

**JURISTI**

# MX Series

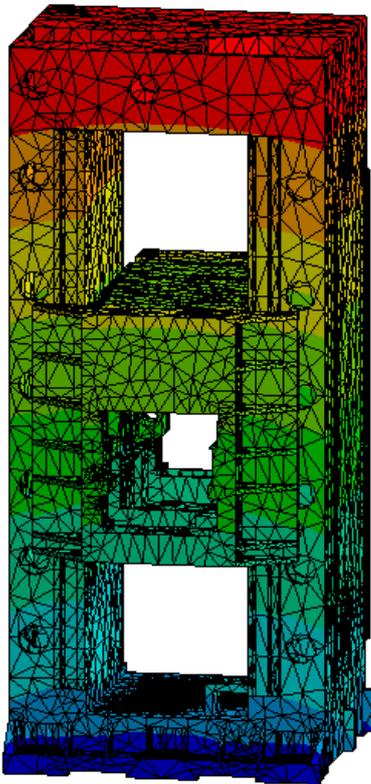
**FLOOR TYPE  
BORING AND MILLING MACHINES**



# MX5

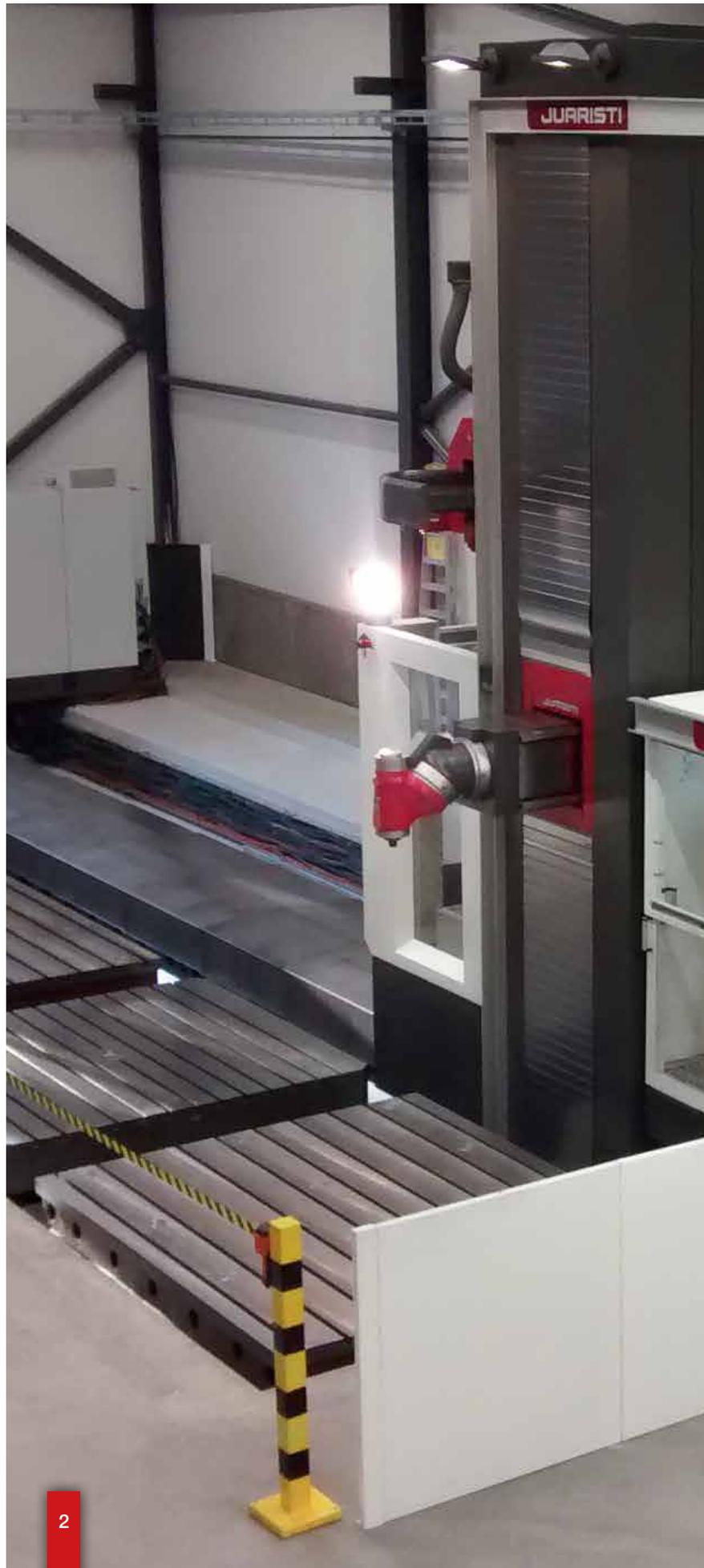
MX series Floor type Horizontal Boring-Milling machines, consists on 3 models with different sizes: MX5 - MX7 - MX9. Every model can be supplied optionally with boring bar, being called MX-RAM.

