

# Welded or Bolted Silos

12' Diameters up to 6500 cu. ft.  
(Larger diameters and storage capacities available)

Processors using large volumes of resin invariably benefit from the use of outdoor storage silos.

Resin storage silos open up floor space for production capacity and volume purchases reduce the resin and shipping costs.



## Choice of Materials and Construction

Carbon steel, stainless steel or aluminum – factory welded or bolted together on-site.

## Abrasion Resistant Coating

Proprietary factory-applied, baked-on coating system promotes flow and resists abrasion.

## Range of Sizes

Diameters from 6-15 feet and heights to over 80 feet.

## Cone Angle

45° for free flowing materials or 60° for regrind or materials with difficult flow properties.

## Direct Flow Channel (DFC) Blending Silos

Provides gravity blending of material in the silo to minimize the effects of batch variations.

## Multiple Options and Accessories

Silos can be customized to meet specific requirements.

## Erection Services

Use NOVATEC installation crew or choose your own.

## Interior Coatings

Welded carbon steel silos typically have an FDA Epoxy interior coating.

## Abrasion Resistance

Abrasion resistant coatings and stainless steel cones are available.

## Exterior Coatings

Epoxy coating with a top coat of white urethane, or custom colors available. Custom logos can also be applied.

## Silo Discharge

Rack and pinion discharge gate

## Strength and Durability

Built to meet correct requirements for the seismic zone as well as to meet typical wind and snow load requirements.

# Welded or bolted construction – which is best?

Both welded and bolted silos are weather-resistant and made of high quality materials such as carbon steel, aluminum or stainless. All components are manufactured and both interior and exterior coatings are applied in a climate controlled manufacturing facility. This attention to detail ensures a long service life.

Manufacturing, shipping and assembly times are the main differentiators. Sections of bolted tanks can be stocked for faster shipment and special permitting is

not always necessary. Welded tanks are made to order and are shipped on a self-unloading truck. Once delivered, the welded tanks can be erected much faster and with less labor than the bolted tanks. And...there is less chance of individual components being damaged, in shipment and during erection.

The space in which the silos are erected can be another factor for consideration. A tight space may dictate that bolted silos must be used.



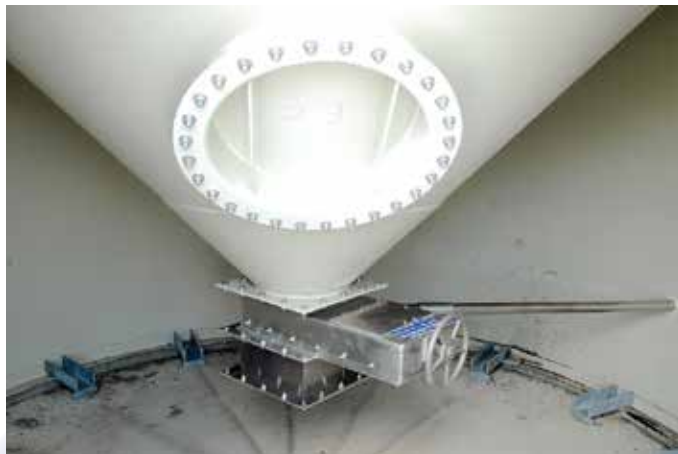
Personnel access door



Truck fill lines



Safety Ladder



Vacuum takeoff box with optional access hatch



Safety railings and walkways



Lockable hoop entry to ladder

# Level Sensor Options



## Plumb Bob

- On-demand / programmable length measurement  
Convert to % or volume based on length
- Local Display Panel required (up to 32 Silos)
- Modbus connectivity
- Optional PC based Inventory Tracking Software.

