

# ORCA™ ST SERIES

MICROBULK PUMP TRANSFER DELIVERY UNIT



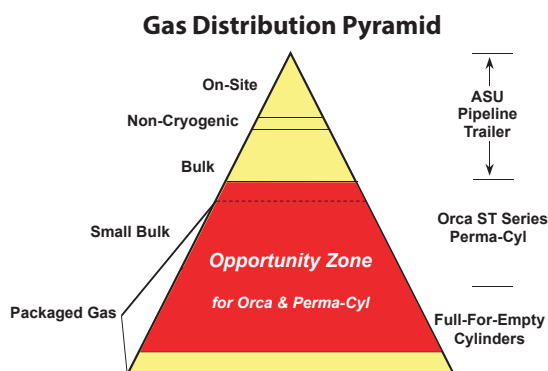
## Take control of your gas market with the Orca™ ST Series MicroBulk Delivery System

Chart's MicroBulk delivery system has revolutionized the gas industry by making on-site distribution for smaller accounts a profitable reality. The Orca ST Series Semi-Trailer delivery unit has been designed to complete an entire fill operation in 3-15 minutes with no pump cooling or product loss in inert service under normal conditions. Automatic fill termination with the Perma-Cyl® MicroBulk Storage System vessels eliminates safety hazards and lost product associated with overfilling. In total, the Chart MicroBulk system increases asset utilization, reduces labor costs and maximizes distribution efficiency.

Chart offers the complete MicroBulk delivery system as a solution to reliably and effortlessly manage a diverse range of applications. At the foundation of the MicroBulk system, the Orca ST Series delivery unit offers fast, reliable and accurate on-site delivery to Perma-Cyl storage vessels or small bulk tanks. The Perma-Cyl line offers the widest range of sizes and piping options and the greatest flexibility with accommodations for indoor and outdoor installation. The innovative Cyl-Tel® Liquid Level Gauge accurately monitors liquid contents and provides a seamless connection to a variety of telemetry platforms.

## PRODUCT HIGHLIGHTS

- Fast on-site filling of the Perma-Cyl® storage system with auto shut-off
- Exclusive low maintenance submerged pump for instant starts and continuous delivery (LIN or LAR Service)
- Single Hose Delivery system minimizes contamination, cool down losses and pressure drop
- Push-button Flowcom 3000 meter with manual override to simplify operator training
- Electronic pump speed control allows driver to safely optimize delivery rate
- National Institute of Standards & Technology (NIST) and California Weights & Measures approved metering system
- Stainless steel and bronze plumbing for long service life
- Robust inner vessel support system for rugged road conditions
- Ergonomic plumbing layout for driver ease of operation
- Auto dispense simplifies valve operations at delivery



## ST SERIES KEY FEATURES

- Auto Subcool – standard on all pump models, simplifies operator training and reduces product loss
- Electronics for operations to -40°F/°C
- Single hose dispense circuit for low flow Perma-Cyl storage and high flow bulk tank deliveries
- Large cabinet with removable access panels for ease of maintenance and servicing
- Calibrated meter column system that can be easily removed for recalibration or service



Innovation. Experience. Performance.®

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MICROBULK PUMP TRANSFER DELIVERY UNIT



SPECIFICATIONS			
MODEL	ST-4100***		
Gas Services	LIN, LAR & LOX		
Pressure Builder Type	Pump force-feed / Auto Subcool		
Design Codes	ASME, MC-338, CGA-341		
SPECIFICATIONS	Overall Unit		
Gross Capacity (gal/ltrs)	4460 / 16,883		
Capacity* ** - CGA-341 (gal/ltrs)	4230 / 16,012		
Capacity** - MC338 (gal/ltrs)	4030 / 15,225		
MAWP (psig/bar)	38 / 2.6		
Overall Length (in/cm)	350 / 889		
Overall Height (in/cm)	135 / 343		
Overall Width (in/cm)	102 / 259		
Tank Diameter (in/cm)	80 / 203		
Tare Weight (lbs/kg)	17,100 / 7756		
PERFORMANCE			
Dispense Method/Technology	External Pump or Submerged Pump		
Pump	External 60	Submerged 60	Submerged 100 KA
Min. Dispensing Rate (gpm/lpm)	10 / 38	0 / 38	10 / 38
Max. Dispensing Rate (gpm/lpm)	60 / 22	760 / 22	7100 / 379
Max. Dispensing Pressure (psig/barg)	235 / 16.2	250 / 17.2	400 / 27.6
Max. Receiving Tank Pressure (psig/barg)	185 / 12.8	200 / 13.8	350 / 24.1

\* With road relief valve at 25.3 psig

\*\* Maximum fill levels depend on vehicle weight, local road weight limits, etc.

\*\*\*ST model also available in 7200 gallons upon request.

MAWP = Maximum Allowable Working Pressure

Specifications subject to change without notice.



#### Chart Exclusive -

"Smart" flow metering system monitors flow electronically with no moving parts in meter section (standard on all models)



#### Chart Exclusive -

Submerged pump for inert service. Eliminates cool down losses and reduces delivery time.

#### Control Cabinet

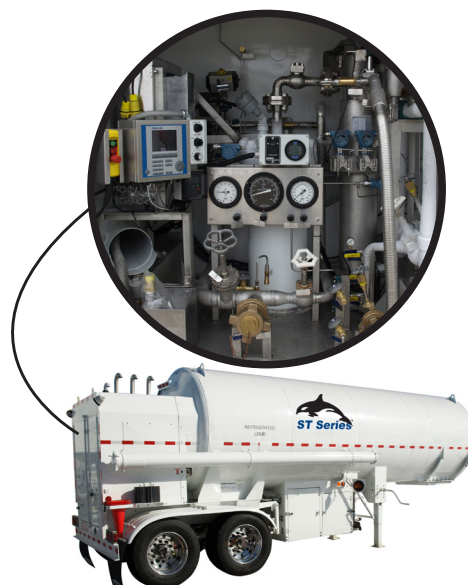


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