FAGIMA®

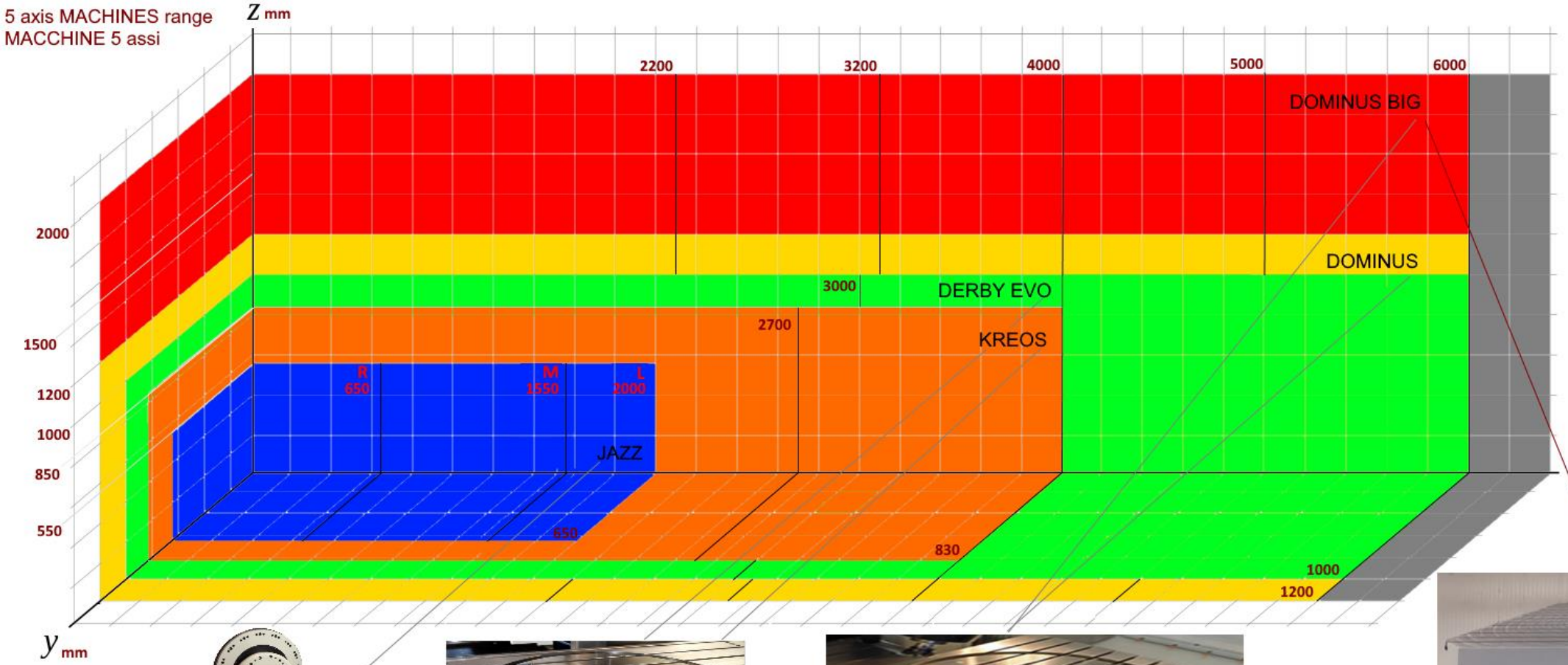
MADE IN ITALY

Genuine made in Italy machines tool

Product range 2021

Strokes on linear axis

5 axis MACHINES range
MACCHINE 5 assi

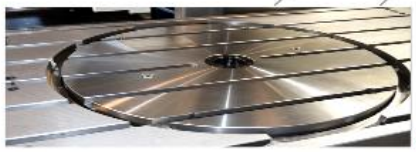


JAZZ R M L
KREOS
DERBY EVO
DOMINUS
DOMINUS BIG

CUSTOMIZED SOLUTION

SQUARED EXTERNAL ROTARY TABLE 1200X1200, 1500X1500, 2000X2000 MM
TAVOLA GIREVOLE ESTERNA QUADRATA 1200X1200, 1500X1500 2000X2000 MM

TILTING ROTARY TABLE /
TAVOLA ROTOBASCULANTE
600 x 600 mm
made in Italy



OPT.

EMBEDDED ROTARY TABLE 650/800 MM (torque motor)
TAVOLA GIREVOLE INTEGRATA 650/800 MM (motore coppia)

OPT.

EMBEDDED ROTARY TABLE 1000/1200 MM (torque motor)
TAVOLA GIREVOLE ANNEGATA 1000/1200 MM (motore coppia

FAGIMA
MADE IN ITALY

Jazz R

X 550

Y 650 NEW

Z 550(+170)

MECH SPINDLE

12000 RPM

ISO40 BT40

TILTING ROTARY TABLE

600 x 600

360° / ±110°

FAGIMA MADE IN ITALY

JazzR THE SMALLEST ONE... NOT IN EQUIPMENT

JazzR is the smallest 5-axis machine produced by Fagima.

This fully guarded equipped CNC machine is defined by a single swivel rotary table.
In addition to a sliding front access door, the JazzR is equipped with a further door to the right side of the machine, which allows loading and fixing of components onto the rotary table.
This addition of component loading is suitable for use with automation systems using a pallet change system.

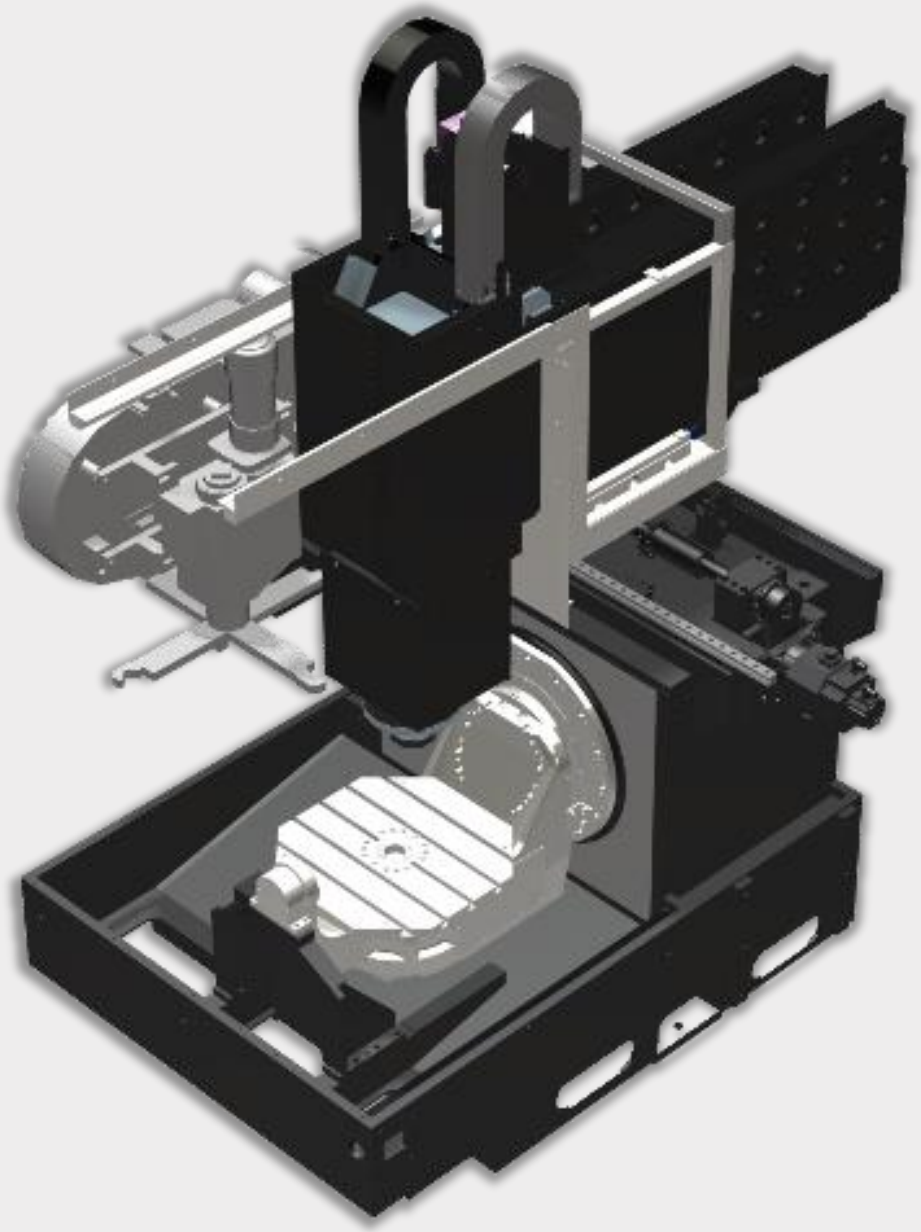
Fagima also offer various solutions for specific dedicated systems combined with the provision of special tool magazines while the standard one has 40 positions.

Standard equipment is completed by a mechanical coaxial spindle, chip conveyor, while CNC could be selected among FANUC, HEIDENHAIN, FAGOR, SIEMENS.