## Load Cells

- Non-contact, continuous weight measurement
- Reliable material weight even when filling
- Local Display Panel required (1 or 2 silos) 4-20ma output
- Profinet comm. available

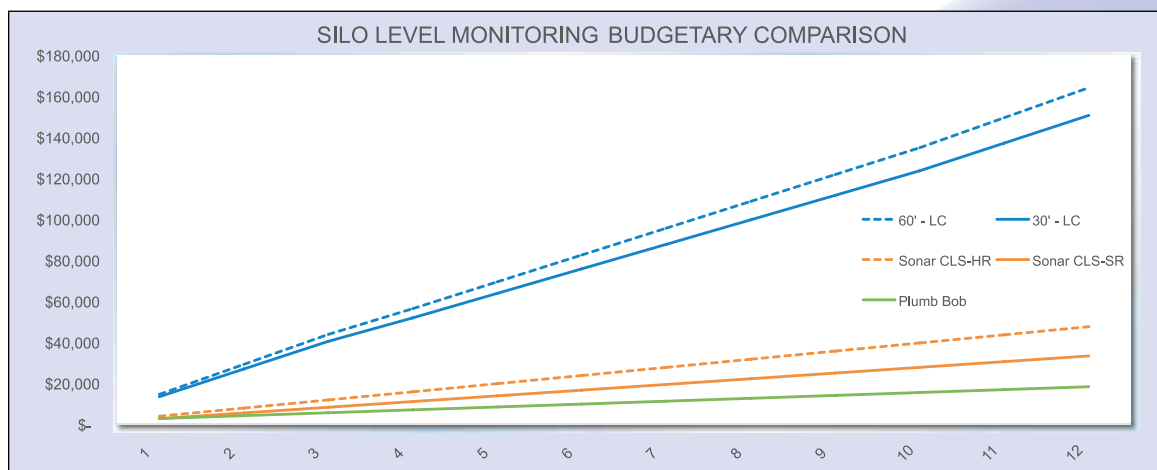


## Sonar

- Non-contact, continuous length measurement
- Averages multiple scanner readings for improved reliability
- Convert to % or volume based on silo geometry
- RS-485 and 4-20ma output
- Local display panel available
- Network software to multiple PCs via optional TCP/IP adapter

- Touch screen level control panel
- For 4, 8 or 12 silos equipped with sonar level sensors

Silo Continuous Level Indicators	Plumb Bob	Sonar	Load Cell
Non-Contact with Material		x	x
Level Detection - Bottom of Cone Section		x	x
Unit of Measure**	feet	feet	pounds
Maximum Measuring Distance (feet)	150	150	n/a
Sense Level while Filling*		x	x
Measurement Accuracy (% of total volume)	3%	1-3%	1%
Aiming Kit Recommended			
Local Display	Incl.	opt.	Incl.
FXM2-SILO Compatibility		x	x
Heavy Air-Born Dust	x	x	x
Low Dielectric Materials	x	x	x
Low Bulk Density Materials (<12-20 pcf)	x	x	x
Cost / Silo (based on 4 silos)	\$	\$\$\$	\$\$\$\$\$



## Capacity for Factory Welded Storage Tanks:

Nominal Size (in feet)		*Capacity (cu. ft.)	
Diameter	Eave Height**	45° Cone	60° Cone
11.92	24	1732	1485
	30	2393	2146
	36	3053	2807
	42	3714	3467
	48	4374	4128
	54	5035	4788
	60	5696	5449
	66	6356	6110

