



260 *STM PowerUnit HPX*: Heat Powered Unit

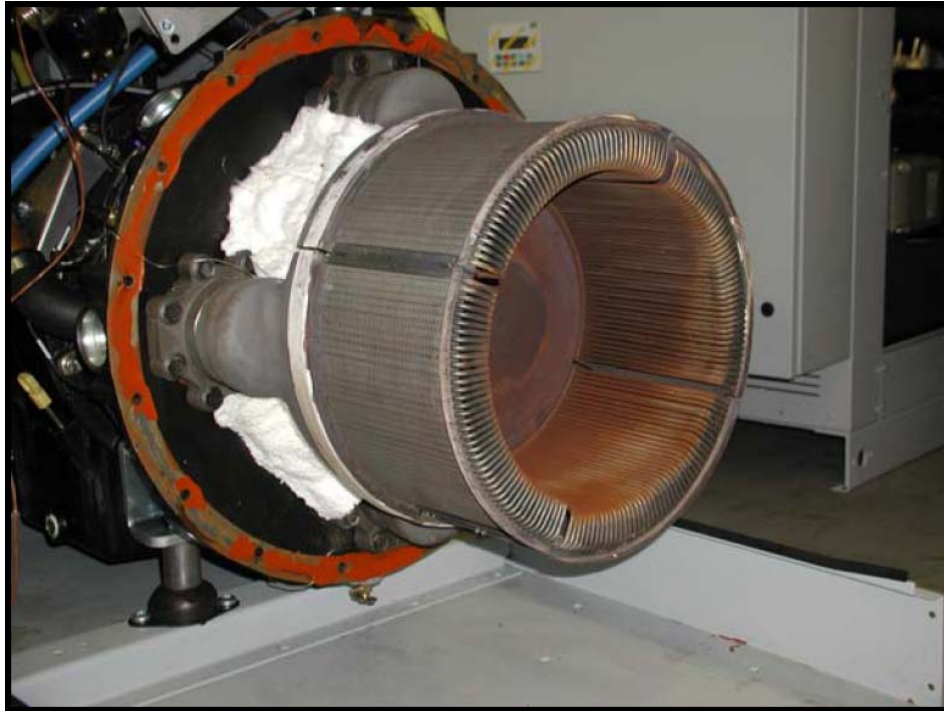
The Stirling Technology allows the **STM PowerUnit** to be used with any combustible fuel or adequate source of heat.

In close co-operation with **STM Power Inc.** **rockenergy** is currently developing a **HPX** version of the **STM PowerUnit**, which will allow making use of all kinds of heat resources. Alternative combustion chambers are being developed for using all kinds of alternative fuels such as vegetable oils or glycerines.

In order to support customers' needs and applications we are offering a so-called **HPX** version of the **STM PowerUnit**, which comes without combustion header (EHS), without fuel train and without combustion air blower system. This unit can be used to develop a combustor that can be close coupled to the engine's heat exchanger for maximum efficiency or allows designing a ducting around the **STM PowerUnit's** heat exchanger.

We explicitly declare that this *HPX* version of the **STM PowerUnit is not a commercially available product, so no performance guarantee or any equipment warranty is provided!**

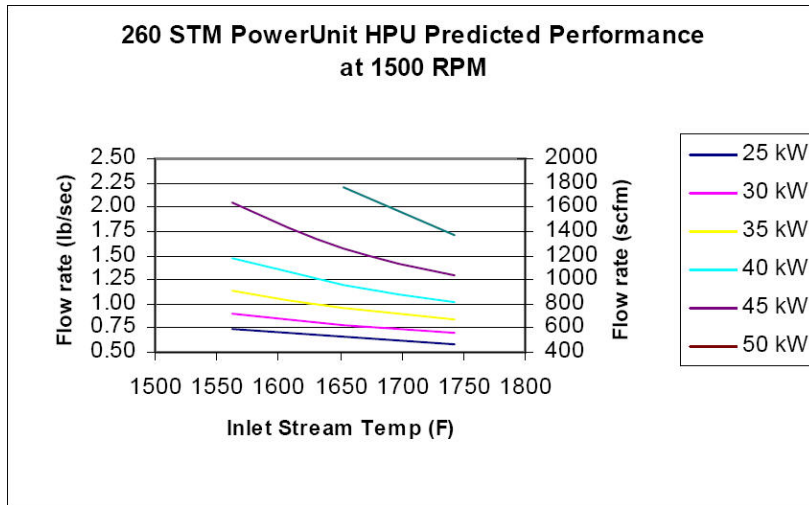
Some pictures, graphs and data.



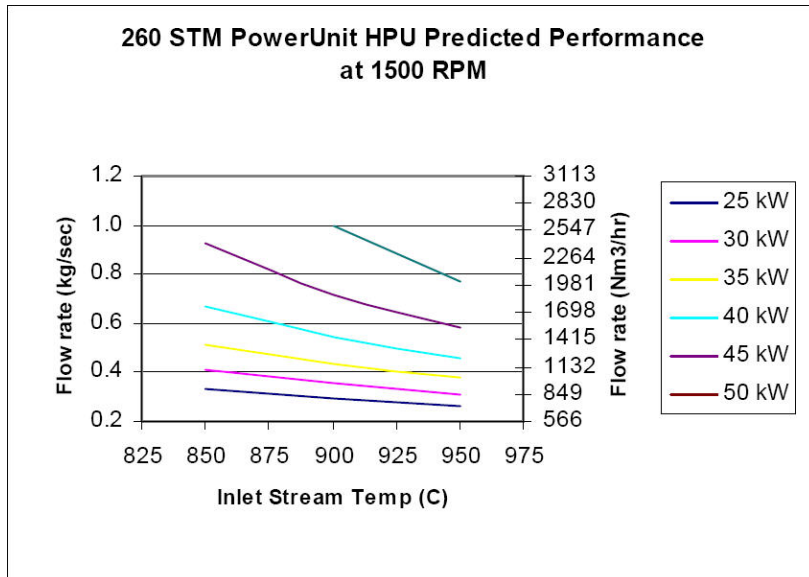
pic 1↑ and pic 2↓ : 260 *STM PowerUnit HPX* without the combustor (EHS)



