

ORCA™ HL SERIES

MICROBULK PUMP TRANSFER DELIVERY UNIT



Pat. Nos.: 5,682,750 · 5,616,838

Take control of your gas market with the Orca™ HL 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 HL Series 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 HL 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
- Available in truck or trailer mount
- Ergonomic plumbing layout for driver ease of operation
- Auto dispense simplifies valve operations at delivery

Gas Distribution Pyramid



HL SERIES UPDATED FEATURES

- Auto Subcool – standard on all pump models, simplifies operator training and reduces product loss
- Updated 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
- High-pressure delivery assist option



Innovation. Experience. Performance.®

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SPECIFICATIONS

MODEL	HL-1650	HL-2000	HL-2800	HL-3300	HL-4400
Gas Services	LIN, LAR & LOX	LIN Only			
Pressure Builder Type	Pump force-feed / Auto Subcool				
Design Codes	ASME, MC-338, CGA-341				
SPECIFICATIONS	Overall Unit				
Gross Capacity (gal/ltrs)	1726 / 6534	2144 / 8116	2880 / 10,902	3399 / 12,867	4654 / 17,617
Capacity* ** - CGA-341 (gal/ltrs)	1640 / 6207	2037 / 7710	2736 / 10,357	3229 / 12,223	4421 / 16,736
Capacity** - MC338 (gal/ltrs)	1534 / 5807	1907 / 7219	2560 / 9691	3023 / 11,443	4068 / 15,398
MAWP (psig/bar)	50 / 3.4	50 / 3.4	50 / 3.4	50 / 3.4	50 / 3.4
Overall Length (in/cm)	192 / 488	200 / 508	244 / 620	273 / 693	344 / 874
Overall Height (in/cm)	87 / 221	87 / 221	87 / 221	87 / 221	87 / 221
Overall Width (in/cm)	102 / 259	102 / 259	102 / 259	102 / 259	102 / 259
Tank Diameter (in/cm)	80 / 203	80 / 203	80 / 203	80 / 203	80 / 203
Tare Weight (lbs/kg)	7700 / 3493	8500 / 3856	9400 / 4264	10,500 / 4763	12,200 / 5534
PERFORMANCE					
Dispense Method/Technology	External Pump		Submerged Pump		Submerged Pump
Pump	Ext 60		Sub 60	Sub 100 KA	Sub 100 KA
Min. Dispensing Rate (gpm/lpm)	10 / 38		10 / 38	10 / 38	10 / 38
Max. Dispensing Rate (gpm/lpm)	60 / 227		60 / 227	100 / 379	100 / 379
Max. Dispensing Pressure (psig/barg)	260 / 17.9		275 / 19.0	425 / 29.3	425 / 29.3
Max. Receiving Tank Pressure (psig/barg)	210 / 14.5		225 / 15.5	375 / 25.9	375 / 25.9

* With road relief valve at 25.3 psig ** Maximum fill levels depend on vehicle weight, local road weight limits, etc. MAWP=Maximum Allowable Working Pressure Specifications subject to change without notice.



High-Pressure Delivery Assist Option – Capacity of 3300 scf in nitrogen service, delivery pressure up to 475 psig and flow up to 1800 scfh.



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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