

Notice to installing contractor: Instructions must remain with installation.

SECTION: Z8.00.350

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Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



GUIDE RAIL SYSTEMS INSTALLATION PROCEDURES



2.5" thru 6" Pumps with Flanged Discharge

2.5" / 3" Systems – P/N 39-0094 and 39-0095

4" Systems – P/N 6039-0016 and 6039-0017 (Discontinued, March 2018)

6" Systems – P/N 6039-0072 and 6039-0073 (Discontinued, August 2023)

See ZM3027 for new 4" and 6" Z-Rail Installation Instructions

GENERAL INFORMATION

These models are complete systems used in sewage or dewatering installations with side outlet flanged pumps. They can be used in basins at any depth. The guide rail systems are particularly useful when the liquid level is above the discharge pump. The systems feature easy automatic engagement and disengagement for removing the pump for service or repair without draining the basin.

General Construction: A flanged discharge elbow is supplied with the rail system which also supports the lower rail guides. The discharge elbow, as well as the mounting plate are made of durable class 30 cast iron that is epoxy coated. Upper guide rail brackets (supplied) and intermediate guide brackets (optional) along with guide brackets are stainless steel. The mounting plate and guide brackets (where required) are available in non-sparking brass. All models require the use of 2" schedule 40 (galvanized steel or stainless steel) pipe for guide rails. Pipe is furnished by the user.

Lifting Cable: The pump is equipped with lifting lugs that are an integral part of the motor housing or cover for lifting. A permanently attached chain, cable or choker (purchased separately), should be used to aid in pump installation and removal. It is not necessary to use a separate pull chain on the mounting plate which is bolted to the pump discharge flange.

Rail Support Bracket: As mentioned above, all the rail systems utilize 2" standard pipe for the guide rails. The supplied top rail support is to be mounted to the hatch frame. Intermediate brackets are available for deep installations. It is recommended that a intermediate stabilizer support bracket be ordered separately and used for each 15 feet of basin depth (20 feet for the 2.5"/3" systems).

INSTALLING RAIL SYSTEM PARTS

Discharge Base and Rails:

1. Lower the base elbow into the basin.
2. Position the base elbow by dropping a plumb line from the center of the pipe supports, located on top rail support, to center of rail pins protruding from the base elbow. Level the elbow flange in two directions 90° to each other. Mark the position of the base, hold down bolts through the holes/slots in the base. The use of the shims provided with the discharge base should be used to level out the discharge prior to securing the base with mounting bolts.
3. Move the base aside to allow for installation of 1/2" mounting bolts (not included). Secure base with mounting bolts.
4. Cut the 2" pipe guide rails (supplied by others) to the proper length and install them between the upper guide rail bracket and the pins on the base elbow. It is recommended that the guide rails are to be schedule 40, galvanized or stainless steel.



IMPORTANT : Discharge pipe and guide rails must be parallel if intermediate guide bracket is used.

INSTALLING INTERMEDIATE GUIDE BRACKET (Required for each 15 feet of basin depth, 20 feet for the 2.5"/3" systems.)

1. Remove the guide rails and cut a piece from each one. The amount to cut from each one must be determined to permit installing the intermediate guide bracket in the desired location. After cutting, the pipes must be exactly the same length. The intermediate guide rail bracket attaches to the discharge piping.
2. Place the cut pieces of pipe over the guide rail pins located on the base elbow.
3. Set the intermediate guide bracket in position with the guides into the pipe. Put a U-bolt around the discharge pipe and tighten lightly.
4. Measure from pipe seat on intermediate guide bracket to pipe seat on top rail support and cut two (2) guide rails to length. Put rails in place and tighten screws in top support.
5. Recheck guide rails, they must be straight and plumb. Move intermediate guide bracket if necessary to perfectly align. After aligning rails, finish tightening the nuts on the U-bolt.
6. If a second intermediate guide bracket is used, the above procedure must be followed again.

