

## *RDP Roplex Silos*



Vallejo, CA  
1 silo @ 190 tons (1995)



*RDP Technologies, Inc.*

## ***RDP Roplex Silos***

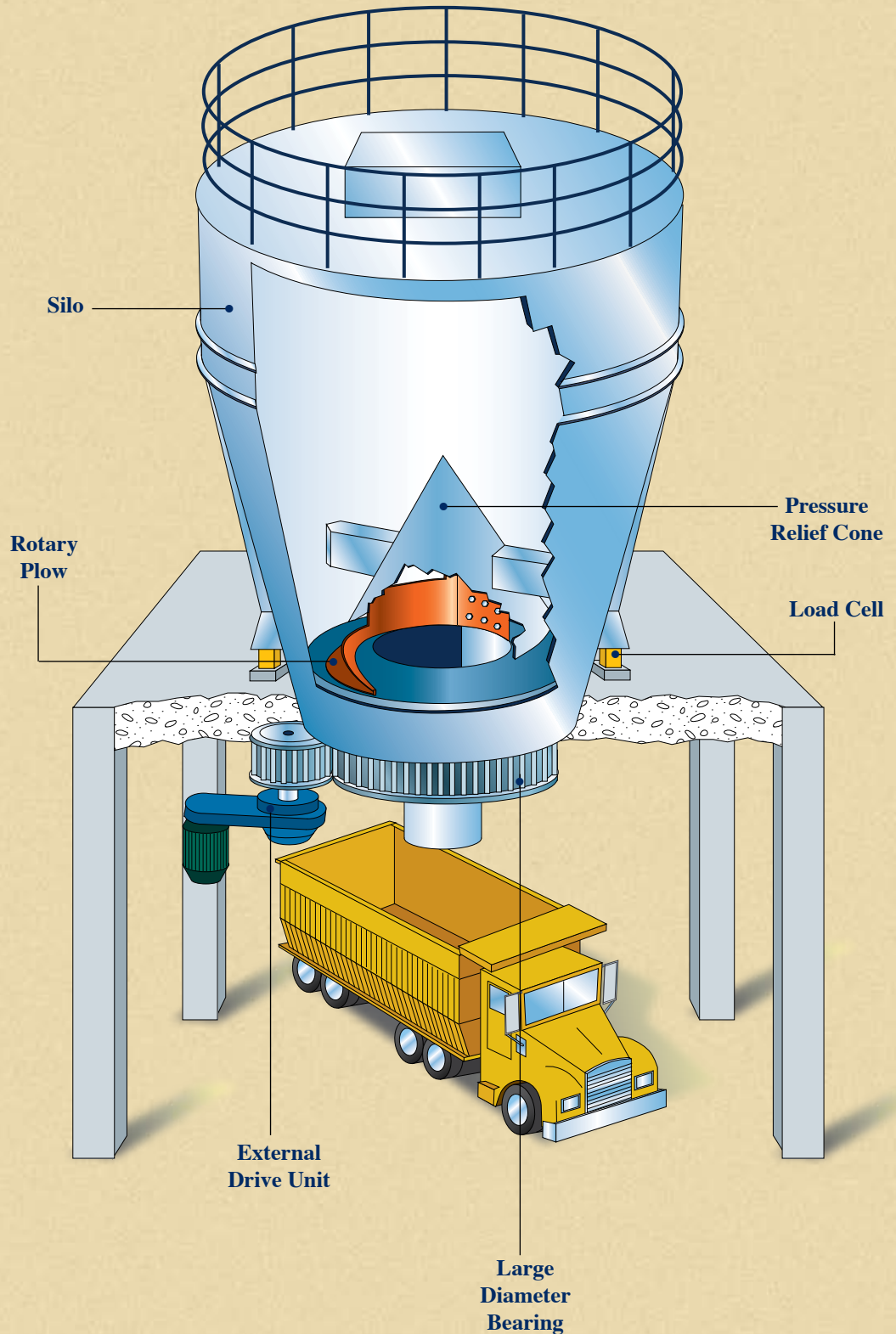
Since 1970, Roplex Silos have been storing and loading difficult and sticky municipal water and waste-water treatment plant dewatered solids.

