

NORWECO.

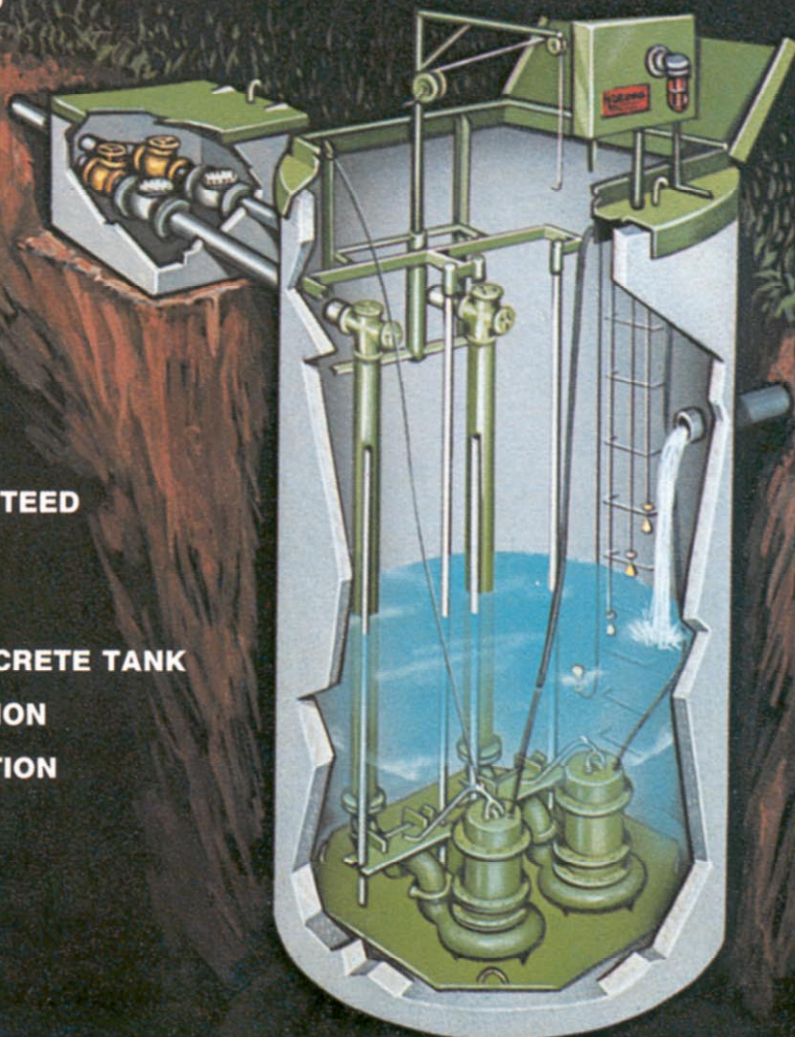
NORWALK WASTEWATER EQUIPMENT COMPANY

LIFT-RAIL™

WASTEWATER PUMPING STATIONS

Featuring Norweco's
exclusive Remote Pump
Removal System and
Rail-Sealing Flange

- EQUIPMENT FULLY GUARANTEED
- LOW INITIAL COST
- DUPLEX NON-CLOG PUMPS
- PERMANENT PRECAST CONCRETE TANK
- FULLY AUTOMATIC OPERATION
- FAST, EFFICIENT INSTALLATION



WASTEWATER PUMPING STATIONS

Norweco manufactures a complete line of pumping stations—utilizing two entirely different styles of pumps. Thirty-six different models of Norweco submersible pumps are available in both the Lift-Rail and standard design. A number of self-priming pumping stations are also manufactured by Norweco.

Pumping Stations or Lift Stations are often needed in sanitary and storm sewers to pump wastewater up to a treatment facility or to lift treated plant effluent to a higher point of discharge. Because a high degree of reliability is needed, two alternating pumps are installed and each is capable of handling the entire wastewater flow. Automatic electrical alternators are installed in prewired control cabinets to alternate pump operation. Each pump receives equal wear and equipment life is greatly increased.

A complete line of accessory items is available for each station and the Norweco line covers virtually every pumping application that may be encountered. All stations are sold as complete units including delivery, tank setting, equipment installation, start-up and service. This unusual "Complete Sales Policy" greatly simplifies station installation and eliminates hidden charges for items such as freight, equipment start-up, tank installation and others.

Norweco's Lift-Rail wastewater pumping station features a revolutionary new concept in wastewater pumping. Utilizing only Norweco pumps and equipment, with Norweco new Lift-Rail feature and telescopic hoist, the Lift-Rail station provides the most reliable, maintenance-free wastewater pumping available today.