\* Based on 25° angle of repose with 2' - 10" clearance

\*\* Taller heights available

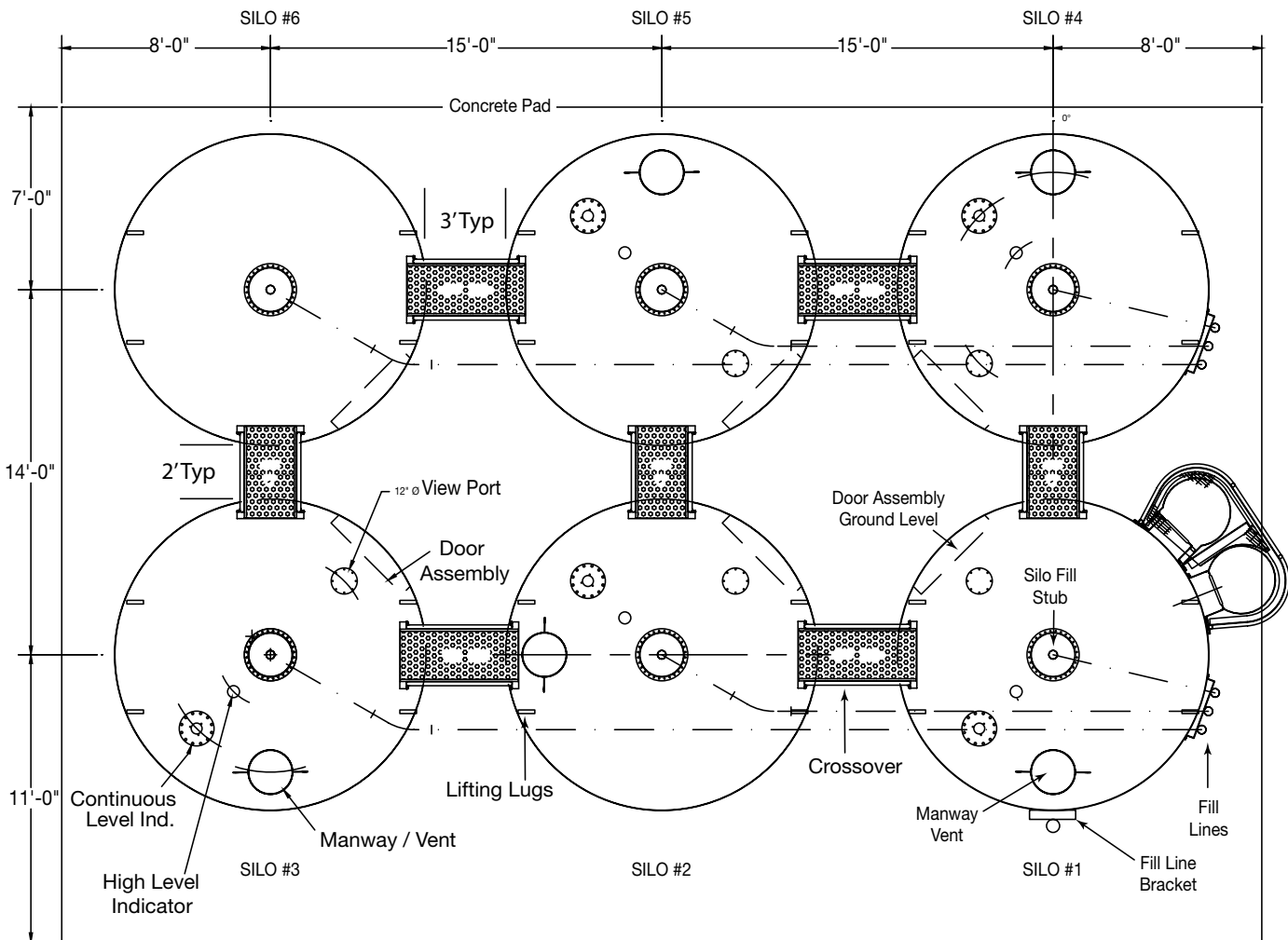
## Options:

### Level Sensor Options:

High & Low Point, Load Cells, Plumb Bob and Sonar

## Dimensions:

### Typical Silo Layout (12' diameter)



## Capacity for Bolted Storage Tanks:

Nominal Size (in feet)		*Capacity (cu. ft.)	
Diameter	Eave Height**	45° Cone	60° Cone
12.308	25	1444	1666
	33	2904	2625
	41	3862	3584
	49	4821	4543
	57	5781	5502
	65	6740	6461

\* Based on 25° angle of repose with 2' - 10" clearance

\*\* Taller heights available



Railcar Unloading System

150 & 250 CFM POD Dryers create blanket of dry air over material in silo.

POD Silo Dehumidifiers Enclosed (Lower portion normally covered)