

Double-Pass Reverse Osmosis Systems

Ultra™ RO



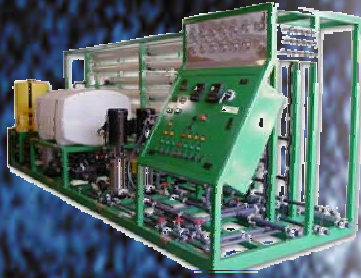
Ultra™ brand Double-Pass Reverse Osmosis systems are designed to provide 99.99% TDS rejection to yield permeate water suitable for most electronics, semi-conductor, and pharmaceutical applications. Ultra™ Double-Pass R.O. systems are especially suited to be used as pre-treatment for the Ultra brand Electro-Deionization (EDI) systems or traditional Ion Exchange equipment when ultrapure 18 meg-ohm product water is required.

Ultra™ brand Double-Pass Reverse Osmosis systems from Haliant Technologies provide the right combination of value and features required for any high-purity application. Every Ultra™ Double-Pass R.O. system is manufactured from the highest quality components to the exacting standards of all Haliant Technologies equipment. Standard Ultra™ Double-Pass R.O. models are available for any commercial application from 1,600 to over 150,000 GPD.



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Design Assumptions

- Feed Water of 1,000 mg/L TDS at 25 C, SDI < 3,
- Turbidity < 1
- 3rd year of operation allowing for Flux Decline and Salt Passage Increase
- Negligible permeate backpressure
- Flux, Minimum Brine Flow, and Recovery in accordance with membrane manufacturers recommendations

System Specifications

Standard Features

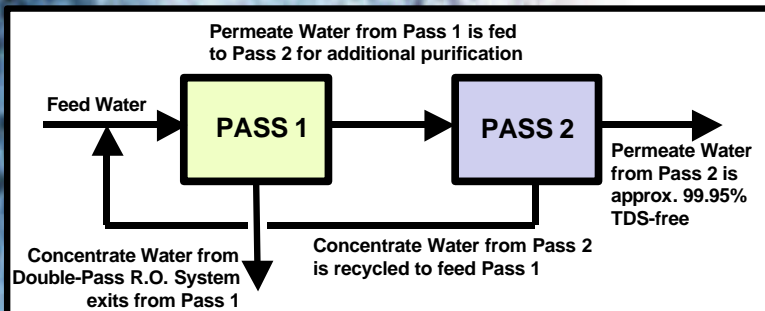
- Fiberglass-Wrapped TFC Membranes
- 316SS Pump, Valves, Pressure Gauges
- 316L Stainless Steel High-Pressure Piping
- 60Hz/230V-460V, TEFC motor
- Automatic High and Low Feed Pressure Shut-off
- Permeate and Concentrate Flowmeters
- Automatic Feed Water Shut-off Valve
- 5-micron Sediment Prefilter
- Fiberglass Pressure Vessels
- Prefilter Pressure Gauges
- Buffer Tank between Pass 1 and Pass 2

Optional Features

- Chemical Dosing System
- Clean-in-Place System
- TDS, pH, Temperature, Turbidity Instruments
- PLC Control
- Special Color or Private Label
- 50Hz Motor
- Automatic Feed Water or Permeate Flush
- Sanitary or Inert Piping and Fittings
- Crating

SYSTEM CONFIGURATION

MODEL	PRODUCTION		RECOVERY (%)	NUMBER AND SIZE ELEMENTS	MOTOR		APPROXIMATE SHIPPING DIMENSIONS			APPROXIMATE SKID DIMENSIONS		
	GPD	m3/D			60Hz (HP)	50Hz (KW)	(L x W x H) (inches)	(L x W x H) (cm)	WEIGHT (lbs/Kg)	(L x W x H) (inches)	(L x W x H) (cm)	WEIGHT (lbs/Kg)
ULTRA-RO-1	1,600	5	50	3 (4")	3	1.5	76 x 48 x 72	193 x 122 x 183	550/250	64 x 37 x 60	163 x 94 x 152	250/114
ULTRA-RO-2	3,200	11	75	7 (4")	3	2.5	76 x 48 x 72	193 x 122 x 183	600/273	64 x 37 x 60	163 x 94 x 152	275/125
ULTRA-RO-3	4,800	16	75	9 (4")	6	4.4	76 x 48 x 72	193 x 122 x 183	650/295	64 x 37 x 60	163 x 94 x 152	300/136
ULTRA-RO-5	7,200	27	75	12 (4")	6	3.7	180 x 60 x 78	457 x 152 x 198	1200/545	168 x 48 x 66	427 x 122 x 168	850/341
ULTRA-RO-10	14,400	55	75	22 (4")	9.5	6.2	180 x 60 x 78	457 x 152 x 198	1500/682	168 x 48 x 66	427 x 122 x 168	1150/523
ULTRA-RO-15	21,600	80	75	33 (4")	11	7	228 x 60 x 78	579 x 152 x 198	2050/932	216 x 48 x 66	549 x 122 x 168	1650/750
ULTRA-RO-20	28,800	110	75	42 (4")	13	8	228 x 72 x 78	579 x 183 x 198	2550/1159	216 x 60 x 66	549 x 152 x 168	2150/977
ULTRA-RO-25	36,000	135	75	52 (4")	17.5	11	228 x 72 x 78	579 x 183 x 198	3200/1455	216 x 60 x 66	549 x 152 x 168	2750/1250
ULTRA-RO-30	43,200	165	75	14 (8")	20	16.5	228 x 72 x 78	579 x 183 x 198	3950/1795	216 x 60 x 66	549 x 152 x 168	3450/1568
ULTRA-RO-45	64,800	245	75	22 (8")	30	22	288 x 72 x 84	732 x 183 x 213	4750/2159	276 x 60 x 72	701 x 152 x 183	4250/1932
ULTRA-RO-60	86,400	330	75	30 (8")	40	30	288 x 78 x 84	732 x 198 x 213	5750/2614	276 x 66 x 72	701 x 168 x 183	5150/2341
ULTRA-RO-75	108,000	410	75	36 (8")	40	30	288 x 78 x 90	732 x 198 x 229	6750/3068	276 x 78 x 78	701 x 198 x 198	6150/2795
ULTRA-RO-90	129,600	490	75	44 (8")	44	33.5	360 x 84 x 90	914 x 213 x 229	7850/3568	348 x 72 x 78	884 x 183 x 198	7250/3296
ULTRA-RO-110	158,400	600	75	52 (8")	48	41	360 x 90 x 90	914 x 229 x 229	9050/4114	348 x 78 x 78	884 x 198 x 198	8450/3841



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