

Heliex GenSet

Heliex Power's original application enables you to harness your steam to save on your energy costs.

The Heliex GenSet harnesses saturated process steam and generates low cost electricity that can be used onsite or sold back to the grid.

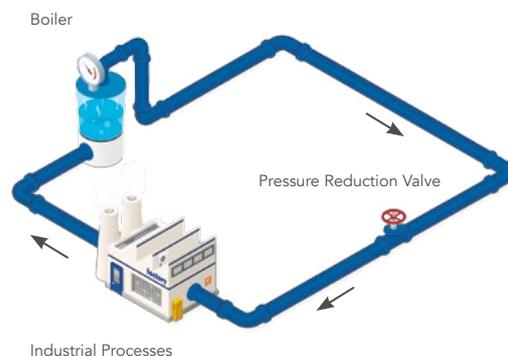
With no disruption to your plant production, the Heliex system is easy to install, provides tailored outputs from 75 to 630 kWe and typically has a payback of less than three years.

Industries from pharmaceuticals to farming, biomass to waste incineration, have all increased profitability and enhanced sustainability due to the installation of a Heliex GenSet.

If you want to generate low cost electricity, all you require is your steam.

Simply integrated into your steam system

As well as producing electricity, the Heliex GenSet provides steam for a production process. Integrated alongside the system pressure reduction valve, the Heliex GenSet receives part, or all, of the available steam flow to produce a supply of electricity and steam at the required lower pressure.



Heliex works where other systems can't

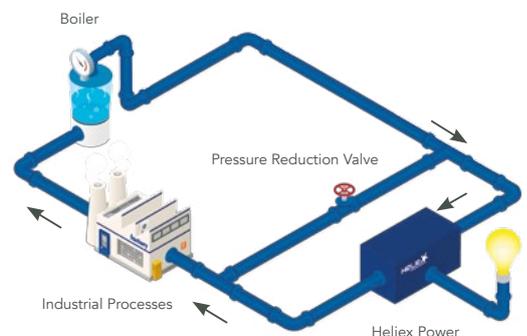
Thanks to its patented design, the Heliex GenSet does not require superheated steam.

Unlike with other technologies, far from damaging the machine, water in the steam assists in lubricating and sealing the robust twin rotor design.

Able to adjust to fluctuating flow rates, it is extremely flexible while maintaining the downstream pressure required for the subsequent production process.

Features:

- Wide range of inlet steam pressures, flow rates and power outputs
- 'Plug and Play' self-contained units
- Easy installation
- No special foundation requirements



Typical operating conditions:

- Maximum inlet pressure 22.5 bar g
- Minimum outlet pressure 0 bar g
- Temperature from 150 up to 300C° and higher in certain circumstances
- Maximum delta P is 15 bar (HP145) and 20 bar (HP204)

Genset Series	Power Output (up to)	Max Steam Mass Flow Rate	Max Steam Inlet Pressure (Saturated)	Max Steam Pressure Drop
HP 145	160 kW	6 t/h	22.5 bar g	15 bar
HP 204	630 kW	15 t/h	22.5 bar g	20 bar

These figures are indicative and dependent upon working conditions, for further technical information or to discuss your project in detail please contact us.

The Technology

The Heliex machine is a twin screw expander. A patented derivative of the ubiquitous screw compressor, it is driven by industrial saturated or wet steam and produces electricity from a standard asynchronous generator.

They may look simple but they're packed with technology

The expanders operate up to 5,500 rpm and drive a generator via toothbed belt transmission. The technology is offered in a range of outlets between 75 – 630 kWe.

Advantages of using rotary screw expanders to generate power are:

- Low cost power generation
- Compact size
- Able to use wet steam without any erosion
- Flexible operation
- Minimal wear and tear
- Robust
- Low maintenance
- No need for timing gears or other costly components
- 'Plug and Play' package