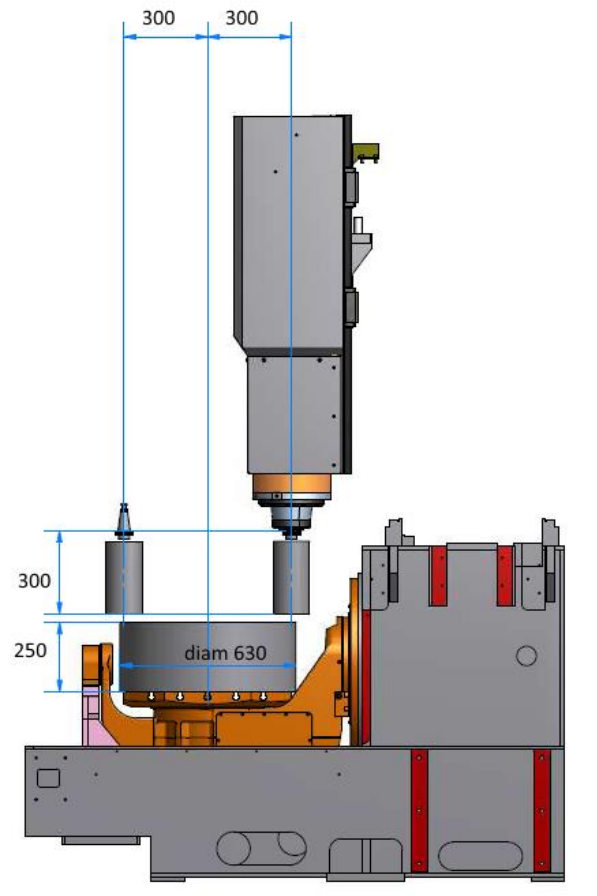
FAGIMA MADE IN ITALY

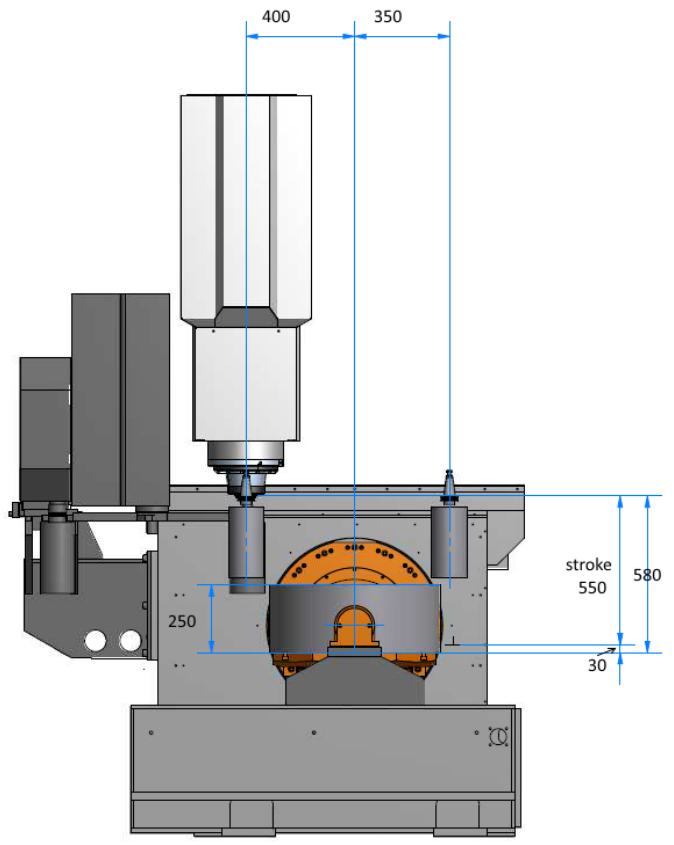
Italian design and quality

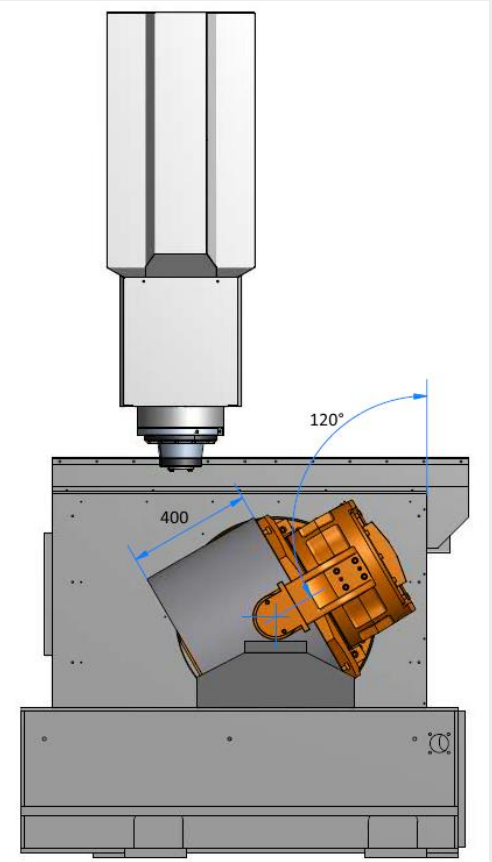
9 TONS OF STRUCTURES



Baseframe in DMP

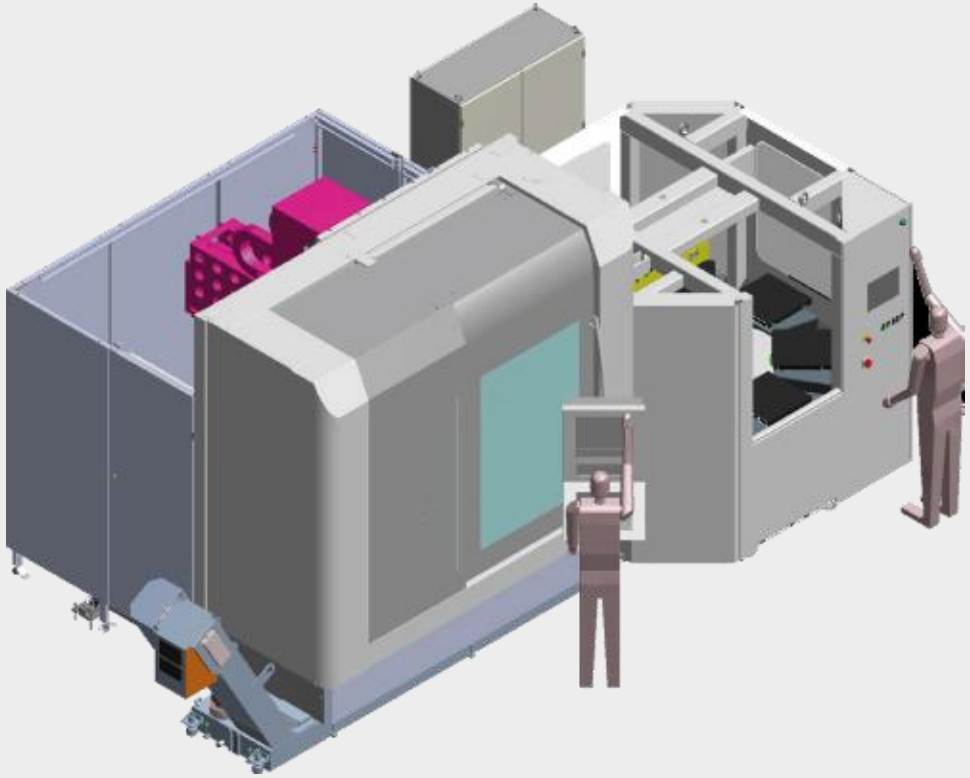


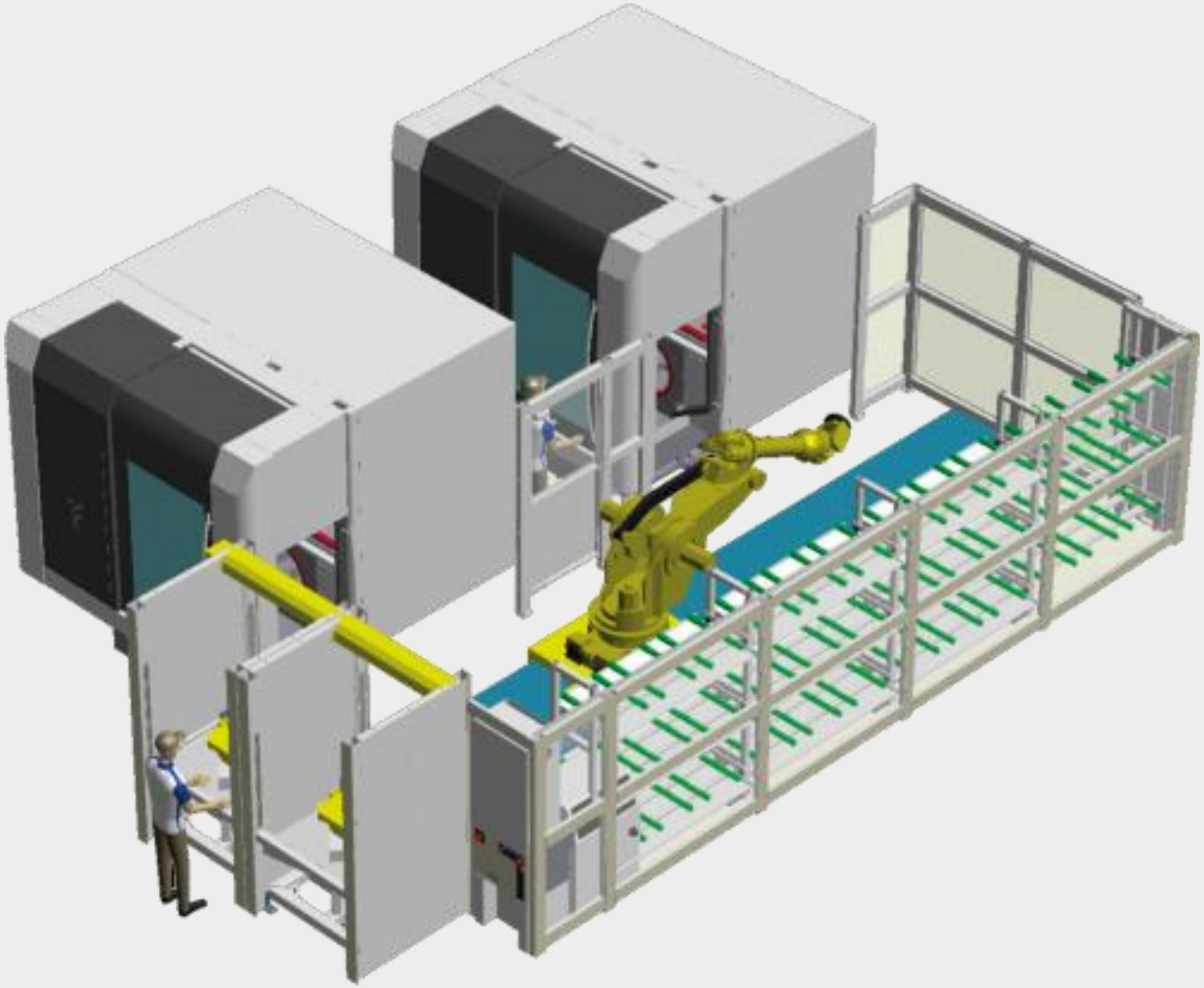




Jazz R

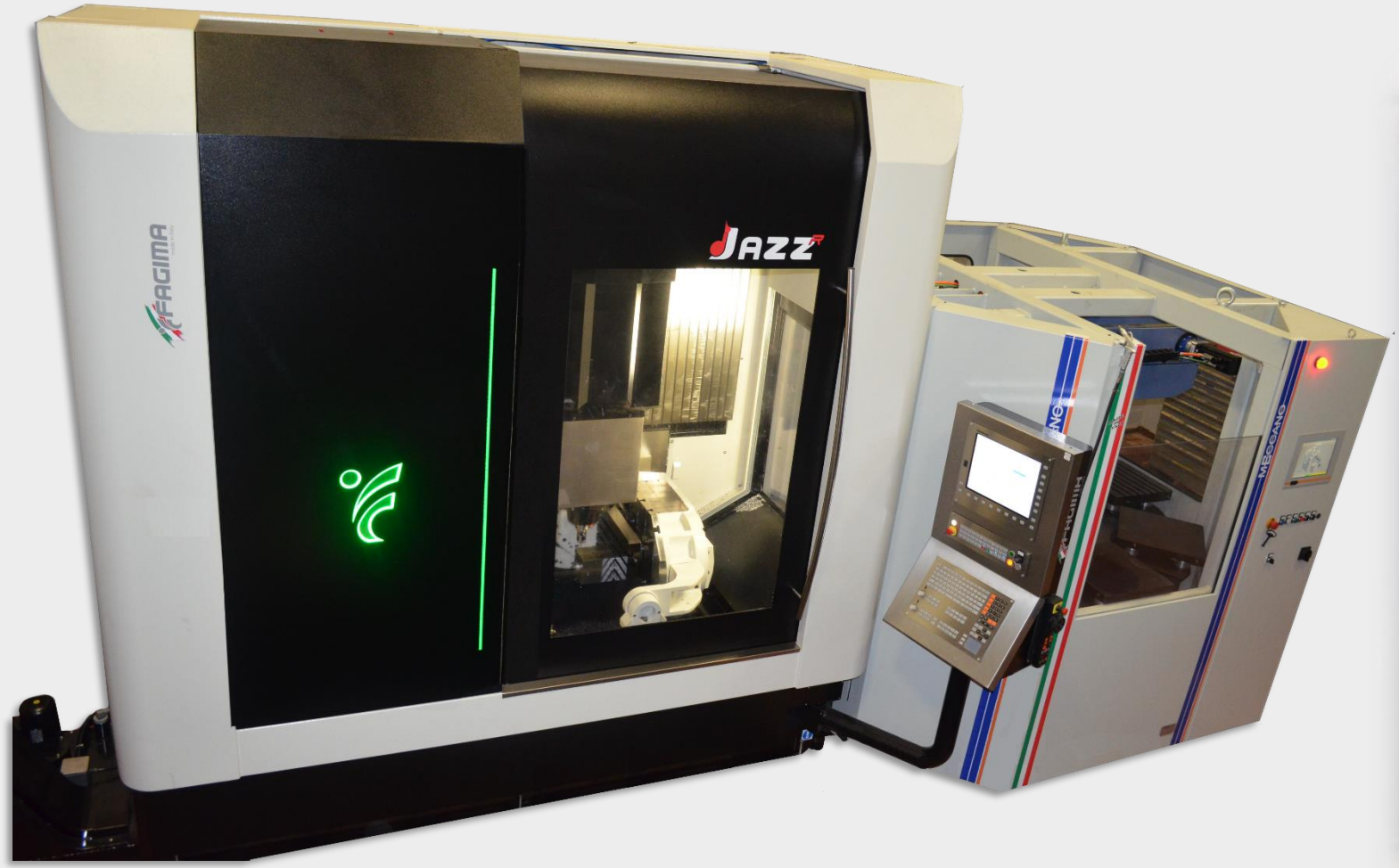
Suitable for automation systems



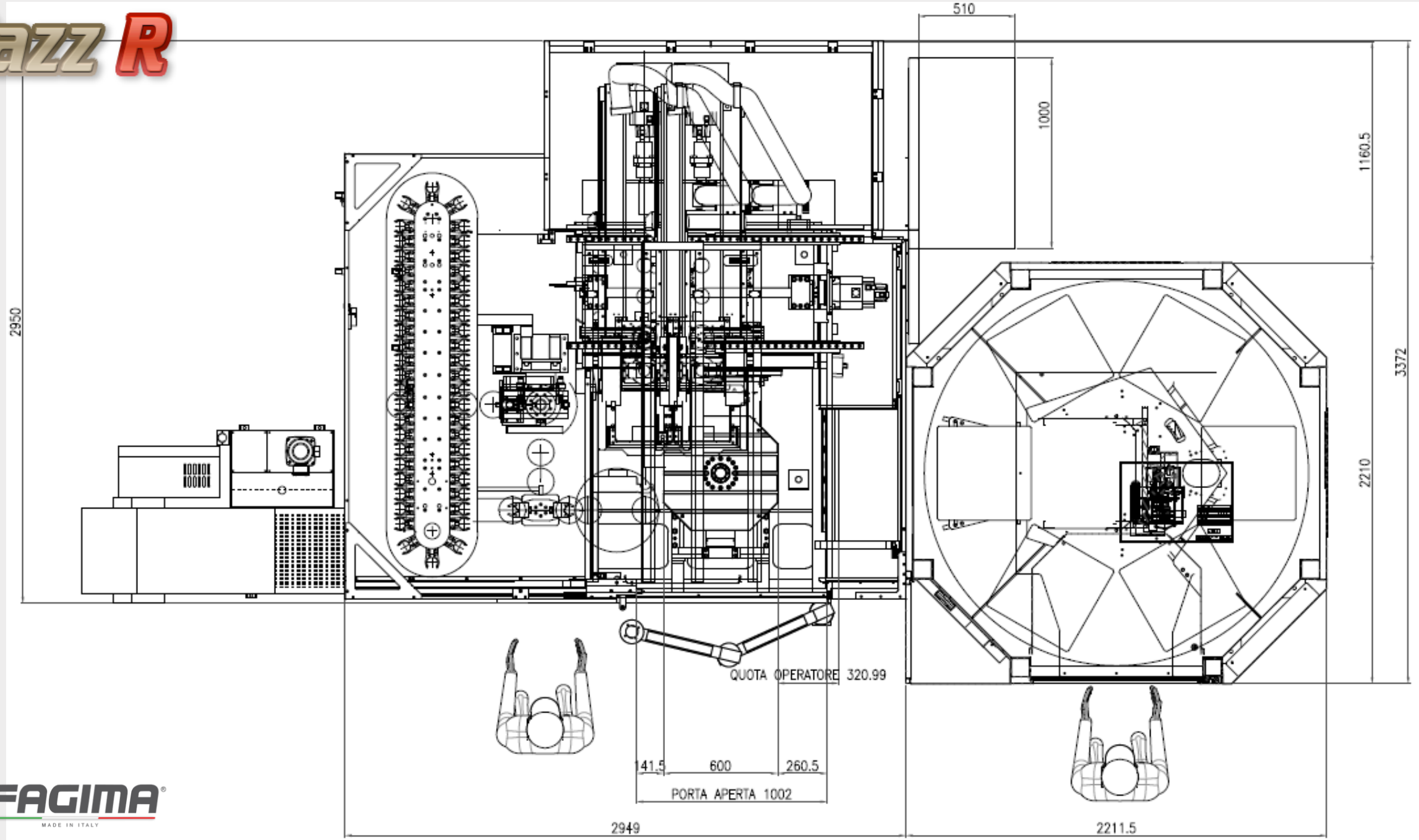


FAGIMA MADE IN ITALY

Flexible and compact



Jazz R



FAGIMA
MADE IN ITALY

Main features

CORSE		
Stroke X	mm	650
Stroke Y	mm	650
Stroke Z	mm	550 + 170

CORSE SU TAVOLA ROTOBASCULANTE		
Stroke X	mm	600
Stroke Y	mm	600
Stroke Z	mm	550
Distance between spindle nose and table surface	mm	170
Total light on Z stroke	mm	720
Rotary axis (C)		
Max load on the table	Kg	500
Table dimensions	mm	600x600
C axis rotation range		0-360°
Max speed rotation	rpm	max 25
Tilting axis (B)		
Tilting range		± 110°
Max speed tilting	rpm	max 25

Main features

MECHANICAL COAXIAL SPINDLE (WITH HEIDENHAIN MOTOR)

Mechanical spindle assembled in axis with motor	ISO 40 - DIN 69871	
Taper clamping force	N	7500±10%
Tool re leasing type	pneumatic	
Power (S6- 40%) – look at the below diagram	kW	17
Torque motor (S6-40%) – look at the below diagram	Nm	108
Max rotation spindle	rpm	12000
Spindle internal air		
Spindle noise-table distance	mm	170

Prearrangement for high pressure with liquid through the spindle center

RANDOM TOOL CHANGE 40 POSITION IS040

Capacity, positions	nr	40
Max tool diameter (with adjacent empty pockets)	mm	75 (127)
Max tool lenght	mm	350
Max tool weight	Kg	8
Total weight	Kg	200

opt Random tool change 60 or 120 positions ISO40

opt Random tool change 40 or 60 or 120 positions HSK63

Main options

High pressure through the spindle from 20 up to 40 bar (more powerful pressures on demand)
Electrical cabinet conditioner (mandatory with electrospindle)
Electrospindle instead of mechanical spindle
Tracking systems for work piece dimensions and alignment
Systems for measuring the tool length/radius and tool integrity function
Direct encoders on the tilting rotary table (B, C axis)
Heidenhain optical scales on X, Y, Z axes
Predisposition for clamping systems on tilting rotary table
High pressure washing system in the working area
CNC Fanuc, Heidenhain, Fagor, Siemens

FAGIMA
MADE IN ITALY

Jazz M

X 1550

Y 650 NEW

Z 550(+170)

MECH SPINDLE

12000 RPM

Iso40 BT40

FIXED TABLE +

TILTING ROTARY

TABLE

600 x 600

360° / ±110°

FAGIMA
MADE IN ITALY

13 TONS OF STRUCTURES

3, 4 AND 5 AXIS

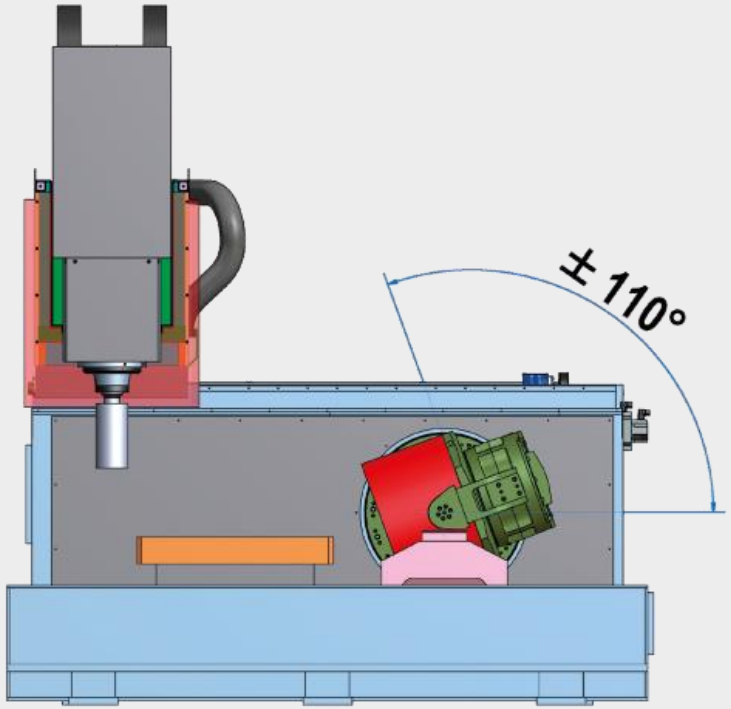
The new **JazzM** was introduced in completing Jazz range, emphasizing once again the versatility.
The base frame is also in this case obtained with the filling of welded structures, by means of composite material (enriched mineral casting, DMP).

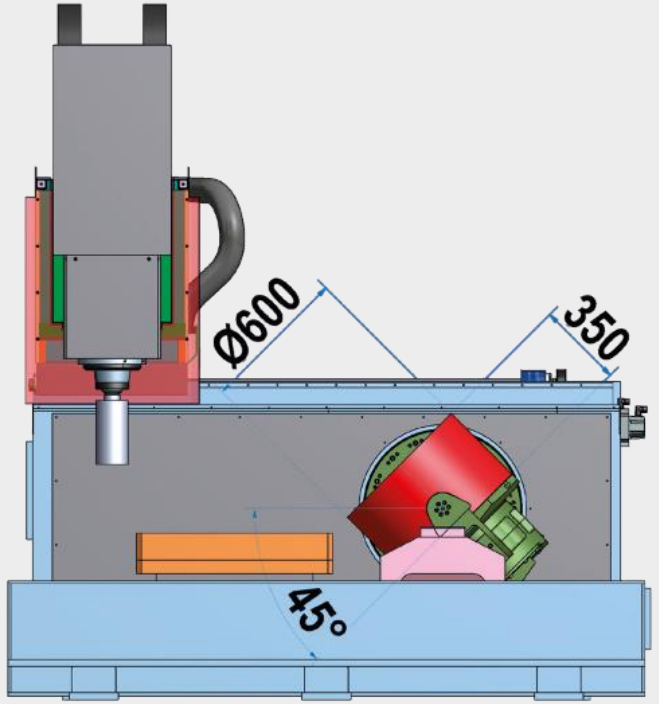
In looking for the right balance between dimensions and variety of working solutions, **JazzM** represents the "summa" of the different characteristics that determined the success of JazzR and JazzL.
Therefore maintaining a workspace as the JazzL with combination of a fixed table and a swivel rotary table, its layout approaches the one of JazzR, with a frontal door and a lateral one, especially useful for automatized operation, for example through an automatic pallet change system.

The performance processing characteristics replicate those of JazzL and R (reliability, accuracy, speed).

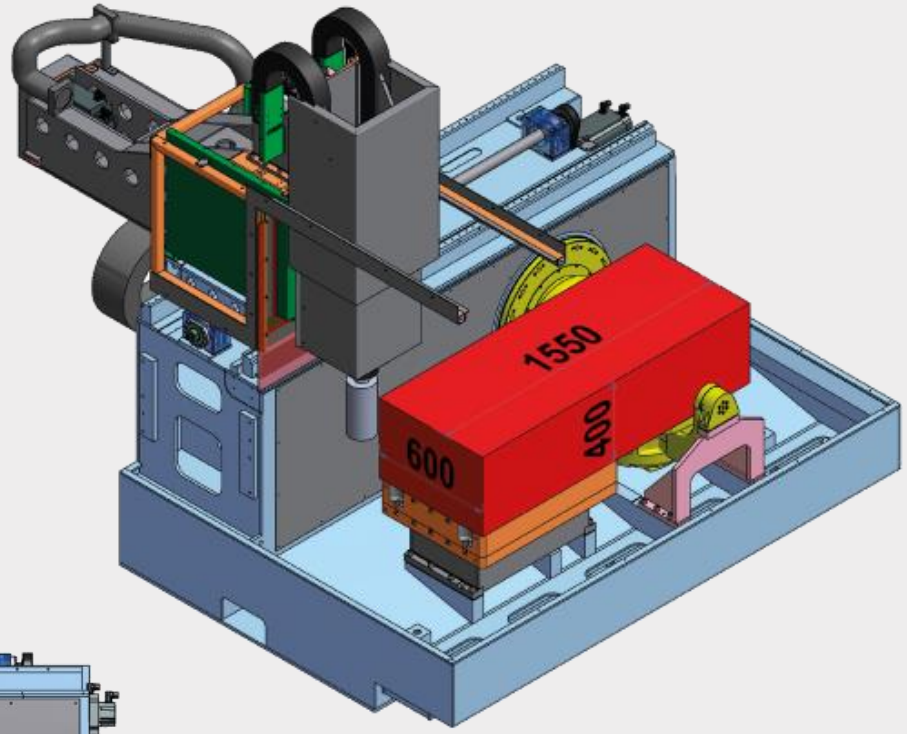
JazzM cannot perform penduling operations.

