A Reliable Deionized Water Gas Tankless Heater

The Hubbell Model DGX is a dependable and trouble-free source for hot water in continuous, cyclical, or variable flow systems in a wide range of hot deionized water, RO water and mildly corrosive applications. The Hubbell Model DGX is equipped with a dependable and trouble-free all 316L stainless steel coil which is impervious to the corrosive effects of hot water and provides maximum longevity.

Only the highest quality materials and components are used to ensure reliable operation in even the most demanding applications. The DGX Model is ready for immediate installation and service. When you specify and install a Hubbell Model DGX, you will have confidence in knowing the owner will be provided with a trouble-free and long lasting source for heating DI/RO water.
Corrosive Effects of RO/DI Water

Water is a strong solvent; therefore, it carries many invisible substances: minerals, oxygen, nutrients, waste products, pollutants, etc. Pure water will leach out any and every substance that it can dissolve from the substances that it comes into contact with, until its content is homogeneous with its surroundings or the water is saturated with substances so that it can no longer dissolve anymore substances. RO water is aggressive due to the DO (dissolved oxygen) and CO (carbon dioxide) content, which are more aggressive and corrosive than low pH acidic waters. DI water is equally aggressive and highly corrosive and will attack metals including certain types of stainless steel. Neither RO nor DI water should be run through ferrous metal vessels, plumbing, fixtures etc. Doing so will cause irreversible damage but more importantly, the metal will be added to the water. Hubbell understands the damaging effects of RO/DI water and has engineered and manufactured our Gas Tankless units using all 316L stainless steel wetted components made to withstand these corrosive substances.

Why Hubbell Gas Tankless Heaters Are Superior?

- **Reliability**
  The Hubbell DGX is designed to provide many years of operation even when heating aggressive water. The entire heater is all 316L stainless steel construction and can be designed, constructed and stamped in conformance to ASME Section VIII.

- **Advanced Construction**
  Provides trouble-free system integration, operation and maintenance. Temperature control is provided by an electronic solid state digital display controller. The controller is fully adjustable from 100-185°F (38°-85°C). Our design is scalable from 200,000 BTU/Hr. to 2,500,000 BTU/Hr.

- **Lower Operating Costs**
  By eliminating standby heat loss the Hubbell DGX is an efficient and reliable unit delivering hot water at your desired temperature. The Hubbell DGX significantly reduces operating costs.
How It Works

The Hubbell DGX utilizes a down fire burner through a non-welded all 316L stainless steel heat exchanger with the most advanced features in the tankless industry.

- **Inlet Flow Sensor & Adjustment Valve**: Detects flow and temperature.
- **Fan**: Assists with ventilation and fuel mixing.
- **Digital Display**: LED intuitive controller.
- **Radially Fired Burner**:
  - Gas/Propane burner 100% modulating.
  - Pulse firing for low flow applications.
- **Coiled Heat Exchanger**:
  - 316L Stainless Steel non-welded coil is able to flex throughout the heating cycle providing longer service life.

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**All Wetted Surfaces to be 316 L SS**
Due to its efficient design, The Hubbell model DGX DI/RO water heater produces condensate (water) as a normal by-product. This condensate is acidic, with a pH level between 3 and 4. Local building codes may require an in-line neutralizer to be installed (not included) to treat this water.

1. Connect 3/4 I.D. flexible drain line (2) to the condensate nipple located on the of the unit. Tighten hose clamp (1).

2. Local building codes may require an in-line neutralizer (3) to be installed (not included) to treat the condensate.

3. Route the drain line to the floor drain (5), or condensate pump (4).
Hubbell condensing tankless water heaters are the ideal solution for water demand up to 2.5 million BTUs. Hubbell units can be daisy chained within minutes through our factory provided manifold system without the need to buy a separate master controller. Each unit automatically recognizes when another unit is brought online or taken offline. Up to 10 units can be common vented.

