

## 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 lbag 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

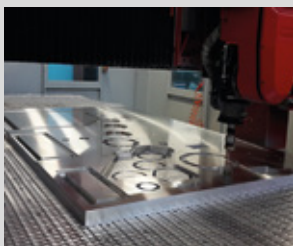
SDS System for tool length and detection, Heidenhain linear scales and direct encoders

### OTHER EQUIPMENTS

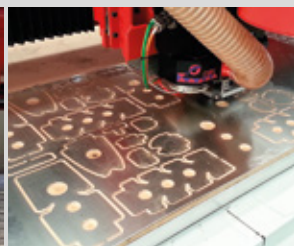
Aluminum vacuum tables with T slots; vibration monitoring system; 30/40/60-position ring chain tool changers; total or perimeter enclosure; patented CSRS device for 3-axis head



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