



### **Unused Howden 4.7 MW Steam Turbine Generator Set (Project Cancelled)**

#### **Immediately Availability | Original OEM Factory Condition | Full Warranty Benefits**

Avoid the standard 12-to-18-month OEM manufacturing lead times. This high-efficiency **Howden 4.7 MW Steam Turbine** is completely unused, preserved in factory-clean condition, and available immediately due to a recent utility project cancellation. Offered at a highly attractive investment level, this asset represents a prime opportunity for rapid deployment in renewable energy, industrial cogeneration (CHP), or independent power production (IPP) projects.

#### **Technical Specifications**

- **Manufacturer:** Howden
- **Power Output:** 4.7 MW

- **Condition:** Never Installed / Never Used (Cancelled Project)
- **Inlet Steam Pressure:** 26 bar (approx. 377 psi)
- **Inlet Steam Temperature:** 305 Degrees– Superheated Steam
- **Warranty:** Within active OEM warranty period (Subject to verification/transfer protocols)
- **Status:** Stored under strict OEM-compliant preservation protocols inside the factory warehouse.

	1.8th extraction	3th extraction – nominal load	min. load *	BP 4	half load
<b>Turbine part A</b>					
Inlet pressure	26 bar(a)	26 bar(a)	26 bar(a)	26 bar(a)	26 bar(a)
Inlet temperature	305.0 °C	305.0 °C	305.0 °C	305.0 °C	305.0 °C
Exhaust pressure	4 bar(a)	4 bar(a)	4 bar(a)	4 bar(a)	4 bar(a)
Exhaust temperature	145.5 °C	145.5 °C	217.3 °C	145.5 °C	193 °C
Enthalpy	2742.5 kJ/kg	2742.5 kJ/kg	2897.1 kJ/kg	2742.5 kJ/kg	2848 kJ/kg
Turbine speed	17735 rpm	17735 rpm	17735 rpm	17735 rpm	17735 rpm
Mass flow	23000 kg/h	23000 kg/h	8300 kg/h	23000 kg/h	12000 kg/h
<b>Turbine part B</b>					
Inlet pressure	3.9 bar(a)	3.9 bar(a)	3.9 bar(a)	3.9 bar(a)	3.9 bar(a)
Inlet temperature	145.1 °C	145.1 °C	217.1 °C	145.1 °C	145.1 °C
Exhaust pressure	0.085 bar(a)	0.085 bar(a)	0.185 bar(a)	0.12 bar(a)	0.085 bar(a)
Exhaust temperature	42.7 °C	42.7 °C	119 °C	49.5 °C	42.7 °C
Enthalpy	2318.1 kJ/kg	2320.2 kJ/kg	2659 kJ/kg	2342.4 kJ/kg	2342.4 kJ/kg
Turbine speed	11167 rpm	11167 rpm	11167 rpm	11167 rpm	11167 rpm
Mass flow	21200.0 kg/h	20000.0 kg/h	8300.0 kg/h	21200.0 kg/h	12000.0 kg/h
<b>Performance</b>					
Outlet speed	1500 rpm	1500 rpm	1500 rpm	1500 rpm	1500 rpm
Output at coupling	4180 kW	3951.9 kW	400 kW	3961.4 kW	1752 kW

\* min load is outside of normal design during commissioning. No design will implement a minimum island load. This value shall be regarded as informational only.

#### Shut-off values for interlocking

	Turbine part A		Turbine part B	
	Min	Max	Min	Max
Inlet pressure	23.4 bar(a)	28.6 bar(a)	3.9 bar(a)	5 bar(a)
Inlet temp.	255.0 °C	333.0 °C	133.5 °C	173.5 °C
Exhaust pressure	3.9 bar(a)	5 bar(a)	0.085 bar(a)	0.35 bar(a)

### **Key Investment Highlights**

- **Zero Lead Time:** Ready for immediate crating, logistics, and global shipment. Accelerate your project timeline by up to a year.
- **Uncompromising Condition:** The unit has never seen steam. It has been strictly maintained under factory-monitored storage conditions to ensure mechanical and electronic integrity.
- **Substantial CapEx Savings:** Priced significantly below current market value for a brand-new build, offering immediate financial optimization for your project's internal rate of return (IRR).

### **Documentation & Scope of Supply Available Upon Request**

Serious buyers and qualified EPC representatives will receive access to the complete technical dossier upon signing an NDA, including:

- General Arrangement (GA) and P&ID drawings.
- Detailed Scope of Supply (Turbine core, gearbox, generator/alternator metrics, and auxiliary skids).
- OEM storage, preservation records, and warranty transfer terms.
- Certified factory test protocols.

### **Commercial Terms**

- **Price:** Available upon request (Serious inquiries only).
- **Location:** Factory Warehouse (FOB Germany).