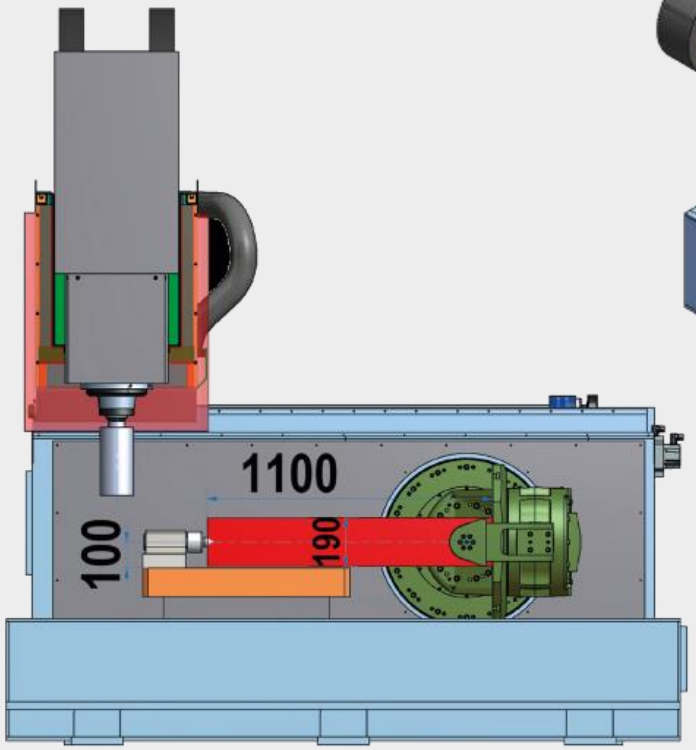
Simmetrical tilting ± 110°

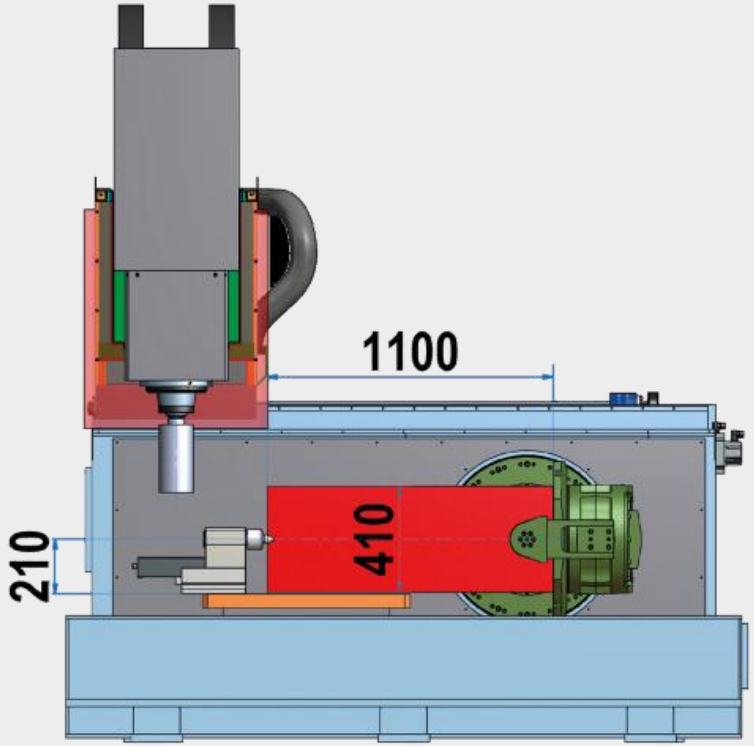




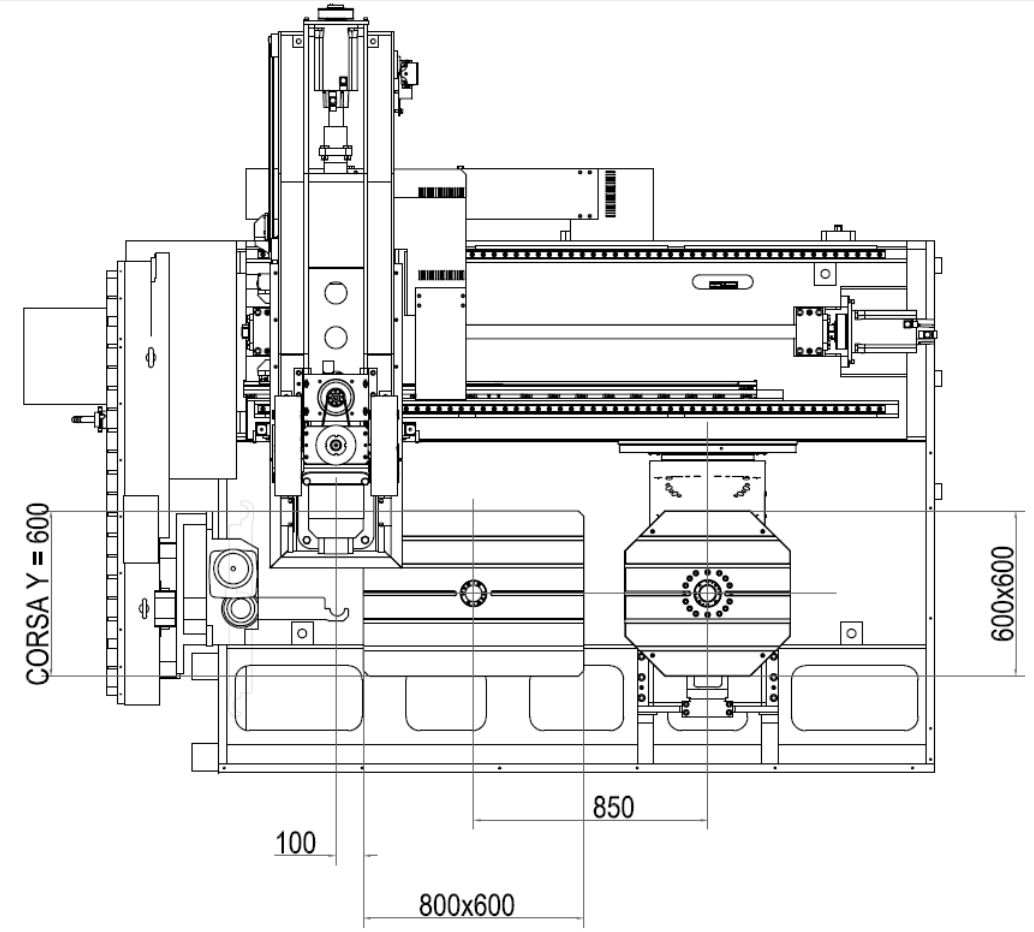
Large variety of machinings

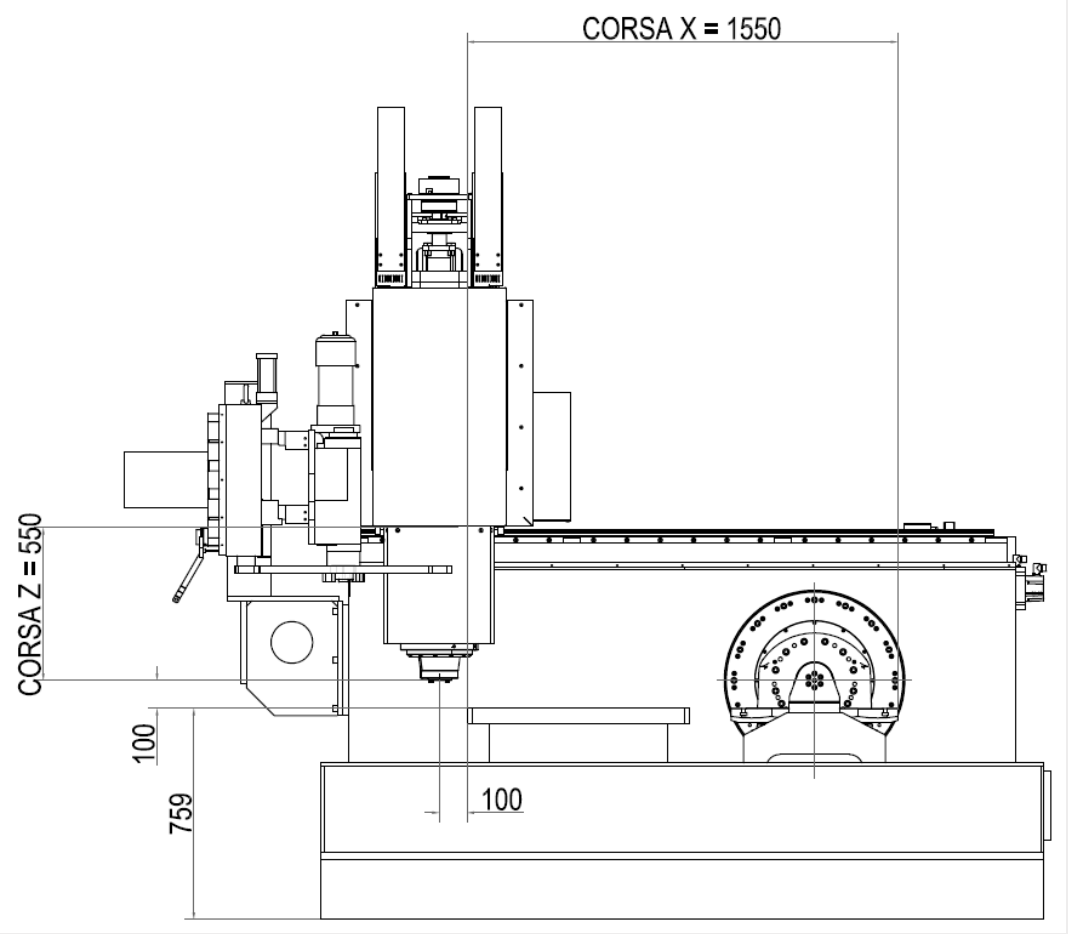






Jazz M





FAGIMA MADE IN ITALY

Main features

STROKES		
Total X axis	mm	1550
Y axis	mm	650
Z axis	mm	550

STROKES ON FIXED TABLES		
X axis	mm	800
Y axis	mm	600
Z axis	mm	550
Distance spindle nose / table	mm	170
Dimensions	mm	800x800
Max load on the table	kg	1000 x m2

STROKES ON TILTING ROTARY TABLE		
X axis	mm	600
Y axis	mm	600
Z axis	mm	550
Distance spindle nose / table	mm	170

Main features

Rotary axis (C)		
Max load on the table	Kg	500
Table dimensions	mm	600x600
C axis rotation range		0-360°
Max speed rotation	rpm	25
Tilting axis (B)		
Tilting range		± 110°
Max speed tilting	rpm	25

Main features

MECHANICAL COAXIAL SPINDLE (WITH HEIDENHAIN MOTOR)

Mechanical spindle assembled in axis with motor	ISO 40 - DIN 69871	
Taper clamping force	N	7500±10%
Tool re leasing type	pneumatic	
Power (S6- 40%) – look at the below diagram	kW	17
Torque motor (S6-40%) – look at the below diagram	Nm	108
Max rotation spindle	rpm	12000
Spindle internal air		
Spindle noise-table distance	mm	40
Prearrangement for high pressure with liquid through the spindle center		

RANDOM TOOL CHANGE 40 POSITION IS040

Capacity, positions	nr	40
Max tool diameter (with adjacent empty pockets)	mm	75 (127)
Max tool lenght	mm	350
Max tool weight	Kg	8
Total weight	Kg	200

opt Random tool change 60 or 120 positions ISO40

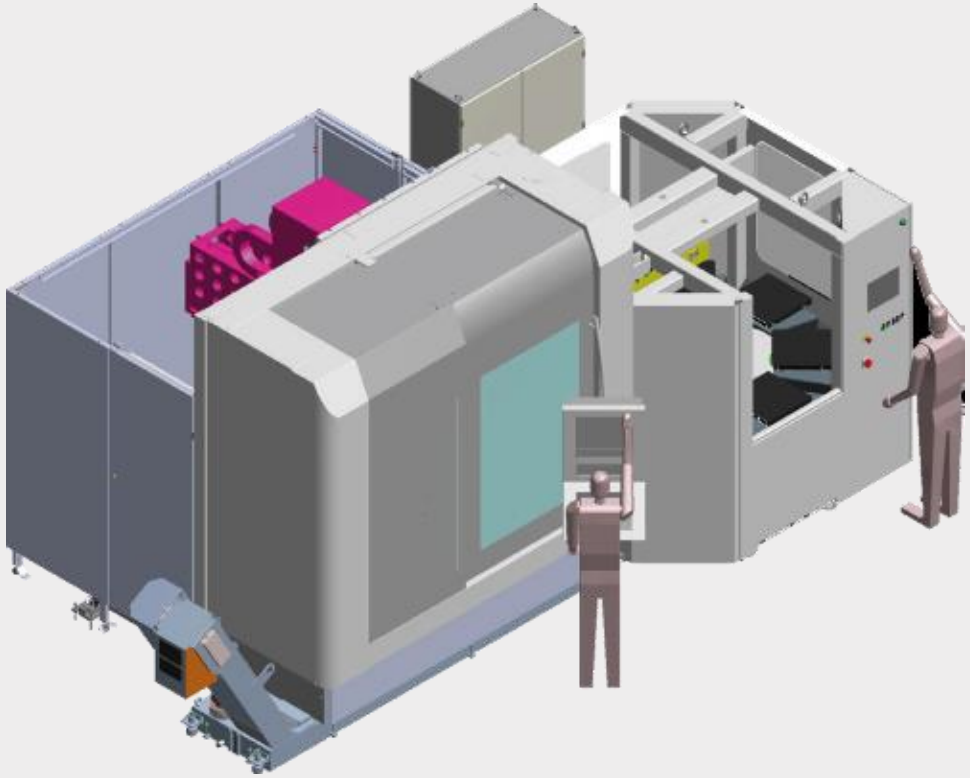
opt Random tool change 40 or 60 or 120 positions HSK63

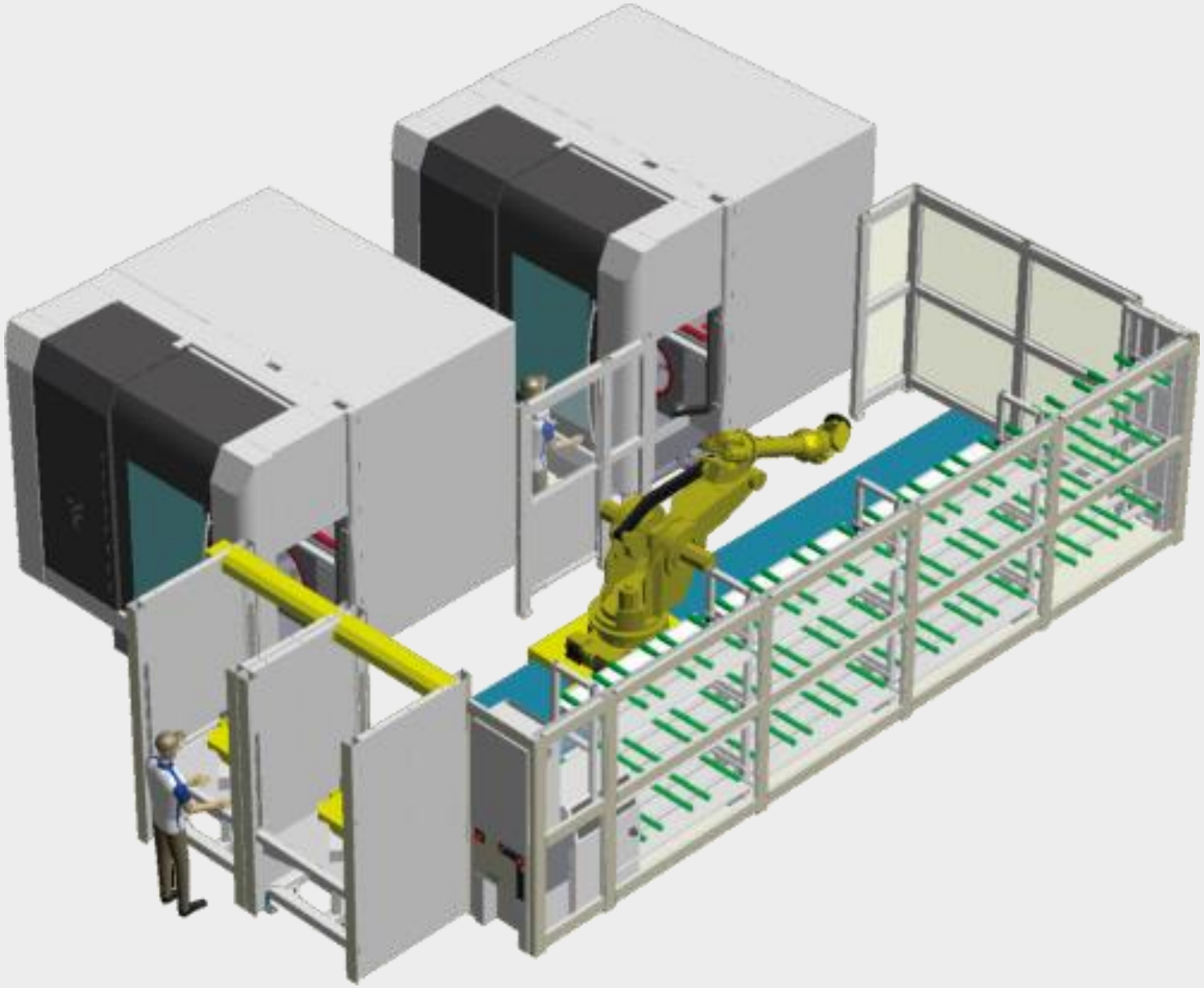
Main options

High pressure through the spindle from 20 up to 40 bar (more powerful pressures on demand)
Electrical cabinet conditioner (mandatory with electrospindle)
Electrospindle instead of mechanical spindle
Tracking systems for work piece dimensions and alignment
Systems for measuring the tool length/radius and tool integrity function
Direct encoders on the tilting rotary table (B, C axis)
Heidenhain optical scales on X, Y, Z axes
Clamping systems on tilting rotary table
High pressure washing system in the working area
CNC Heidenhain, Fanuc, Fagor, Siemens

Jazz M

Suitable for automation systems





FAGIMA MADE IN ITALY

FAGIMA
MADE IN ITALY

Jazz L

X 2000

Y 650 NEW

Z 550(+170)

MECH SPINDLE

12000 RPM

Iso40 BT40

FIXED TABLE +

TILTING ROTARY

TABLE

600 x 600

360° / ±110°

FAGIMA
MADE IN ITALY

3 MACHINES IN JUST 1

JazzL replicates the combined concept of the Jazz with a growth in versatility that provides benefits for the end user.
The machine guarding based upon a new style of beveled top and rounded corners, gives a more quality finish to the machine.

JazzL is equipped with a fixed table and a swivel rotary table.
The innovative design of **JazzL** includes the two sliding front doors that give easy access to the wide working area, this also allows the possibility of two machining areas thanks to the inclusion of a central wall along with an additional tool magazine.
The additional tool magazine can be arranged even after the machine is installed, as the empty proper location is available in the standard configuration.

