

TOOL FASTENING

DRILL CHUCKS

Quick lock or by key, to adapt clindrical sleeve drills. Different sizes and measures.

These are supplied with shank adaptor for their adjustment on the machine cone.



REDUCTION SLEEVES

To adjust the cone tools with inferior size than the morse taper of the machine.



RAPID CHANGE DEVICES

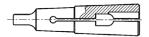
Tool holders and adapters for rapid change of different tools. There is no need to stop the machine spindle turning.

There are adapters for drills with sleeve Morse Taper 1, 2, 3, 4 and 5, drill chucks, tap holders, etc.



CONICAL BUSHING

To adjust the drills with parallel shank or taps to the machine or multispindle headstock cones.



TAP HOLDERS

PNR, Without turning inversion, to fit on machines with automatic inversion of the turning sense.

PR, With automatic inversion of the turning sense. To fit on machines which are not provided with automatic inversion turning. Different models and capacities.



COLLET CHUCKS

Collet chucks and set of collets to install different tools.

It is supplied complete with a collet chuck, set of collets, box, key and adaptation nut.



PIECE ADJUSTING

VICES

L-100 - FIXED BASE. OPENING 116 mm - JAWS WIDTH 105 mm

L-125 - FIXED BASE. OPENING 160 mm - JAWS WIDTH 125 mm

M116 - FIXED BASE. OPENING 116 mm - JAWS WIDTH 105 mm

M157 - FIXED BASE. OPENING 157 mm - JAWS WIDTH 125 mm

M190 - FIXED BASE. OPENING 190 MM - JAWS WIDTH 150 mm

MG116 - ROTATING BASE. OPENING 116 mm - JAWS WIDTH 105 mm

MG157 - ROTATING BASE. OPENING 157 MM - JAWS WIDTH 125 mm

MG190 - ROTATING BASE. OPENING 190 mm - JAWS WIDTH 150 mm

PF150 - FIXED BASE. OPENING 150 mm - JAWS WIDTH 160 mm

 ${\rm PG150}$ - ${\rm ROTATING}$ BASE. OPENING 150 mm - JAWS WIDTH 160 mm

SERIE L SERIE M SERIE MG

Pneumatic chucks

- Mechanical, pneumatic, hydraulic.
- Measures from 160 up to 400.

Automatic or manual operating. Possibility of synchronised functioning with the machine cycle.

Provided with 2, 3 or 4 jaws and also in special execution for specific jobs and parts.



Designed by our technical department, they are adjusted to the specific needs of each customer.



PARTS DISPLACEMENT

CROSS TABLES

MH.360X1220 - DISPLACEMENT BY SPINDLES X=700 / Y=360 mm

340 XY - SURFACE 340X190. STROKES X=220 / Y=140 mm

430 XY - SURFACE 430X240. STROKES X=280 / Y=180 mm

600 XY - SURFACE 600X240. STROKES X=400 / Y=180 mm

800 XY - SURFACE 800X240. STROKES X=500 / Y=250 mm

1000 XY - SURFACE 1000X315. STROKES X=700 / Y=250 mm

DLC - AUTOMATIC LONGITUDINAL DISPLACEMENT OF THE TABLE, WITH MOTORIZED FEED BOX

DTC - AUTOMATIC TRANSVERSAL DISPLACEMENT OF THE TABLE, WITH MOTORIZED FEED BOX

VD-2 - 2 AXIS DIGITAL VIEWER, X-Y CENTESIMAL READING



430 XY (MS.204)

INDEXING TABLES

- Pneumatic
- Electronic
- · Hydraulic, etc.

Different sizes and indexes to adapt us to your needs. Simple fitting on the machine. Manual, automatic or synchronised movements with the machine cycle.



CONTROL AND READING

EQUIPMENT AND DIGITAL READING

1, 2 or 3 axis viewer, to read out the strokes of the cross tables and the main spindle.

Centesimal reading out.

It is supplied integrated in a command plate over an articulated arm.



DIGITAL RULERS

Digital ruler to read the strokes of the main spindle. It is installed directly over the headstock.





MULTISPINDLE HEADSTOCKS







MULTISPINDLE HEADSTOCKS						
ТҮРЕ	N° OF SPINDLES		Ø DRILLING	AREA	SHAPE	
EXCENTRIC	2 A 4 25		2 A 25		A,B,C	
UNIVERSAL JOINT	2 A 18	2 A 25			A,B,C,D,E,F	
SPECIAL FIXED SPINDLES	2 A 20		2 A 25		A,B,C,D,E,F	
SHAPE	А	В	С	D	E	F
		•	• •	• • •	• • • •	• • •
	• •	• •	• •			

TAPPING SYSTEMS

TAPPING SYSTEM IR/RS

Semi-automatic tapping system for auxiliary operations and small tapping productions.



TAPPING SYSTEM BY LEAD SCREW

Automatic tapping system for big production operations.
Tapping system by lead screw (one lead screw included).
Tapping system by lead screw with bracking by variator (one lead screw included).



HIDROBLOCK

STANDARD CYCLE



CYCLE UPON REQUEST



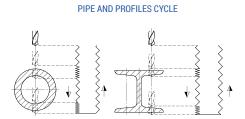


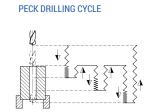
NEUMATIC CYCLES

SYNCHRONISED PNEUMATIC CYCLE

Spindle cycle automation synchronising the rapid approach and return movements with the drilling feed.

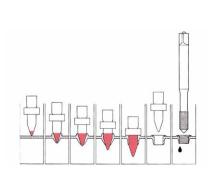
SYNCHRONISED PNEUTAMIC CYCLE





FLOW DRILLING + TAPPING

FLOW DRILLING STARTING KIT SAMPLES









INTERMEDIATE TABLES FOR BENCH TYPE DRILLING MACHINES

Fixed intermediate table



Rotating intermediate table



REVERSIBLE TABLES WITH VICE FOR COLUMN DRILLING MACHINES



 $125\ \mbox{Reversible}$ rotating table with vice for models serie TSA-TSAV.32-35

COMMAND OPTIONS



Bi manual command



Cycle start foot switch