The **symmetrical concept with central and fully closed headstock** provides a superior precision, rigidity and dynamics.

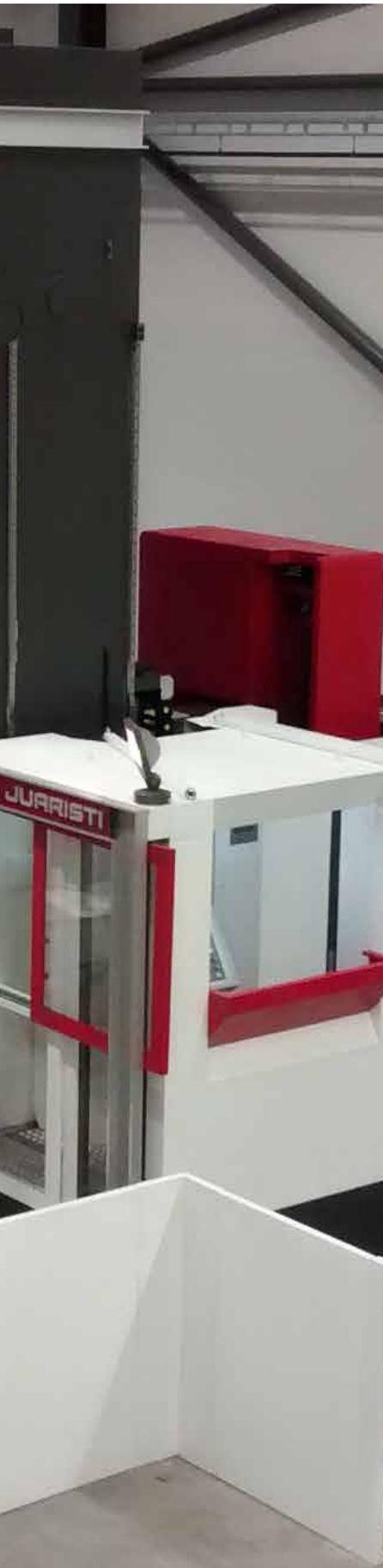


As a result of many years of development on boring and milling machines, **RPT (Ram Precision Technology)** is applied in all MX models, by means of hydro-mechanical compensation in real time, achieving a perfect machine geometry even at high chip removal rates.

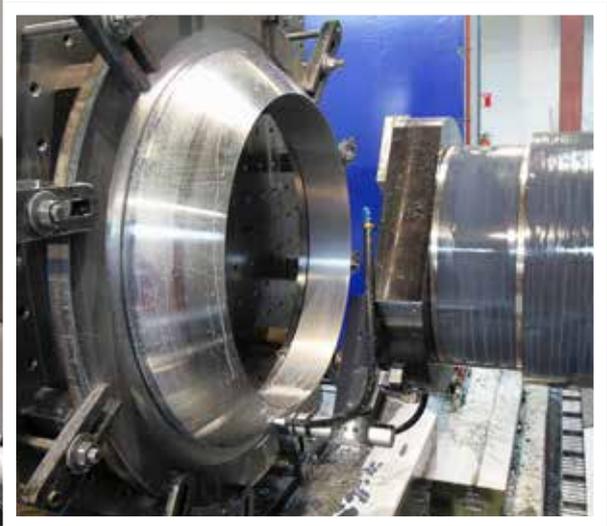
# HIGH END TECHNOLOGY TO HIGH PRECISION IN



