

Hydroplex HP5000

Defining Water Purification Standards

Although the **HP5000** is designed and manufactured to provide a specific need for the military (Jet Engine Rinse), use of this equipment is unlimited and can be constructed to fit any application.

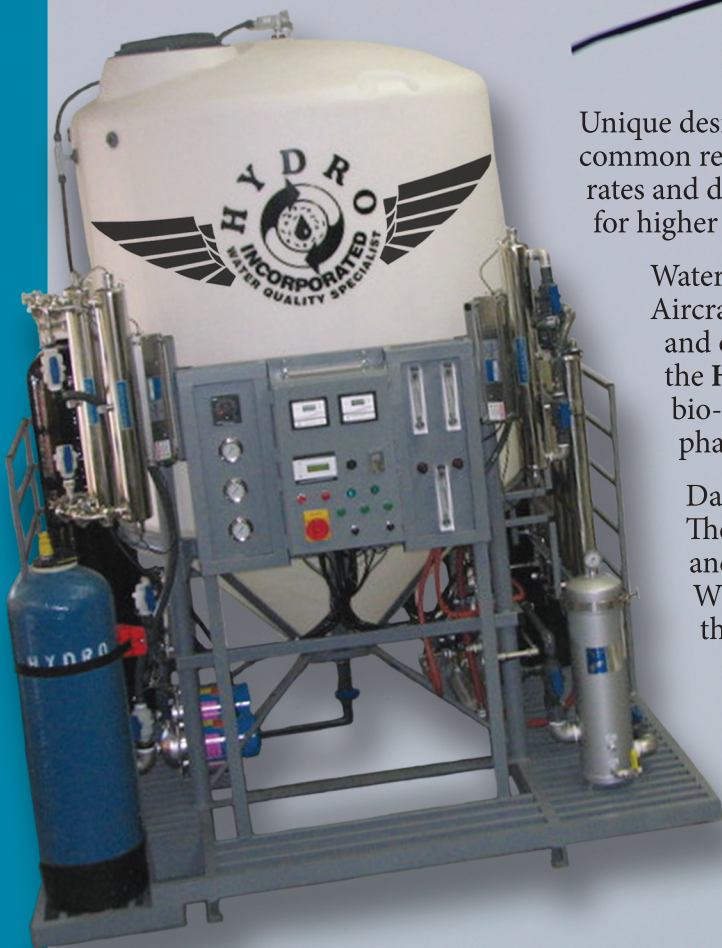


Unique design allows for the space saving installation, a common request for most applications today. Production rates and delivery rates can be altered with this machine for higher or lower demands.

Water quality (product) can be achieved for use in Aircraft/Airframe rinse, machinery or vessel rinse, and of course, jet engine rinse. With slight retro-fit, the **HP5000** will produce water for laboratory, bio-med, bio-tech, food/beverage and pharmaceutical fields.

Daily usage has been designed end-user easy. The micro process control does the work for you and will alert you if attention to service is required. With minimal preventative maintenance, the **HP5000** will work for many years to come.

Contact us for complete specifications. You will be surprised by the **HP5000's** price, performance and low cost maintenance compared to conventional systems on the market today.



(800) 579-6869

Service Centers:

Atlanta, GA
Tampa, FL
Charlotte, NC

Coming Soon:

Nashville, TN
Mobile, AL

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HYDR  **INC.**
Since 1984

The Southeast's Water Quality Specialist

Built to YOUR Specifications



Conductivity and Resistivity Chart

(NaCl and CaCO₃ Solutions at 25° C)

GRAINS/Gal as CaCO	PPM as CaCO	PPM NaCl	CONDUCTIVITY microhms/cm	RESISTIVITY megohms/cm
99.3	1700	2000	3860	0.00026
74.5	1275	1500	2930	0.00034
49.6	850	1000	1990	0.0005
24.8	425	500	1020	0.00099
9.93	170	200	415	0.0024
7.45	127.5	150	315	0.0032
4.96	85	100	210	0.0048
2.48	42.5	50	105	0.0095
0.992	17	20	42.7	0.023
0.742	12.7	15	32.1	0.031
0.496	8.5	10	21.4	0.047
0.248	4.25	5	10.8	0.093
0.099	1.7	2	4.35	0.023
0.074	1.27	1.5	3.28	0.3
0.048	0.85	1	2.21	0.45
0.025	0.42	0.5	1.13	0.88
0.0099	0.17	0.2	0.49	2.05
0.0076	0.13	0.15	0.38	2.65
0.005	0.085	0.1	0.27	3.7
0.0025	0.042	0.05	0.16	6.15
0.00099	0.017	0.02	0.098	10.2
0.0007	0.012	0.015	0.087	11.5
0.00047	0.008	0.01	0.076	13.1
0.00023	0.004	0.005	0.066	15.2
0.00012	0.002	0.002	0.059	16.9
0.00006	0.001	0.001	0.057	17.6
none	none	none	0.055	18.3