- Engineered and built to meet your exact needs
- Factory integrated system simplifies installation
- Factory installed components ensure reliable system performance

Contact a Sales Engineer to discuss your Packaged System
Dimensional Specification

Front View

Top View

Side View

Bottom View

TYPICAL CONFIGURATION FOR T & P

- **T&P Relief Valve (if required)**
- **3" CPVC Polypropylene Connections**

QUICK & EASY 3" PVC CONNECTIONS
## Model DGX - RO/DI Water Heater Specification

### Top Connections

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Supply Inlet Connection</td>
<td>3/4” Male NPT</td>
</tr>
<tr>
<td>Water Supply Inlet Connection</td>
<td>3/4” Female NPT</td>
</tr>
<tr>
<td>Heated Water Outlet Connection</td>
<td>3/4” Female NPT</td>
</tr>
<tr>
<td>Exhaust Gas Vent</td>
<td>3” O.D. PVC Schedule 40¹</td>
</tr>
<tr>
<td>Fresh Air Intake</td>
<td>3” O.D. PVC Schedule 40¹</td>
</tr>
</tbody>
</table>

### Bottom Connections

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain Connection</td>
<td>1/8” Female NPT (OPTIONAL)</td>
</tr>
<tr>
<td>Condensate Drain Connection</td>
<td>3/4” Nipple (3/4” flex hose)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>120V AC Power Cord</td>
</tr>
</tbody>
</table>

¹ Requires a 3” to 2” reducer when using 2” venting pipe. ² Using sizes other than specified can cause damage to the water heater and will void the warranty.

### Performance

<table>
<thead>
<tr>
<th>Features</th>
<th>DGX200</th>
<th>DGX250</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certifications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Star Listed</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>SQAQMD Certified 2012 Low Nox</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ETL Listed (ANZI Z21.10.3)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot Water Capacity (60°F Rise)</td>
<td>6.2 GPM</td>
<td>7.7 GPM</td>
</tr>
<tr>
<td>Hot Water Capacity (80°F Rise)</td>
<td>4.6 GPM</td>
<td>5.8 GPM</td>
</tr>
<tr>
<td>Hot Water Capacity (100°F Rise)</td>
<td>3.7 GPM</td>
<td>4.6 GPM</td>
</tr>
<tr>
<td>Commercial Mode Temp. Setting</td>
<td>100 – 185°F (adjustable 1°F increments)</td>
<td></td>
</tr>
</tbody>
</table>

### Warranty

Commercial - Heat Exchanger coil – 5 years, Parts – 3 years, Labor – 1 year

**Note:**
- Energy Star and SQAQMD Certified 2012 Low Nox on model DGX200
- Continuing research results in product improvement; therefore specifications are subject to change without notice. For the most updated information, consult the factory directly.
GENERAL
Provide a quantity of ________ high efficiency condensing gas tankless RO/DI water heater(s) Model No.________ as provided by HUBBELL Electric Heater Co., Stratford, CT. The entire unit is to be packaged ready for water, gas and electrical service connections and shall bear the ETL listing mark certifying the entire unit for the US and Canada.

CONSTRUCTION
The heat exchanger shall be a free-floating non-welded 316L stainless steel finned tube design. The heater shall provide hot water at flow rates as low as 0.6 GPM. An advanced LED multi-function display provides temperature control. Heaters that require greater than 0.6 GPM to activate shall not be acceptable. Heater to be Ultra low NOx certified by SCAQMD and will include an over temp sensor in the exhaust port, capable of first turning down, then turning off the heater if the flue gas reaches an over temperature condition. The heater is to be rated for a maximum allowable working pressure of 150psi. A factory provided ASME rated combination temperature and pressure safety relief valve set at 150psi and 210°F provides protection for the heater and is to be installed in the hot water piping. Heater shall be designed and assembled in the USA. (Optional Specifications: ASME stamped heat exchanger)

RECOVERY
The recovery section shall be rated at _______ mBTU/HR which will heat ______ GPM of water ______°F rise.

ELECTRICAL
The electrical power required for the water heater is 120V AC at 60 Hz. The Hubbell water heater has a 60 inch power cord equipped with a GFI three-prong plug. The unit should be plugged into a properly grounded outlet rated for at least 10 Amps (12 gauge wire with a minimum of a 10 Amp circuit breaker.

In addition, the Condensing Gas tankless water heater shall be supplied with the following optional features:

Option _________________________________
Option _________________________________
Option _________________________________

WARRANTY
The heater manufacturer shall warranty all internal components against defects in workmanship and material for a period of three (3) years from date of start-up, and the heat exchanger for a full five (5) years Non Pro-Rated from date of start-up, provided that the unit is started within three (3) months of date of shipment and installed and operated within the scope of the vessel design and operating capability. Each water heater shall be shipped with a complete set of installation and operating instructions including spare parts list and approved drawings.