

# ***Dynablast***

## Hydrovac Heaters Features & Benefits



# HV420F-12VLS

HIGH PRESSURE

**Dynablast**

- Stationary module on compact square base design
- 420,000 BTU
- Schedule 80 - ½" pipe
- Fuel oil burner Beckett 12V
- High limit temp. switch
- Adjustable thermostat
- Flow switch
- Top discharge with Temperature gauge
- Raycor fuel filter
- Easy access to burner for service ability
- Robust design for coil support
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- ETL certified



HV420F-12VLS



HV420F-12VRLS

# CAB420FLS-12V

HIGH PRESSURE

***Dynablast***

- Stationary module in a cabinet
- 420,000 BTU
- Schedule 80 – ½” pipe
- Fuel oil burner Beckett 12V
- High limit temp. switch X2 (105<sup>0</sup>)
- Adjustable thermostat
- Flow switch
- Top discharge with temperature gauge
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- Easy access to burner for service ability
- Robust design for coil support
- ETL certified



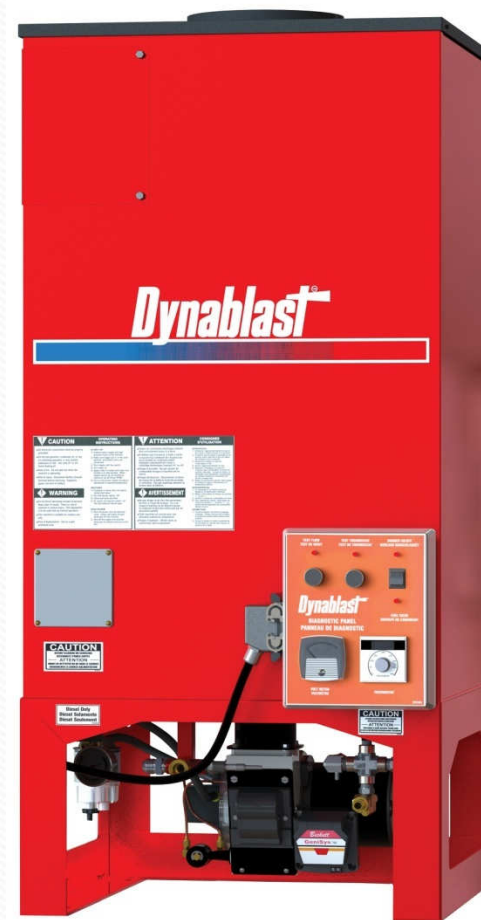
**12V**

# HV690FLS-12V

HIGH PRESSURE

***Dynablast***

- Stationary module on compact square base design
- 690,000 BTU
- Schedule 80 – ¾" pipe
- Fuel oil burner Beckett SDC 12V
- High limit temp. switch
- Adjustable thermostat
- Flow switch
- Service access panel, Top discharge
- Easy access to burner for service ability
- Robust design for coil support
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- ETL certified



**12V**

# HV700FLS / 900FLS HIGH PRESSURE

# *Dynablast*

- Stationary module on compact square base design
- 700,000 BTU / 900,000 BTU
- Schedule 80 – ¾" pipe
- Fuel oil burner Wayne & Beckett 120V
- High limit temp. switch
- Adjustable thermostat
- Flow switch
- Service access panel, Top discharge
- Easy access to burner for service ability
- Robust design for coil support
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- Quick electrical disconnect
- ETL certified



**120V**

# HV420F-12V STEAM & HIGH PRESSURE

***Dynablast***

- Stationary module on compact square base design
- 420,000 BTU
- Schedule 80 – ½” pipe
- Fuel oil burner Beckett 12V
- High limit temp. switch X2 (105° & 160°)
- Adjustable thermostat
- Flow switch
- Bottom discharge with Temperature gauge
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- Easy access to burner for service ability
- Robust design for coil support
- Steam ETL certified
- ETL certified