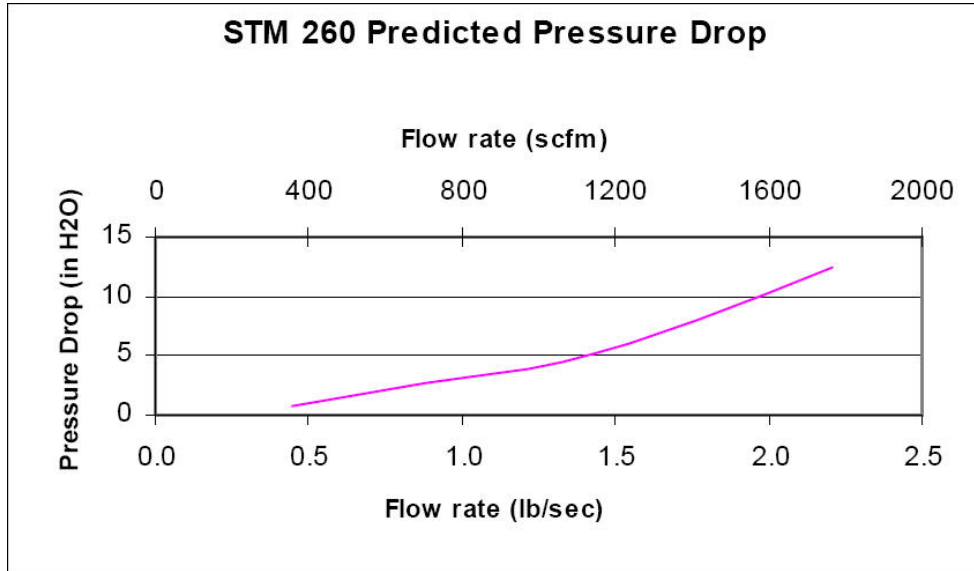
The following are predicted performance curves based on input parameters in various units:



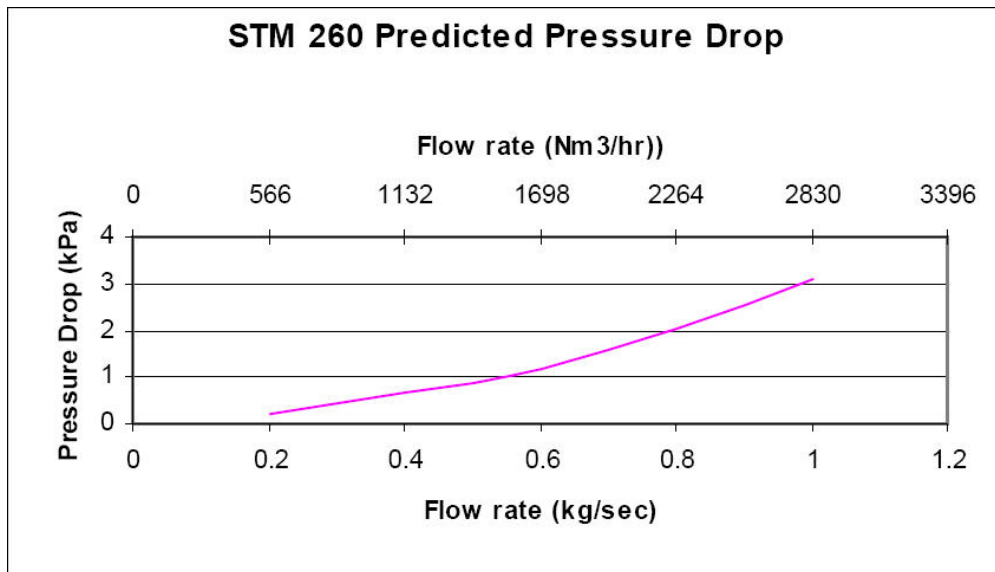
pic 3: 50Hz 260 STM PowerUnit HPX (imperial units)



pic 4: 50Hz 260 STM PowerUnit HPX (SI units)



pic 5: 50Hz 260 STM PowerUnit HPX pressure drop (imperial units)



pic 6: 50Hz 260 STM PowerUnit HPX pressure drop (SI units)

Particulate Loading

The specification for inert particulate matter in the hot gas stream is given below. It applies only to inert particulate material that is not expected to deposit on the heat exchanger or change physical properties as it comes into contact with the relatively cold heat exchanger surface.

inert particulate	50 mg/Nm ³
maximum size	100 microns
distribution max	50% > 10 microns

1 micron = 1 μ = 0,001 mm

Operation

Please see „**260 STM PowerUnit HPX**: Operation“
(*RockE_HPX_operation*)

Drawing

(*Rock_HPX_heatexchdim*)

Disclaimer: At the time of this publication **STMPower Inc.** and **rockenergy** have performed theoretical calculations only for the **HPX** version. Any customer should be fully aware that the **HPX** version is a modification of the standard fuel fired product and assumes obligation of all responsibilities for design, installation, modifications, testing, performance and warranty.