

## **DYNAMIC HEAT GENERATOR – MODEL 1390**

**450 hp [1,145,000 BTU/hr]**

**Available with 6061 T6 Aluminum/A514 T1 Carbon Steel/304 Stainless Housing and Rotor Elements**

**Optional 530 hp SAED/SAED Full Disconnect Hydraulic Clutch**

### ***SIMPLE, RELIABLE, FLAMELESS***

**PREHEAT AND WARM ENGINES**

**HEAT TO VAPORIZE LIQUIFIED GASES**

**HEAT OILS, FUELS AND LUBRICANTS**

**HEAT BUILDINGS, SHELTERS, AND DECKS**

**PREVENT WATER FREEZING IN TANKS**

**WARM AND CIRCULATE POTABLE WATER**

**DEICE VEHICLES AND AIRCRAFT**

**BOIL WATER/DESTROY PATHOGENS**

**HEAT COOKING AND WASH WATER**

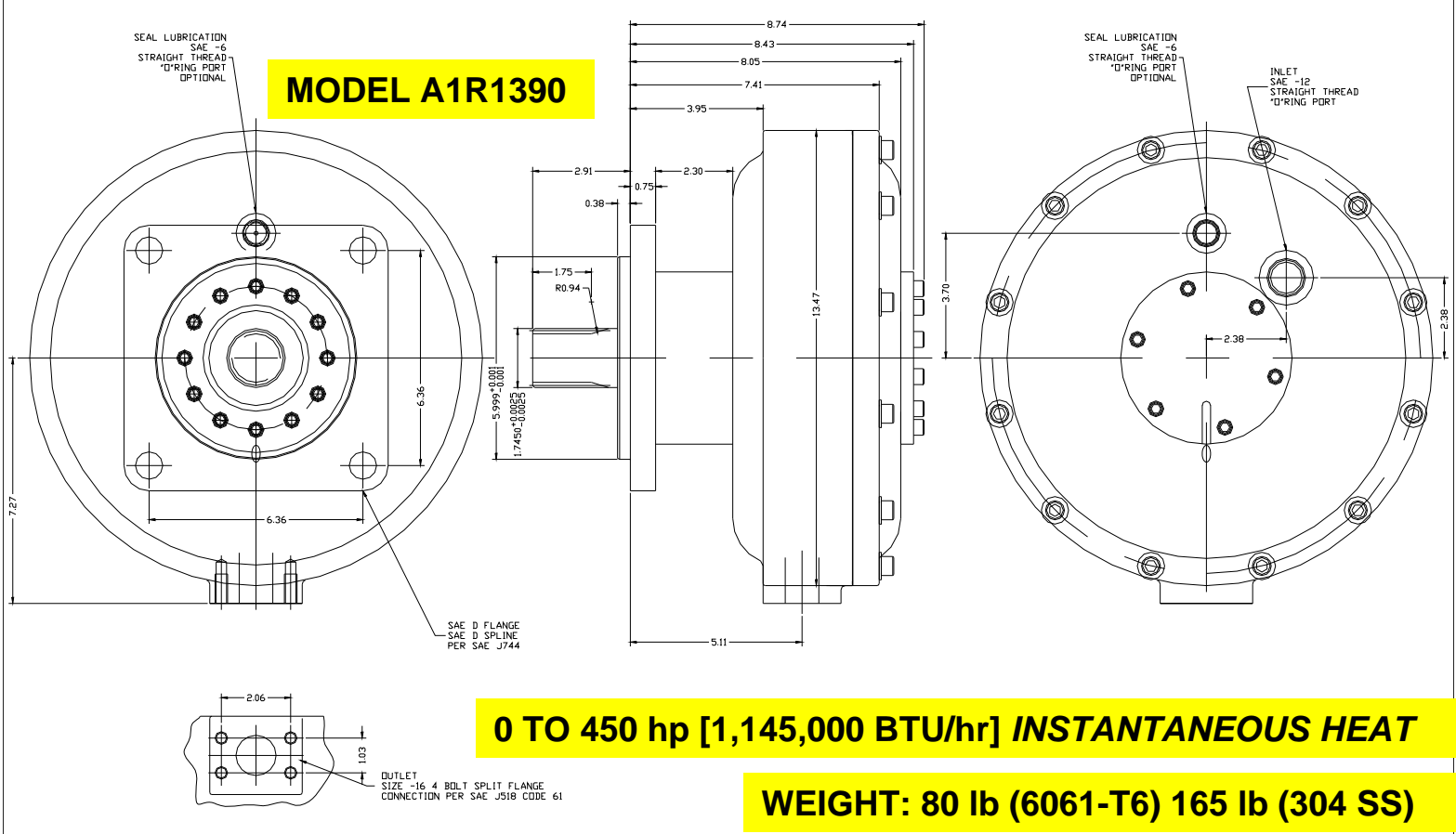
**WARM HYDRAULIC SYSTEMS**

**COOK AND HEAT FOOD**



Simple and rugged characterizes the Island City DHG construction.. Monolithic CNC machined components are TYPE III anodized per MILSPEC for corrosion and erosion protect. Hard housing surface finish (85 Rockwell) is approved for potable water and food applications. Operating temperature range to 250 deg F [121 deg C] with higher operating temperature available upon application. Model 1390 HD rotary and stationary surfaces are CNC machined from wrought 304 stainless steel for continuous duty full-power applications. All units include high-temperature bearings and hardened 4140 shaft with chrome-plated shaft journals.

**PAT APPLIED FOR**

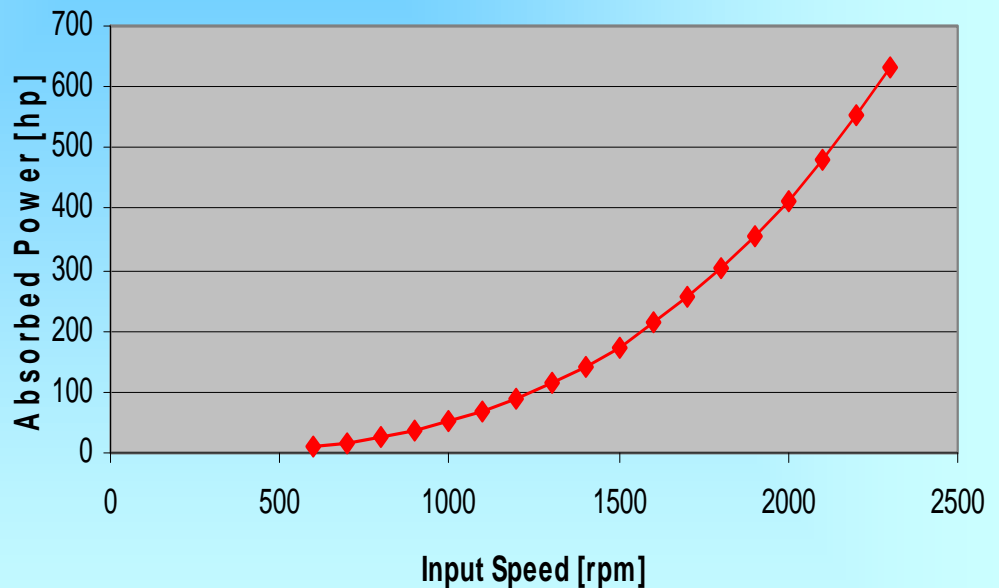