**HV420F-12V**



**HV420F-12VR**

**12V**

# HV690F-12V

STEAM & HIGH PRESSURE

***Dynablast***

- Stationary module on compact square base design
- 690,000 BTU
- Schedule 80 – ¾" Coil
- Fuel oil burner Beckett SDC 12V
- High limit temp. switch X2 (105° & 160°)
- Thermo couple / Flow switch
- Bottom discharge with temperature gauge
- Service access panel
- Easy access to burner for service ability
- Robust design for coil support
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- Steam use ETL certified
- ETL certified



**12V**

# HV700F / 900F STEAM & HIGH PRESSURE

# *Dynablast*

- Stationary module on compact square base design
- 700,000 BTU / 900,000 BTU
- Schedule 80 – ¾" Coil
- Fuel oil burner Wayne & Beckett 120V
- High limit temp. switch X2 (105° & 160°)
- Thermo couple / Flow switch
- Bottom discharge with Temperature gauge
- Service access panel
- Easy access to burner for service ability
- Robust design for coil support
- Momentary overrides for flow & thermostat (trouble shooting in the field)
- Quick electrical disconnect
- Steam use ETL certified
- ETL certified



**120V**



What makes our New heaters better than our competitors?

## Certification

- ETL (UL1776) Standard certification for heaters
- ETL (CSA B140-11-M89) Steam certification for Canada
- Only north American manufacturer of Hydrovac heaters ETL certified.



## Made in Canada

- Only manufacturer to roll coils in Canada.
- Quality control & consistency.



## What makes our New heaters better than our competitors?

### **Strength**

- **7 gauge one piece folded and welded base design – Robust strength for coil support**



- **Dual welded skin design (square outer & round inner) – Robust coil support**



## What makes our New heaters better than our competitors?

### **Coil**

- **Stainless steel target plate in all coils – Longer lasting less flaking on to burner improved coil life.**
- **Competitors have Carbon Steel target plates which over time rust & flake onto the burner discharge and will not allow the burner to ignite.**
- **Image shows shale from the deflector plate dropping down onto the burner**



What makes our heaters better than our competitors?

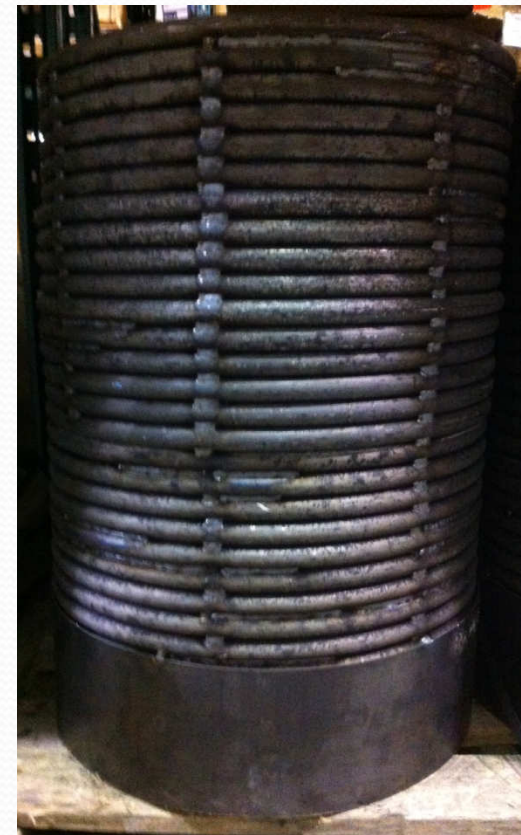
## Coil Continued

### Schedule 80 pipe length

- 420 Coil 221 ft Schedule 80 – ½" pipe
- 700 Coil 284 ft Schedule 80 – ¾" pipe
- 900 Coil 330 ft Schedule 80 – ¾" pipe
- More pipe equals more heat rise.
- All coils are pressure tested to 8000 psi during manufacturing.

### Competitors example

- 900,000 BTU has the same output temperature as a Dynablast 700,000 BTU
- Output temperature 7 GPM @ 200 °F



What makes our heaters better than our competitors?