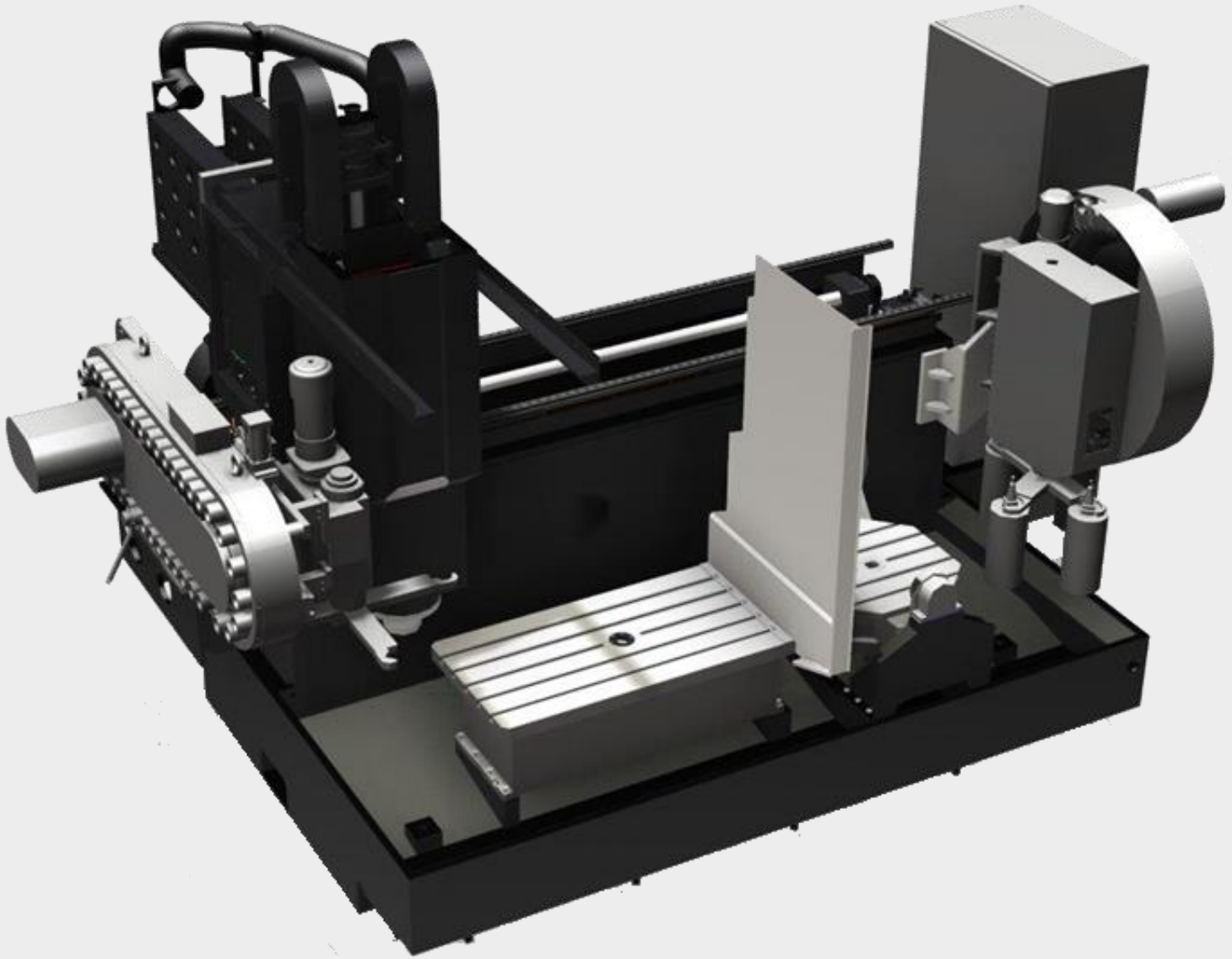
Standard equipment is completed by a mechanical coaxial spindle, 40 positions tool magazine, chip conveyor, while CNC can be selected among Fanuc, Heidenhain, Fagor and Siemens.

