Unisign

»We incorporate Siemens controls due to their capabilities in controlling the large number of axes, spindles and NC-channels, their high processing speed and the wide range of options available in the integrated PLC to control periphery equipment. The Siemens controls are ideal for our machines.«

Alex Te Baerts,
Senior Sales & Marketing Manager

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UNICOM 7000

Siemens Package:
SINUMERIK 840D sl, PCU 50.5, Operator panel OP019, SINAMICS S120, 1FT7 & 1FE1 motors, SIMATIC remote I/O

Application:
Engine components for civil and military aerospace (inner and outer casings, bladed discs, ...), industrial and marine power generation

Highlights:
- Machining centre with integrated carousel turning station for components up to Ø 4,000 mm
- Machine is available in 4- and 5-axes configuration
- Very powerful carousel turning station 95 kW, 50,000 Nm making it ideal to machine a whole range of materials
- Exchangeable machining heads available to allow specific operations or to machine inside the component

UNICOM 6000

Siemens Package:
SINUMERIK 840D sl, PCU 50.5, Operator panel OP019, SINAMICS S120, 1FT7 & 1FE1 motors, SIMATIC remote I/O

Application:
Engine components for civil and military aerospace (inner and outer casings, bladed discs, ...), industrial and marine power generation

Highlights:
- Machining centre with integrated carousel turing station for components up to Ø 2,000 mm
- Machine is available in 4- axes configuration
- Very powerful carousel turning station 70 kW, 25,000 Nm making it ideal to machine a whole range of materials
- Exchangeable machining heads available to allow specific operations or to machine inside the component

Intermediate pressure casing

- The intermediate pressure turbine casing requires a combination of turning, milling and drilling operations. The Unicom 6000 is therefore the ideal machine for this component as it integrates all these operations
- The intermediate pressure turbine casing is located in the second stage behind the combustion chamber and is made out of a heat resitant nimonic material. The rotating discs with intermediate pressure blades are running within this casing at high revolutions

Detail of Intermediate Pressure Casing – the vertical and horizontal operations can be done by using the main spindle and right angular head

Combustion chamber

- The combustion chamber requires a combination of turning, milling and drilling operations. The Unicom 7000 (5-axes configuration) is ideal for this application as it integrates all these operations plus it can machine the angled and internal features
- Centrally located in the engine is the combustion chamber, containing the diffuser cases and compressor rear frame, where the actual fuel injection and ignition takes place. The component is made out of a heat and wear resistant nimonic material

Detail of combustor structure – the angeld features are machine by using the 5-axes positing capability of the nutating head in the Unicom 6000-HV machining centre