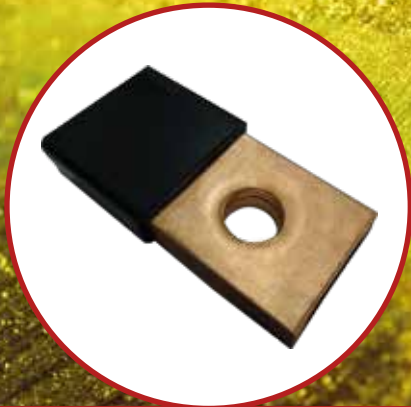




Units for flexible copper bars

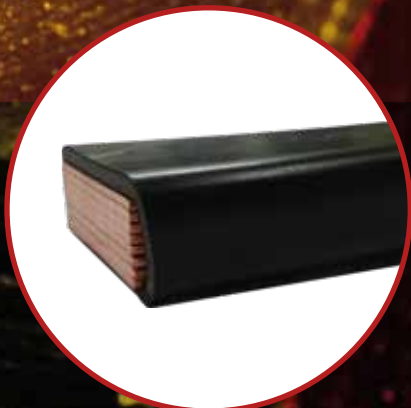
TECHNICAL APPLICATION



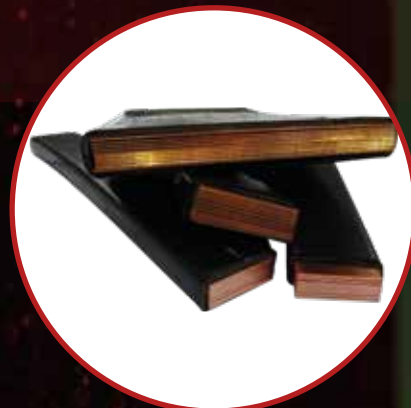
EXAMPLE OF PUNCHING



EXAMPLE OF OVAL PUNCHING



BAR CUTS WITH ART. 9039
OR ART. 9158



SAMPLE OF BARS CUT

PATENTED

9020

Punching cylinder

For flexible copper bars and generic bars.

EQUIPMENT FOR FLEXIBLE BUS BARS



This punching cylinder can be used with pumps and all MULTIFOR control units. It is designed exclusively for punching packs of flexible copper bars. Its particular technical characteristics allow to punch easily this kind of bars. This tool is made up of two cylinders, one blocks the bar and the other makes the hole. This particularity ensures a rapid and precise punching, without burrs and deformation of the bar. This cylinder is mounted on a support which

allows the punching in square and without traces. Brackets and millimetric positioning rulers allow punching in series avoiding mistakes.

Special punch sizes on request.

The 9020 is supplied with no. 2 lock nuts, one for punches up to 9 mm dia. max and one for punches from dia.10 mm to dia. 13 mm max.



References with millimetric ruler for the right bar positioning.



Special lock nut blankholder for a punching without burrs and marks



Technical Characteristics

Power	120 kN
Max. Working pressure	700 bar
Max. Stroke	15 mm
Internal depth	29 mm
External depth	17 mm
Max.copper bar thickness	10 mm
Thickness of the other materials to define according with the resistance and hole Ø	
Length	390 mm
Width	300 mm
Height	160 mm
Weight	16,7 Kg

Kit punching cylinder for packs bars 9020 D

Odd size set code	Ø Punch mm.
9531	9
9533	11
9535	13

Kit punching cylinder for packs bars 9020 P

Even size set code	Ø Punch mm.
9541	8
9543	10
9545	12

9039

Cylinder for cutting flexible bus bars

Complete and autonomous equipment. It is equipped with ruler and adjustments for the bars measurement.

Bar dimensions:
Thickness from 2 to 10 mm
Width from 15 to 100 mm

This cylinder can work with all IMB power units.

Technical Characteristics

Power	120 kN
Lenght	220 mm
Width	80 mm
Height	345 mm
Weight	20 Kg about



RAPID CONNECTOR



FLEXIBLE BUS BARS UNTIL 100X10



SLIDER FOR THE CENTERING OF BARS

Tools for flexible bus bars

Round punch with step

This solution for round holes has 3 standard measures : 9 - 11 - 13 mm with a special shape, which reduces the distance between the hole and the protective covering.

It also cuts down the specific pression on the bar to reach at the end a better result, both aesthetic and functional.

Can be used with all our Tris units



Technical Characteristics

Code punch	Ø mm	Range Center distance hole-protection	Range Edge hole- protection	Male spare	Female spare
9104 FLEX	9	18	13,5	9104M FLEX	9104F FLEX
9106 FLEX	11	18	12,5	9106M FLEX	9106F FLEX
9108 FLEX	13	18	11,5	9108M FLEX	9108F FLEX

Oval punches with step

This solution for oval holes has 3 standard measures: 9x15 - 11x17 - 13x18 mm with a special shape, which reduces the distance between the hole and the protective sheath.

It also cuts down the specific pression on the bar to reach at the end a better result, both aesthetic and functional.

Can be used with all our Tris units



Technical Characteristics

Code punch	Ø mm	Range Center distance hole-protection	Range Edge hole- protection	Male spare	Female spare
9132 FLEX	9 x 15	18	13,5 - 10,5	9132M FLEX	9132F FLEX
9136 FLEX	11 x 17	18	12,5 - 9,5	9136M FLEX	9136F FLEX
9140 FLEX	13 x 18	18	11,5 - 9	9140M FLEX	9140F FLEX

9158 Tool for the cutting of flexible bus bars

Practical and accurate tool to cut flexible bars.
It is easy to assemble it on all our Tris Units.
Dimensions of the bars to cut:
Thickness from 2 to 10 mm
Width from 15 to 100 mm

It can cut bars with or without protection sheath.

Can be used with all our Tris units

Technical Characteristics

Lenght	180 mm
Width	80 mm
Height	105 mm
Weight	8 Kg c.a.



Flex dies to combine with standard males

It is possible to realize with these dies, round and oval holes on flexible bus bars.
They are practical as they work combined with standard males.

This operation allows to reduce the time for changing the punch and tooling costs.

These Flex dies ensure a punching without burrs on flexible bus bars until 10 x 1 mm.

These dies have not the step and they can reach max. 27 mm with round dies and 32 mm with oval ones.

N.B. Don't use them for punching flat bars.

Can be used with all our Tris units.



Round FLEX dies

Code	Ø mm	Combined male
9121F/9 FLEX	9	9104M
9121F/10 FLEX	10	9105M
9121F/11 FLEX	11	9106M
9121F/12 FLEX	12	9107M
9121F/13 FLEX	13	9108M
9121F/14 FLEX	14	9109M
9121F/15 FLEX	15	9110M
9121F/16 FLEX	16	9111M
9121F/17 FLEX	17	9112M
9121F/18 FLEX	18	9113M

Oval FLEX dies

Code	Ø mm	Combined male
9129F/7x13 FLEX	7x13	9130M
9129F/8x14 FLEX	8x14	9131M
9129F/9x15 FLEX	9x15	9132M
9129F/10x16 FLEX	10x16	9134M
9129F/11x17 FLEX	11x17	9136M
9129F/12x18 FLEX	12x18	9138M
9129F/13x19 FLEX	13x19	9140M
9129F/14x20 FLEX	14x20	9142M
9129F/15x21 FLEX	15x21	9144M
9129F/16x22 FLEX	16x22	9146M
9129F/17x24 FLEX	17x24	9148M
9129F/18x25 FLEX	18x25	9149M