NOVASeries

RIGID AND PRECISE SOLUTION FOR THE MACHINING OF ALUMINUM PLATES AND PLASTIC LAYERS

- **Sturdy monolithic structure** with double engine and double rail system on both sides of the baseframe to eliminate axis backlash and assure **maximum rigidity during all the operations**
- **Enhanced production optimization and reliability** when working multilayer stacked aluminum sheets through the optional, **patented CSRS device** (Caterpillar Stack Routing System).

APPLICATIONS

Machining and nesting of aluminum and light alloy, composite and plastic pieces of the highest dimensions, to assure fast operating time and precise finishing.

AEROSPACE - Aluminum
PRECISION-ENGINEERING AND MECHANICS - Aluminum plates
PRODUCT DESIGN – Composites and light alloys
OTHER SECTORS - medical, food, interior design and furniture – Plastic

Axis	X	Y	Z	C	A
Stroke	3/4/5/6/12 m	1,6/2/2,5/3 m	0,3/0,5 m	540°	+/- 120°
Speed	50 m/min		30 m/min	44 rpm	40 rpm
Spindle	Up to 30 kW at 20.000 or 30.000 rpm				
CNC	Siemens 840D, Heidenhain TNC640, Fanuc 31iB5, Osai Open M				
Tool Change	From 8 to 60 Positions				
Linear accuracy	Less than 0,015 mm/m for all linear axis				
Rotary accuracy	+/- 12 arc sec for rotary axis				
Measurement System	Heidenhain linear scales 5 microns resolution				

NOVA3016 S

MAIN FEATURES

CNC
Siemens Sinumerik 840 D Solution Line, display 19"

TABLE
Aluminum vacuum table

HEAD
3-axis head with Ibag and 30 kW electrospindle HSK A63 at maximum 24.000 rpm
5-axis High Performance head (HP2) with 15 kW electrospindle HSK A63 at maximum 20.000 rpm, Heidenhain direct drive encoder and rotary axis pneumatic locking system

TOOL COOLING SYSTEM
Spray mist cooling system through the spindle

DUST SUCTION HOOD
Electronically-controlled dust suction hood

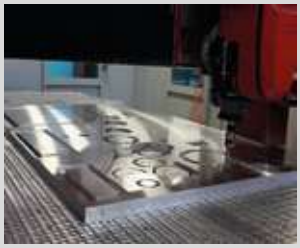
TOOL CHANGER
2 24-position ring chain tool changers

ENCLOSURE
On-board working area enclosure equipped with 2 lasers and 4 bumpers for operator safety

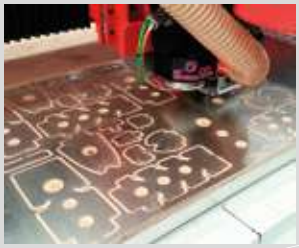
MEASURING SYSTEMS
SDS System for tool length and detection, Heidenhain linear scales and direct encoders

OTHER EQUIPMENTS
Aluminum vacuum tables with T slots; vibration monitoring system; 30/40/60-position ring chain tool changers; total or perimeter enclosure; patented CSRS device for 3-axis head

Perimeter enclosure



Aluminum plate machining



Aluminum multi-layers nesting

Resin machining

CSRS
Caterpillar Stack Routing System

TECHNICAL FEATURES

AXIS	TYPE	STROKE	POSITIONING PRECISION	REPEATABILITY	SPEED
X1-X2	Linear / rack and pinion	3.000 mm	0,030 mm	0,015 mm	60 m/min
Y1-Y2	Linear / rack and pinion	1.600 mm	0,020 mm	0,012 mm	60 m/min
Z1-Z2	Linear / screw ball	500 mm	0,014 mm	0,010 mm	30 m/min
C	Rotary	+/-270°	24 arcsec	12 arcsec	44 rpm
A	Rotary	+/-120°	24 arcsec	12 arcsec	40 rpm

Main characteristics and data refer to model NOVA 3016 S. Other configurations are available: NOVA3716, NOVA 4020, NOVA 4030, NOVA5025, NOVA10030.