

# Gas Production Unit (GPU) Application

A Gas Production Unit, or GPU, is actually two pieces of equipment joined together inside one housing: a Line Heater and a Horizontal separator.

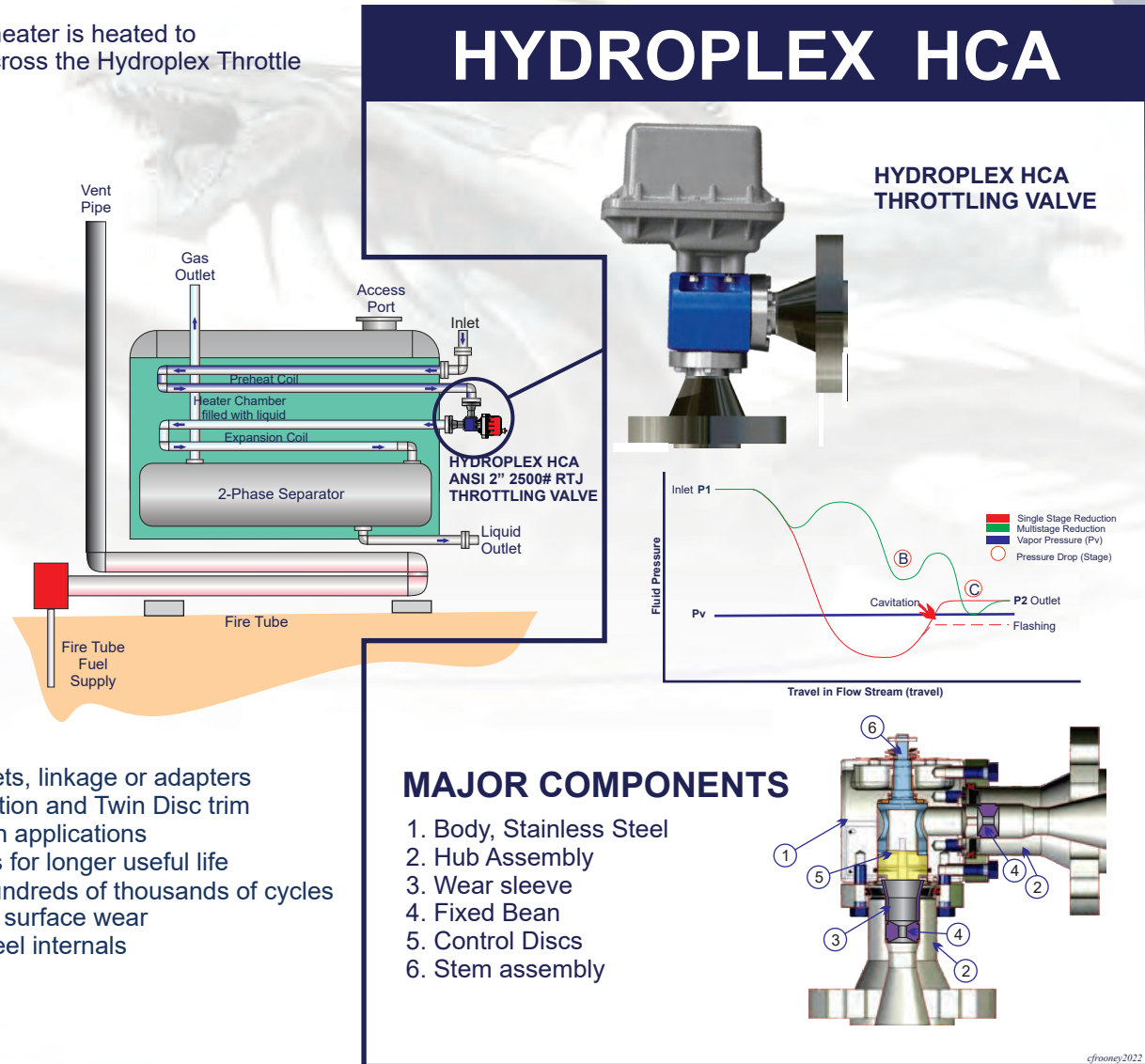
## This Is How A GPU Works

The high pressure well stream coming into the GPU or line heater is heated to accommodate the large pressure drop that will take place across the Hydroplex Throttle valve.

A line heater consists of a firetube and two sets of coils inside a water bath. The firetube, controlled by a burner management system, heats the water bath. The coils containing the produced fluids then run through the water bath. This heats up the fluid stream.

After the produced fluid is pre-heated through the first set of coils, it goes through a Hydroplex Throttle valve to cut the pressure down to at least the maximum working pressure of the separator. This pressure cut can be as high as 2000 PSI. With this pressure cut there will be a temperature drop. For every 100 PSI pressure drop there will be a temperature drop on average of 6-8° F.

After the Hydroplex Valve, the fluid stream goes through the second set of coils, which are also referred to as expansion coils. The fluid stream is then heated again and allowed to expand prior to entering the separator for further processing.



## Benefits Of Installing A Hydroplex Valve

- **Precise Control** with “Direct Mount” Actuation, no brackets, linkage or adapters
- Superior **Resolution and Accuracy** with 90 Degree Rotation and Twin Disc trim
- **High Repeatability Rate** maintains unparalleled control in applications
- **Twin Disc Design** separates control and sealing surfaces for longer useful life
- **Robust Stem and Seal** design integration provides for hundreds of thousands of cycles
- Solid **Tungsten Carbide Trim** minimizes seal and control surface wear
- **Longest Mean Time Between Service** with Stainless Steel internals
- Optional internal **MultiStage Pressure Drop** capability