# ACHIEVE MACHINING OF LARGE PARTS



**MX5 RAM**



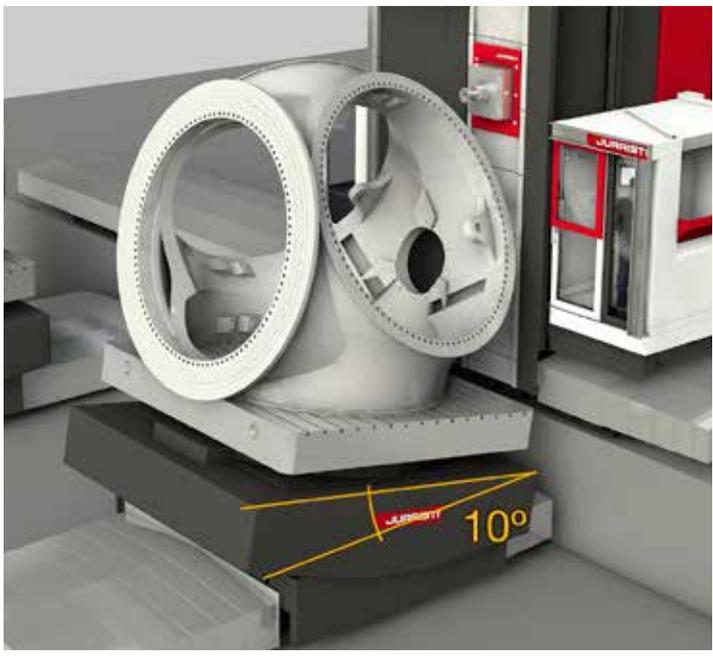
# MX7

## RESULT OF A CLOSE WITH OUR CUSTOMERS



MX7 model, was one of the first floor type boring-milling machines in the market with central head and after 15 years of development in close collaboration with our customers, we reached the excellence combining the basic features (precision, rigidity, dynamics) with the **great confort, ergonomics and adaptability to customer's requests**.

MX7 machine turns out to be a perfect machining system, with a wide range of different automatic heads, tool changers, head magazines, rotary tables, etc, all made by JUARISTI.



Rotary tables with capacity between 8 and 150 tonnes.

Table size up to 5000 x 6000 mm.

Tables can be supplied with **tilting** axis or with **turning** capability.

# COLLABORATION



**MX7 RAM**



# MX9

# SYMBOL OF THE GREAT DEVELOPED BY THIS MODEL TO

MX 9 machine, represents **the biggest model of the MX series** and has great capacity, allowing the machining of components up to 7 m. high and 5 m. wide.

RAM stroke on the milling machine is 2000 mm while 1900+1000 on the boring machine. These big travels are able thanks to the **massive structure and great rigidity** reaching unbeatable performance without any vibration trace.



## ACD - Automatic Bi-rotative head

Potencia 60 kW - Torque 2900 Nm - 3500 min<sup>-1</sup>

Potencia 37 kW - Torque 1300 Nm - 6000 min<sup>-1</sup>

## RPT - Ram Precision Technology

Double geometrical compensation in real time:

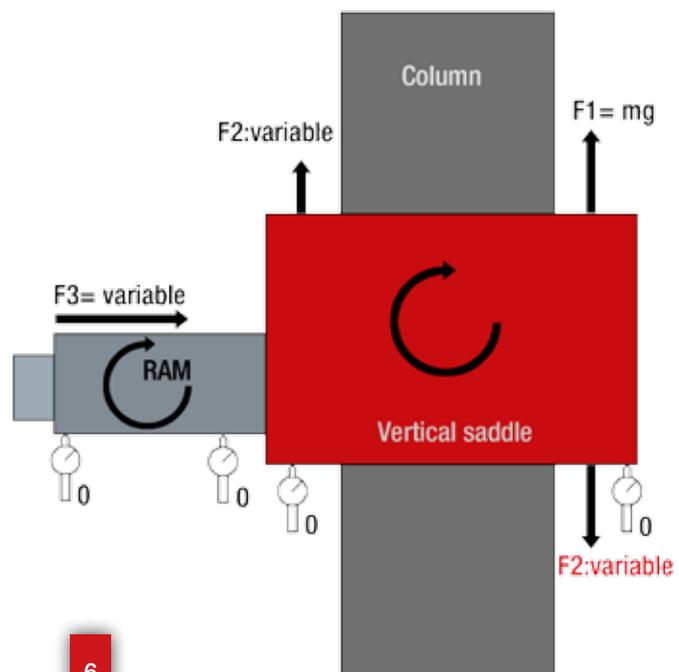
Center of gravity of headstock + Bending of the RAM in addition to thermo-symmetric column **guarantee highest precision when machining at any position.**



## AV 4 Automatic Right Angle head

Indexing 1°x1°

Power 60 kW - Torque 3800 Nm - 3500 min<sup>-1</sup>



# CAPACITY REACH SUPERIOR PERFORMANCE

## MX9 RAM



**PM Ergonomic Operator platform**

With 3 independent movements on X-Y-Z direction.



# GREAT POWER and EFFECTIVENESS

## by means of EXTREMELY FLEXIBLE CONFIGURATION

The great power and effectiveness is achieved thanks to the **fully closed Headstock, symmetric column and 4-guided RAM.**

Spindle power and rotation transmission from main motor is made through oil cooled robust gear box, without belts, obtaining excellent performance.