Wide ranging solids content and material pressures, resulting from the large storage silos, are reliably, cleanly and rapidly loaded with Roplex silo systems. Truck loading is accomplished in 1 to 5 minutes.

The rotary plow extends from the center to the edge of the silo wall and completely undercuts the stored solids, pulling the solids to the center discharge opening. The positive displacement of the rotary plow insures the uniform and complete draw down of solids, creating a mass flow discharge.

The center discharge is provided with a watertight gate, preventing leaking.

From 50 to 1,600 ton silos; from 17% to 45% solids, Roplex silos have been successfully storing and loading municipal solids since 1970.





## Features & Benefits

Storing dewatered solids in Roplex silos, provides plants an economical and flexible method of handling solids. Roplex silos separate dewatering operations from truck loading. Most plants design for at least 3 days of solids storage to accommodate long weekends.

Storing dewatered solids is less expensive than storing liquid sludge. A 200 ton Roplex silo is equivalent to a 500,000 gallon liquid storage tank at 2% solids. Roplex silos allow for 24 hour dewatering, which can improve overall solids, inventory and polymer costs.



*Rapid, clean and uniform truck load-out*

Roplex silos are completely sealed to contain odors and provide neat, clean load-out of trucks. The load cell weighing system prevents splashing. The single discharge opening is water-tight. Many plants choose to use a remote control that allows truck drivers to load their truck without ever leaving the cab. In less than 5 minutes, trucks are quickly and accurately loaded, while odors are minimized.

Silos are provided with a load cell weighing system that is used to control the rate of discharge and to accurately load-out trucks to desired weight. At loading rates of over 1,000 pounds per second, RDP's proprietary weighing and control system provides a highly accurate measurement and rapid control of the loading process. The weighing system compensates for vibration, provides self-diagnostics and eliminates the use of test weights.



*Load cell support*

The discharge system starts with a centrally located pressure relief cone that distributes solids evenly to the discharger during the loading process. The rotary plow extends from the center to the edge of the silo wall, then uniformly undercuts the solids, providing mass flow across the silo bottom. The large center discharge opening permits the handling of large particles and allows for high discharge rates. The discharge is sealed with a water tight gate.



*13' diameter Roplex discharger*

All drives and bearings are located externally for easy access as compared to internal drives, which require confined space entry for maintenance. A large diameter bearing, located around the perimeter of the discharge opening provides rigid support of the rotary plow and absorbs all upward and downward forces placed on the rotary plow. The only moving part, in contact with the solids, is the rotary plow itself. The slow rotational speed and rugged design of the plow minimizes wear. Roplex dischargers have proven to provide over 25 years of reliable and continuous service.



*External drive and bearing*

## Operator Comments



Houston, TX  
1 silo @ 168 tons (1998)



Baltimore, MD  
8 silos @ 207 tons each (1989)



Seneca, MD  
1 silo @ 96 tons (2001)

***Since 1970, Roplex silos have been reliably storing and loading municipal solids.***

*"We looked at available products and decided to pre-select RDP Roplex silos based on their experience...we're glad we did"*

*"Our silo system allows us to run dewatering 24 hours per day, saving us polymer cost and improving solids handling upstream."*

*"I wish everything in this plant was as reliable as our Roplex silo."*

*"We've put almost every type of sludge through our Roplex silos and they have pulled through: lime stabilized, digested and even straight activated sludge."*

*"Our trucker comes to the plant at night and loads their own trucks, we don't have to worry at all about truck loading."*

*"We've had Roplex silos for over 35 years, first a small silo and then a larger new silo. The system works great."*

*"I don't know why you would use any other type of sludge storage silo, these work so well."*



Alexandria, VA  
6 silos @ 98 tons each (2002)



Potomac, MD  
1 silo @ 52 tons - water plant (2001)