"CSP" COMPLETE SERVICE PROGRAM

Local, factory-trained distributors service all Norweco stations throughout the first year. They are fully trained regarding installation of Norweco products and are able to ensure a simple, economical installation. Standard service policies, after the first year, eliminate future problems. "CSP" provides single-source reliability for all equipment and service needs.

Originally founded in 1906, Norweco has years of experience in the pollution control field. "Progress through Service—since 1906" sums it up nicely. A quality product—served by a local expert—has earned Norweco a reputation for excellence.

TELESCOPIC HOIST —
AND WINCH

OUTLET —

GATE VALVE —

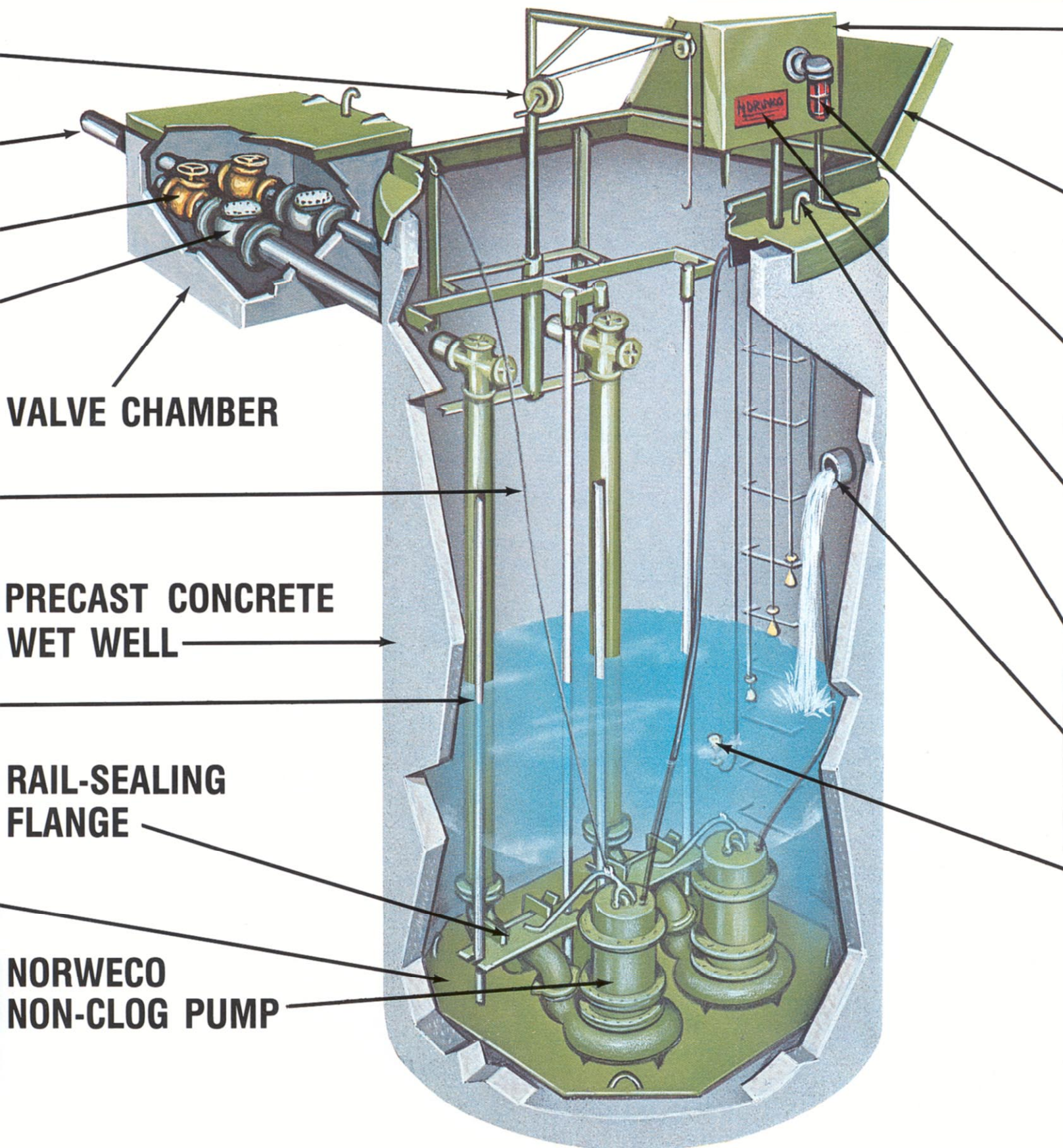
CHECK VALVE —

LIFTING CABLE —

GUIDE RAILS —

MOUNTING BASE —

teewater Pumping Station



IS...

