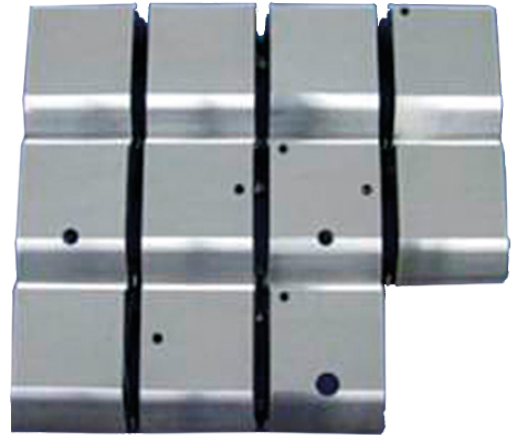


# Shroud blocks equivalent to GE MS9001E

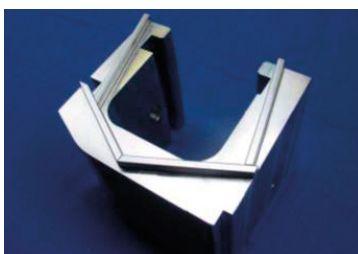
Sulzer provides design and manufacturing of new gas turbine components in both hot and cold sections. We focus on lifetime extension and performance improvement of your equipment. We have unique insight into designing a high-quality product that is compatible and interchangeable with the original equipment. All shroud blocks include installation hardware suitable for installation in PG9171E gas turbines.



## 1st stage shroud block

The first stage shroud block is manufactured through an investment casting process using the solid-solution-strengthened heat resistant alloy Haynes® HR-120TM. The alloy provides improved low-cycle fatigue resistance and allows firing temperatures up to 1'124°C (2'055°F).

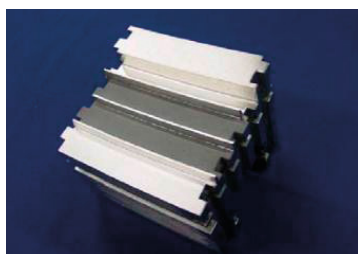
The first stage shroud block features the u-shaped design, which is coated on the gas path side using an abradable coating. This coating allows for improved airflow control in combination with tighter clearances between the shroud block and the bucket squealer tip leading to an efficiency improvement. The abradable coating is designed to wear during rubbing of the tip.



## 2nd stage shroud block

The second stage shroud block is manufactured through an investment casting process using the austenitic stainless steel AISI-310. The alloy exhibits a good resistance against cyclic temperature conditions and has a good resistance against hot corrosion.

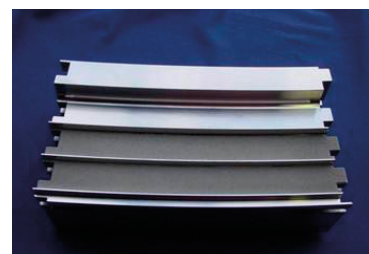
The second stage shroud blocks are provided with honeycombs to optimize the sealing in conjunction with cutter teeth on the knife edges of the second stage bucket. The honeycomb seals are applied to reduce leakages of hot gases at the second stage bucket tip. Optionally, the pre-honeycomb version using a hard face coating can be supplied.



## 3rd stage shroud block

The third stage shroud block is manufactured through an investment casting process using the martensitic stainless steel AISI-410. The alloy exhibits a good wear resistance and a good resistance against hot corrosion.

The third stage shroud blocks are provided with honeycombs to optimize sealing in conjunction with cutter teeth on the knife edges of the third stage bucket. The honeycomb seals are applied to reduce leakages of hot gases at the third stage bucket tip. Optionally, the pre-honeycomb version using a hard face coating can be supplied.



### Shroud block stage 1

<b>Firing temperature</b>	Up to 1'124°C (2'055°F)
<b>Design</b>	U-shaped shroud block
<b>Material</b>	Haynes® HR-120TM
<b>Coating</b>	Abradable coating
<b>Sealing</b>	Abradable
<b>Auxiliaries</b>	Locking hardware included

### Shroud block stage 2

<b>Firing temperature</b>	Up to 1'124°C (2'055°F)
<b>Design</b>	Honeycomb shroud block
<b>Material</b>	AISI-310
<b>Sealing</b>	Honeycomb, hardface version optionally
<b>Auxiliaries</b>	Locking hardware included

### Shroud block stage 3

<b>Firing temperature</b>	Up to 1'124°C (2'055°F)
<b>Design</b>	Honeycomb shroud block
<b>Material</b>	AISI-410
<b>Sealing</b>	Honeycomb, optional hard face version
<b>Auxiliaries</b>	Locking hardware included



### Services

- Component refurbishment
- Lifetime extension
- Field service
- New parts manufacturing
- Training programs
- Rotor overhaul and refurbishment
- Long-term service agreements
- Condition monitoring
- Turbine controls
- Engineering support



**Sulzer Turbo Services Venlo B.V.**  
Spikweien 36  
NL-5943 AD Lomm, The Netherlands  
Phone +31 (0)77 47386 66  
Fax +31 (0)77 47327 85  
E-mail [sulzertsvenlo@sulzer.com](mailto:sulzertsvenlo@sulzer.com)

[www.sulzer.com](http://www.sulzer.com)

E10259 en 12.2019, Copyright © Sulzer Ltd 2019

This brochure is a general product presentation. It does not provide any warranty or guarantee of any kind. Please, contact us for a description of the warranties and guarantees offered with our products. Directions for use and safety will be given separately. All information herein is subject to change without notice.