ATTACHING MOUNTING PLATE TO PUMP

1. Install the Buna-N gasket onto the mounting plate. Position mounting plate against pump discharge flange. Plate to be oriented so that guide brackets or machined angle surface of mounting plate face up and are on the opposite side of the pump discharge flange.
2. Secure mounting plate to pump with screws and washers provided. Tighten securely.
3. The 3-7-1/2 HP 71 Series grinder pumps have 3 legs. Remove these legs from the pump.

INSTALLING PUMP AND DISCONNECT

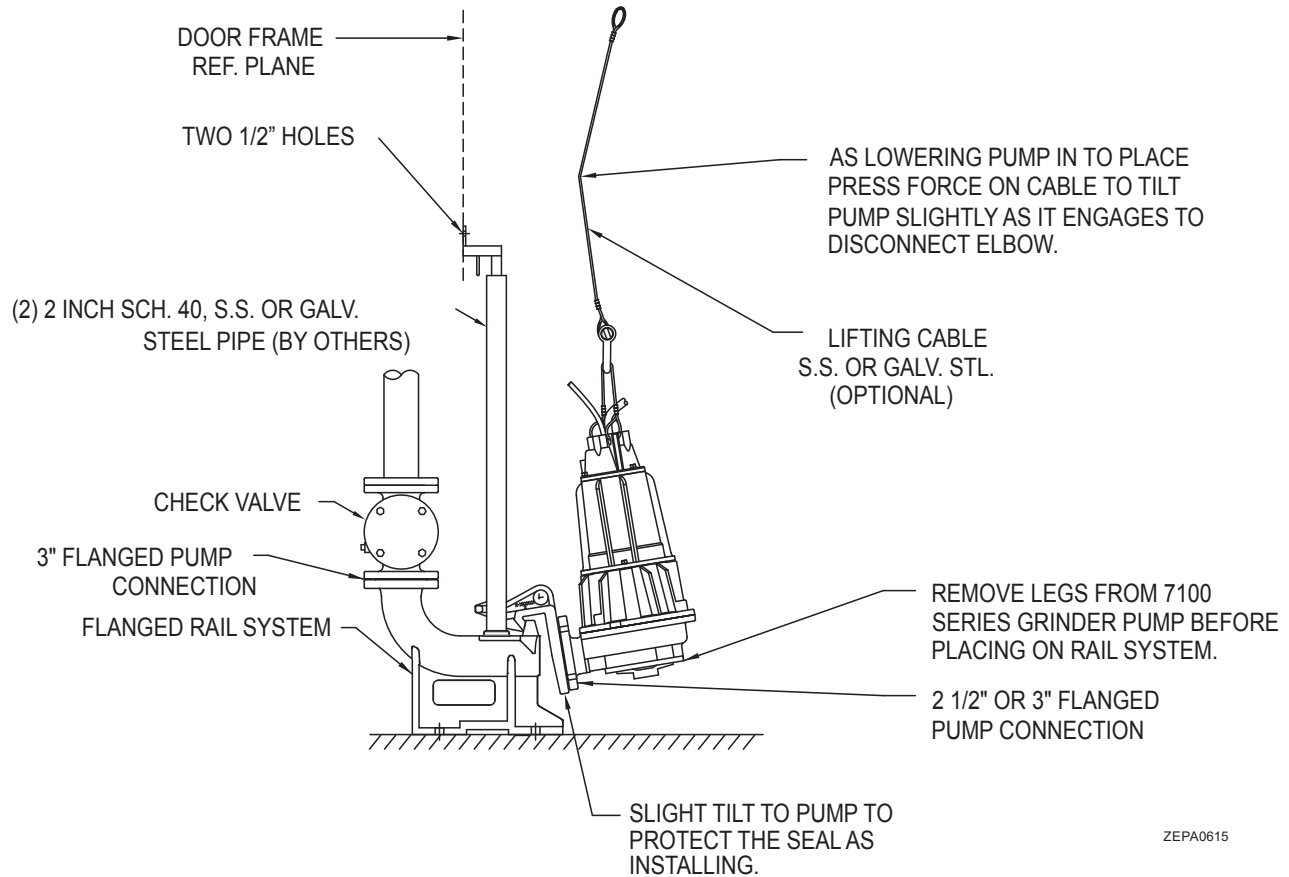
Position pump so the guide rails are captured by the mounting plate. Slowly lower the pump down the guide rails with the pump tilted at a slight angle protecting the Buna-N gasket as the plate engages the base elbow. Refer to drawing on next page.