Spindle power varies from 37 to 96 kW and torque from 1300 to 8650 Nm.

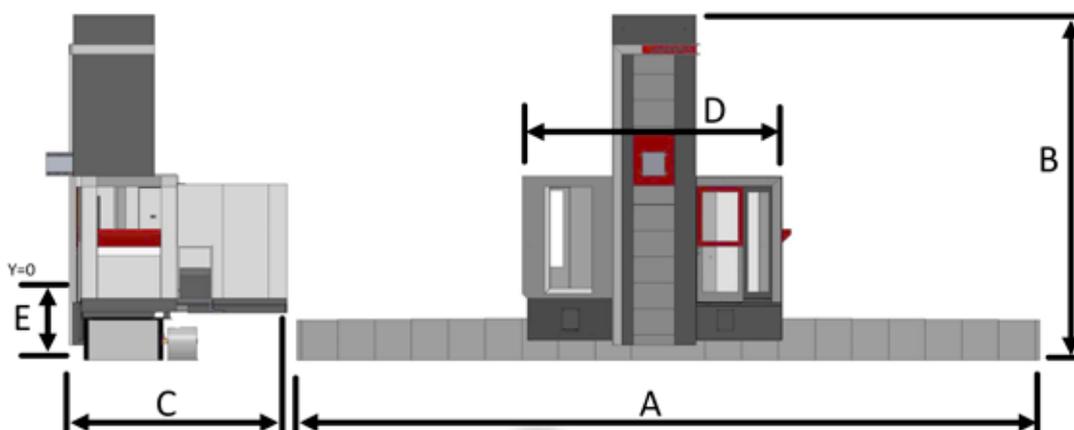


### AHC - Automatic Head Calibration technology

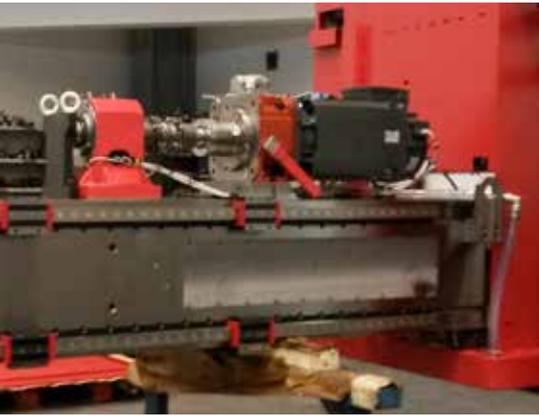
Software developed by Juaristi that allows automatic calibration of milling heads, in case of collision, temperature changes, etc. Maximum accuracy of heads permanently.

## MAIN DIMENSION FOR DIFFERENT MODELS

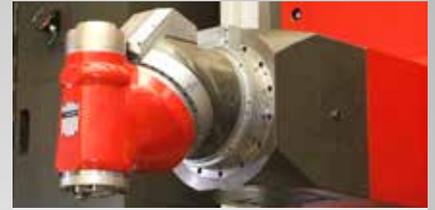
	A	B	C	D	E
<b>MX5 MX5 RAM</b>	X+5100	Y+3440	4100	5100	1200
<b>MX7 MX7 RAM</b>	X+5500	Y+3700	4300	5300	1600
<b>MX9 MX9 RAM</b>	X+6300	Y+4125	5000	6300	1805



# MULTIFUNCTIONALITY with the use of different ACCESSORIES



**AK2 Twist head 2-axes continuous rotation**  
1050 Nm-6000 min<sup>-1</sup>  
300 Nm-10000 min<sup>-1</sup>



**ACD 2 Universal head 1°x1° / 0.001° x 0.001°**  
37 kW – 1300 Nm – 6000 min<sup>-1</sup>  
60 kW – 2900 Nm – 3500 min<sup>-1</sup>



