

correa

XPIDER

Top gantry milling machine

WARRANTY



75 YEARS
ANNIVERSARY
1947 · 2022

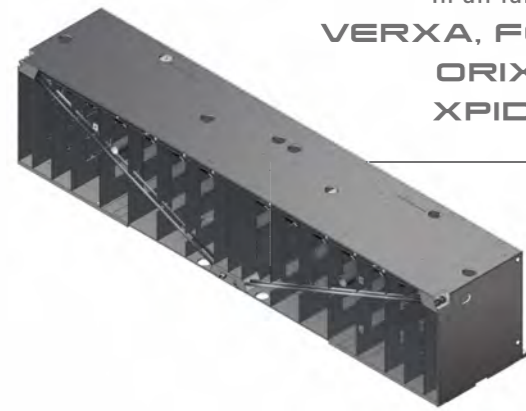
Nicolás Correa, founded in Spain in 1947, is one of world's leading companies in the manufacturing of large milling machines. With over 900 bridge type machines, 1000 floor type machines and 3500 bed type machines installed all over the world, offers milling solutions designed for the most demanding production environments, such as the power generation, automotive, aerospace and railway industries.

Nicolás Correa is the parent company of **Correa Group** composed of five industrial subsidiaries linked to the machine tool sector: Hypatia, Steelworks, Electrónica, Service and Kunming. The Group has commercial subsidiaries in China, Germany, United States and India with the aim to offer the best service in all countries. Belonging to the group provides **Nicolás Correa** with access to top quality critical supplies and offers tailored solutions especially designed for each customer's needs.



Thousands of customers around the world place their trust in **correa** range of milling machines. **Correa Group** currently exports around 90% of its production to over 30 different countries. To guarantee a high-quality service to our customers, we have an extensive international commercial and technical service network in most of the world's countries. **Correa Group** offers the widest range of milling solutions on the market, including bed type machines, gantry, floor type machines, bridge type machines, it also has a several options of multi-tasking machines. The entire range is designed and manufactured in Spain. **Nicolás Correa, S.A.** has been listed on the Madrid Stock Exchange since 1989.

The **XPIDER** represents a concept of high-speed "top gantry" machine which incorporates unique structural elements and functions. Temperature stability and high speed combined in this new generation milling machine.



In all families
**VERXA, FOX,
ORIX and
XPIDER**

- Steel torsion bars in the crossbeam.
- Minimising the deformation due to crossbeam flexion and torsion.
- Enhancing the geometry of the machine.
- Increasing the roughing capacity.

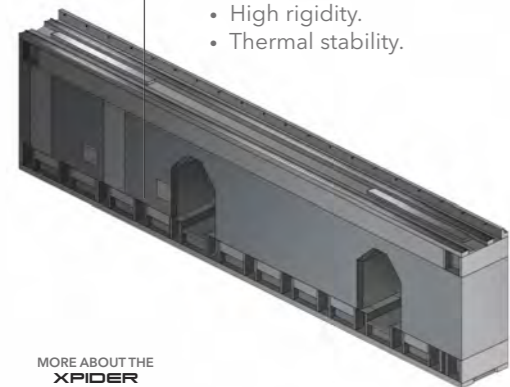


HIGH DAMPING CAPACITY

Mixed structure of "HDC" concrete and steel. The "HDC" concrete is a material of high density mixed with micro-fibres developed by Nicolás Correa.

What are the advantages of the "HDC"?

- High damping capacity.
- High rigidity.
- Thermal stability.



MORE ABOUT THE XPIDER



- Specific electrospindle designed to obtain finishes at high rpms.
- Machine designed to obtain superb quality surface finishes.
- Dynamic performance parametrizable in accordance with:
 - ROUGHING OPERATION
 - FINISHING OPERATION



MACHINE DYNAMIC ADJUSTMENT



MACHINING SETTINGS



ROUGHING



FINISHING



HIGH GEOMETRICAL PRECISION

Octagonal ram section

Reduced distance between the ram centre and the crossbeam centre. By decreasing the force applied during the movements of the X axis, the precision of the surface finish is improved.

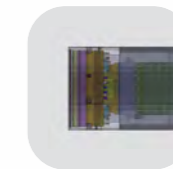
Crossbeam isolation

The crossbeam is composed by three layers of steel-insulation-steel. This system minimises the crossbeam geometrical changes due to the temperature variations in the workshop.

Direct transmission to the drive of the vertical axis, guaranteeing the maximum precision and rigidity.