Laboratory Report HP5000

Analytical Method	Analyte	Result	Detection Limit	Units
General Chemistry				
EPA 325.3	Chloride	BDL	1	mg/l
EPA 120.1	Electrical Conductivity	1.62	1.0	umhos/cm
EPA 150.1	pH	7.08	NA	S.U.
EPA 375.4	Sulfate	BDL	1.0	mg/L
EPA 160.1	Total Dissolved Solids	BDL	10	mg/L
SM 5310B	Total Organic Carbon (TOC)	5.17	.210	mg/L
Metals				
EPA 6010	Total Aluminum (Al)	BDL	4.61	ug/L
EPA 6010	Total Antimony (Sb)	3.12	1.82	ug/L
EPA 6010	Total Arsenic (As)	BDL	2.66	ug/L
EPA 6010	Total Barium (Ba)	BDL	0.916	ug/L
EPA 6010	Total Beryllium (Be)	BDL	0.032	ug/L
EPA 6010	Total Cadmium (Cd)	BDL	0.056	ug/L
EPA 6010	Total Calcium (Ca)	5.56	4.71	ug/L
EPA 6010	Total Chromium (Cr)	0.880	0.160	ug/L
EPA 6010	Total Cobalt (Co)	BDL	0.140	ug/L
EPA 6010	Total Copper (Cu)	0.800	0.160	ug/L
EPA 6010	Total Iron (Fe)	BDL	8.20	ug/L
EPA 6010	Total Lead (Pb)	BDL	0.744	ug/L
EPA 6010	Total Magnesium (Mg)	BDL	1.49	ug/L
EPA 6010	Total Manganese (Mn)	BDL	0.220	ug/L
EPA 6010	Total Mercury (Hg)	BDL	0.062	ug/L
EPA 6010	Total Nickel (Ni)	BDL	0.360	ug/L
EPA 6010	Total Potassium (K)	2.76	0.932	ug/L
EPA 6010	Total Selenium (Se)	BDL	3.09	ug/L
EPA 6010	Total Silver (Ag)	BDL	0.260	ug/L
EPA 6010	Total Sodium (Na)	BDL	49.9	ug/L
EPA 6010	Total Thallium (Tl)	BDL	1.52	ug/L
EPA 6010	Total Vanadium (V)	BDL	0.328	ug/L
EPA 6010	Total Zinc (Zn)	BDL	0.652	ug/L

17.1 ppm = 1 grain per gallon

1 US gallon = 3.785 Liters

$$1 - \left(\frac{\text{Product TDS}}{\text{Feed TDS}} \right) \times 100 = \% \text{ Rejection}$$

$$\left(\frac{\text{Product GPM}}{\text{Feed GPM}} \right) \times 100 = \% \text{ Recovery}$$

Hydroplex HP5000

Equipment (Standard): * unless noted

Controller: Micro Process Digital Display

RO System: 28,000 liters per day production (24 hour)

RO Concentrate: Recycle valve for water conservation

Membrane: TFC (5) 4 X 40

Low pressure protection RO/Recirc systems

High tank level auto shut-off RO

Flow Meters: (4) product/concentrate/recycle/loop (analog)

Ultraviolet lamp (1) dual wave length, 185 nm, (2) 254 nm

Membrane Housing: (5) stainless steel

RO Pump: (2) centrifugal stainless 316L

Pre-filtration: 4 X 20 5 micron depth stainless housing

Post-filtration: 4 X 20 1 micron depth stainless housing

Auto softener/Carbon

Pressure reduction valve

Monitor: TDS/Resistivity/Conductivity/PH

Auto Flush System

24 hour continuous recirculation

Pressure Monitor: Feed/Pump/Concentrate/Loop

Specifications: (as pictured - subject to change)

Net weight: 1,720 lbs dry, 7,220 lbs wet

Frame: Welded metal tube and epoxy coated

Dimensions: L 8' X W 7' X H 10.5'

Duty Cycles: Continuous with programmable options

Voltage: 230/460 60 Hz 20 amp dedicated

Feed Water Flow: 15 gpm minimum

Feed Water Pressure: 20 psi minimum, 65 psi maximum

Feed Water Temp: 50 - 95° F

Drain: 15 gpm minimum

Product Flow Rate: 5 gpm with temp 77° F

Quality: (Resistivity) 17.5 - 18.2 megohm

RO make-up: 300 gallons per hour

Bacteria: < 1 cfu/ml with monthly sanitization

TOC: < 500ppb

UV Dual Wave Length: 185 and 254 nm

RO Storage Construction: Polypropylene 45° conical bottom

RO Storage Capacity: 1000 gallon

Deionization: (1) 1447 3.6 cf mixed bed

Location: Indoor - Free of moisture with controlled temperature 50-85°