Jazz L

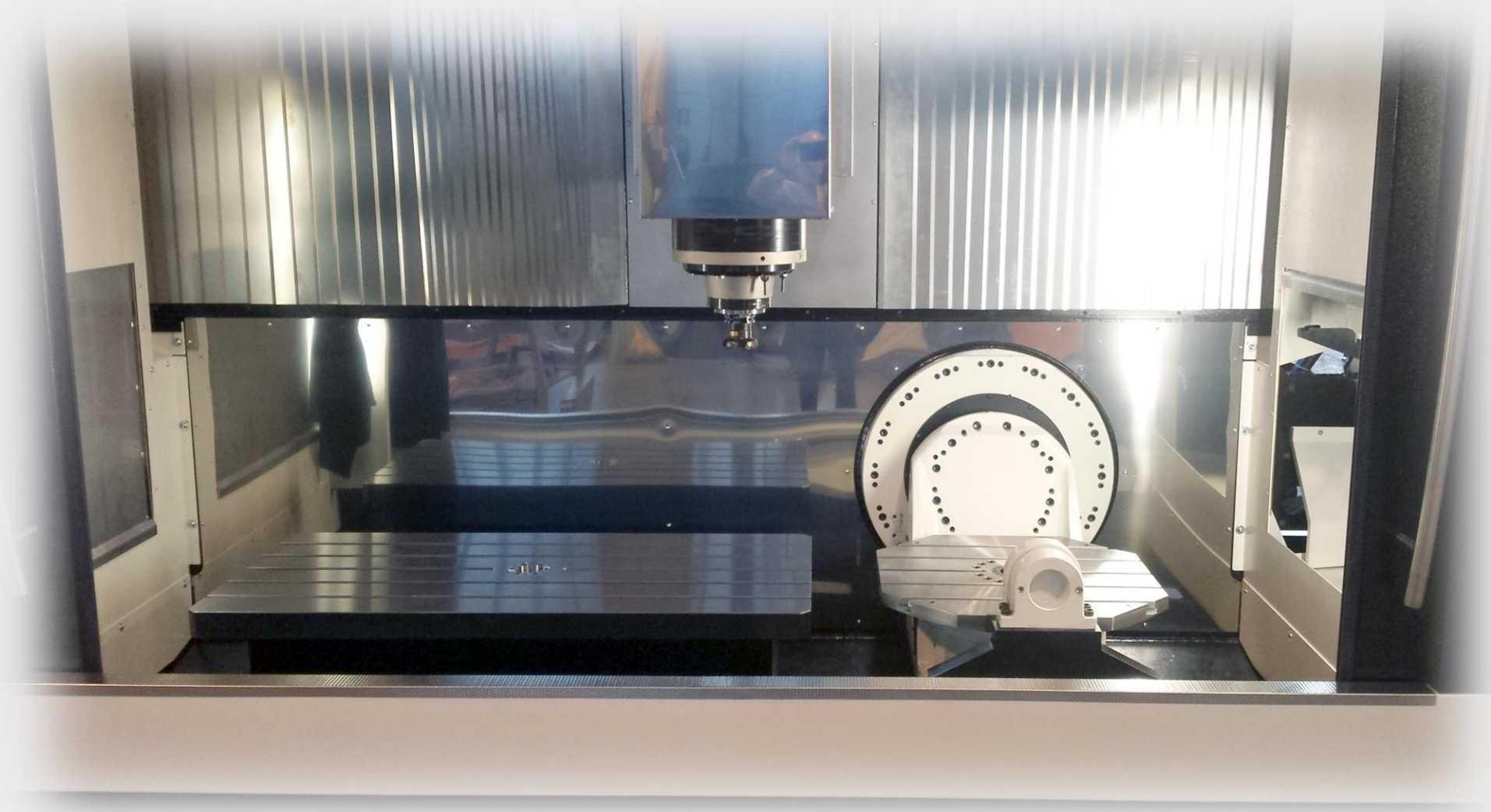
Italian design and quality

FAGIMA MADE IN ITALY

15 TONS OF STRUCTURES

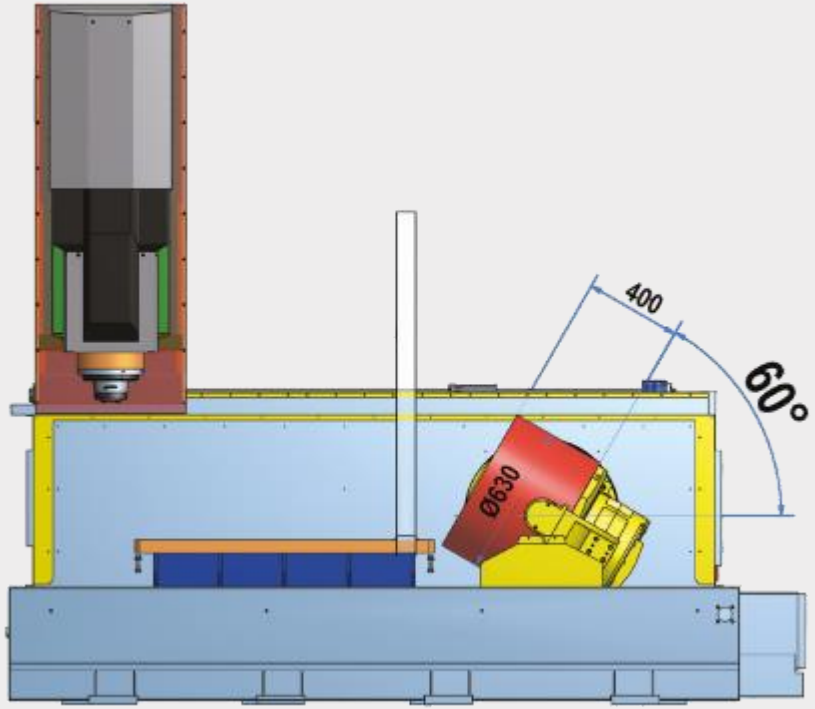


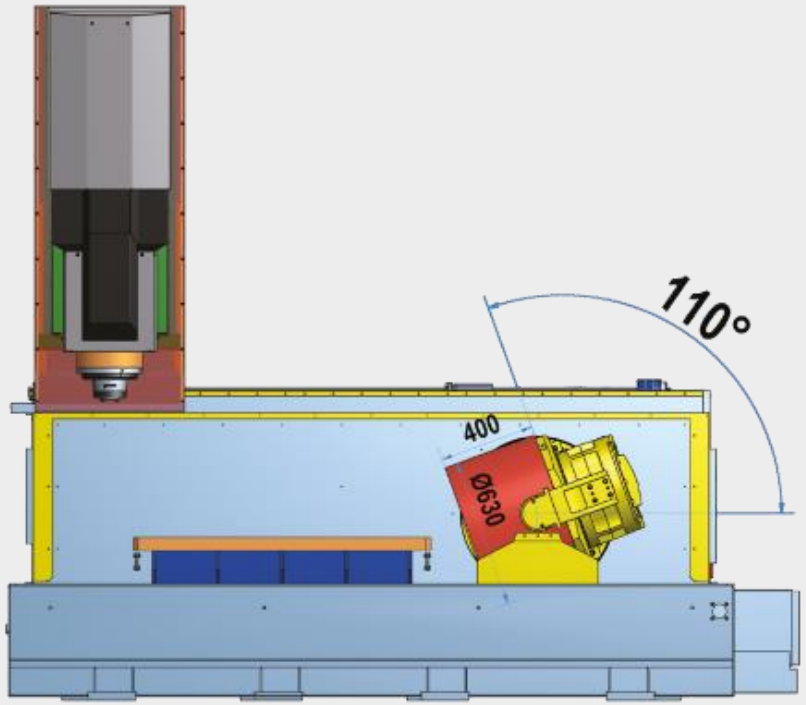
A LAYOUT FOR MANY SOLUTIONS



Jazz L

Simmetrical tilting ± 110°

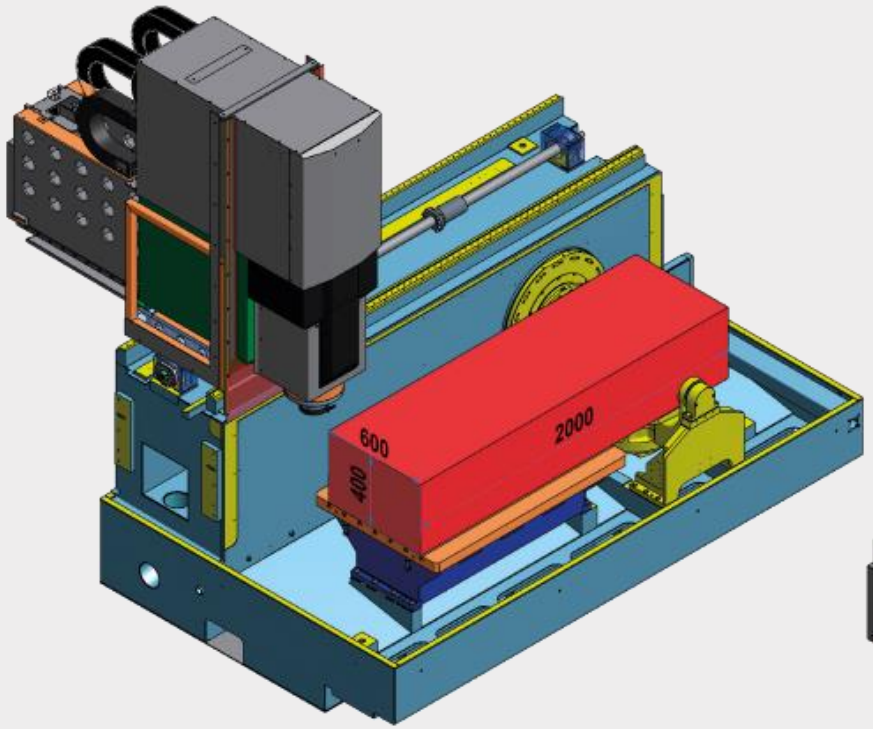


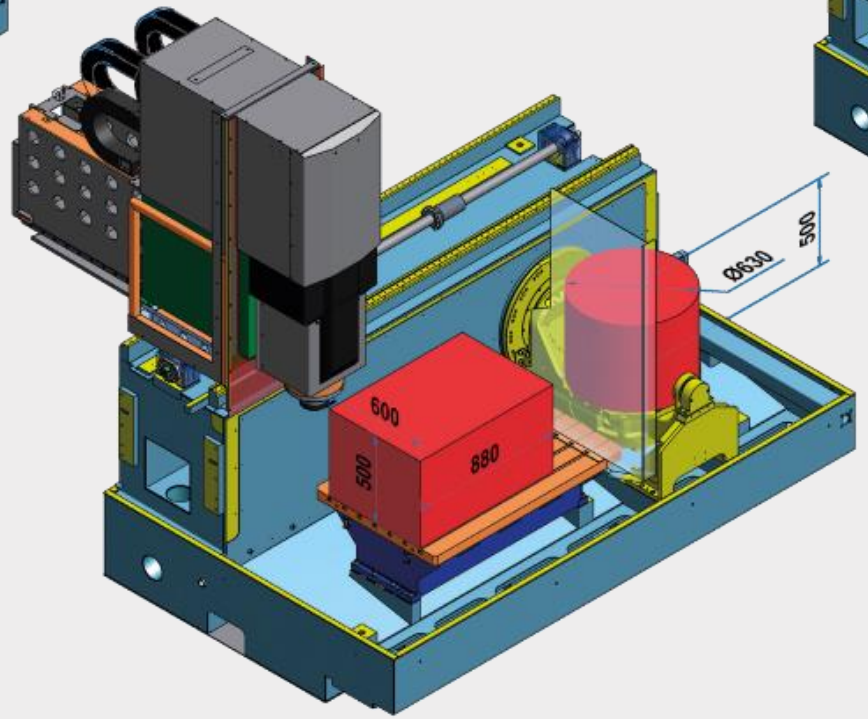


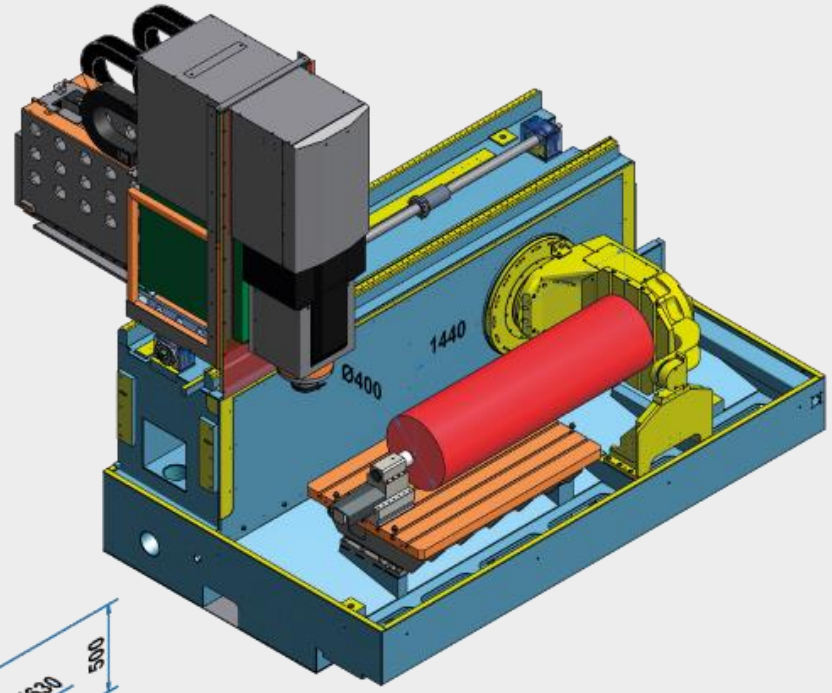
FAGIMA MADE IN ITALY

Jazz L

LARGE VARIETY OF MACHININGS

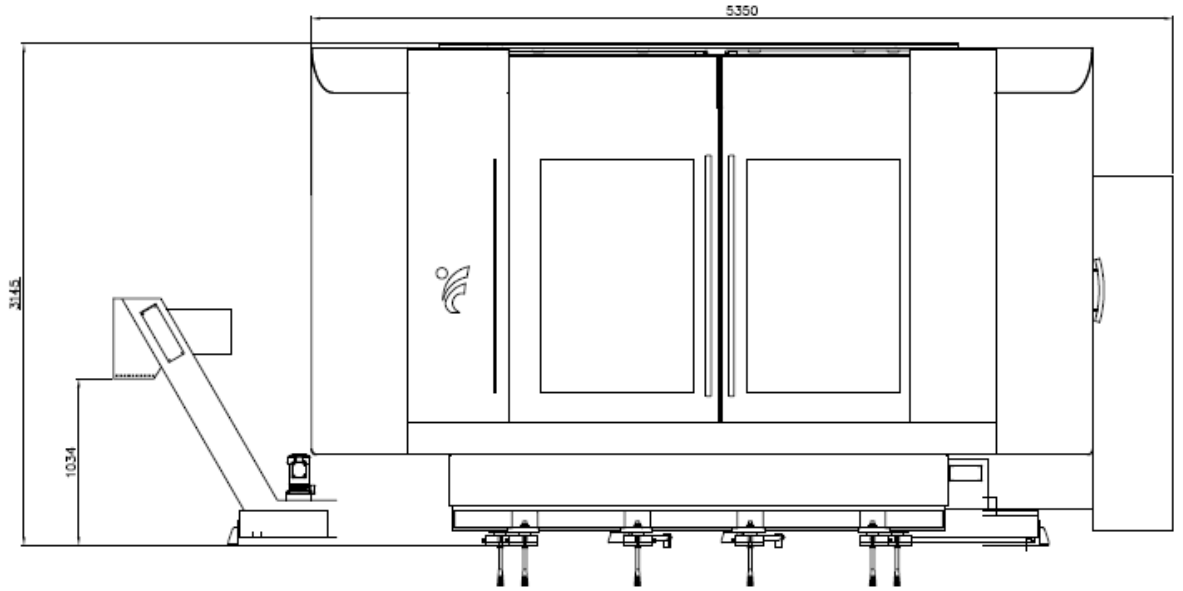


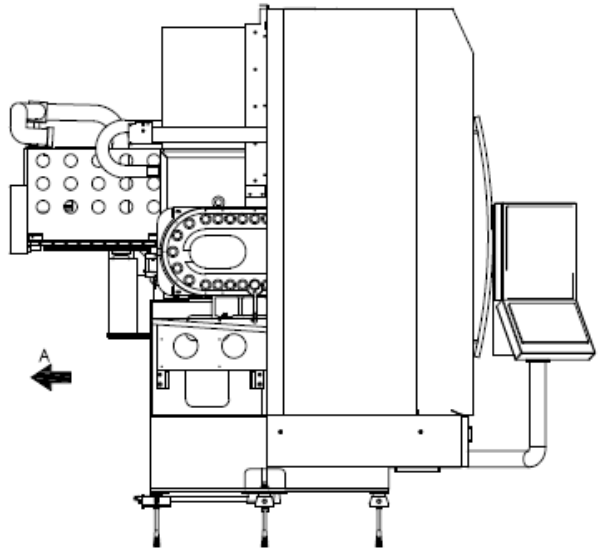


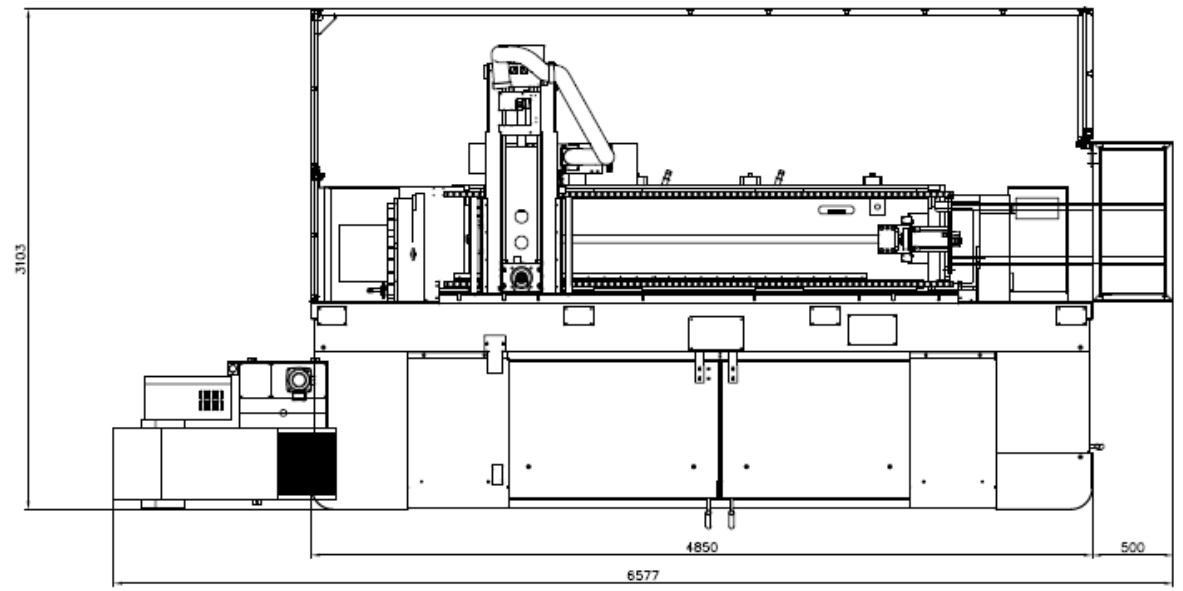


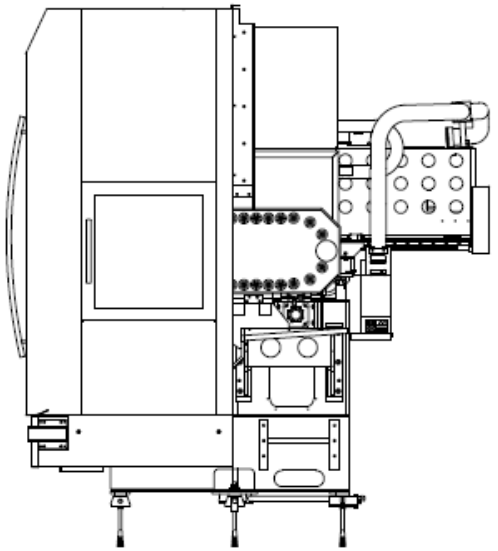
FAGIMA MADE IN ITALY

Jazz L









VISTA "A"

FAGIMA MADE IN ITALY

Jazz L

Main features

STROKES		
Total X axis	mm	2000
Y axis	mm	650
Z axis	mm	550

STROKES ON FIXED TABLES		
X axis	mm	1250
Y axis	mm	650
Z axis	mm	550
Distance spindle nose / table	mm	170
Dimensions	mm	1250x800
Max load on the table	kg	800

STROKE ON TILTING ROTARY TABLE		
X axis	mm	600
Y axis	mm	600
Z axis	mm	550
Distance spindle nose / table	mm	170

FAGIMA MADE IN ITALY

Jazz L

Main features

Rotary axis (C)		
Max load on the table	Kg	500
Table dimensions	mm	600x600
C axis rotation range		0-360°
Max speed rotation	rpm	max 25
Tilting axis (B)		
Tilting range		± 110°
Max speed tilting	rpm	max 25
Opt PENDULAR SYSTEM with wall		
Strokes on fixed table		
X axis	*mm*	*960*
Y axis	*mm*	*650*
Z axis	*mm*	*550*
Strokes on tilting rotary table		
X axis	*mm*	*600*
Y axis	*mm*	*600*
Z axis	*mm*	*550*

FAGIMA MADE IN ITALY

Main features

MECHANICAL COAXIAL SPINDLE (WITH HEIDENHAIN MOTOR)

Mechanical spindle assembled in axis with motor	ISO 40 - DIN 69871	
Taper clamping force	N	7500±10%
Tool re leasing type	pneumatic	
Power (S6- 40%) – look at the below diagram	kW	17
Torque motor (S6-40%) – look at the below diagram	Nm	108
Max rotation spindle	rpm	12000
Spindle internal air		
Spindle noise-table distance	mm	170

Prearrangement for high pressure with liquid through the spindle center

opt Electrospindle ISO40 16000 rpm

opt Electrospindle HSK63 24000 rpm

RANDOM TOOL CHANGE 40 POSITION IS040

Capacity, positions	nr	40
Max tool diameter (with adjacent empty pockets)	mm	75 (127)
Max tool lenght	mm	350
Max tool weight	Kg	8
Total weight	Kg	200

opt Random tool change 60 positions ISO40 (on left or right side)

opt Random tool change 40 or 60 positions HSK63 (on left and / or right side)

Jazz L

Main options

High pressure through the spindle from 20 up to 40 bar (more powerful pressures on demand)
Electrical cabinet conditioner (mandatory with electrospindle)
Electrospindle instead of mechanical spindle
Pendular system and additional tool magazine (40 or 60 positions)
Tracking systems for work piece dimensions and alignment
Systems for measuring the tool length/radius and tool integrity function
Direct encoders on the tilting rotary table (B, C axis)
Heidenhain optical scales on X, Y, Z axes
Clamping systems on tilting rotary table
High pressure washing system in the working area
CNC Fanuc, Heidenhain, Fagor, Siemens

FAGIMA MADE IN ITALY

KREOS

FAGIMA
MADE IN ITALY

KREOS 4-5 AXIS – ISO40 HSK63

The increasing requirement of higher milling speed, accuracy and quality of the machining operations have pushed Fagima to step-up with the development and production of the new model **KREOS** with 4 and 5 axes milling capability, which will be introduced on the market in the last quarter of 2016.

KREOS offers highly productive solutions in applications such as mold & die manufacturing, aerospace and in general for complex work pieces.
The solid machine structure provides rigidity and geometrical stability reflecting in the respect of the part program within tight tolerances.

The moving column (instead of a ram) grants that reliability which made the success of bigger models Derby and Dominus and allows efficient response to every manufacturing application.
Such model will represent an hard challenge for Fagima entering in a market segment congested by a lot of models; for such reason a success of results will have a double significance.

FAGIMA MADE IN ITALY

KREOS X 2700 4000 Y 850 Z 830

The new model will be available in 2 versions, determined by X strokes, 2700 e 4000 mm (with pendular option).

Both versions, as consuetudinary on Fagima products, will be available in 4 or 5 axis.

With Kreos; Fagima finalize the renewing of its whole range, uniforming a new design and style.

Therefore the historical models Super Fast, Spin Arrow e Spin Fast will go out of range and will not be longer produced.

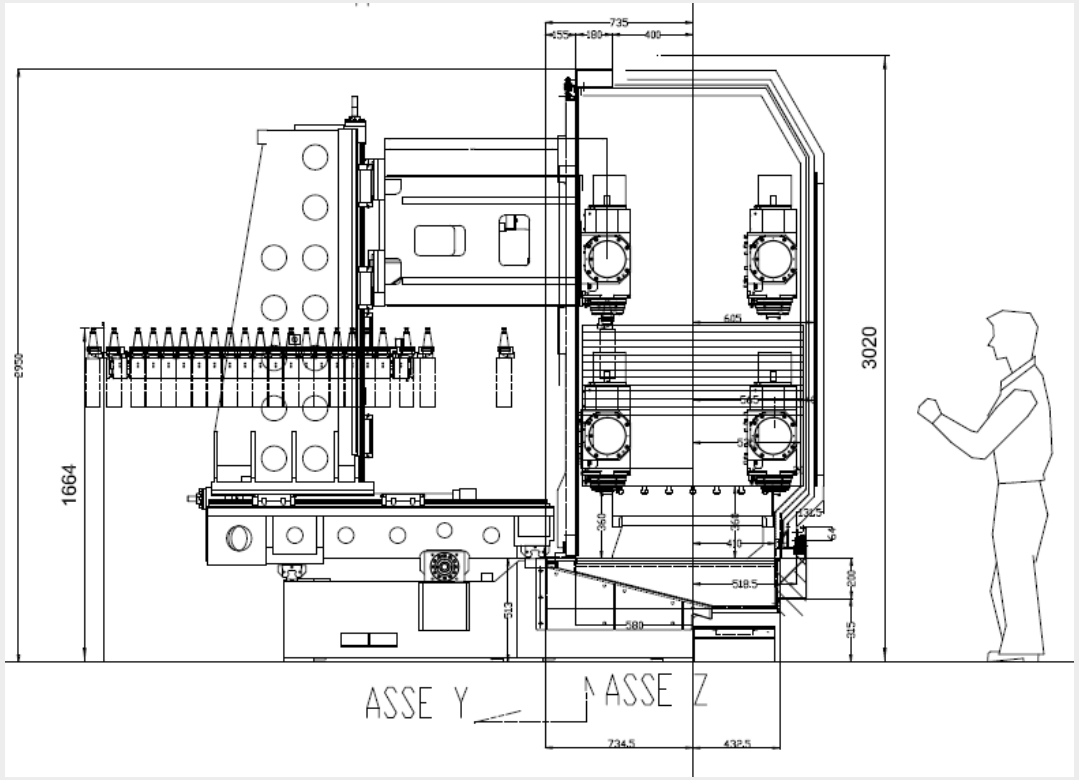
Such renewing process started about 12 years ago when Fagima designed the DOMINUS, followed during the years by Derby, Jazz and now Kreos.

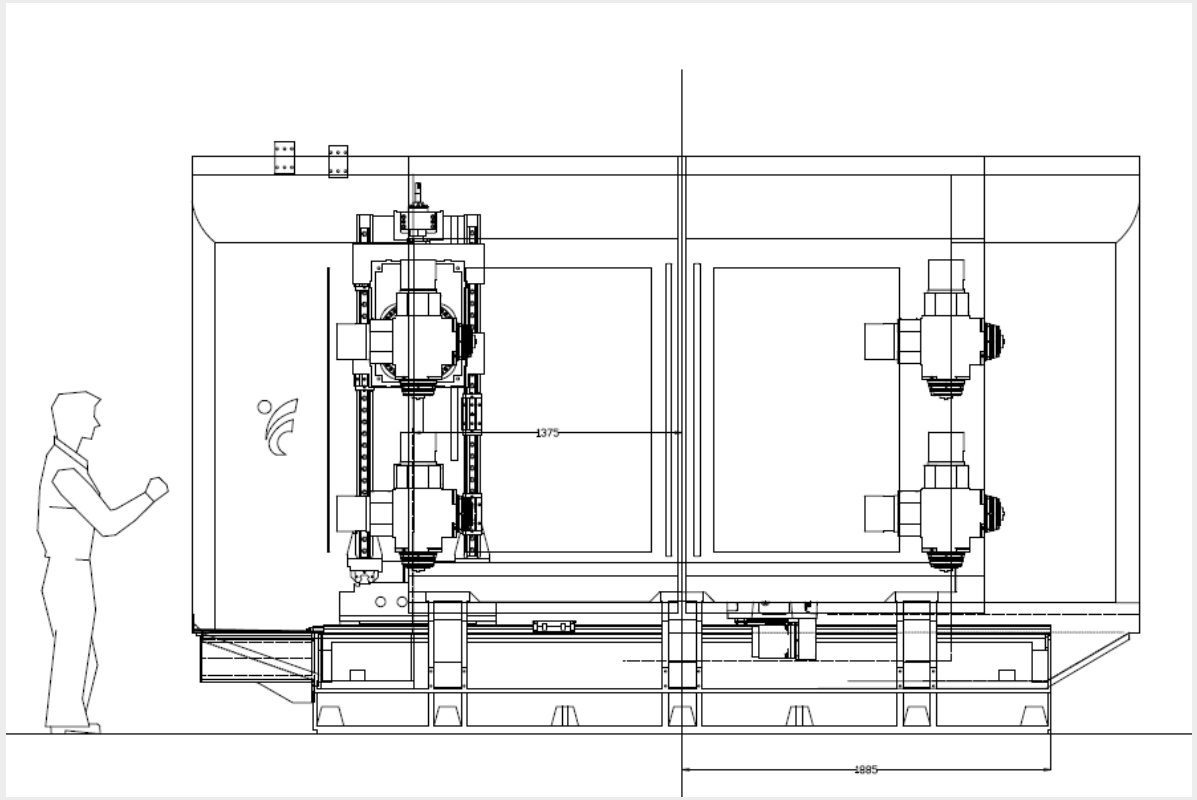
They represent not only machines but more correctly families of products, that in combination may offer a very large range of solutions to Customers.

FAGIMA MADE IN ITALY

No bending on Y axis

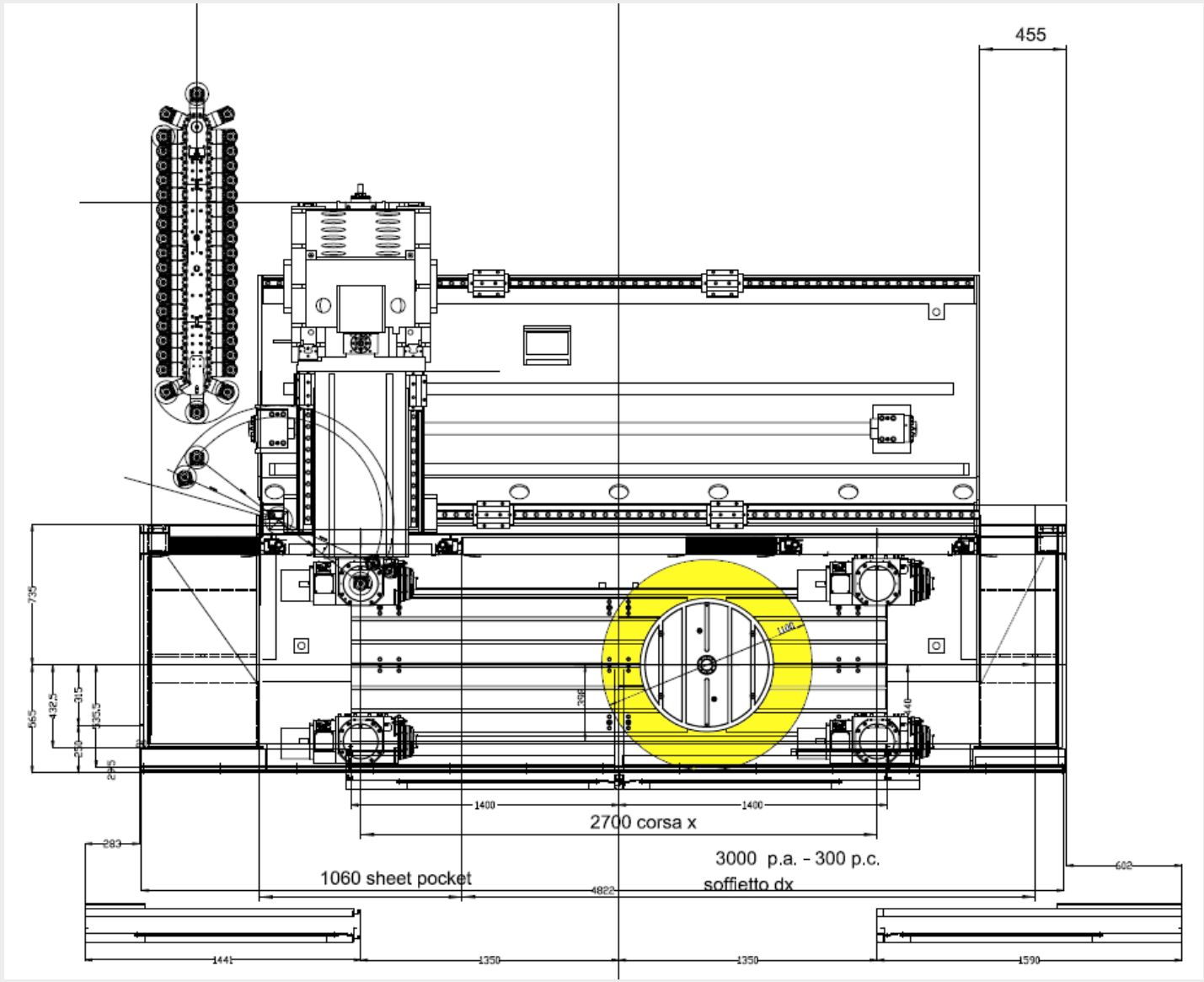
The structure is made by a monolithic bed with high loading capacity without the needs of very complex foundations.
The column-holder carriage slides on it, through roller guideways (X,Y and Z axes have such kind of guideways).
It has been studied to grant the highest rigidity of the spindle-holder head, to avoid any flection on Y axis.