The ISLAND CITY Dynamic-Heat-Generator is a MECHANICALLY DRIVEN heater that converts rotating shaft input directly into heat to warm water, water/glycol mixtures or oil. The DHG requires only rotary input to heat large fluid volumes rapidly and efficiently without a heat exchanger. ORIGINALLY developed to heat and maintain engine temperature in large oil-field engines during idle in arctic conditions. Driven from engine PTO, electric motor, hydraulic drive or belt the DHG has only one moving part requiring no regular service or consumables. Available with standard SAE shaft/flange, other drives upon application.

**BASIC SPECIFICATIONS Model 1390 and HD**

- Capacity:** 450 hp [1,145,000 BTU/hr]
- Temp (max):** 250 deg F (Higher temperature available upon application)
- Input Drive:** SAE A, B, C, D or customer specified
- Heat Regulation:** Rotational Speed  
Full Disconnect 530 hp Clutch  
Fluid Inlet Flow
- Ports:** Inlet: #12 SAE Outlet: #16 Code 61 or customer specified
- Pressure (max)** 300 psi
- IC Options:** Integral Charge Pump  
Full 530 hp Disconnect Clutch  
Thru-Drive SAE A - D
- Housing/Rotor:** CNC Machined 6061 T6 Alloy  
ASTM 304 Stainless Steel (XHD)  
A514 T1 HSLA Steel (HD)
- Finish:** 6061 T6 - Anodizing per MIL-A-8625F  
304 Stainless Steel - Natural Finish  
A514 T1 - NITROFLEX

**Performance Curve  
Model A1R1390**



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