

Diamond Skid

The Diamond Skid is an industrial grade reverse osmosis water purification system. It is currently used throughout domestic and international markets, answering the call for pure, quality, consumable drinking water.

The complete Diamond Skid system interfaces with additional compatible units to accommodate your everyday water business needs. These units provide you with a means to clean and sterilize containers efficiently, fill a variety of container sizes, and to dispense and sell your pure water product 24 hours a day.

This system is applicable to various purified water uses such as drinking water projects, water bottling, tech industry applications, manufacturing processes and beverage production processes.



Purification Process:

STEP 1: AG Pre-Filtration – cartridge type, removes particulate matter down to 20 microns.

STEP 2: Carbon - an activated carbon cartridge filter that removes chlorine, chloramine, solvents, lead, insecticides, gasses, and other harmful contaminants. Works as a water softener, without the use of salt and drawing hardness particles together and crystallizing them. Includes an automatic backwashing system.

STEP 3: 5 Micron Pre-Filter - removes particles, sediments, and algae.

STEP 4: R.O. Pump - high pressure, stainless steel pump to boost water pressure to 150PSI. for maximum membrane efficiency.

STEP 5: Reverse Osmosis Membrane - water is forced through a semi permeable, .0002 micron membrane, allowing only pure water molecules to pass.

STEP 6: Storage - water is stored in FDA approved tanks.

STEP 7: Repressure System – 20 GPM pressure pump assures constant water supply from storage tanks to post carbon filter, ultraviolet sterilizer, and faucets. **STEP 8:** Pressure Tank - 30 gallon pressure tank assures a constant flow of water to the filler and prolongs pump life.

STEP 9: Post Carbon Filtration - water travels through a 4.5in x 20in coconut shell carbon block filter, polishing it for an exceptionally smooth taste.

STEP 10: Ultraviolet Sterilizer - stainless steel sterilizer eliminates up to 99.9% of all bacteria.

STEP 11: Optional - ozone may be added to water storage tanks to prevent future bacterial growth.

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Back view

The Diamond Skid is made in different models that range in output production per day. The physical size of each model is the same (90”L x 30”W x 74”H).

Model	Gallons per day	Liters per day
DS-1	1,500	5,625
DS-2	3,000	11,250
DS-3	4,500	16,875
DS-4	6,000	22,500
DS-6	9,000	34,000

Each model can be customized to be able to treat incoming water of almost any quality.

Options:

- Ozone generator
- Feed pump
- TDS meter
- Hour meter
- Water softener in place of AG filter
- Chemical Injection

Features:

- Powder coated steel frame with aluminum diamond plate base
- Prewired electrical panel – circuit breaker
- Automatic flush
- Lights: power on, system running, low pressure with auto cut-off
- Stainless steel booster pump
- Deal level R.O. controls
- Auto-backwash on pre-treatment
- Pre and post filter gauges
- Waste and recycle valves
- Product and waste flow meters
- Stainless steel membrane housings
- Pressure pump – 20 GPM
- Ultraviolet sterilization light – 20 GPM
- All components and materials are either NSF/FDA/UL/ETL approved

Specifications:

Feed water:

- Temperature: 35°-85°
- Pressure: 40-80 psi
- Total Dissolved Solids (TDS): 2000 ppm

Tolerance:

- Iron: 0.5 ppm
- Silica: 25 ppm@50%
- Recovery pH range: 3–11
- Water recovery—up to 60%
- Salt rejection—90-98%+