MDL SERIES

ALL-AROUND HIGH-SPEED 5-AXIS CENTERS FOR MACHINING LIGHT ALLOYS AND COMPOSITE MATERIALS FOR DIFFERENT APPLICATION INDUSTRIES.

Workable materials*

LIGHT ALLOYS
100 %

COMPOSITES
90 %

TOOLING BOARDS RESINS
30 %

* Efficiency indicators by material

Belotti MDL Series is used with great versatility for **milling light alloys moulds** and for **trimming large-size structural parts in composite materials.**
This advanced technology is the ideal solution for the automotive and aerospace sectors, where milling operations on patterns & prototypes and finishing machinings of large-scale moulds/parts made of aluminium or composites are requested.

The high stiffness structure and the adoption of 5-axis heads equipped with torque motors and optical lines on linear axes, enhance the precision and the quality of the finishes.
A wide range of models and machining units allows to satisfy every dimensional and technological requirement.

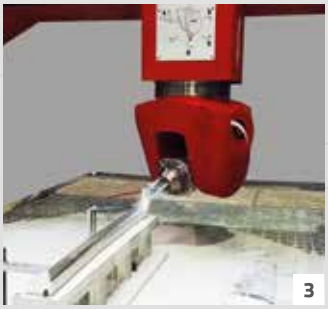
The total enclosures, the suction system with motorized hood, the coolant system with chip conveyor, and the vision cameras in the spindle ensure optimal cleaning conditions of the working area and excellent operators' safety.

Main accessories

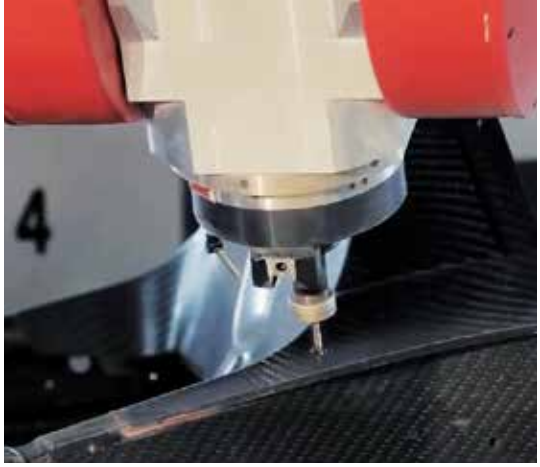
- Fork head [2]
- Total enclosure with moving roof [1]
- Upper rolling shutter
- Cooling liquid system with chip conveyor [3]
- Double bridge
- Vision cameras [4]
- Temperature control system


1


2


3


4



Application sectors

Technical features

Axis	X	Y	Z	C	A
Stroke	4/6/8/12/16/23/30 m	2,6/3/3,6/4/4,8/6,5 m	1,3/1,5/2/2,5/3/4,5 m	+/- 360°	+ 135° / - 110°
Speed	50 m/min		30 m/min	60 rpm	60 rpm
Spindle	From 30 kW up to 50 kW at 24.000 rpm max.				
CNC	Fanuc, Heidenhain, Siemens				
Tool changer	From 18 to 200 positions				
Linear accuracy	≤ 0,010 mm/m for linear axes				
Rotary accuracy	+/- 10 arcsec for rotary axes				
Measurement system	Linear scales, 5 microns resolution				
Combined technologies	Abrasive waterjet | Ultrasonic cutting system | Additive manufacturing				