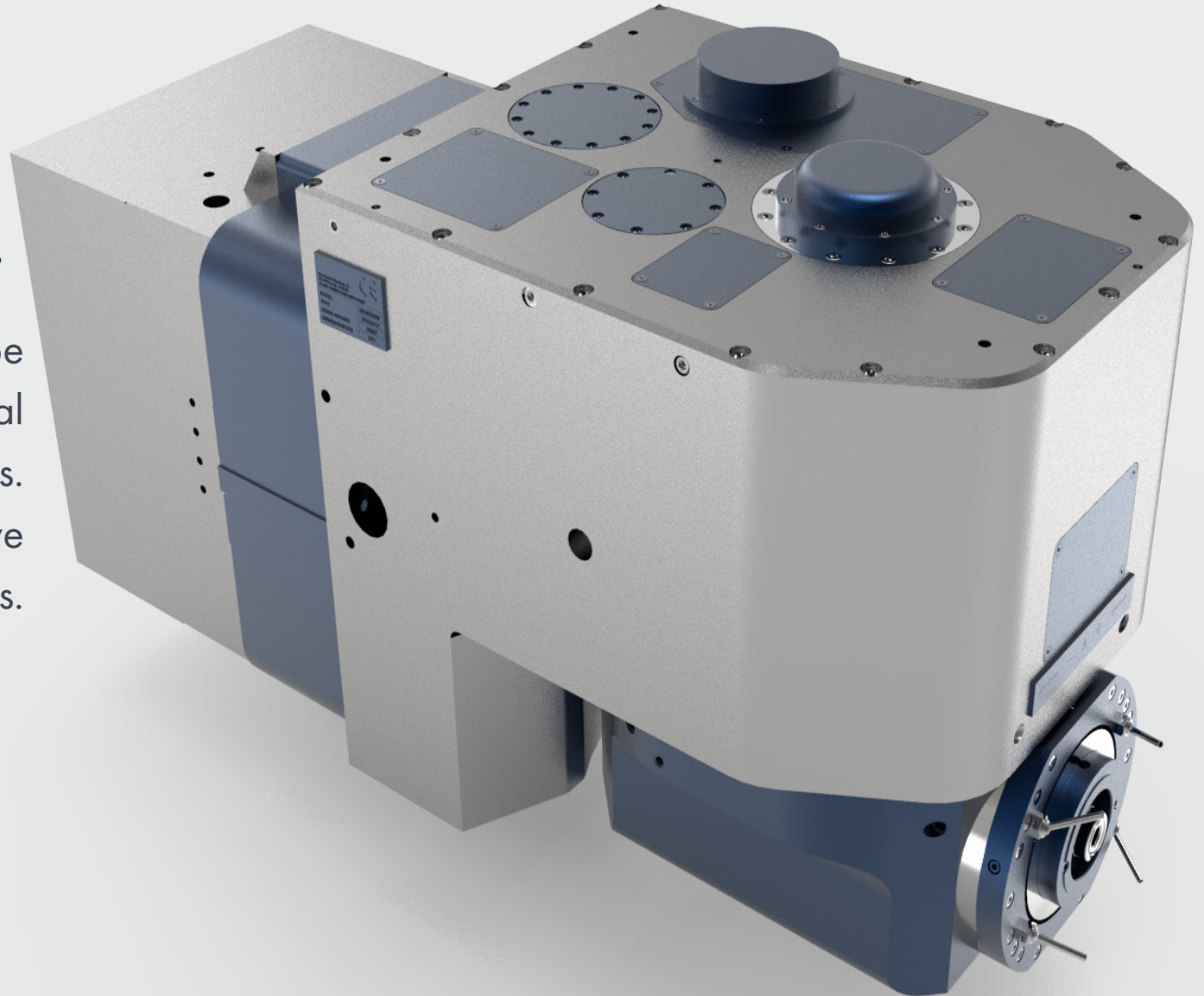


Heads & Accessories

for milling, boring, portal machines & vertical lathes

We give solid shape to your ideas.

We design and create series and prototype products for the development of special machining operations on machine tools.
We work with passion and competence, we realize your wishes.



HISTORY

Treccani Engineering started activity in 2011 in Verona (Italy).

Over the years we have developed various types of accessories used in different fields and carried out several research and development activities on new heads for special machining.

During our 12 year-activity we have created products for various national and international customers.