**- PREWIRED
CONTROL
PANEL**

**- LOCKABLE
DUPLEX COVERS**

**HIGH WATER
ALARM**

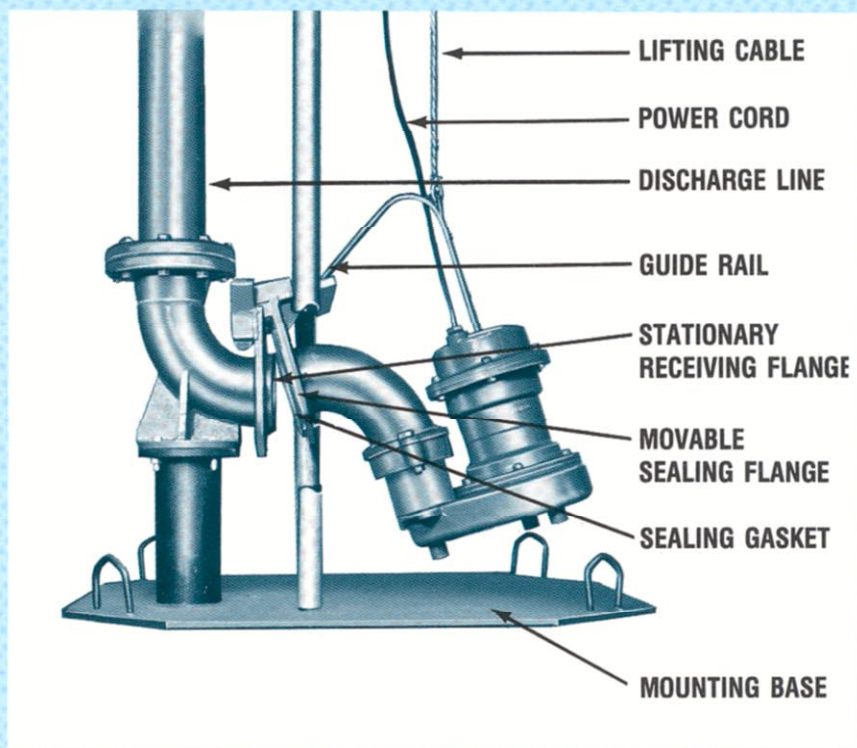
**LOCAL, LICENSED
DISTRIBUTOR**

VENT

INLET

**MERCURY
LEVEL CONTROL
SWITCH**

NORWECO'S LIFT-RAIL™ PUMPING STATION



Norweco's Rail-Sealing Flange and Remote Pump Removal System make it possible to remove a pump from operation for routine maintenance without special tools or the need to enter the wet well. Each pump may be hoisted out of the wet well without unbolting flanges or disassembling piping. Pumps slide up and away from the discharge piping. Each system has all the equipment necessary to lift, remove and reinstall each pump. A serviceman working at grade can raise, inspect and reinstall the pumps without complicated equipment and without entering the wet well. Norweco's Remote Pump Removal system rotates 180 degrees—larger pumps may be loaded directly into service vehicles or onto the ground without manual lifting or additional equipment.

Norweco's Rail-Sealing Flange is a two-piece assembly made up of a stationary receiving flange and a movable sealing flange. The stationary flange is connected directly to the rigid discharge piping while the movable flange is connected to the discharge of the pump. A gasket attached to the movable flange is used to provide a positive seal when the pump is lowered into position.

Guide rails, installed vertically in the wet well, guide each pump directly to the stationary flange during installation of pumps and maintain clearance in the wet well during pump removal.

The pump removal system, supplied complete with each Lift-Rail, is a permanent part of the installation concealed below the duplex locked covers of the station. When needed, the covers are opened and the telescopic hoist system is lifted and locked into position for pump removal and inspection.

There are no flexible hoses to replace, no tripod or hoist to haul from job to job. Unique and complete—the Norweco Lift-Rail has it all.

NORWECO SUBMERSIBLE WASTEWATER PUMPS

Sound engineering and time-proven pump design make NORWECO submersible pumps completely dependable and trouble free. NORWECO manufactures a full line of submersible sewage handling pumps as well as small ones for commercial and residential use.

