

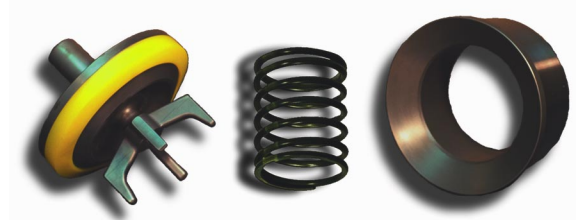
Wing Guided Valves and Full Open Seats

Oteco now offers a modern wing guided valve and full open seat. This new design greatly improves service life while providing the contractor a full open style valve seat. The uni-body design, with snap on insert, eliminates snap rings, plates or keepers, resulting in reduced maintenance. This new Oteco offering provides higher quality, better performance, and lower cost.

The valve body has been carburized to reduce maintenance costs and prolong service life. While the seating angle, along with the full open design of the seat, greatly improves fluid flow characteristics through the full open seat.

This valve and seat combination will handle lost circulation material better than most conventional valves and seats. In addition, the snap-on insert is made of a tough polyurethane material which combats the wear and abrasion that mud pump valves and seats are subjected to. Oteco's full open seat design provides easier valve maintenance in valve-over-valve fluid ends and its heavy duty bearing capacity greatly improves service life.

AVAILABLE IN API-6 AND API-7 SERIES FOR MOST ALL POPULAR MUD PUMP APPLICATIONS.



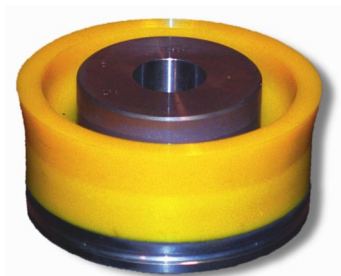
Premium wing guided valve, spring, & full open seat

Bonded Urethane Piston

Oteco's innovative Bonded Polyurethane Piston dramatically extends service life in triplex mud pump applications with ample cooling water. The harder, denser polyurethane construction provides superior resistance to abrasive fluids, providing optimum service life in harsh drilling conditions.

Unlike conventional pistons which use fabric backed rubber, Oteco's Bonded Urethane Piston is constructed of a harder, more durable urethane backing. This urethane backing makes the Oteco piston especially resistant to chemicals and oil based drilling muds with varying aniline points.

All these features combine to make Oteco's Bonded Urethane Piston a major improvement over conventional pistons and provide a substantial increase in service life. The Oteco Bonded Urethane Piston is available in most standard triplex mud pump sizes.



Premium Bonded Urethane Piston

For information on either of these new Oteco products or to place an order, contact your nearest Oteco distributor or call the Sales department at our Houston Texas facility.

OTECO Premium Wing Guided Valves and Full Open Seat Selection Table

Manufacturer	Model	Wing Guided Valve Descriptive No.	Full Open Seat Descriptive No.	Full Open Valve Spring Descriptive No.
Continental Emsco	D-125	O-U6VL-1	O-6SL-1	O-5710-15
Continental Emsco	D-225	O-U6VL-1	O-6SL-1	O-5710-15
Continental Emsco	D-375	O-U7VL-1	O-7SL-1	O-5710-84
Continental Emsco	F-1000	O-U6VL-1	O-6SL-1	O-5710-91
Continental Emsco	F-1300	O-U7VL-1	O-7SL-1	O-5710-91
Continental Emsco	FA-1300	O-U7VL-1	O-7SL-1	O-5710-91
Continental Emsco	FA-1600	O-U7VL-1	O-7SL-1	O-5710-91
Continental Emsco	FB-1300	O-U7VL-1	O-7SL-1	O-5710-91
Continental Emsco	FB-1600	O-U7VL-1	O-7SL-1	O-5710-91
Gardner Denver	PZ-10	O-U7VL-1	O-7SL-1	O-5710-90
Gardner Denver	PZ-10-K	O-U7VL-1	O-7SL-1	O-5710-90
Gardner Denver	PZ-11-L	O-U7VL-1	O-7SL-1	O-5710-90
Gardner Denver	PZ-7-G Model A & B	O-U7VL-1	O-7SL-1	O-5710-90
Gardner Denver	PZ-8 Model HE	O-U7VL-1	O-7SL-1	O-5710-90
Gardner Denver	PZ-9 Model JC & JD	O-U7VL-1	O-7SL-1	O-5710-90
Ideco	T-1000	O-U6VL-1	O-6SL-1	O-5710-90
Ideco	T-1300	O-U7VL-1	O-7SL-1	O-5710-90
Ideco	T-1600	O-U7VL-1	O-7SL-1	O-5710-90
Ideco	T-500	O-U6VL-1	O-6SL-1	O-5710-90
Ideco	T-800	O-U6VL-1	O-6SL-1	O-5710-90
National	10-P-130	O-U6VL-1	O-6SL-2	O-5710-90
National	12-P-160	O-U7VL-1	O-7SL-2	O-5710-90
National	8-P-80	O-U6VL-1	O-6SL-2	O-5710-90
National	9-P-100	O-U6VL-1	O-6SL-2	O-5710-90
National	K-180	O-U7VL-1	O-7SL-1	O-5710-93
National	K-280	O-U7VL-1	O-7SL-1	O-5710-93
National	K-380	O-U7VL-1	O-7SL-1	O-5710-93
OPI-Gist	700-HDL	O-U6VL-1	O-6SL-1	O-5710-90
Oilwell	1400-PT	O-U7VL-1	O-7SL-1	O-5710-90
Oilwell	1700-PT	O-U7VL-1	O-7SL-1	O-5710-90
Oilwell	350-PT	O-U6VL-1	O-6SL-1	O-5710-90
Oilwell	A1100-PT	O-U7VL-1	O-7SL-1	O-5710-90
Oilwell	A1400-PT	O-U7VL-1	O-7SL-1	O-5710-90
Oilwell	A1700-PT	O-U7VL-1	O-7SL-1	O-5710-90
Oilwell	A560-PT	O-U6VL-1	O-6SL-1	O-5710-90
Oilwell	A600-PT	O-U6VL-1	O-6SL-1	O-5710-90
Oilwell	A850-PT	O-U7VL-1	O-7SL-1	O-5710-90
Skytop Brewster	B-1000-T	O-U6VL-1	O-6SL-1	O-5710-90
Skytop Brewster	B-1300-T	O-U7VL-1	O-7SL-1	O-5710-90
Skytop Brewster	B-1600-T	O-U7VL-1	O-7SL-1	O-5710-90

Inserts

For 6 Series Valves use Insert Part No. OU-23310

For 7 Series Valves use Insert Part No. OU-23315

Puller Heads

For 6 Series Valve Seats use Part No. OP1700-6 full

For 7 Series Valve Seats use Part No. OP1700-7full

Springs

Please Note : That the Full Open Spring listed must be used with it's corresponding Valve for correct pump performance.