VERONA, ITALY



PURPOSE AND RELIABILITY

We aim to develop support activities to prop up customers in the realisation of new products and the optimisation of existing products.

We can guarantee to the customer **quality** and **reliability** respecting the requested functionalities in the technical specifications defined following our experience.

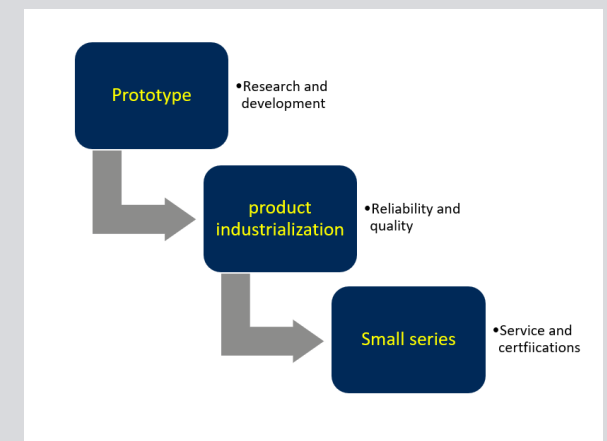
The competence and in-depth experience that guide us make us the right partner for an all-round collaboration that develops from the idea to the finished product. We are experienced partners who translate customers' ideas or needs into feasible designs and prototypes realised with competence and expertise.



PRODUCTION AND SERVICES

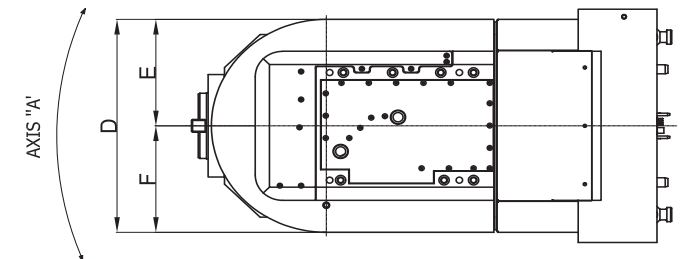
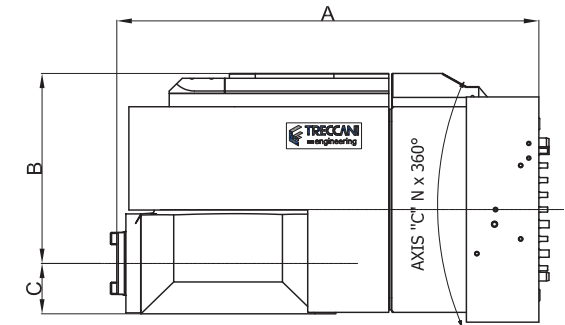
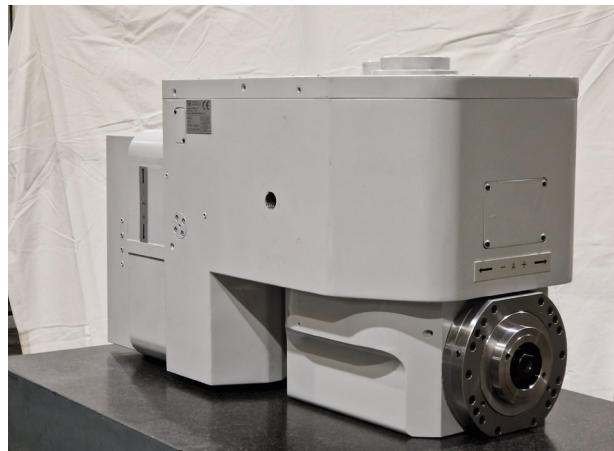
We are able to produce batches of small **series** with the realization of the initial prototype and subsequent industrialization.

The competence and in-depth experience that guide us make us the right partner for an all-round collaboration that develops from the idea to the finished product.



