE MOUNT RAIL SUPPORT



			SMRS-2 24982D000
REF. NO.	DESCRIPTION	PART NO.	NO. REQ'D.
1	Support Rail Guide	22611B000	1
2	Support, Top Rail	24983D000	1
3	Washer, Lock, SST	05454A014	1
4	Screw, Cap, SST $\frac{5}{16}$ " - 18 x $\frac{3}{4}$ " Long	19100A004	1
5	Hook, SST	23788A001	1
6	Screw, Cap, Socket Head SST $\frac{7}{16}$ " - 14 x $\frac{5}{8}$ " Long	06024A010	4

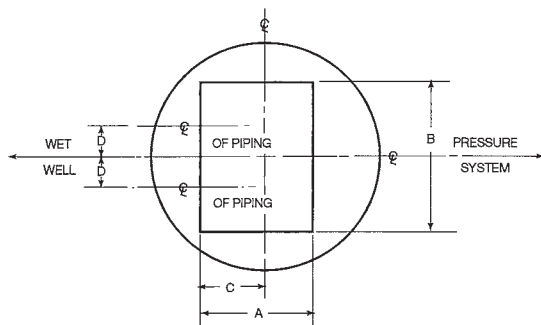


TYPICAL DIMENSIONS FOR BASIN HATCH WHEN MOUNTED IN CONCRETE - ALSO WITH OPTIONAL STEEL COVER



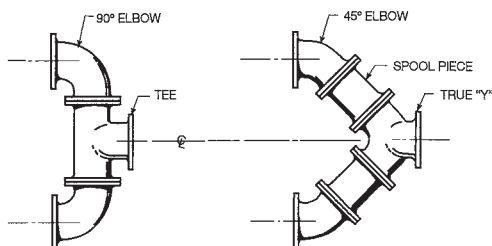
DISCHARGE ELBOW DIMENSIONS

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	13	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	6VH	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	6VH	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 1/8	30 x 36	24
96	16	8			8	8	7 7/8	30 x 48	26 3/4



STANDARD LIMITED WARRANTY

Pentair Myers® warrants its products against defects in material and workmanship for a period of 12 months from the date of shipment from Pentair Myers or 18 months from the manufacturing date, whichever occurs first – provided that such products are used in compliance with the requirements of the Pentair Myers catalog and technical manuals for use in pumping raw sewage, municipal wastewater or similar, abrasive-free, noncorrosive liquids.

During the warranty period and subject to the conditions set forth, Pentair Myers, at its discretion, will repair or replace to the original user, the parts that prove defective in materials and workmanship. Pentair Myers reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for prior sold and/or shipped units.

Start-up reports and electrical schematics may be required to support warranty claims. Submit at the time of start-up through the Pentair Myers website: <http://forms.pentairliterature.com/startupform/startupform.asp?type=m>. Warranty is effective only if Pentair Myers authorized control panels are used. All seal fail and heat sensing devices must be hooked up, functional and monitored or this warranty will be void. Pentair Myers will cover only the lower seal and labor thereof for all dual seal pumps. Under no circumstance will Pentair Myers be responsible for the cost of field labor, travel expenses, rented equipment, removal/reinstallation costs or freight expenses to and from the factory or an authorized Pentair Myers service facility.

This limited warranty will not apply: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with the printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and parts used in connection with such service; (d) to units that are not installed in accordance with applicable local codes, ordinances and good trade practices; (e) if the unit is moved from its original installation location; (f) if unit is used for purposes other than for what it is designed and manufactured; (g) to any unit that has been repaired or altered by anyone other than Pentair Myers or an authorized Pentair Myers service provider; (h) to any unit that has been repaired using non factory specified/OEM parts.

Warranty Exclusions: PENTAIR MYERS MAKES NO EXPRESS OR IMPLIED WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. PENTAIR MYERS SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

Liability Limitation: IN NO EVENT SHALL PENTAIR MYERS BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY PENTAIR MYERS PRODUCT OR PARTS THEREOF. PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY RESULT FROM IMPROPER INSTALLATION. PENTAIR MYERS DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY UNDER THIS WARRANTY, FOR IMPROPER INSTALLATION. PENTAIR MYERS RECOMMENDS INSTALLATION BY PROFESSIONALS.

Some states do not permit some or all of the above warranty limitations or the exclusion or limitation of incidental or consequential damages and therefore such limitations may not apply to you. No warranties or representations at any time made by any representatives of Pentair Myers shall vary or expand the provision hereof.



MYERS®

1101 MYERS PARKWAY
ASHLAND, OHIO, USA 44805
419-289-1144

490 PINEBUSH ROAD, UNIT #4
CAMBRIDGE, ONTARIO, CANADA N1T 0A5
800-363-PUMP

WWW.FEMYERS.COM

Warranty Rev. 12/13