## Diesel fuel consumption Verses Heat rise

### Example

#### Dynablast 700,000 BTU

- 5.03 GPH
- Heat rise 145°F

#### Competitors 900,000 BTU

- 5.98 GPH
- Heat rise 145°F

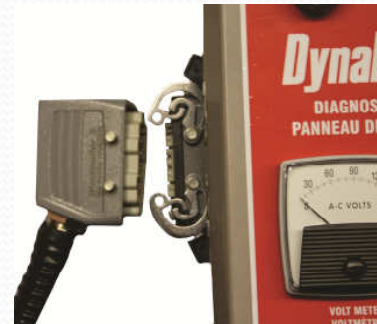
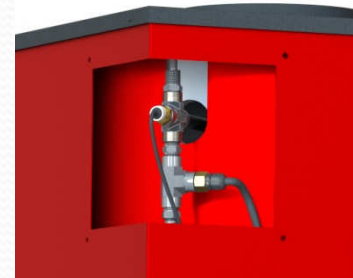
- Dynablast save end user aprox 1 gallon of diesel fuel per hour of operation at the same heat rise.



What makes our New heaters better than our competitors?

## Service friendly

- Removable access panel to access safety controls
- Quick connect on diagnostic panel (120V only)
- Easy access to burner for servicing and removal



What makes our New heaters better than our competitors?

## Value Added

- Parker Raycor Fuel filter / separator premium fuel filter on all models
- Fuel pressure gauge to allow for fuel pressure indication only on 700 & 900. (Not included on 420 models due to no port to attach gauge)
- Temperature gauge to allow user to see output temperature on all HV Series. (Not included on HV700FLS / 900FLS)



## Safety - Thermostat (First safety control - Temperature)

This allows the user to control the output temperature of the heater.

- HV420F-12VLS (R) - HWTR86 – Used standard on most Dynablast models 110°C rated
- HV420F-12V (R), CAB420FLS-12V, HV680FLS-12V & HV680F-12V – GP100438 & GP100439 – GP product recognized within the Hydrovac industry for choice 110°C & 160°C rated
- HV700F (FLS) & HV900F (FLS) – BTC-702 – BTC product recognized with in the Hydrovac industry for choice 400°C rated





## **Safety - High Limit Switch (Second safety control Temperature)**

**This device shuts off the burner once it hits the exceed temperature.**

- **CAB420FLS-12V, HV420F-12VLS (R), HV700FLS & HV900FLS**

**HWELT44110 – Shuts off at 110°C**

- **HV420F-12V (R), HV700F & HV900F**

**HWELT44110 – Shuts off at 110°C (High Pressure)**

**HWELT441165 – Shuts off at 165°C (Steam)**



**HV700F**

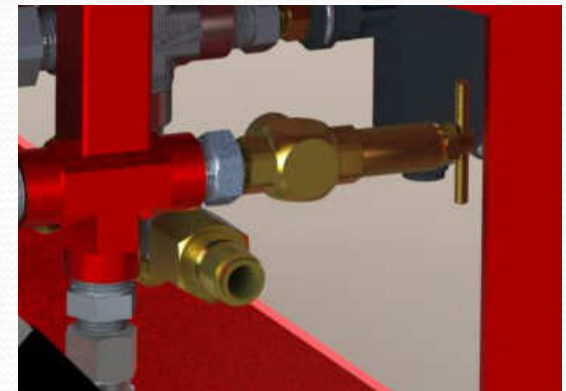
## Safety - Pressure Relief valve (Over Pressure safely device)

This device will release the pressure in the coil by evacuating water if water pressure exceeds preset setting.