If the pump is supported from beneath with concrete blocks or extended legs on the pump base, make certain the mounting plate gasket is sufficiently compressed for sealing. The cantilevered weight of the pump is required for compressing and sealing the mounting plate gasket against the face of the discharge elbow.

After lowering the pump down the guide rail, secure the upper end of the lifting cable to the top rail support to keep it from falling into the pit.

Order intermediate stabilizer for basin depths greater than 15 feet (20 feet for the 2.5"/3" systems).

Zoeller Engineered Products 2.5"/3" Guide Rail System



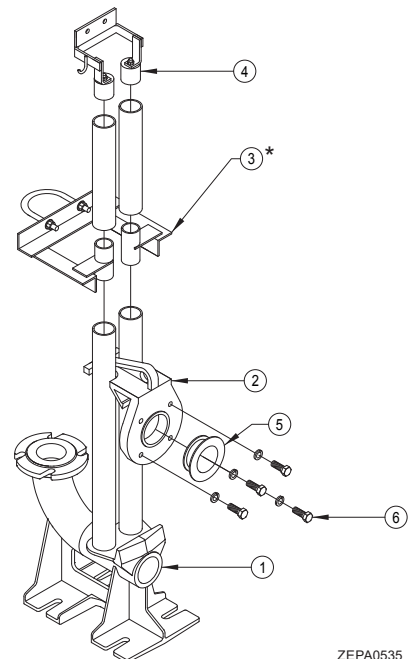
2.5"/3" Systems - P/N 39-0094 and 39-0095

Parts List For 39-0094 - 2.5"/3" Guide Rail System

Item No.	Description	Qty.	1/01 thru current
1	Epoxy Coated Cast Iron Discharge Elbow	1	014447
2	Epoxy Coated Cast Iron Mounting Plate	1	013575
* 3	Optional S.S. Intermediate Stabilizer for Depths Greater Than 20'	1	014807
4	S.S. Upper Guide Rail Bracket	1	014141
5	Buna N Gasket	1	014142
6	Stainless Steel Hardware	--	Consult Factory

Parts List For 39-0095 - 2.5"/3" Guide Rail System (Non-Sparking System)

Item No.	Description	Qty.	1/01 thru current
1	Epoxy Coated Cast Iron Discharge Elbow	1	014447
2	Bronze Mounting Plate	1	014139
* 3	Optional S.S. Intermediate Stabilizer for Depths Greater Than 20'	1	014807
4	S.S. Upper Guide Rail Bracket	1	014141
5	Buna N Gasket	1	014142
6	Stainless Steel Hardware	--	Consult Factory



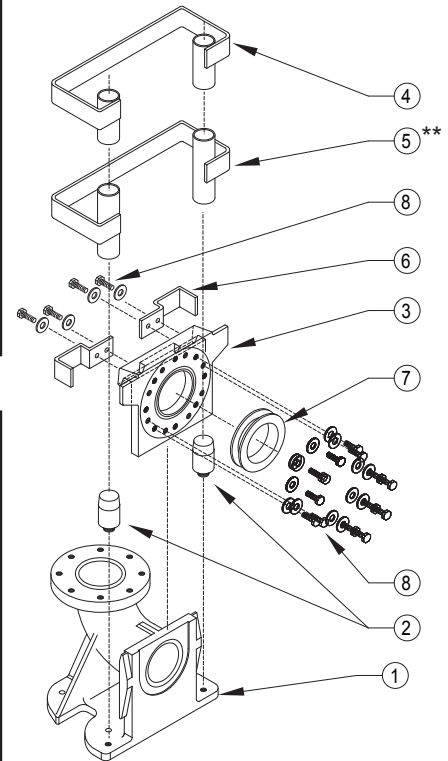
Uses 2" I.P.S. guide rails and pull cable or chain (not furnished)

* Order P/N 39-0096 for pit depths greater than 20 feet.