KREOS

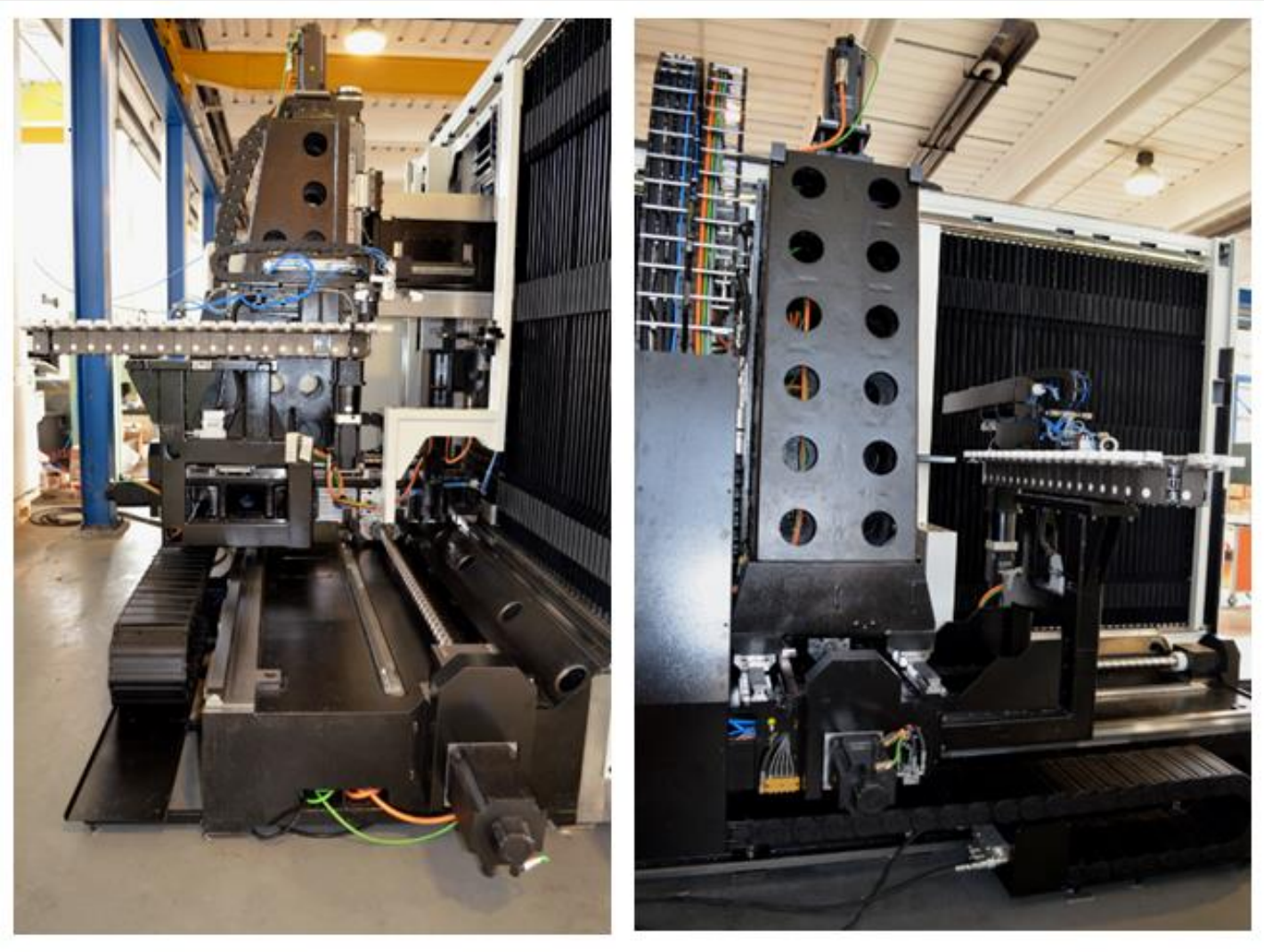
Rotation of part with 1140 mm Ø



FAGIMA MADE IN ITALY

New design

In Kreos are replicated the structure concept of Dominus and Derby, nevertheless it shows some new components, and new design



KREOS 270 COMPACT DIMENSIONS

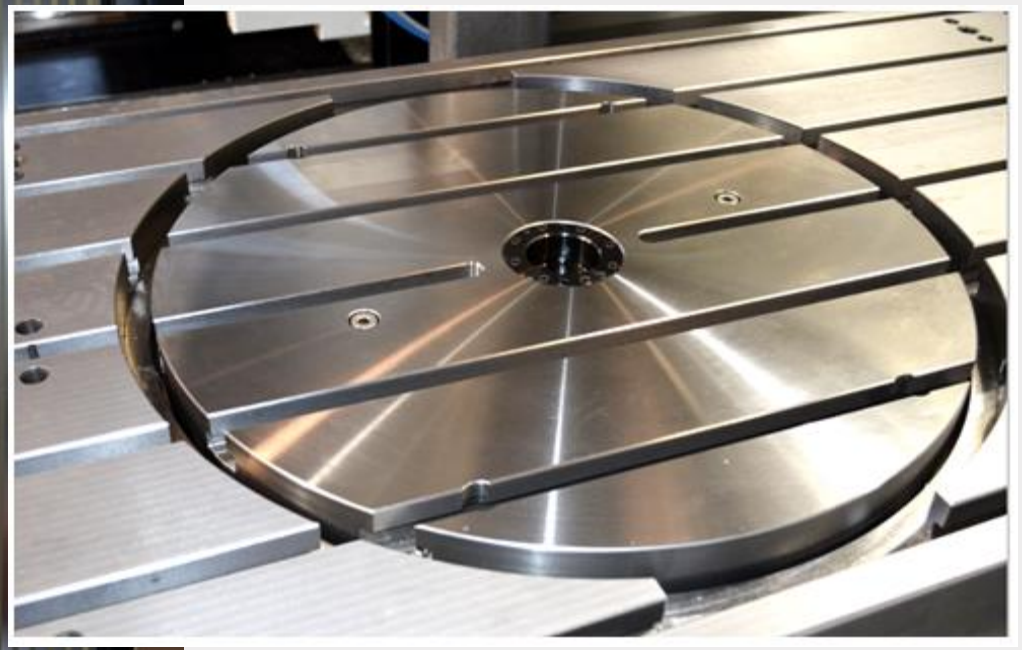
KREOS 270 ITALIAN QUALITY AND DESIGN

FAGIMA MADE IN ITALY

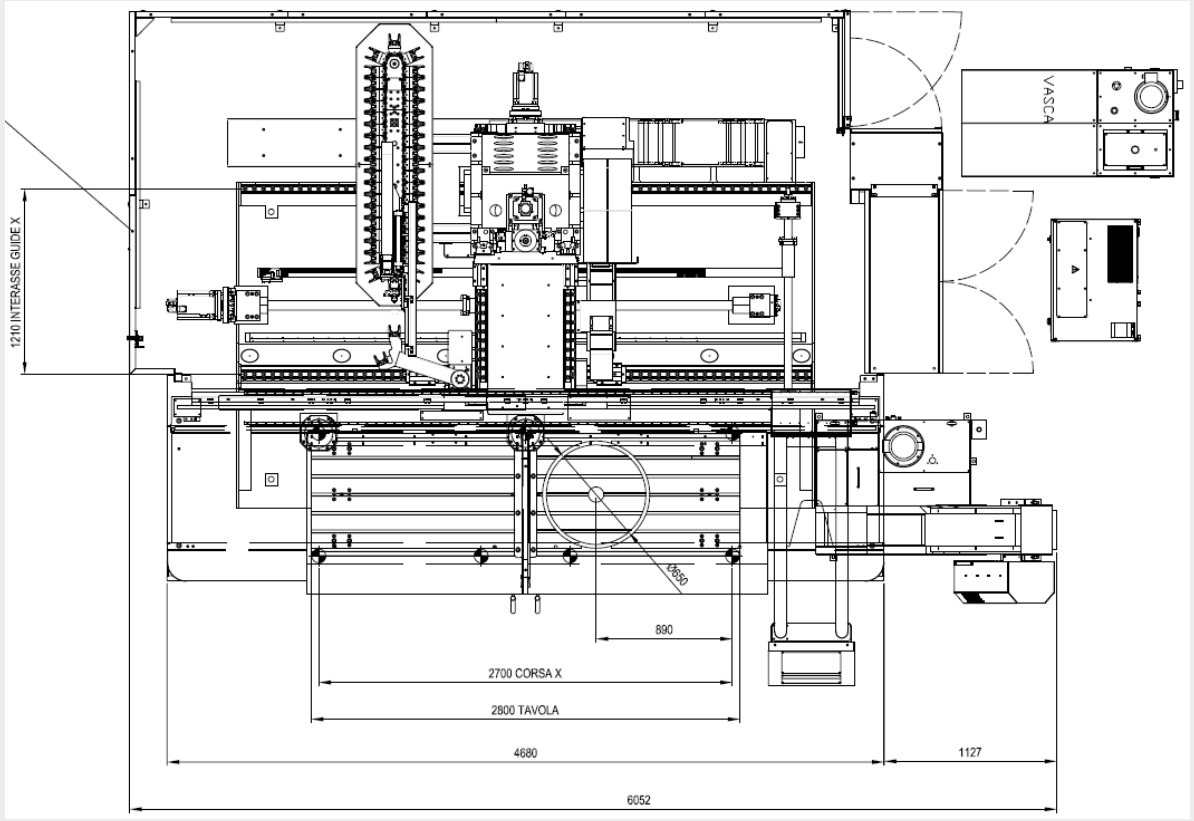
KREOS 270 Large and useful working area

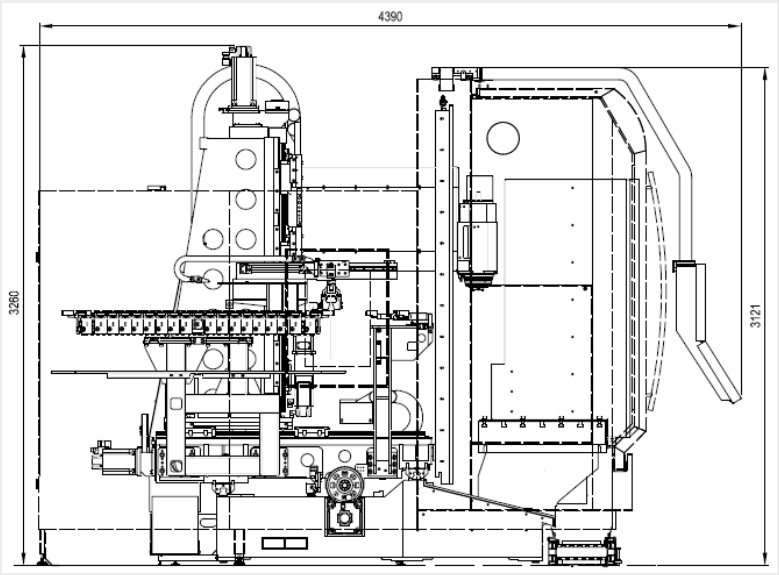
FAGIMA MADE IN ITALY

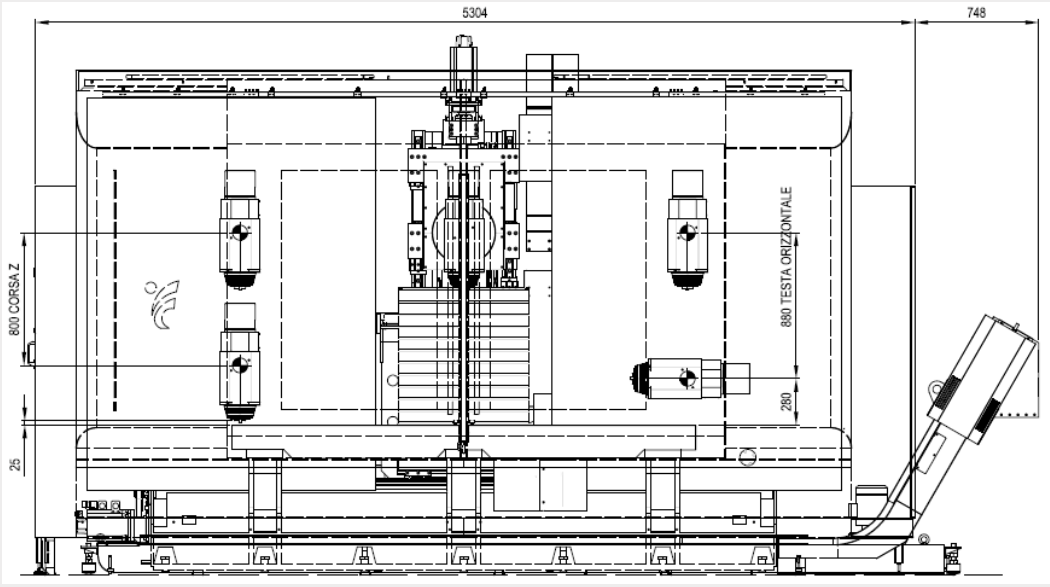
KREOS 270 SUITABLE FOR PARTS OF 1140 MM Ø



KREOS 270 LAYOUT







FAGIMA made in Italy

KREOS 400

DoubleYou – the simmetry

FAGIMA MADE IN ITALY

KREOS Main features

Travel and feeds

X-axis travel (longitudinal - upright)	mm	2700 / 4000
Y-axis travel (transverse - head)	mm	830
Z-axis travel (vertical - head)		
- with head in vertical position	mm	850
- with head in horizontal position	mm	930
Spindle nose distance – table surface		
- with head in vertical position	mm	25-855
- with head in horizontal position	mm	280-1210
X/Y/Z axes fast feed speed	m/min	45/45/40
X/Y/Z axes working feed speed in linear interpolation (maximum)	m/min	20

Table

Longitudinal table dimensions	mm	2700 /4100
Transverse table dimensions	mm	800
Nr. 7 T-slots – dimensions	mm	18H9 (central 18H7)
– distance between centres	no.	100
Maximum weight per square meter allowed on table	kg	1500

FAGIMA MADE IN ITALY

KREOS Main features

ELECTROSPINDLE		
Cone dimensions	ISO	40
Spindle rotation speed (standard)	rpm	12000
Integrated spindle motor (electrospindle)	STD	
Spindle motor power (S6)	Kw	31
Maximum spindle motor torque (S6)	Nm	149
ROTATING HEAD – 4th axis continuous "A"		
Head rotation driven by means of "brushless" motor		STD
Possibility of continuous operation in interpolation or positioning with hydraulic lock		STD
Head rotary axis travel		± 120°
Head rotary axis resolution		0.001°
Braking torque @ 50 bar	Nm	3200

FAGIMA MADE IN ITALY

KREOS Main features

AUTOMATIC TOOL CHANGE

Tool magazine type: random chain system tool magazine, anchored to the column and translating with it along X axis. Tool change is operated thanks to a manipulator and an exchange braket.