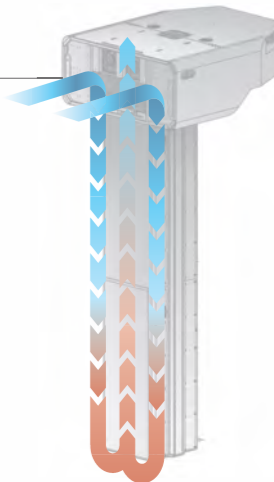
Direct transmission of the spindle with a cylindrical water-cooled motor.



VERTICAL AXIS TEMPERATURE CONTROL

System of air recirculation through the ram. Improving the geometrical stability faced with temperature changes in the workshop.

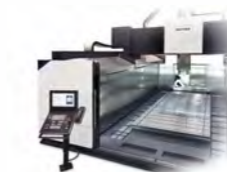
Air flow



45 m/min in X, Y and Z axes, with optional 60 m/min in X and Y. Machine of large dimensions and high speed.



HIGH FEED RATES



ECO DESIGN

Stand-by function and Auto Switch off function, saving 20% of the total energy consumption.

Technical Features

TABLE

Surface	3500 + 1500N x 1500 / 2500	mm
Maximum load on the table	15	t/m ²

TRAVERSES

Longitudinal [X]	2000 / 3500 / 3500 + 1500 x N	mm
Cross [Y]	2000 3000	mm
Vertical [Z]	1000 / 1500	mm

WORK CAPACITY

Distance between columns	3000 4000	mm
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FEEDS

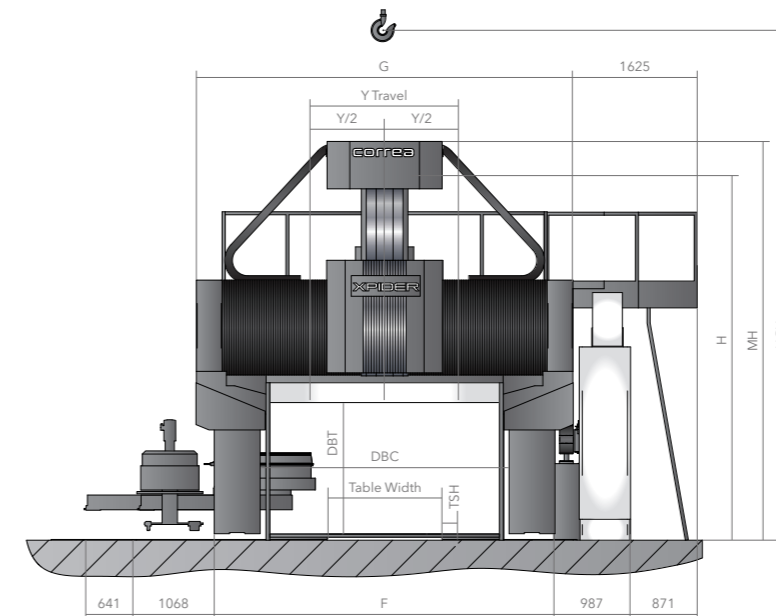
Maximum [X]	45 / 60	m/min
Maximum [Y]	45 / 60	m/min
Maximum [Z]	45 / 45	m/min

SPINDLE SPECIFICATIONS

Spindle nose	ISO-50 Big Plus / HSK-63* / HSK-100	
Programmable speed	6000 / 10000 / 24000*	rpm
Maximum power	30 / 30 / 60*	kW

* Only with Electrospindle.