Zoeller Engineered Products 4" and 6" Guide Rail System

4" Systems - P/N 6039-0016 and 6039-0017(Discontinued, March 2018)

Parts List For 6039-0016 - 4" Guide Rail System (39-0154)				
Item No.	Description	Qty.	2/91 - 2/00 Revision A & B	2/00 - Current Revision C
1	Epoxy Coated C.I. Discharge Elbow	*1	N/A	N/A
2	Lower Guides	2	N/A	N/A
3	Epoxy Coated C.I. Mounting Plate	1	N/A	N/A
4	S.S. Upper Guide Rail Bracket	1	N/A	N/A
** 5	Optional S.S. Intermediate Stabilizer for systems over 15' deep	1	N/A	N/A
6	Stainless Steel Guide Brackets	2	006057	006057
7	Buna-N Gasket	1	006041	006041
8	Stainless Steel Hardware	--	Consult Factory	Consult Factory



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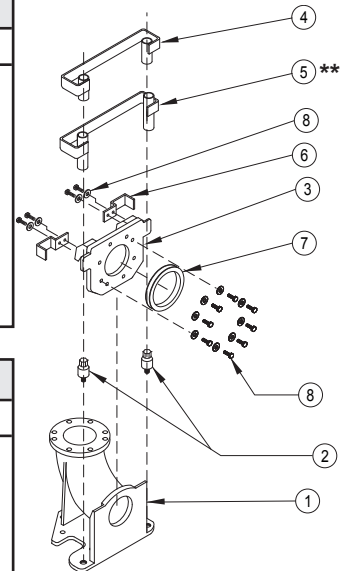
* NOTE: Discharge Elbow 006574 Revision A & B will have Stainless Steel Lower Guides, and Revision C will have Cast Iron Lower Guides.

** Optional: order P/N 6039-0014 for pit depths greater than 15 ft.

Uses 2" I.P.S. guide rails and pull cable or chain (not furnished)

6" Systems - P/N 6039-0072 and 6039-0073 (Discontinued , August 2023)

Parts List For 6039-0072 - 6" Guide Rail System			
Item No.	Description	Qty.	1/00 thru current
1	6" Epoxy Coated Cast Iron Discharge Elbow	1	N/A
2	Epoxy Coated Cast Iron Lower Guides	2	N/A
3	Cast Iron Mounting Plate	1	N/A
4	Upper Guide Rail Bracket	1	N/A
** 5	Optional Intermediate Stabilizer for systems over 15' deep	1	N/A
6	Guide Brackets	2	006057
7	Buna N Gasket	1	006664
8	Stainless Steel Hardware	--	Consult Factory



ZEPA0496

Parts List For 6039-0073 - 6" Guide Rail System (Non-Sparking Systems)			
Item No.	Description	Qty.	1/00 thru current
1	6" Epoxy Coated Cast Iron Discharge Elbow	1	N/A
2	Epoxy Coated Cast Iron Lower Guides	2	N/A
3	Bronze Mounting Plate	1	N/A
4	Upper Guide Rail Bracket	1	N/A
** 5	Optional Intermediate Stabilizer for systems over 15' deep	1	N/A
6	Bronze Guide Brackets	2	006964
7	Buna N Gasket	1	006664
8	Stainless Steel Hardware	--	Consult Factory

Uses 2" I.P.S. guide rails and pull cable or chain (not furnished).

* Not replaceable - order complete discharge elbow.

** Optional: order P/N 6039-0021 for pit depths greater than 15 ft.