Tool cone	ISO 40	
Tool magazine capacity (standard), locations	no.	42
Maximum tool diameter (with adjacent stations full/empty)	mm	70/120
Maximum tool length	mm	300
Maximum tool weight	kg	7
Maximum load	kg	200

FAGIMA MADE IN ITALY

KREOS

STANDARD EQUIPMENT

Total bodywork equipped with sliding doors with large transparent windows
Operator console mounted on an articulated arm
Automatic cooling system outside the tool
Air blowing inside and outside the spindle for dry machining operations
Scraping chip conveyor
Coolant collection tank outside the tool
Automatic lubrication system
On-board electric cabinet with heat exchanger
Lights in the working area
Upper cover
EC declaration of conformity
CNC can be selected among Fanuc, Heidenhain, Fagor and Siemens

FAGIMA
MADE IN ITALY

KREOS

Main options

HSK-A63 cone (instead of DIN-69871-A40)
BT-40 cone (instead of DIN-69871-A40)
Belt chip evacuator
20, 40 bar high-pressure cooling system through the spindle line
High pressure washing system inside the working area
Tool magazines of 60 positions
Optical sales on linear axis X, Y, Z
Tracking system for workpiece dimension and alignment control
Systems for measuring the tool length/radius and tool integrity function
Embedded turntables of 650 mm diameter
Fanuc, Heidenhain, Siemens, Fagor CNC

FAGIMA
MADE IN ITALY

DERBY EVO

FAGIMA
MADE IN ITALY

DERBY EVO 4-5 AXIS

X 3000

X 4000

Y 1000

Z 1000 NEW

Iso40

Iso50

Hsk63

Hsk100

FAGIMA
MADE IN ITALY

DERBY EVO ITALIAN DESIGN AND COMPONENTS

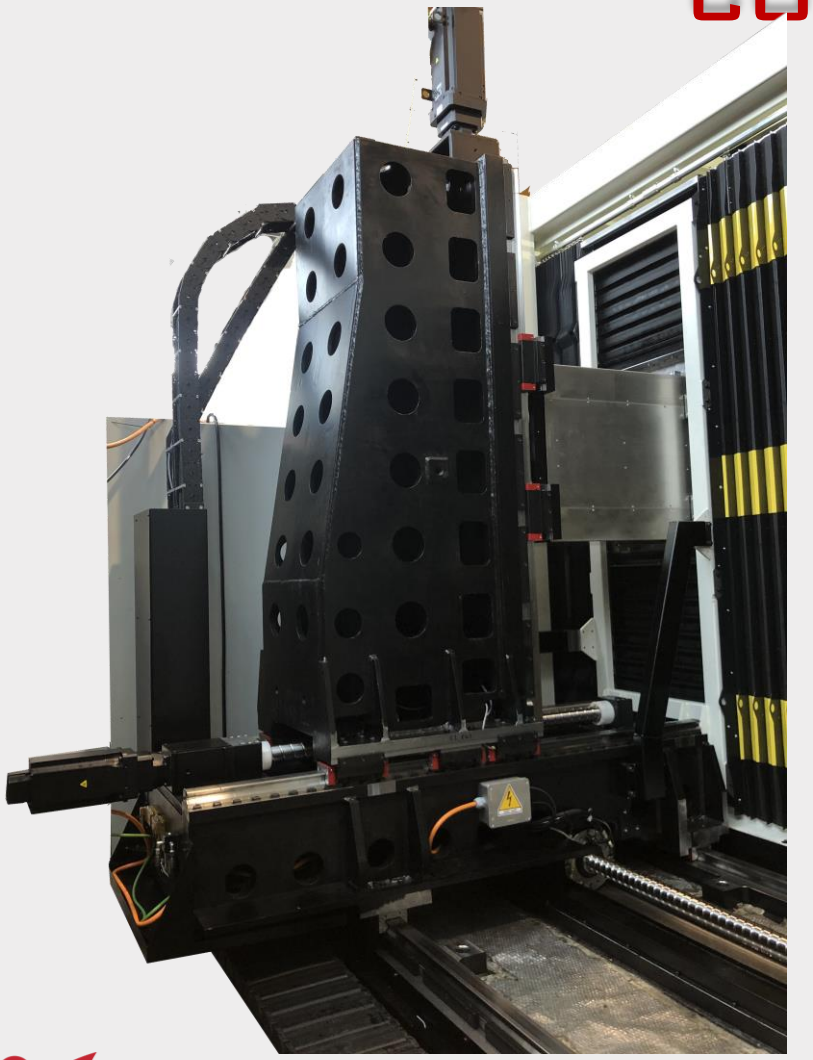
DERBY working center borns from the great experience acquired by Fagima with travelling column machining centers.
It has been studied in every detail and it distinguishes itself for the absence of any deflection of Y axis.

The rapid and fast accelerations enable cycle times reductions.
The structure is made by a monolithic electrowelded bed with high loading capacity without the needs of very complex foundations.
The column-holder carriage slides on it, through roller guideways (X,Y and Z axes have such kind of guideways). It has been studied to grant the highest rigidity of the spindle-holder head.
In the column are housed the tools magazine and the exchanging arm.
The tools magazine is available with different positions depending from taper versions.

The machine is equipped with 2 sliding doors and the wall to allow the operator the pendular working processes.
The enhanced version with electrospindle, tilting head, built-in rotary table, the versatility and potentiality of the machine grant the highest performances and the best results.

FAGIMA MADE IN ITALY

DERBY EVO Huge structure with moving column



Mobile upright structure with the possibility of working both in "pendular" mode and over the full X-axis.
Linear axis guides with ball runners on all the axes; X axis runs on 2 guides

Total weight of the machine

DERBY 300	Kg	22.500
DERBY 400	Kg	24.000

FAGIMA
MADE IN ITALY

DERBY EVO

2 TONS / M2

Strokes and feeds

X axis stroke (longitudinal - upright) – full		
DERBY 300	mm	3000
DERBY 400	mm	4000
Y-axis stroke (transverse - head) (standard)	mm	1000
Z-axis travel (vertical - head)		
with head in vertical position	mm	1000
with head in horizontal position	mm	1140
Distance Nose-spindle/table surface		
with head in vertical position - version ISO 40	mm	40-1040
with head in horizontal position – version ISO 40	mm	250-1390
X/Y/Z axes fast feed speed	m/min	50
X/Y/Z axes working feed speed in linear interpolation	m/min	20
Table lenght DERBY 300 400	mm	3200 4200
Table width	mm	1000
Max load per m2	kg	2000

FAGIMA MADE IN ITALY

DERBY EVO

ELEGANCE AND CARE IN DETAILS

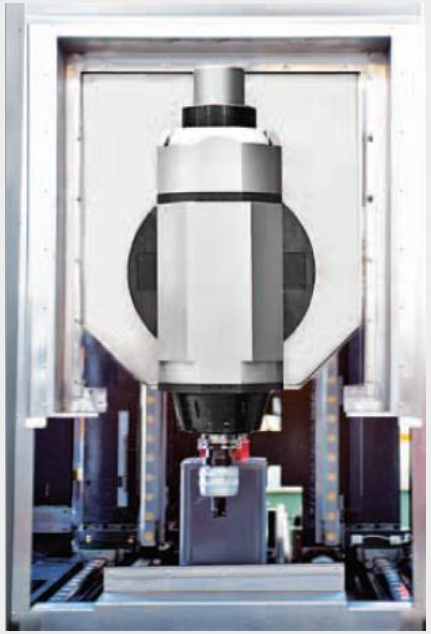
ROTATING HEAD – 4th axis continuous “A” for version ISO 40		
Head rotation driven by means of torque motor		STD
Possibility of continuous operation in interpolation or positioning with Hydraulic lock		STD
Head rotary axis travel		+/- 120°
Head rotary axis resolution		0.001°
Rotary encoder with direct position reading		STD
Breaking torque	Nm	3200 (50 Bar)
Head rotation torque motor cooling by means of conditioner		STD

FAGIMA
MADE IN ITALY

DERBY EVO LARGE RANGE OF ELECTROSPINDLES

ELECTROSPINDLE – with all the numerical controls – version ISO 40

Cone dimensions	ISO	40
Spindle rotation speed (standard)	rpm	12000
Integrated spindle motor (electrospindle)		STD
Spindle motor power (S6)	kW	31
Maximum spindle motor torque (S6)	Nm	149
Electrospindle cooling system by means of oil conditioner		STD



FAGIMA MADE IN ITALY

DERBY EVO

TOOL MAGAZINE ALWAYS WITH SPINDLE

AUTOMATIC TOOL CHANGER – version ISO 40

Type		RANDOM
Cone dimension		ISO40
Chain rotation Cnc Axis (Motor + drive)		
Shuttle translation Cnc Axis (recirculating-ball screw + motor + drive)		
Shuttle rotation Cnc Axis (motor + drive)		
Tool magazine capacity (standard), locations	no.	40
Maximum tool diameter (with adjacent stations full/empty)	mm	100/150
Maximum tool length	mm	300
Maximum tool weight	kg	12

FAGIMA
MADE IN ITALY

DERBY EVO LARGE STANDARD EQUIPMENT

STANDARD EQUIPMENT

Optical scales on 3 axes X, Y, Z (pressurized Brand Heidenhein)
Head and ram thermal expansion compensation by means of sensors
Full enclosure equipped with sliding doors with large transparent windows
Partition for pendular machining operations
Operator console mounted on an articulated arm
Automatic cooling system outside the tool
Air blowing inside and outside the spindle for dry machining operations
Scraping chip conveyor
Coolant collection tank outside the tool
Automatic lubrication system
On-board electric cabinet with heat exchanger
Light in the working area
Upper cover
EC declaration of conformity

CNC can be selected among Fanuc, Heidenhain, Fagor, Siemens

FAGIMA
MADE IN ITALY

DERBY EVO MAIN OPTIONS

Increased electrospindle speed up to 16.000 (instead of 12.000 rpm)
Electrospindle HSK-63A cone – 24.000 rpm
BT-40 cone (instead of DIN-69871-A40)
Tool magazine with 60 locations for cone ISO 40
Belt chip evacuator
20/ 40 bar automatic high-pressure cooling system through the spindle line
High pressure washing system inside the working area
Tracking systems for workpiece dimension and alignment control
Systems for measuring the tool length/radius and tool integrity function
Embedded turntables with torque motor of 600 / 800 / 1000 mm diameter
NEW – Turning / Milling system with dedicated Electrospindle / Head / Rotary table / Axis clamping system
CNC Fanuc, Heidenhain, Fagor, Siemens

Derby in 4/5 axis ISO50 / HSK100 version

FAGIMA MADE IN ITALY

DERBY EVO ... extra size – Derby ext 600 / 900

FAGIMA
MADE IN ITALY

DERBY EVO ... extra size – Derby ext 600 / 900

FAGIMA
MADE IN ITALY


FAGIMA
technology performer
FAGIMA
FAGIMA
FAGIMA
FAGIMA
Dominus
FAGIMA
MADE IN ITALY

Dominus 3-4-5 axis

X 2200
X 3200
X 4000
X 5000
X 6000
Y 1200
Z 1000

Iso50(40)
Hsk100(63)
Bt50(40)

FAGIMA
MADE IN ITALY

ITALIAN DESIGN AND COMPONENTS

Dominus working center has been designed for a large range of applications.

The machine design is based on a longitudinal travel with a central fixed table.
This design concept guarantees machine stability and accuracy for high milling performance.
An effective chip removal and cooling system guarantees chip clean-off.

The servo drives combined with ball screws and roller guides ensure high positioning accuracy and a high feed speed.
Axis movement is measured by Heidenhain absolute optical scales.

The type of spindle allows machining different types of material, including light metal alloys or very hard steel alloys.

The machine has been designed to allow different types of machining: from machining in series to machining of single parts, dies, tools, die templates.
The field of application ranges from aerospace, maritime and energy to the mechanical sector in general.

No bending on Y axis

BASE

The machine base consists of a rigid monolithic steel structure.
The three guides fitted on the bed to move the carriage provide very high rigidity and prevent flexure during column movement.
The longitudinal roller guides are secured and enclosed on the lowest side.
The longitudinal servo drive is secured on a support to guide the ball screw of the longitudinal axis.

COLUMN

The column is constructed of ribbed steel and is positioned on the carriage that slides along the longitudinal axis.
The upper part of the column includes the vertical axis motor that drives the head on the ball screw system.

BED (LONGITUDINAL AXES)

The transversal axis consists of a strong ribbed steel structure and moves on a linear roller guide system.
The sliding surface of the transversal axis is equipped with roller guides with 4 oblique contacts.
The highest part includes the motor that moves the ball screw by means of a flexible joint.

AXIS DRIVE

Axis drive has direct drive on the screw. A reducer will be assembled on the motor to reduce the inertia, in order to have a soon response about the axis dynamism

Dominus

Powerful structures

FAGIMA
MADE IN ITALY

More than 2000 kg/mq

TABLE

Longitudinal table dimensions

Dominus 2200	mm	2400	
Dominus 3200	mm	3400	
Dominus 4000	mm	4200	
Dominus 5000	mm	5200	
Dominus 6000	mm	6200	
Width of table	**mm**	**1200**	
“T” slots		N°	9
central “T” slot dimensions		mm	18H7
Distance between centre		mm	120
Max load on table per square meter		kg	>2000

Remarkable dinamicity

Strokes and feeds

X-axis stroke		
Dominus 5ax 2200	mm	2200
Dominus 5ax 3200	mm	3200
Dominus 5ax 4000	mm	4000
Dominus 5ax 5000	mm	5000
Dominus 5ax 6000	mm	6000
Y-axis stroke	**mm**	**1200**
Z-axis stroke		
- with head in vertical position	mm	1000
- with head in horizontal position	mm	1100
Spindle nose distance – table surface		
- with head in vertical position	mm	25-1225
- with head in horizontal position	mm	260-1360
X/Y/Z axes fast feed speed	**m/min**	**40**
X/Y/Z axes working feed speed in linear interpolation (max)	**m/min**	**20**

TORQUE MOTORS AS STANDARD

ELECTROSPINDLE

Cone dimensions	ISO 50	
Spindle rotation speed (standard)	rpm	30-8000
Integrated spindle motor (electrospindle)	STD	
Spindle motor power (S6)	Kw	49
Maximum power available starting from a speed of	rpm	2000
Maximum spindle motor torque (S6)	Nm	216
Electrospindle cooling system by means of oil conditioner	STD	

ROTATING HEAD – 4th axis continuous “A”

Head rotation driven by means of torque motor	STD	
Possibility of continuous operation in interpolation or positioning	STD	
Head rotary axis travel	+/- 120°	
Head rotary axis resolution	0.001°	
Rotary encoder with direct position reading	STD	
Braking torque	Nm	5000
Head rotation torque motor cooling by means of conditioner	STD	

Dominus

Elegance and care in details

FAGIMA
MADE IN ITALY

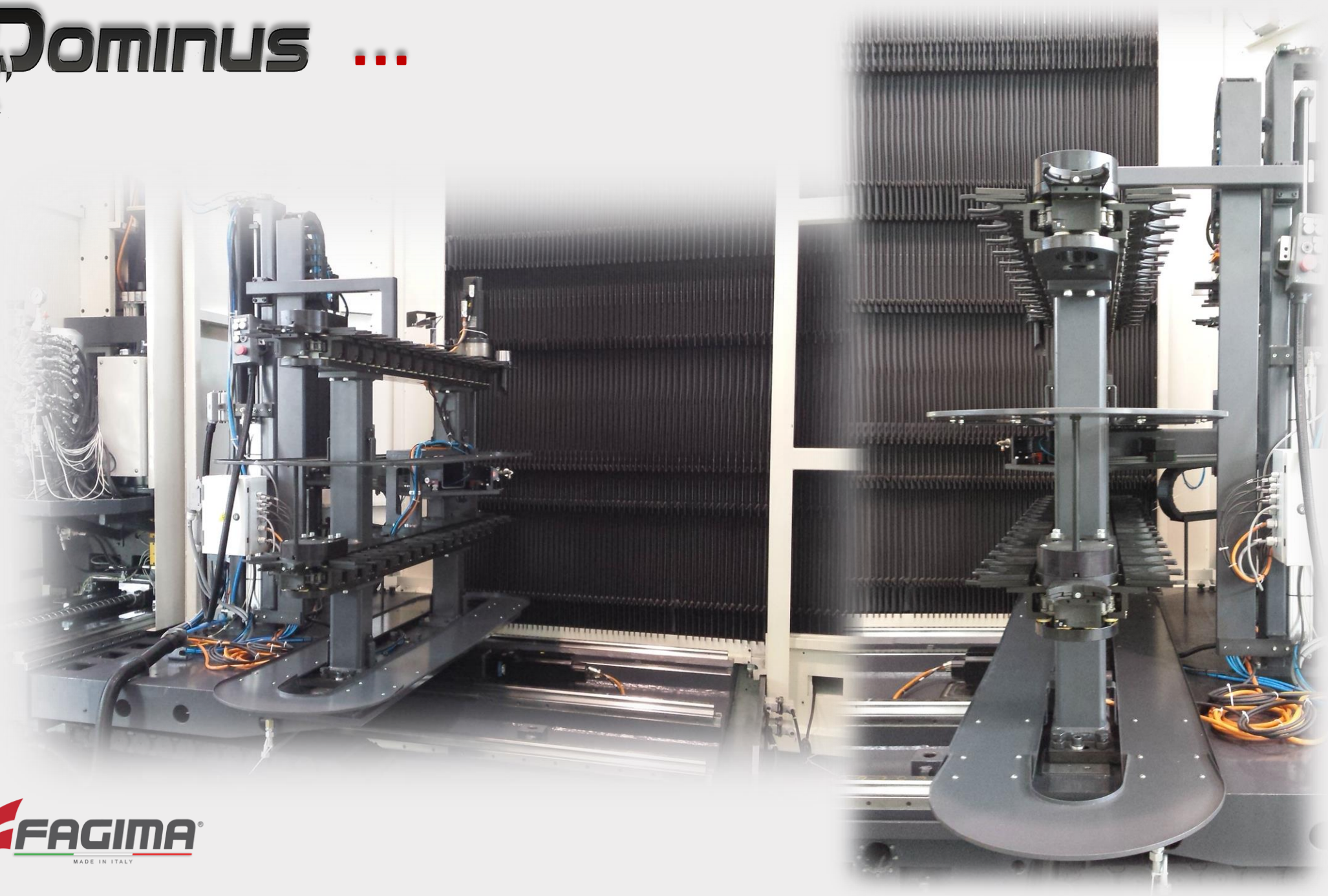
TOOL ALWAYS READY...

AUTOMATIC TOOL CHANGE 40 LOCATIONS (Opz. 64 or 96 positions)

Tools magazine of 40 positions, ISO50/HSK100 tools.
Electrical drive with precision reducer.

Tool type	ISO 50	HSK100
Pitch	mm	127
Max. tools diameter	nm	125
Max. tolls diameter with empty adjacent grippers	nm	180
Max tools length	mm	400
Max tool weight	Kg	20
Max tool weight for each tool change	Kg	400
Max total tool weight	Kg	800
Reducer : reducer ratio	59	
Max motor speed	rpm	3000
Pinion rotation for 1 position change	112.5°	
Pinion RPM	Rpm	10

Dominus ...



FAGIMA
MADE IN ITALY

NEEDFUL IS STANDARD

STANDARD EQUIPMENT

Optical scales on 3 axes X, Y, Z
Head and ram thermal expansion compensation by means of sensors
Total bodywork equipped with sliding doors (moving through double guides with ball runners)
Large transparent windows
Integral fairing protecting the working area.
Partition for pendular machining operations
Upper cover
Operator console mounted on an articulated arm
Automatic cooling system outside the tool
“Hawe” hydraulic for vertical axis balance; tool clamping/dechucking; head clamping/dechucking; embedded or outer rotary tables clamping/dechucking
Powerful refrigerator for electrospindle, the 2 rotary heads torque motors, and the embedded table (opt)
Internal and external tool refrigeration with dried air (6 bar pressure) for a longer life of tools
Air blowing inside and outside the spindle for dry machining operations.
Scraping chip conveyor with goose-neck outlet incorporating the low-pressure system.
Automatic lubrication system
The linear guides and the ball screws are automatically lubricated by an air/oil control unit
On-board electric cabinet with conditioner to keep always steady the temperature inside of it.
Light in the working area

CNC can be selected among Fanuc, Heidenhain, Siemens

Main options

HSK-A100 (instead DIN-69871-A50) or BT 50 Cone (instead DIN 69871-A50)
Tool magazine with 64 or 96 locations (instead of 40)
- operation with 2 or 3 modulus with 32 locations , with servo-controlled chain and change arm
Belt chip evacuator (instead of scraping chip conveyor)
Tracking system for workpiece dimension and alignment control
System for measuring the tool length/radius and tool integrity function
High pressure system through the spindle of 40 / 60 bar (higher pressures on demand)
High pressure washing system (internal splashguard)
Embedded turntables with torque motor of 800 /1000 / 1200 mm diameter
NEW – Turning / Milling system with dedicated Electrospindle / Head / Rotary table / Axis clamping system
CNC Fanuc, Heidenhain, Siemens, Fagor

Dominus in 3 axis versions w/o tilting head – ISO40 and ISO50 taper
Dominus in 4/5 axis ISO40 version

Dominus Big

FAGIMA
MADE IN ITALY

Dominus Big 3-4-5 ASSI

X 2200
X 3200
X 4000
X 5000
X 6000
Y 1200
Z 1200
(1500 OR 2000)

ISO50
HSK100

FAGIMA MADE IN ITALY

A STATELY COLUMN

Dominus **Big** working center, novelty of FAGIMA, was developed and tested during first semester of 2014 and introduced on the market in 2015.

