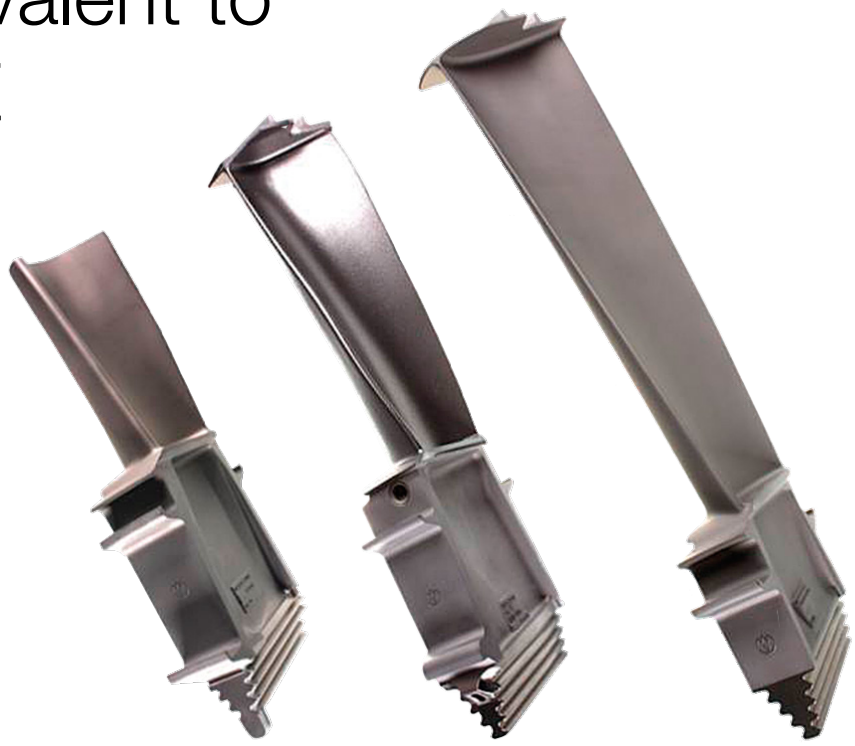
Buckets equivalent to GE MS9001E



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 a unique insight into designing a high-quality product that is compatible and interchangeable with the original equipment. All bucket kits include installation hardware suitable for installation in PG9171E gas turbines.

1st stage bucket

The first stage bucket is manufactured through an investment casting process using Sulzer's advanced nickel-based super alloy EEQ-111 which is equivalent to the original GTD 111. The first stage bucket features 11 cooling holes, 8 of which will be turbulated in the airfoil zone to maximize airfoil cooling.

Sulzer applies a MCrAlY coating to the airfoil using Low Pressure Plasma Spray (LPPS). The coating has superior oxidation and corrosion resistance for base load as well as peak load applications due to its aluminum enriched composition. Cooling holes have an aluminum diffusion coating to improve resistance against intergranular attack. The application of a Thermal Barrier Coating (TBC) on the airfoil surface produces a lifetime extension resulting in improved durability.

2nd stage bucket

The second stage bucket is also manufactured through investment casting. The base material for the second stage bucket is identical to the first stage bucket, EEQ-111. The second stage bucket features 6 cooling holes.

Externally, a LPPS CoNiCrAlY is applied to optimize corrosion and oxidation resistance. The cooling holes are coated internally with an aluminum diffusion coating to improve resistance against intergranular attack.

Optionally, the knife edges of the second stage bucket are supplied with cutter teeth in conjunction with honeycomb shroud blocks. This will limit material transfer between knife edges and the honeycomb in the shroud blocks during operation.

3rd stage bucket

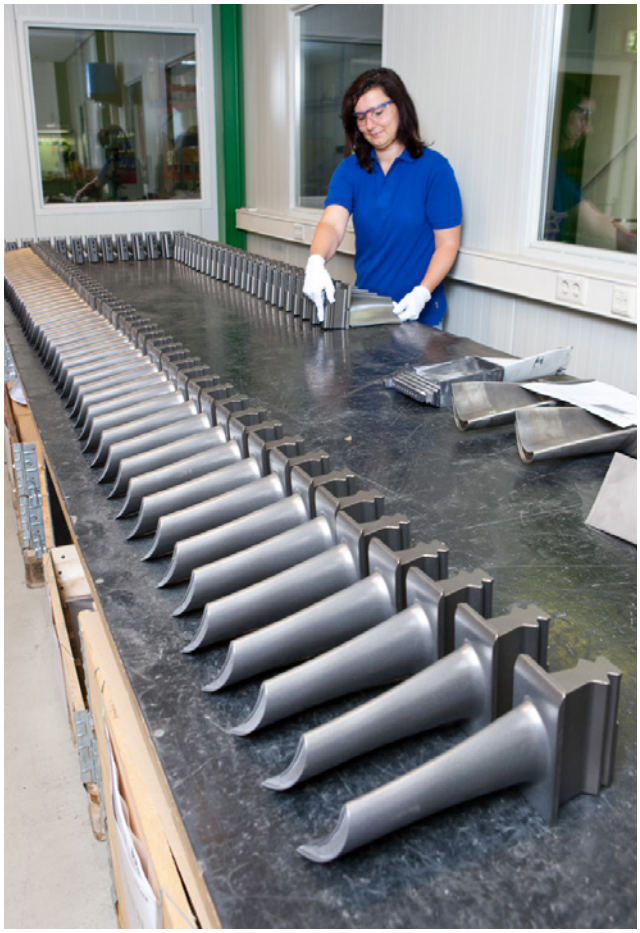
The third stage bucket is manufactured through investment casting using the base material Inconel 738LC.

Similar to the second stage bucket, the knife edges of the third stage bucket can be supplied with cutter teeth to prevent material transfer between knife edges and the honeycomb in the shroud blocks during operation.

Bucket stage 1	
Firing temperature	Up to 1’124°C (2’055°F)
Design	Blunt leading edge
Cooling	11 Turbulated cooling holes
Material	EEQ-111
Coating	External MCrAlY coating Internal aluminum diffusion coating Optional thermal barrier coating
Sealing	Aluminum seal strip on fir tree
Auxiliaries	Locking hardware included

Bucket stage 2	
Firing temperature	Up to 1’124°C (2’055°F)
Design	Cutter teeth Optional without cutter teeth
Cooling	6 Cooling holes
Material	EEQ-111
Coating	External MCrAlY coating
Sealing	Aluminum seal strip on fir tree
Auxiliaries	Locking hardware included

Bucket stage 3	
Firing temperature	Up to 1’124°C (2’055°F)
Design	Optional with cutter teeth
Material	Inconel 738 LC
Auxiliaries	Locking hardware included



Services

- Component refurbishment
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- Field service
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- Training programs
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