IOA - ORTHOGONAL HEAD

CODE	DESCRIPTION	POWER MAX	MAX TORQUE	MAX SPEED	WEIGHT	Dimension	Dimension	Dimension	Dimension	Dimension	Dimension
		Kw	Nm	rpm	Kg	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
IOA2M25I	Orthogonal head	25	1000	4000	700	700	430	200	400	200	200
IOA2M25CP	Orthogonal head	25	800	5000	850	780	490	230	420	210	210
IOA2M37I	Orthogonal head	37	1200	4000	800	838	430	230	420	210	210
IOA2M37CP	Orthogonal head	37	1000	5000	950	1030	490	230	420	210	210



ORTHOGONAL HEAD

DESCRIPTION	UNIT	IOA2M25I	IOA2M25CP	IOA2M37I	IOA2M37CP
CUSTOMER MACHINE INTERFACE		Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic
AUTOMATIC PICK UP FUNCTION		Standard	Standard	Standard	Standard
RATION		1:1	1:1	1:1	1:1
SPINDLE TAPER		ISO 50 or HSK A100 or BT50	ISO 50 or HSK A100 or BT50	ISO 50 or HSK A100 or BT50	ISO 50 or HSK A100 or BT50
AUTOMATIC TOOL CLAMP/UNCLAMP		Spring/Hydraulic cilinder	Spring/Hydraulic cilinder	Spring/Hydraulic cilinder	Spring/Hydraulic cilinder
TOOL LOCKING FORCE	N	18.000	18.000	18.000	18.000
INDEXING ANGLE RANGE C-AXIS	deg.	± 185	± 185	± 185	± 185
INDEXING POSITION C-AXIS	deg.	2,5° (1° optional)	0,0001°	2,5° (1° optional)	0,0001°
INDEXING POSITION ACCURACY C-AXIS	second	5"	5"	5"	5"
INDEXING ANGLE RANGE A-AXIS	deg.	± 115	± 115	± 115	± 115
INDEXING POSITION A-AXIS	deg.	2,5° (1° optional)	0,0001°	2,5° (1° optional)	0,0001°
INDEXING POSITION ACCURACY A-AXIS	second	5"	5"	5"	5"

Main technical mechanical characteristics:

- Main structures in cast iron;
- Bearings of axis with preloaded roller;
- Indexing position axis:
 - **index 2,5° (1° optional) positioning**
 - > driving system C axis with mechanical couplings direct with spindle of machine
 - **index 0.0001° positioning**
 - > driving system A axis with SIEMENS motor (Typo 1FK2104) and commercial gearbox with accuracy to movement of all positions
- Direct measure of the angular position of the two axis for 0.0001° and index 1°
- Limit switch on C and A axes for end stroke, zeroing, locking and unlocking.
- Automatic clamping of the head on the face of the machine with reference pin and puller pin.
- Inner feeding water through the spindle 20 bar 15 l/min;
- For head changing there is an anti-rotation device to keep the power take-off in position
- Interfacing with the customer machine is defined according to the type of fixing according to two possibilities:
 - manual with screws and reference pins
 - automatic with attachment beads and reference pins

Main technical hydraulic characteristics

- Air of pressurization for the head inside and for the spindle flange.
- Grease lubrication for the movement transmission and of the spindle bearings.
- Hydraulic cooling oil system of the head.
- External feeding of water to the tool 10 bar 30 l/min;
- Electrical connectors for head automatic changing or hole for the cables for head manual changing;
- Liquid connectors STAUBLI for head automatic changing or hole with seal for head manual changing;

MECHANICAL PARTS TEST

Test of each component through measuring machines that certify the dimensions and guarantee the precision of the components.



MECHANICAL COMPONENTS PROCESSING

Execution of mechanical processes using certified machining centers with special equipment to guarantee the required accuracies.



MECHANICAL AND COMMERCIAL PARTS ASSEMBLY

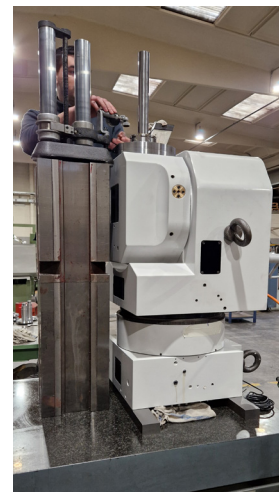
Partial assembly of mechanical and commercial parts using special equipment.



Continuous verification of the accuracies to be guaranteed in order to improve the functionality of the fully assembled head.

ASSEMBLED HEAD TEST

Final inspection and testing according to a defined test sheet to guarantee the accuracies specified in the head's technical documentation.



TRECCANI

TESTING CERTIFICATE



ORTHOGONAL MILLING HEAD
IOA2M37V

DESCRIPTION	INTERNAL ORDER	SERIAL NUMBER	DRAWING NUMBER	DATE
ORTHOGONAL MILLING HEAD	SP020023_3023	3M011	IOA2M37V	15/01/2024

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APPLICATION FIELDS