It was created to face a very large range of stressful applications.

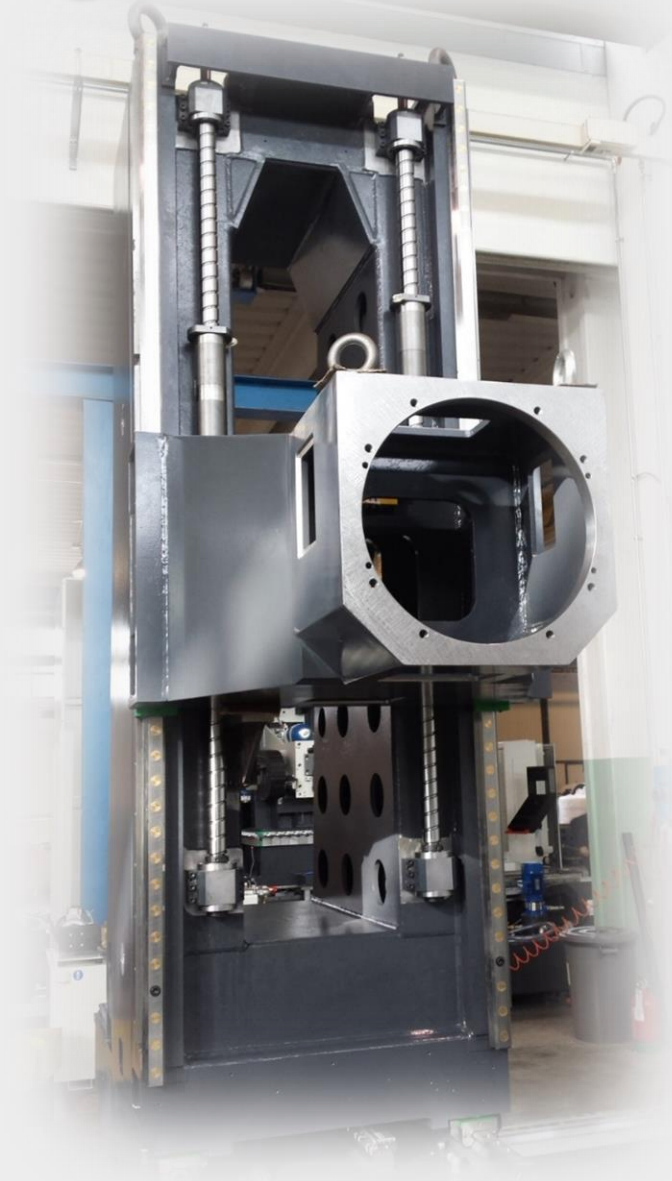
Respect to the standard Dominus, this model has been projected to work bigger pieces and to do particular machining operations. In fact the vertical axis, with a powerful and rigid column, can easily reach up to **1500 or 2000 mm** through a gantry system of ball screws.

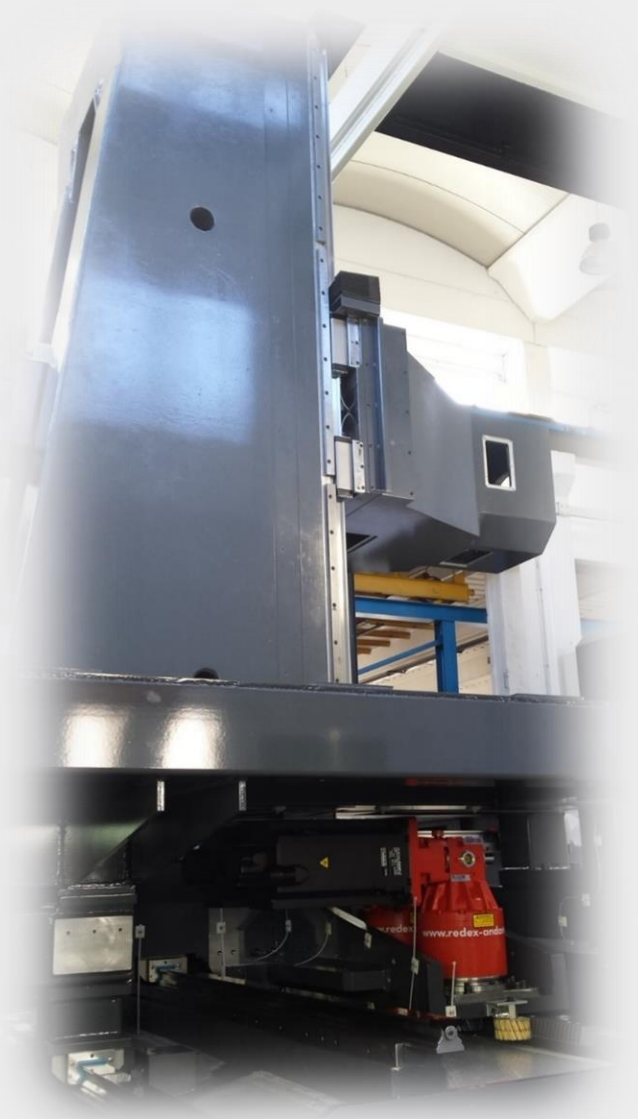
The machine design is based on a longitudinal travel with a central fixed table.
An effective chip removal and cooling system guarantee chips clean-off.
An appropriate chip evacuator is assembled at the end of the fixed table base.

The servo drives combined with ball screws and roller guides ensure high positioning accuracy and a high feed speed.
Axis movement is measured by Heidenhain optical scales.
The type of spindle allows machining different types of material, including light metal alloys or very hard steel alloys.

A LARGE WORKING AREA

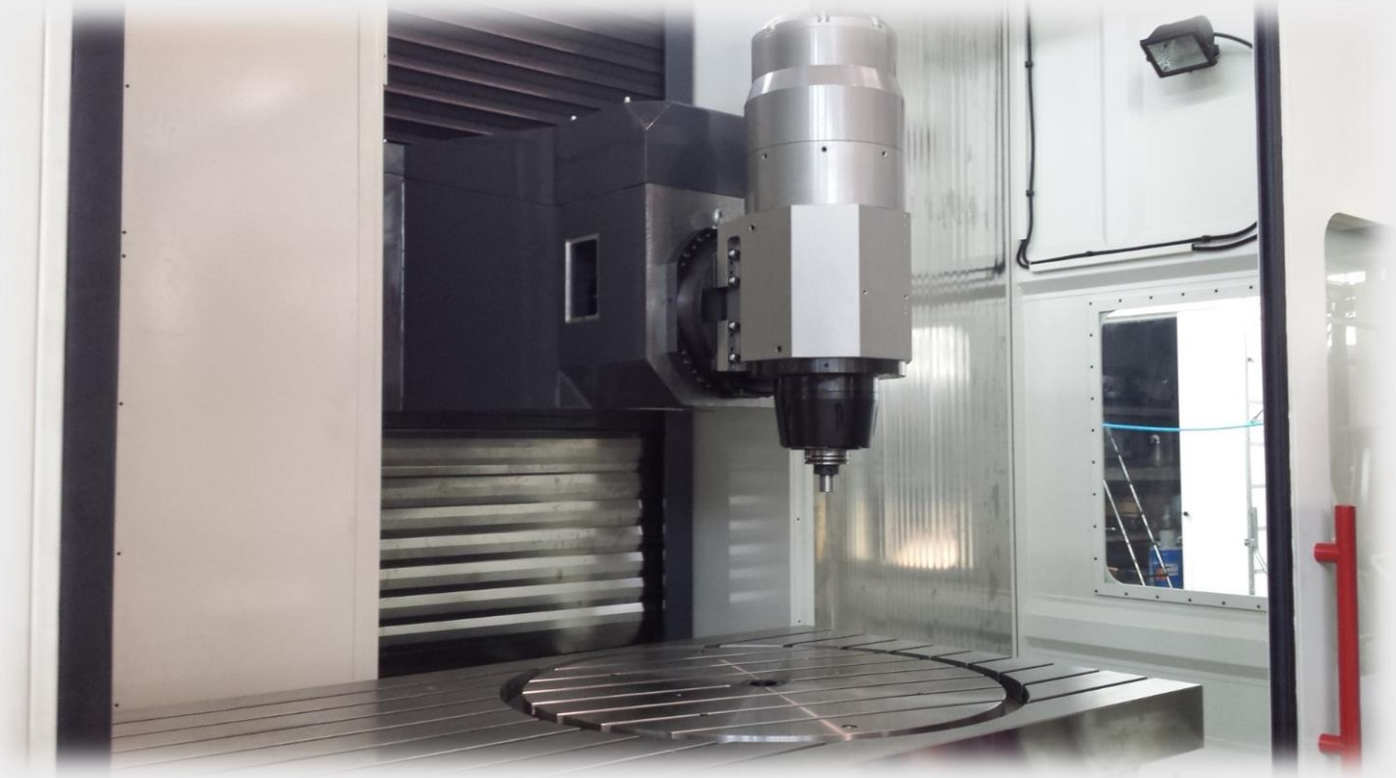
Double ball screw system





Pinion and rack on X axis

Opt. Heavy duty kit

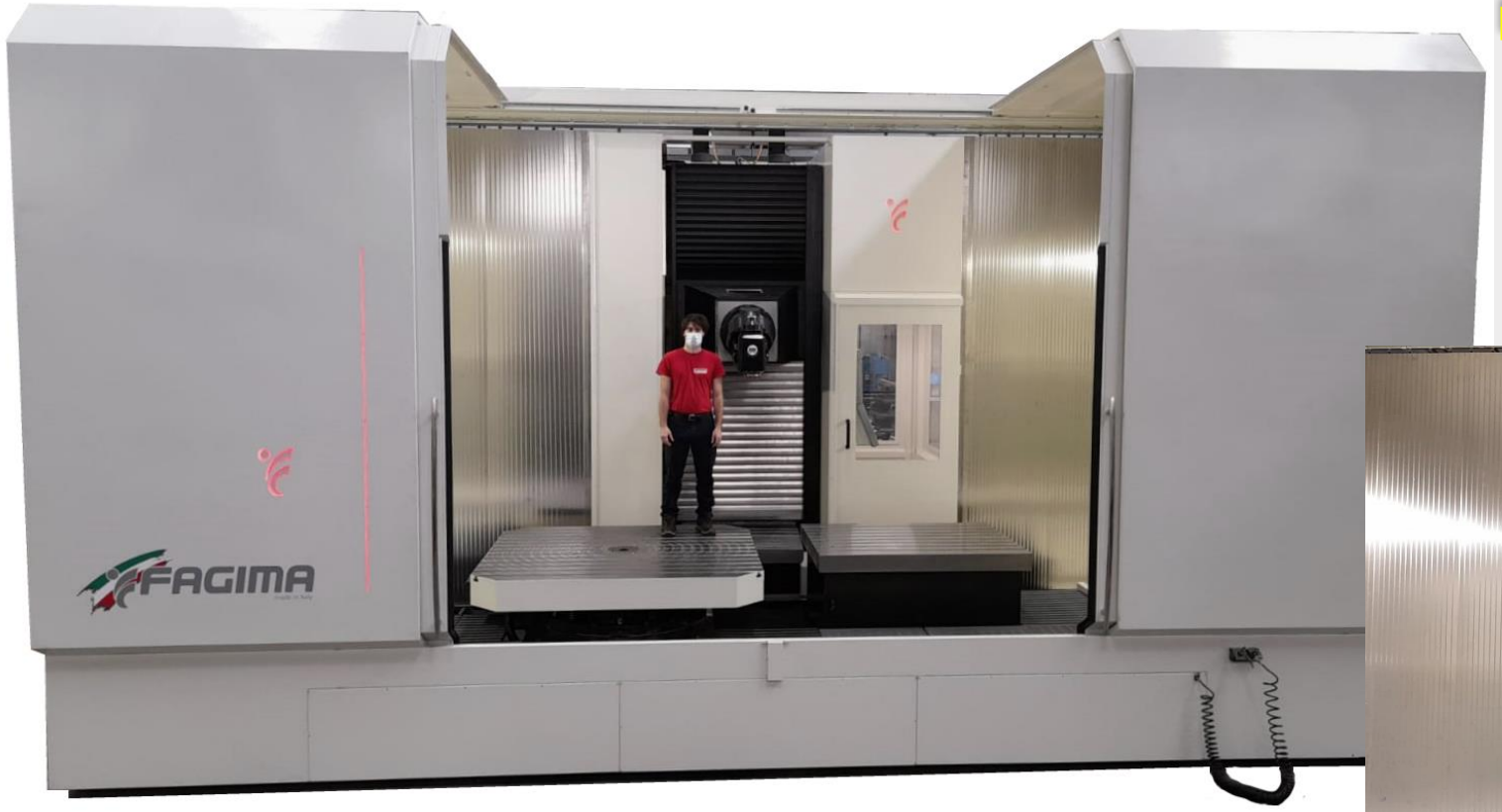


Electrospindle 210 Nm
with hirth gear

Turning/milling head
with hirth gear

MTCS Machine Tools Customized Solution

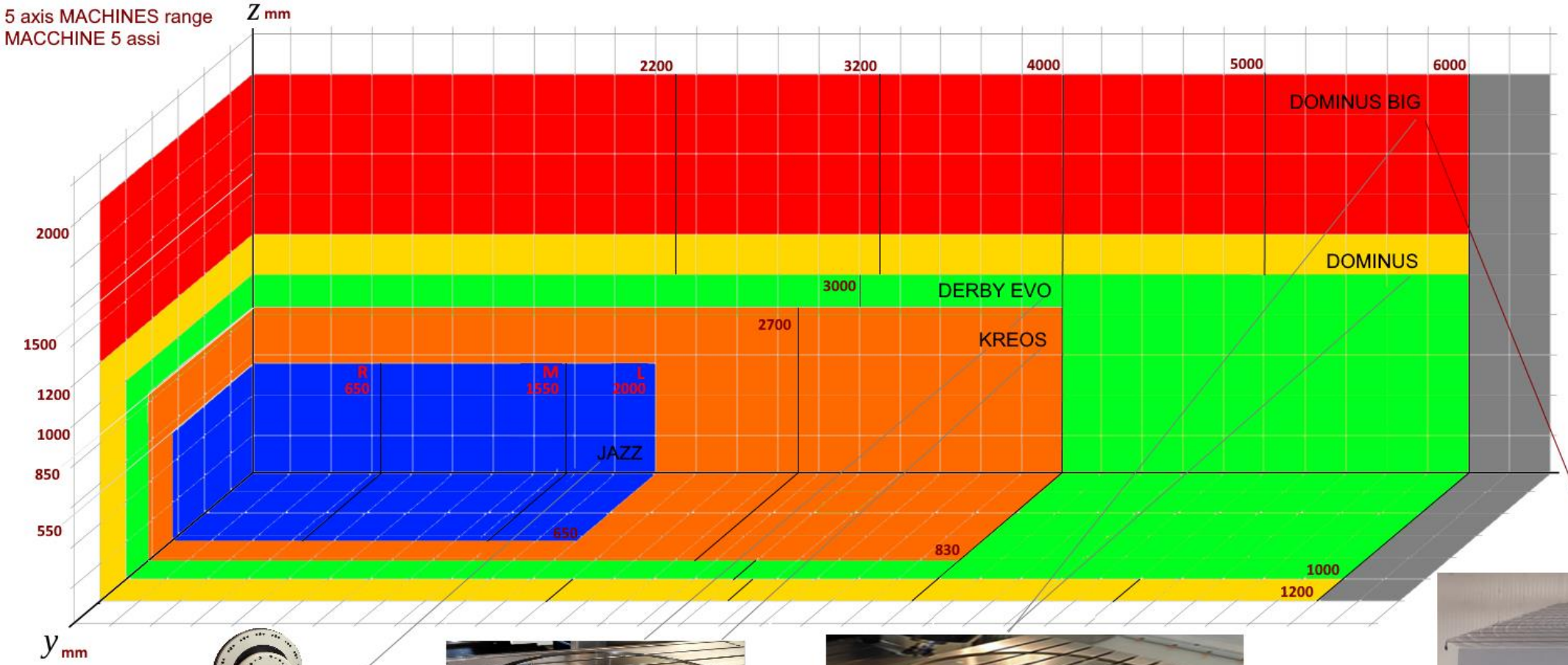
N'T HAVE



FAGIMA MADE IN ITALY

Strokes on linear axis

5 axis MACHINES range
MACCHINE 5 assi

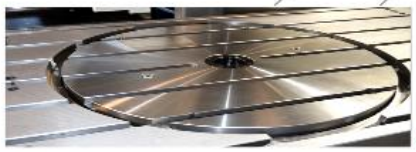


JAZZ R M L
KREOS
DERBY EVO
DOMINUS
DOMINUS BIG

CUSTOMIZED SOLUTION

SQUARED EXTERNAL ROTARY TABLE 1200X1200, 1500X1500, 2000X2000 MM
TAVOLA GIREVOLE ESTERNA QUADRATA 1200X1200, 1500X1500 2000X2000 MM

TILTING ROTARY TABLE /
TAVOLA ROTOBASCULANTE
600 x 600 mm
made in Italy



OPT.

EMBEDDED ROTARY TABLE 650/800 MM (torque motor)
TAVOLA GIREVOLE INTEGRATA 650/800 MM (motore coppia)

OPT.

EMBEDDED ROTARY TABLE 1000/1200 MM (torque motor)
TAVOLA GIREVOLE ANNEGATA 1000/1200 MM (motore coppia