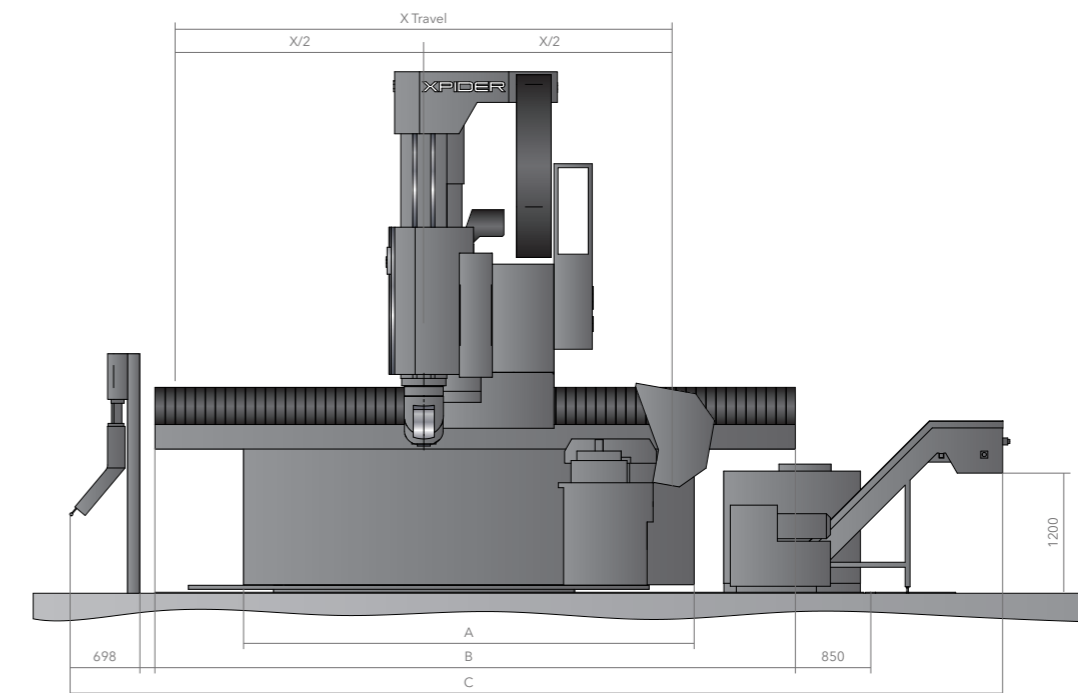
External Dimensions



X Travel	A	B	C
2000	3000	4875	7975
3500	4500	6500	9600

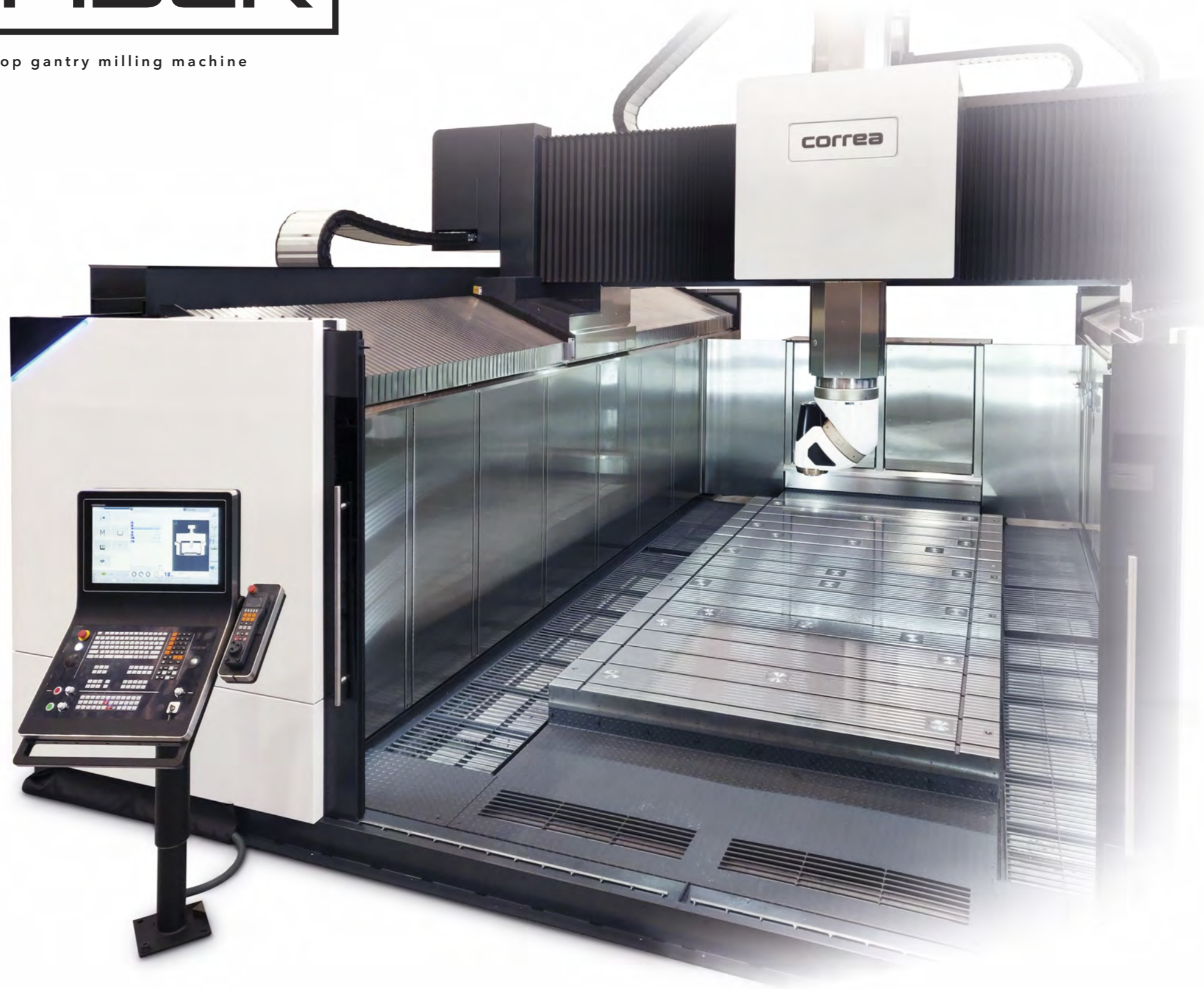
Y Travel	DBC M	F	G	Table Width
2000	3000	4500	4900	1500
3000	4000	5500	5900	2500

