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Stirling engines research work: Prototype development between 2006 and 2017

T350 Alpha configuration

Year built **2006**
Swept volume **250 ccm**
Process gas **Helium**
Process pressure **max. 100 bar**
Calculated output **7,5 kW**
Actual output **5 kWel**
Special features **Piston linear guide, infinitely adjustable phase angle, V-arrangement**

T350 Alpha configuration

Year built **2008**
Swept volume **250 ccm**
Process gas **Helium**
Process pressure **max. 100 bar**
Calculated output **7,5 kW**
Actual output **5 kWel**
Special features **Piston linear guide, infinitely adjustable phase angle, in-line arrangement**

Type HP250 Beta configuration

Year built **2009**
Swept volume **200 ccm**
Process gas **Helium**
Process pressure **max. 50 bar**
Calculated output **5 kW**
Actual output **3 kWel**
Special features **Rhombic drive, oil lubricated**

G125 Gamma configuration

Year built **2010**
Swept volume **100 ccm**
Prozess gas **Helium**
Process pressure **max. 30 bar**
Calculated output **1 kW**
Actual output **400 Wel**
Special features **HEC process,
annular displacer, inverse mass balance**

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Type A600 Alpha configuration

Year built **2010**
Swept volume **510 ccm**
Prozess gas **Helium**
Process pressure **max. 30 bar**
Calculated output **5 kW**
Actual output **5 kWel**
Special features **integrated asynchronous motor in the buffer space**

A600 Alpha configuration

Year built **2013**
Swept volume **450 ccm**
Prozess gas **Helium**
Process pressure **30 bar**
Calculated output **5 kW**
Actual output **5 kWel**
Special features **linearly guided mass balance**

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Type A1200 Alpha configuration

Year built **2017**
Swept volume **900 ccm**
Prozess gas **Helium**
Process pressure **max. 30 bar**
Calculated output **11 kW**
Actual output **? Wel**
Special features **Oil-lubricated rocker gear, free shaft output**

The better is the enemy of good......

The successes after 11 years of intensive research work were manageable. Although the A600 machine turned out to be useful in various project applications at the end of the period under review, we decided to implement the alphagamma® principle invented in 2017 and to analyse it extensively in practical use. A good decision, as we can see in retrospect.