**AOD Orthogonal head 1°x1°**  
37 kW – 1300 Nm – 5000 min<sup>-1</sup>  
60 kW – 2900 Nm – 3500 min<sup>-1</sup>



**ATC Automatic Tool changer**  
Chain type or robot type up to 400 tools



**AAC Head magazine**  
for auto head change up to 10 accessories



## TECHNICAL SPECIFICATIONS

		MX5	MX7	MX9	MX5 RAM	MX7 RAM	MX9 RAM
X-axis Longitudinal travel column	mm	4000 + Nx2000					
Y-axis Vertical travel headstock	mm	2000 + Nx500... 4000	3000 + Nx500... 6000	3000 + Nx500... 7000	2000 + Nx500... 4000	3000 + Nx500... 6000	3000 + Nx500... 7000
Z-axis RAM travel	mm	1500	1650-1800	2000	1200	1500	1500-1900
W-axis boring spindle travel	mm	-	-	-	800	800	1000
Z+W travel	mm	1500	1650-1800	2000	2000	2300	2500-2900
<b>SPINDLE-HEADSTOCK</b>							
Boring spindle diameter	mm	-	-	-	130-160	160-180	160-180
Tool taper		ISO 50					
RAM cross section	mm	460x520	460x520	520x580	460x520	460x520	520x580
Max. rotation speed	min <sup>-1</sup>	3500-5000-6000	5000-6000	5000-3500	3500-3000	3000-2500	3000-2500
Spindle power (S1-100%)	kW	30-37	37-46	46-60	46-51	51-64	71-96
Spindle torque (S1-100%)	Nm	1300	1300-1610	1610-2900	2250-3225	3225-4050	4050-8650
<b>FEED RATES</b>							
Rapid feed rates X-Y-Z	m/min	35-30-30	30-25-25	30-20-20	35-30-30	30-25-25	30-20-20

# APPLICATIONS IN MOST DEMANDING SECTORS WORLDWIDE



## MX RAM Series Boring Milling Machines



**MX7 RAM** Engine block milling and boring



**MX5 RAM** Turning and thread rolling



**MX5 RAM** Mineral grab clamshell structure boring



**MX7 RAM** Turbine rotor slot machining with large mill disc



**MX9 RAM** Big diameter precision boring on pumps



**MX7 RAM** Wind mill hub machining



# MX Series Milling Machines



**MX9** Wind mill frame



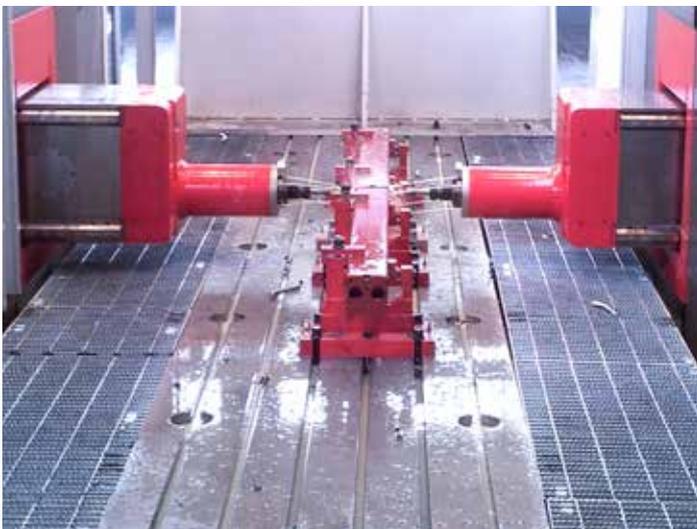
**MX9** Gas/steam huge turbine casing



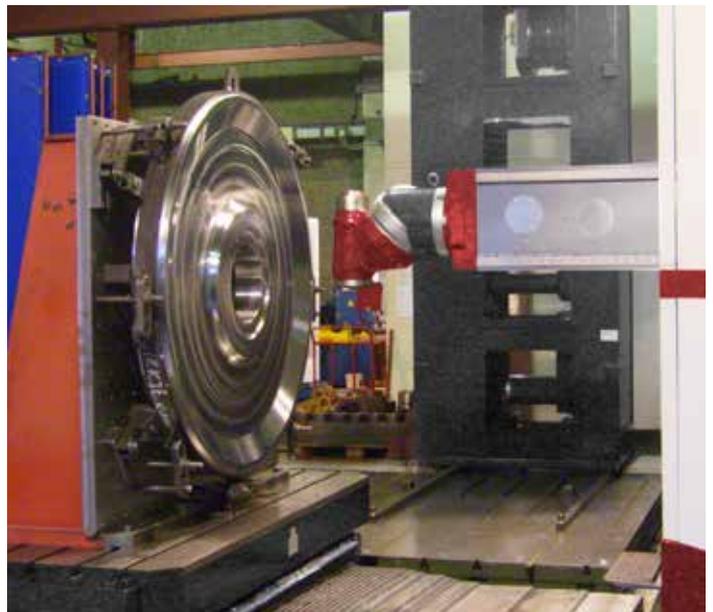
**MX7** Mold machining on angle plates



**MX5** Aircraft central fuselage on rotary table



**MX5 DUO** Bridge crane end track simultaneous machining



**MX7** Oil & gas disc by contouring

# BORING AND MILLING EXPERTS



**JUARISTI**



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