Z Travel	Vert. capacity	DBT	H	MH	mHCH	TSH
1000	A	1400	4600	5300	6400	330
	B	1650	4600	5300	6400	80
	C	1900	4850	5800	6900	330
	D	2150	4850	5800	6900	80
1500	C	1900	5600	6200	6900	330
	D	2150	5600	6200	6900	80



XPIDER

Top gantry milling machine



Milling Heads

ESE Continuous

5-AXIS TECHNOLOGY



2-Axis continuous
milling head
42 • 60 • 35 kW
15000 • 20000 • 24000 rpm

FE



Front electrospindle
54 • 60 kW | 12500 • 20000 rpm

Milling Heads

UDX 0.02° x 0.02°

3+2 INDEXING TECHNOLOGY



Universal auto-indexing head
30 kW | 620 Nm | 10000 rpm

UCE Universal

5-AXIS TECHNOLOGY



2-Axis continuous
milling head
20 • 60 kW | 20000 • 24000 rpm



Standard Equipment

- Five-axes twist drill head equipped with electrospindle
- Hydraulic and cooling group
- Numerical control Heidenhain or Siemens [operate HMI]
- Linear scales in all axes
- Portable handwheel
- External coolant with adjustable nozzles
- Air-conditioned electrical cabinet
- Internal and external air flow
- Linear guides in the X, Y and Z axes
- Guarding
- Lamp in the working area
- Tele-service

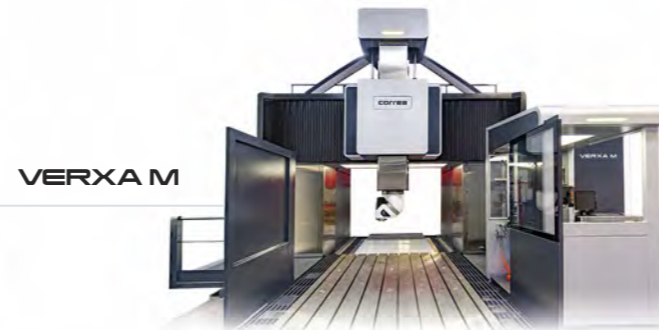
Optional Equipment

- Other heads
- Vixion 4.0
- Automatic head-changer
- Self-cleaning filter
- Pick up station for 6, 8, 12 tools
- Air/coolant cleaning gun
- Automatic changer for 30, 40, 60, 120 tools
- Chip conveyors
- Tool and parts measurement probes
- Perimeter fence
- Rotary tables
- Different enclosures according to user's needs [only in some models]
- Zero Point Clamping System integrated in the machine
- Coolant through spindle 17, 36, 70 bar

Range of Equipment



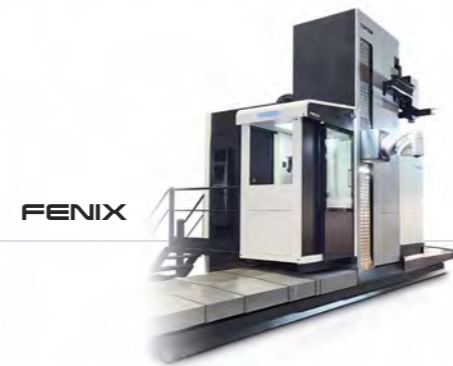
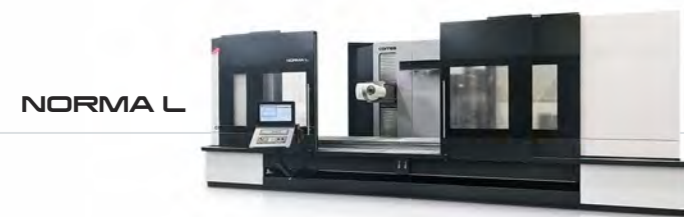
TOP GANTRY TYPE



GANTRY



BRIDGE TYPE



TRAVELLING COLUMN



BED TYPE

CORREA GROUP

www.nicolascorrea.com

Nicolás Correa, S.A.

Alcalde Martín Cobos, 16-A
09007 Burgos • Spain

Phone: +34 947 288 100

Fax: +34 947 288 117

correa@correa.es