- CAB420FLS-12V, HV420F-12VLS (R)  
RV500 – High Pressure blow off 4000 psi
- HV680FLS-12V, HV700FLS & HV900FLS  
GP100982 – High Pressure blow off 4000 psi
- HV420F-12V  
RV500 - High Pressure blow off 4000 psi  
SSAA110-3/8-700 – Steam side blow off 750 psi
- HV680F-12V, HV700F & HV900F  
GP100982 - High Pressure blow off 4000 psi  
SSAA110-3/8-700 – Steam side blow off 750 psi



HV420F-12VLS



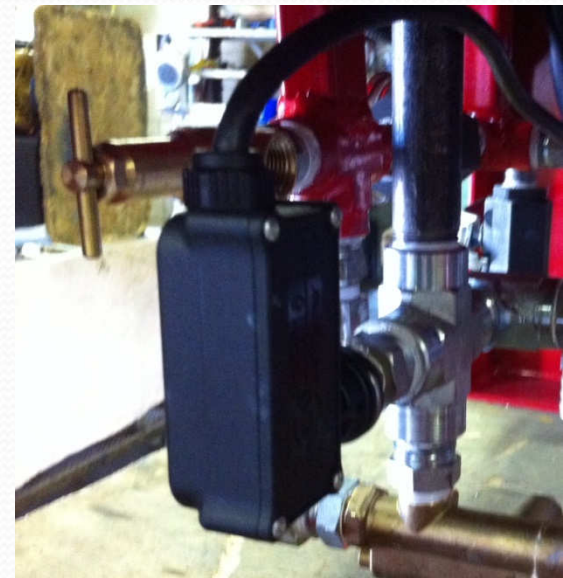
HV900F

## **Safety - Pressure Switch (Steam safety device)**

**This device is on when the heater is in STEAM mode only**

**This device will shut the burner off if the steam pressure exceeds 580 psi.**

- **HV420F-12V (R), HV680F-12V, HV700F & HV900F  
PSW - Only applies to HV Series products**



**HV700F**

## **Safety - Flow switch (Water flow safety control)**

**This device will shut down burner or not allow it to turn on if there is no water flow through the coil.**

- **CAB420FLS-12V, HV420F-12VLS (R) & HV420F-12V (R)**

**HWPUST6 or FL7N – Minimum flow 1 gpm – Minimum pressure 75 psi**

- **HV680FLS-12V, HV680F-12V, HV700FLS, HV900FLS, HV700F & HV900F**

**HWPUST6 – Minimum flow 1 gpm – Minimum pressure 75 psi**



**HV420F-12V**



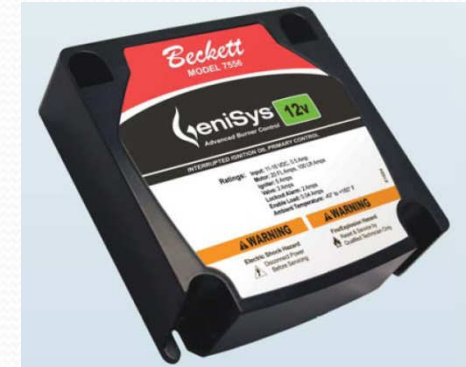
**HV900F**

## Safety - Primary control (Burner Control)

This device is located on all Burners 12V & 120V, it monitors the burner while in operation and is required for ETL certification.

- All Burner Characteristics are met  
Fuel, Spark & Continuous ignition

- CAD Cell  
Once flame is established then ignition shuts off



HW7556 – 12 volt



HW7505A – 120 volt

## Safety - Primary control (Burner Control) Cont'd

How to reset the primary control when condition are not met.

- **HW7556** (CAB420FLS-12V, HV420FLS-12V, HV420F-12V, HV680FLS-12V & HV680F-12V)

Shut off power of burner and turn back on, the burner should restart.

- **HW7505A** (HV700FLS/900FLS & HV700F/900F)

Leave burner power ON. Press reset button on primary Control, HOLD this button ON (15 to 30 seconds) then Release, the burner should restart.



HW7556 – 12 volt



HW7505A – 120 volt

## Tech – Contractor Tool (Sold separately)

Service tool which plugs into the primary control and supplies information and burner adjustment. This tool works for either 12V or 120V primary controls.

- Reads OHM on CAD cell, Lets the technician know if the CAD cell is operating correctly.
- Monitors Voltage supplied to burner
- Stores burner operation history
- Lets technician know the sequence the burner is in
  1. Start up – Ignition
  2. Continuous run



**HW52082U**



***Dynablast***<sup>®</sup>

**Questions??**