Pump motor housings are hermetically sealed to prevent moisture entry. The entire chamber is oil filled to provide good dissipation of motor heat and more efficient operation. In addition, the oil filled motor housing provides permanent lubrication for the dual ball bearings and shaft seals. Internal condensation cannot form and greatly extended motor life is the result. Units can be supplied with a tandem mechanical seal feature, and each pump has high quality carbon, stainless steel and Buna N shaft seals.

Pump impellers are cast-iron sewage handling semi-open two vane and capable of passing 3" diameter solids. Units are supplied with UL approved grease, oil and abrasion-resistant power cords. A



sensing device to detect the presence of moisture between the two mechanical shaft seals is available. For additional protection, optional lightning protectors are available for all larger models. If needed, even explosion-proof motors may be provided in the 3/4,

OIL FILLED MOTOR HOUSING

HIGH CARBON STAINLESS MECHANICAL SEAL

SEMI-OPEN CAST-IRON TWO VANE IMPELLER

BALL BEARINGS

MOISTURE SENSING UNIT (OPTIONAL)

UL APPROVED POWER CORD

TANDEM MECHANICAL SEAL (OPTIONAL)

EXPLOSION PROOF MOTOR (OPTIONAL)

1, 2, and 3 HP sizes.

These features as well as other accessory items and optional equipment make NORWECO's line of submersible pumps the most complete, flexible and dependable method of wastewater handling available today.

LIFT-RAIL™ ADVANTAGES

- Duplex submersible pumps—two pumps provided in each station, with each pump capable of handling the entire wastewater flow—virtually eliminates downtime
- Non-corrosive precast concrete tank—no tank pumping and repainting, no anode packs
- Non-clog Norweco pumps—feature semi-open non-clog balanced impellers and hermetically sealed, oil filled motors with high carbon stainless steel mechanical shaft seals
- Rail-Sealing Flange—provides complete pump breakaway and removal without unbolting flanges or disconnecting piping. Completely seals pump to discharge flange with no metal-to-metal contact
- Remote Pump Removal System—concealed completely below locked duplex covers—when needed, the system is raised and locked into position for pump removal, inspection and reinstallation
- External valve chamber—places all gate valves and check valves at grade in a separate watertight vented enclosure. Future sewerage line expansion or modification does not require entry to the wet well for valve access
- Central control panel—permits automatic alternation and operation. Places all controls at your fingertips
- Duplex galvanized guide rails—one set for each pump—eliminate binding during pump removal and prevent pump swiveling and side motion
- Monolithic concrete tank—common only to the LIFT-RAIL system—eliminates the need for a poured-in-place foundation slab in the excavation prior to station installation
- Master keyed locks—one key opens all locks on duplex covers, controls, alarm and related equipment

WARRANTY

All Norweco, Inc. wastewater pumping stations include a single source one year warranty and service policy. The equipment is warranted against defective materials and workmanship, under normal use and service, for a period of one year from the date of installation. The warranty is limited to the replacement of any item that proves to be defective during the first year and expires 12 months from the date of shipment. Repair charges will apply if the equipment has been disassembled by unauthorized persons, subjected to external damage, improperly wired, or flooded.

The initial one-year warranty and service policy include periodic service inspections. Operators are instructed regarding routine operation and maintenance of the equipment during each inspection. The warranty and service policy are designed to provide single source reliability for all equipment. Your complete Norweco wastewater pumping station is covered by the warranty and service program.

OTHER EQUIPMENT FROM NORWECO

SINGULAIR™ HOME TREATMENT PLANTS

Individual home wastewater treatment systems for use in non-sewered suburban and rural areas. Norweco SINGULAIR plants automatically reduce all household wastewater to a clear, odorless effluent in just 24 hours.

MODULAIR™ WASTEWATER TREATMENT PLANTS

For smaller applications—1,500 to 50,000 GPD. Tanks are precast concrete and covered with galvanized metal grating. Equipment is factory-assembled and tested. Ideal for small subdivisions, factories, schools, shopping centers, etc.

TRAVALAIR™ WASTEWATER TREATMENT PLANTS

Featuring Norweco's exclusive TRAVALAIR sludge return and surface skimmer system. Flexible in design—capable of serving communities of 10,000 people. Automatic sludge collection and return completely eliminates hopper scraping.

NORWECO.
NORWALK WASTEWATER EQUIPMENT COMPANY

220 Republic Street
P.O. Box 410
Norwalk, Ohio U.S.A. 44857-1196
Phone (419) 668-4471

DISTRIBUTED BY:

