## 



IMB (Mechanical Industries Busseto) was born in 1976 from the idea of Alberto Mora who designed new equipment for panel builders and electrical installers. Starting from a garage in Busseto, in the province of Parma, the company grew nationally and internationally developing cutting-edge solutions for processing electrical cabinets and copper bars. Today Alberto's sons carry on the father's legacy and ensure the continuity of IMB production.

For more than 4 decades, the company has invested in quality, customization and innovation.

Focusing on its workforce, IMB has been able to develop internally most parts of the production. This choice makes the production reliable and guarantees the highest standards of quality and durability of the product. The quality system is certified according to ISO 9001: $\mathbf{2 0 1 5}$ standards.

The winning aspect of the company's strategy is the customization. IMB's customers can rely on tailored solutions for every need. In addition to the standard offer, IMB remains unique for its collaboration with customers to create special equipments that allow them to achieve their goals.

IMB's commitment for the future is to create social and environmental benefits while ensuring continuous innovation and full customer satisfaction.

Choosing IMB today is the best decision for constant results over time.


## GVIB mintifur

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## Tris Work Unit

## Suitable for small and large quantities. Functional and time-saving, it makes the job easier



9042 TRIS WORK UNIT can be used with all MULTIFOR pumps and control units. It is extremely versatile for its different operations. Our tris unit is made up of :

## - a practical tool change-over system

- a hinged tool frame fully opening, which allows simple introduction and removal of bars.
- a millimetric adjustment on the piston, which regulates the stroke of the tools.
- a protractor for reading the bending angle of the bar (on request).

Once set up, this accessory can repeat the work cycle without checking every time lenghts and angles.
These characteristics are patented.
In order to achieve the maximum working precision, as well as to save time, the tooling is mounted on a workbench, which has been designed specially to be rational and practical in operation. It has all the necessary adjustments and references in order to position quickly the work pieces, avoiding measurements and engravings.

| Technical Characteristics |  |
| :--- | :---: |
| Power | 200 kN |
| Max. Working pressure | 700 Bars |
| Stroke | 50 mm |
| Adjustable stroke | 40 mm |
| Amount oil required for full <br> stroke | $0,180 \mathrm{It}$ |
| Lenght | 850 mm |
| Width | 600 mm |
| Height | 500 mm |
| Weight | 90 Kg |
| Supplied with 1 meter ruler and <br> protection carter. |  |



Adjustment distance for punching and cutting.


Positioning mechanical end-stroke


Drawer to collect metal swarf

Punching，bending，cutting copper bars，metal profiles and din－rails． All these operations with only one Tris work unit．

## Punching

Copper bars，aluminium and steel bars，etc． with max．thickness 12 mm －Round holes from $\emptyset 5$ to $\emptyset 25 \mathrm{~mm}$－Oval holes from 7X13 mm to $18 \times 25 \mathrm{~mm}$

Fot higher thickness than 12 mm ，please contact our Technical Department．
It is possible to achieve equidistant punching on bars of maximum width 120 mm ．
Using special punches，which have the automatic extraction from the bar，one obtains holes．
IN 4 SECONDS＊


## Cutting

Copper bars，aluminium and steel bars，etc． with thickness from 5 mm to 12 mm and max． width 120 mm ．
For higher width than 120 mm and with thicker material than 12 mm ，please contact our Technical Department．
IN 3 SECONDS＊


## 9042/AL

## Swivel Tris work unit

For bars processing in cramped spaces (e.g. cabins).
9042/AL is used with all MULTIFOR pumps

## and control units.

It has the same characteristics of the TRIS 9042, but in horizontal position it can swivel on a vertical pin. By doing so, the bar remains stationary on its support surface, taking up less space in the working area.


## Technical Characteristics

| Power | 200 kN |
| :--- | :---: |
| Max. Working pressure | 700 Bar |
| Stroke | 50 mm |
| Adjustable stroke | 40 mm |
| Amount of oil required <br> for full stroke <br> Lenght | $0,180 \mathrm{lt}$. |
| Width | 850 mm |
| Height | 600 mm |
| Weight <br> Supplied with 1-meter ruler <br> and protection carter. | 500 mm |

## 9045

## Horizontal Tris work unit

It has the same characteristics of the Unit 9042 and $9042 /$ AL with horizontally fixed position. Small dimensions, it is lighter and economic. It uses standard tools. It is supplied with 1 -meter ruler.

Technical Characteristics

| Lenght | 700 mm |
| :--- | :---: |
| Width | 600 mm |
| Height | 500 mm |
| Weight | 77 Kg |



## 9045V

## Vertical Tris Work Unit

It has the same characteristics of the Unit 9042. Its cylinder is vertically fixed.
USED ONLY FOR CUTTING AND PUNCHING OPERATIONS.
It uses the same tools of the TRIS 9042.
Small dimensions and weight.
It is supplied with 1-meter ruler


| Technical Characteristics |  |
| :--- | ---: |
| Lenght | 530 mm |
| Width complete with 1-meter ruler | 1.310 mm |
| Height | 720 mm |
| Weight | 67 Kg |

## TOOLS AND ACCESSORIES PAG. 12 $\div 15$

## 9046

## Tris Work unit 30 Ton

It is larger and more powerful than unit 9042. The unit 9046 is recommended for processing large size bars, larger than the standard ones. This unit has a 30 tons cylinder that allows to work bars until $200 \times 20 \mathrm{~mm}$.

It is also possible to make special tools for punching four holes in one operation. It is supplied with 1 meter ruler, protection carter and adapters for the use of 9042 standard tools. On request we can realize special punches for specific workings.


## 9044

## Tris work unit

## Coupled Tris cylinders

For specific works or a big production, we have made a special unit which uses two cylinders to avoid unnecessary changes of tools, allowing the realisation of punching and bending with a considerable reduction in time and labour costs. The cylinders have the same chatacteristics of the Tris Unit 9042.

## Technical Characteristics

| Lenght | 940 mm |
| :--- | ---: |
| Width | 600 mm |
| Height | 720 mm |
| Weight | 122 Kg |

It is supplied with 1 meter ruler and protection carter.

## 9043

## Tris work unit

## For occasional and on field workings. For bending, cutting and punching.

We have created it expressly for small quantities. It differs from our Tris Units with bench for its simplicity and lightness as it has no specific accessories, making it simple and light. Its structure is fixed and it is used in vertical position.
We recommend to fix it on a bench or on a working table, in order to have stability.
The cylinder has an adjustable run.
Bar benders are simplified with only one male punch supplied with n . 2 female dies of different dimensions for various thicknesses. (Max 10 mm ) and different bending radius.
It is supplied complete with bending tools.
Tools for cutting and punching are the same of our standard tris unit 9042 .
It can be used with all our power units present in our Catalogue.
Supplied with 1-meter ruler.
It has to be connected to our power units present in our catalogue.

| Technical Characteristics |  |
| :--- | :---: |
| General characteristics | as Tris Unit <br>  <br>  <br> Power |
| Max. Working pressure | 200 kN |
| Width | 700 bar |
| Lenght | 130 mm |
| Height | 230 mm |
| Weight | 610 mm |

## 9023

## Punching cylinder

## For flat and angular bars

It can be used with all MULTIFOR pumps and control units.
It is particularly practical and handy. It allows the punching of flat and angular bars in difficult positions and on pylons.
It is used expecially for connections in transformer cabinets and for electrical switchboards.
This tool is very reliable like all our MULTIFOR equipments
On request, we can realize special sizes.
For a correct use of the punches, the operator should not punch bars
thicker than the diameter of the same punch.
On request, it can be supplied with $90^{\circ}$ connector.

Kit punching cylinder 9023D

| Odd size code | $\boldsymbol{\emptyset}$ Punch $\mathbf{~ m m}$. |
| :---: | :---: |
| $\mathbf{9 5 1 1}$ | 7 |
| $\mathbf{9 5 1 3}$ | 9 |
| $\mathbf{9 5 1 5}$ | 11 |
| $\mathbf{9 5 1 7}$ | 13 |
| $\mathbf{9 5 1 9}$ | 15 |
| $\mathbf{9 5 2 1}$ | 17 |


| Technical Characteristics |  |
| :--- | ---: |
| Power | 120 kN |
| Max. Working pressure | 700 bar |
| Stroke | 14 mm |
| Internal depth | 30 mm |
| External depth | 20 mm |
| Copper bar thickness | 10 mm max |
| Thickness of other materials: |  |
| according to the resistance and hole $\emptyset$ |  |
| Lenght | 270 mm |
| Width | 135 mm |
| Weight | $5,7 \mathrm{Kg}$ |



Kit punching cylinder 9023P Even size code $\quad$ Punch mm.

| Even size code | $\boldsymbol{\emptyset}$ Punch $\mathbf{~ m m}$. |
| :---: | :---: |
| $\mathbf{9 5 1 2}$ | 8 |
| $\mathbf{9 5 1 4}$ | 10 |
| $\mathbf{9 5 1 6}$ | 12 |
| $\mathbf{9 5 1 8}$ | 14 |
| $\mathbf{9 5 2 0}$ | 16 |
| $\mathbf{9 5 2 2}$ | 18 |



It is supplied with metal case and n . 6 pairs of punches (odd sizes or even sizes).

## 9047 Portable bar bender

Bar bender built for bending copper bars in workshops or in site.
Thanks to its structure and to its integrated protractor, it works on small and large quantities of bars until 100 mm width.
This tool is equipped with 2 female bending tools of different dimension for several thickness and bending radius.
It can operate with all our power units included in our catalogue.

## Technical Characteristics

| Power | 50 kN |
| :--- | :---: |
| Dimensions | $78 \times 150 \times 190 \mathrm{~h} \mathrm{~mm}$ |
| Weight | 18 Kg |
| Stroke | 50 mm |
| Adjustable stroke | 30 mm |
| Material bending | copper |
|  | 100×8/60×10 mm max. |

Equipped with n .2 bending tools and protractor.



Mechanical end-stroke - maximum accuracy


Integrated protractor indicator

## Punches for Tris unit

## Round punches

They are composed by a male punch and a female die with stamped diameter to avoid mistakes during the assembly.
Punch extraction is automatic by means of special springs.
It is possible to request the female die, the male punch separately as spares and the inner part of the male punch

It is recommended to always regulate the stroke of the cylinder stem, in order to avoid excessive pressure.
N.B. For a correct use of round and oval punches, please do not use superior thickness to the diameter of the same punch.

Available punches for 15 mm thickness for 9046 Tris Unit.
SPECIAL SIZES ON REQUEST.


## Round punches

| Code | 0 mm | Male spare | Female spare | Inner spare |
| :---: | :---: | :---: | :---: | :---: |
| 9100 | 5 | 9100M | 9100F | 9122/5 |
| 9101 | 6 | 9101M | 9101F | 9122/6 |
| 9102 | 7 | 9102M | 9102F | 9122/7 |
| 9103 | 8 | 9103M | 9103F | 9122/8 |
| 9104 | 9 | 9104M | 9104F | 9122/9 |
| 9105 | 10 | 9105M | 9105F | 9122/10 |
| 9106 | 11 | 9106M | 9106F | 9106 S |
| 9107 | 12 | 9107M | 9107F | 9107S |
| 9108 | 13 | 9108M | 9108F | 91085 |
| 9109 | 14 | 9109M | 9109F | 9109S |
| 9110 | 15 | 9110M | 9110F | 9110 S |
| 9111 | 16 | 9111M | 9111F | 9111 S |
| 9112 | 17 | 9112M | 9112F | 9112S |
| 9113 | 18 | 9113M | 9113F | 91135 |
| 9114 | 19 | 9114M | 9114F | 9114 S |
| 9115 | 20 | 9115M | 9115F | $9115 S$ |
| 9116 | 21 | 9116M | 9116F | 9116 S |
| 9117 | 22 | 9117M | 9117F | 9117S |
| 9118 | 23 | 9118M | 9118F | 9118 S |
| 9119 | 24 | 9119M | 9119F | 91195 |
| 9120 | 25 | 9120M | 9120F | 9120 S |

## Oval punches

These punches have the same characteristics as the round punches and in addition they are fitted with a positioning guide to avoid assembly errors.

It is recommended to always suggested to regulate the stroke of the cylinder stem, in order to avoid excessive pressure.
N.B. For a correct use of round and oval punches, please do not use superior thickness to the diameter of the same punch.

Available punches for 15 mm thickness for 9046 Tris Unit.
SPECIAL SIZES ON REQUEST.


| Oval punches |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Code | $\boldsymbol{0} \mathbf{m m}$ | Male spare | Female spare | Inner spare |
| $\mathbf{9 1 3 0}$ | $7 \times 13$ | 9130 M | 9130 F | 9130 S |
| $\mathbf{9 1 3 1}$ | $8 \times 14$ | 9131 M | 9131 F | 9131 S |
| $\mathbf{9 1 3 2}$ | $9 \times 15$ | 9132 M | 9132 F | 9132 S |
| $\mathbf{9 1 3 4}$ | $10 \times 16$ | 9134 M | 9134 F | 9134 S |
| $\mathbf{9 1 3 6}$ | $11 \times 17$ | 9136 M | 9136 F | 9136 S |
| $\mathbf{9 1 3 8}$ | $12 \times 18$ | 9138 M | 9138 F | 9138 S |
| $\mathbf{9 1 4 0}$ | $13 \times 19$ | 9140 M | 9140 F | 9140 S |
| $\mathbf{9 1 4 2}$ | $14 \times 20$ | 9142 M | 9142 F | 9142 S |
| $\mathbf{9 1 4 4}$ | $15 \times 21$ | 9144 M | 9144 F | 9144 S |
| $\mathbf{9 1 4 6}$ | $16 \times 22$ | 9146 M | 9146 F | 9146 S |
| $\mathbf{9 1 4 8}$ | $17 \times 24$ | 9148 M | 9148 F | 9148 S |
| $\mathbf{9 1 4 9}$ | $18 \times 25$ | 9149 M | 9149 F | 9149 S |

## Special punches

Tool for multiple punching in only one operation


## Bar cutter

It is a tool for our Tris units, made from special steel composed by a sharpened male and a female die. You can cut bars with maximum thickness 12 mm and maximum width 120 mm , or, on demand, bars with thinner thickness and of greater width (max 125 mm ).
Bar cutting takes place by removing one section of material equal to the width of the cutting point ( 10 mm ).

| Bar cutter |  |
| :---: | :--- |
| Code | Description |
| $\mathbf{9 1 5 5}$ | Bar cutter $120 \times 12$ |
| $\mathbf{9 1 5 5} / \mathbf{3 0}$ Ton | Bar cutter $160 \times 15$ for 9046 |



Tool for radial bars with support guides for different bars.

Tool for the cutting of flexible bus bars 9158

It can be used on all our Tris Units. It cuts flexible bus bars max. $100 \times 10 \mathrm{~mm}$. Easy to assemble , as all our standard tools.

## Din Rail Cutter 9055 for Tris unit

It has the same characteristics of the standard Din Rail Cutting Machine Model 9050.
The installation of this tool on the Tris Units is simple


## Standard bar benders

## Bar bender

We have standard bar bender for different thickness and width. For bar bender selection, please consult the table enclosed. We realize bar bender on demand.


9153
Flat bar bender

| Bar bender |  |
| :---: | :--- |
| Code | Description |
| $\mathbf{9 1 5 0}$ | V bar bender for thickness from 4 to 6 mm |
| $\mathbf{9 1 5 1}$ | V bar bender for thickness from 5 to 8 mm |
| $\mathbf{9 1 5 2}$ | V bar bender for thickness from 6 to 12 mm |
| $\mathbf{9 1 5 3}$ | Special flat bar bender for bars from $20-40$, thickness $5 \div 10 \mathrm{~mm}$ Internal |
| $\mathbf{9 1 5 0 / 1 6 0}$ | radius 30 mm |
| $\mathbf{9 1 5 1 / 1 6 0}$ | V bar bender for thickness from 4 to 6 mm for bars with width 160 mm |
| $\mathbf{9 1 5 2 / 1 6 0}$ | V bar bender for thickness from 5 to 8 mm for bars with width 160 mm |
| $\mathbf{9 1 5 4 / 3 0}$ Ton | Bar bender for bars $160 \times 15 \mathrm{~mm}$ for Tris 9046 |
| $\mathbf{9 1 5 4 / 2 0 0 \times 2 0}$ | Bar bender for bars $200 \times 20 \mathrm{~mm}$ for Tris 9046 |

9151



## Special bar benders

## 9154/01

It is recommended for brackets, clamps and small bars of different material. Max. Thickness 5 mm . Higher thickness on demand.

9154/02
It is recommended for aluminium and lined bars


Special bar benders on demand


## Accessories for Tris units

## Mechanical protractor 9160

It is a very practical accessory to put on the tris cylinder for measuring bar bending angles up to $90^{\circ}$. It is made of steel with direct reading and eccentric corrector for resetting the rod according to the thickness and elasticity of the material to bend.

9160/30 Ton for 9046 Unit


## Electrical protractor 9161

Similar to the mechanical one, the electrical protractor is equipped with a micro switch and a device to automatically stop the electric control unit.
N.B. It can be used only with electric control units 9008-9009-9010.

9161/30 Ton for 9046 Unit


## Positioning valve

## 9162

The positioning valve is supplied with male and female rapid connectors for a rapid assembly. This two-way valve can be fitted to the Tris cylinder when you use electric control units as it permits small movements of the tools and therefore an easy positioning of the bars.


## Units for flexible copper bars

## TECHNICAL APPLICATION



## Punching cylinder

## For flexible copper bars and generic 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


References with millimetric ruler for the right bar positioning.
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. $\mathbf{2}$ lock nuts, one for punches up to 9 mm dia. max and one for punches from dia. 10 mm to dia. 13 mm max.


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 |  |
| Thickness of the other materials |  |

to define according with
the resistance and hole $\emptyset$

| Lenght | 390 mm |
| :--- | :--- |
| Width | 300 mm |
| Height | 160 mm |
| Weight | $16,7 \mathrm{Kg}$ |

Kit punching cylinder
for packs bars 9020 D

| Odd size set code | $\boldsymbol{\emptyset}$ Punch $\mathbf{~ m m}$. |
| :---: | :---: |
| $\mathbf{9 5 3 1}$ | 9 |
| $\mathbf{9 5 3 3}$ | 11 |
| $\mathbf{9 5 3 5}$ | 13 |

Kit punching cylinder
for packs bars 9020 P

| Even size set code | $\boldsymbol{\emptyset}$ Punch $\mathbf{m m}$. |
| :---: | :---: |
| $\mathbf{9 5 4 1}$ | 8 |
| $\mathbf{9 5 4 3}$ | 10 |
| $\mathbf{9 5 4 5}$ | 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 |

## 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 <br> punch | $\boldsymbol{0 m m}$ | Range <br> Center distance <br> hole-protection | Range <br> Edge hole- <br> protection | Male spare | Female spare |
| $\mathbf{9 1 0 4 ~ F L E X ~}$ | $\mathbf{9}$ | 18 | 13,5 | 9104M FLEX | 9104F FLEX |
| $\mathbf{9 1 0 6}$ FLEX | $\mathbf{1 1}$ | 18 | 12,5 | $9106 M$ FLEX | 9106F FLEX |
| $\mathbf{9 1 0 8}$ FLEX | $\mathbf{1 3}$ | 18 | 11,5 | 9108M FLEX | 9108F FLEX |



## Oval punches with step

This solution for oval holes has 3 standard measures: 9×15-11×17-13×18 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


## 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 $10 \times 1 \mathrm{~mm}$.

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 | $\mathbf{0 ~ m m}$ | Combined <br> male |
| 9121F/9 FLEX | 9 | 9104 M |
| 9121F/10 FLEX | 10 | 9105 M |
| 9121F/11 FLEX | 11 | 9106 M |
| 9121F/12 FLEX | 12 | 9107 M |
| 9121F/13 FLEX | 13 | 9108 M |
| 9121F/14 FLEX | 14 | 9109 M |
| 9121F/15 FLEX | 15 | 9110 M |
| 9121F/16 FLEX | 16 | 9111 M |
| 9121F/17 FLEX | 17 | 9112 M |
| 9121F/18 FLEX | 18 | 9113 M |



Oval fLeX dies

| Code | 0 mm | Combined <br> male |
| :--- | :---: | :---: |
| $9129 F / 7 \times 13$ FLEX | $7 \times 13$ | 9130 M |
| $9129 F / 8 \times 14$ FLEX | $8 \times 14$ | 9131 M |
| $9129 F / 9 \times 15$ FLEX | $9 \times 15$ | 9132 M |
| $9129 F / 10 \times 16$ FLEX | $10 \times 16$ | 9134 M |
| $9129 F / 11 \times 17$ FLEX | $11 \times 17$ | 9136 M |
| $9129 F / 12 \times 18$ FLEX | $12 \times 18$ | 9138 M |
| $9129 F / 13 \times 19$ FLEX | $13 \times 19$ | 9140 M |
| $9129 F / 14 \times 20$ FLEX | $14 \times 20$ | 9142 M |
| $9129 F / 15 \times 21$ FLEX | $15 \times 21$ | 9144 M |
| $9129 F / 16 \times 22$ FLEX | $16 \times 22$ | 9146 M |
| $9129 F / 17 \times 24$ FLEX | $17 \times 24$ | 9148 M |
| $9129 F / 18 \times 25$ FLEX | $18 \times 25$ | 9149 M |

Hydraulic punching machines

## TECHNICAL APPLICATION



# 10030L <br> Hydraulic punchig machine for panels and boxes 



POWER UNITS
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## PUNCHES

AND ACCESSORIES PAG. 30 $\div 35$

The punching machine 10030L is planned for making holes of small dimensions; it is very versatile and it can be used for punching either the bottom or the sides of boxes, panels, lids, steel, aluminium, plastic and masonite sheets. Its building characteristics are the same of the other MULTIFOR punching machines.
Punches are built in different shaped and sizes according to the power of the machine.
This punching machine can be used with all IMB power units: foot pedal and electric control units. In order to reduce the working cycles, it is supplied with a stroke regulator, which cuts down the gap between punch and die.
It is equipped with safety device and protection cover.
It is also possible to assemble an adjustable end stroke during the descent phase

The punching machine is supplied with:
N. 1 punch holder $\boldsymbol{0} \mathbf{1 1}$ (code 10101L) for round punches up to $\emptyset 40,5$.
N. 1 punch holder lock nut $\varnothing \mathbf{2 8}$ (cod. 10171).
N. 1 set of extractors for the extraction of the punch from the material ( (cod. 10145).

## N. 1 positioning valve

(cod. 9162).
N.B. The punching machine does not need die holder flanges.
Max. diameter $\emptyset 40,5$ on mild steel sheet with thickness 2 mm .

| Characteristics |  |
| :--- | :---: |
| Max depth | 350 mm |
| Power | $35 \mathrm{kN}(3,5 \mathrm{Ton})$. |
| Working pressure | 700 bar |
| Max dia of round <br> hole | $\emptyset 40,5 \mathrm{~mm}$ |
| Max square hole | $26 \times 26 \mathrm{~mm}$ |
| Max rectangular <br> hole | within $\emptyset 37 \mathrm{~mm}$ |
| Distance between <br> punches <br> Lenght | 55 mm |
| Width with ruler | 560 mm |
| Height | 1.100 mm |
| Weight | 680 mm |



## 10040L

Simplified hydraulic punching machine

Technical Characteristics

| Max．depht | 400 mm |
| :--- | :---: |
| Power | $56 \mathrm{kN}(5,6 \mathrm{Ton})$. |
| Lenght | $1110 \mathrm{~mm}(\mathrm{max})$ |
| Width | 1100 mm |
| Height | 870 mm |
| Weight | 136 Kg |
| Run positioning | X Axe 500 mm |
| brackets | Y Axe 395 mm |
| Max．round hole | $\emptyset 68 \mathrm{~mm}$ |
| Max．square hole | $68 \times 68 \mathrm{~mm}$ |
| Max．rectangular | within $\emptyset 96 \mathrm{~mm}$ |
| hole | 10131,10132, |
| Die flanges | 10133,10134 |

MAX．THICKNESS

| Sheet steel | $2,0 \mathrm{~mm}$ |
| :--- | :---: |
| Stainless steel | $1,8 \mathrm{~mm}$ |
| Aluminium | 5 mm |
| Plastic laminate | 5 mm |

The punching machine 10040L has a system of brackets regulation with simplified $X$ and Y －axis．The technical characteristics of this equipment are between the punching machine 10050 L and 10030L．
With a new system of flanges，this punching machine can do round，square，rectangular and special punches．This hydraulic punching machine can operate on panel sheets，plastic and stainless boxes．
Practical and speedy use to avoid tracing，the machine has a system of guides for the X and

$Y$ axis．The punching machine is equipped with bracket regulations，protection carter and micro security．
On request，we can build an arm for the panel support．

The punching machine is equipped with：
N． 1 positioning valve（code 9162）．
N． 1 punch holder（code 10101L）for round punches until $\emptyset$ mm 40， 5 max．

N． 1 die holder flange（code 10131）for round dies $\emptyset$ mm 40，5 max，for square dies until $\quad$ mm 26 and rectangular or special dies with dimensions within $\emptyset \mathrm{mm} 37$ ．
N． 2 series of extractors（code 10141－10142） for the extraction of the punch from the steel
N． 1 lock nut punches holder $\emptyset 28 \mathrm{~mm}$ （code 10171）．
Mechanical end stroke for the rise of the punch：it reduces times
Protection carter：with an electric micro－switch
End down－stroke：with an electric micro－switch


Die holder flanges


10131


10132

SWARF DISCHARGE


10133

POWER UNITS PAG．80 $\div 87$


10134

## 10050L / 10050LV

Hydraulic punching machine


| Technical Characteristics |  |
| :--- | :---: |
| Max depth | 500 mm |
| Power | 85 kN |
| Working pressure | 700 bar |
| Max round hole $\emptyset$ | 130 mm |
| Max square hole | $92 \times 92 \mathrm{~mm}$ |
| Max rectangular hole | within $\emptyset 130 \mathrm{~mm}$ |
| Distance between punches | 55 mm |
| Lenght | 1.150 mm |
| Width | 2.120 mm |
| Height | 980 mm |
| Weight | 331 Kg |
| Oil capacity for a complete | $0,08 \mathrm{lt}$. |
| stroke | 65 mm |
| Stroke | 10161,10162, |
| Die flanges: | $10163,10164,10165$ |

The hydraulic punching machine 10050L has the characteristics and performances in between the small 10035L and the big 10090L. In order to reduce the working time, a stroke regulation allows to cut down the opening between punch and die. This equipment is supplied with protection cover and with an electric security micro switch.

It is not necessary to make a pre-hole. It is designed to operate with a system of axis $X-Y$ shifting on prismatic guides, sleeves and panel supports complete with locking.

## The 10050L is supplied with:

N. 1 positioning valve (code 9162).
N. 1 punch holder (code 10101L) for round punches up to $\emptyset 40,5 \mathrm{~mm}$
N. 1 die flange (code 10161) for round dies up to $\emptyset 40,5 \mathrm{~mm}$, for square dies up to mm 26 mm , rectangular or special dies within $\emptyset 37 \mathrm{~mm}$.
N. 2 sets of extractors (code 10141-10142) for the extraction of the punch from the panel sheet.
N. 1 punch holder lock nut
(code 10171).




Rise stroke and electric end stroke regulators


Fast system of die flanges locking


Axis reference and locking panel board

Hydraulic punching machine with digital visualizer and laser pointing.


## Die holder flanges

POWER UNITS PAG. 80 $\div 87$

## 10090EL - 10090ELV

## Economic hydraulic punching machine 20 Ton

## Light system of brackets regulation with X - Y axis

| Technical Characteristics |  |
| :--- | :---: |
| Maximum depth | 900 mm |
| Power | $200 \mathrm{kN}(20 \mathrm{Ton})$ |
| Oil capacity for a | $0,18 \mathrm{lt}$. |
| complete stroke | 0170 mm |
| Max. round hole | $138 \times 138 \mathrm{~mm}$ |
| Max. square hole | 700 bar |
| Working pressure | 2100 mm |
| Lenght | 2160 mm |
| Width | 1760 mm |
| Height with the base | 50 mm |
| Distance between | 65 mm |
| punches | 1.000 mm |
| Punch stroke | 900 mm |
| X Axis stroke | 1000 Kg |
| Y Axis stroke |  |
| Approx. weight | $2,0 \mathrm{~mm}$ |
| MAX. THICKNESS | $1,8 \mathrm{~mm}$ |
| Sheet steel | 5 mm |
| Stainless steel | 5 mm |
| Aluminium |  |

The hydraulic punching machine 10090EL, is a high power machine with a simple system of brackets regulation for X and Y axis. It has the same characteristics and performance of the hydraulic punching machine 10090L.
The axis run is for $X$ axe 1000 mm and for $Y$ axe 900 mm . These units are studied exclusively for making holes. They are fast and practical to use, thanks to a special system of guides of axis $X$ and $Y$. This system avoids tracing and the panel board is held up by a mobile support and fixed on $X$ - $Y$ axis. The version 10090EL has the laser pointing which indicates the center of the hole on the material to punch.
The version 10090ELV has the laser pointing and the visualizer.



The punching machines are supplied with the following items:
N. 1 punch holder (code 10101L) for round dies up to $\emptyset$ mm 40,5 max.
N. 1 die holder flange (code 10191) for round dies up to $\emptyset$ mm 40,5 max, for square dies up to $\emptyset \mathrm{mm} 26$ max and rectangular dies or specials with max dimension within 37 mm . dia.

## Laser pointing

All punching machines are supplied with LASER POINTING which indicates ONLY the centre of the hole to realize on the control board door. The diode is protected inside the stem, to avoid breaking.
N. 2 series of extractors (code 10141 -
10142) for the extraction of punch from the steel.
N. 1 punch holder lock nut $\boldsymbol{\emptyset} \mathbf{2 8 m}$ (cod. 10171).
N. 1 positioning valve (code 9162).

| Laser | diode type class 1 |
| :--- | :---: |
| Power | 1 mW |
| Supply | direct current, battery $4,5 \mathrm{~V}$. |

For the operator who uses the laser pointing, there are no protection supplied. Please don't watch the beam of light, which comes out from the diode.

## Die holder flanges



10191


10192


10193


10194


## 10090 L - 10090 LV <br> Punching hydraulic machine 20 Ton

| Technical Characteristics |  |
| :--- | :---: |
| Maximum depth | 900 mm |
| Power | $200 \mathrm{kN}(20 \mathrm{Ton})$ |
| Amount of oil required | $0,18 \mathrm{It}$. |
| for a full stroke | 0170 mm |
| Max. dia of hole | $138 \times 138 \mathrm{~mm}$ |
| Max round hole | 700 bar |
| Working pressure | 1850 mm |
| Length max | 3020 mm |
| Width | 1680 mm |
| Height with base | 50 mm |
| Distance between | 65 mm |
| punches | 1.500 mm |
| Punch stroke | 900 mm |
| X Axis stroke | 1527 Kg |
| Y Axis stroke |  |
| Approx. Weight | $2,0 \mathrm{~mm}$ |
| MAX. THICKNESS | $1,8 \mathrm{~mm}$ |
| Sheet steel | 5 mm |
| Stainless steel | 5 mm |
| Aluminium |  |
| Plastic laminate |  |

In the 10090LV the measures detector takes place through bidirectional heads on a measuring stripe (accuracy $\pm 0,1 \mathrm{~mm}$ )
N.B. Shifting of the axis is manual.

The hydraulic punching machine with visualizer is supplied with a plug.

| Supply | $220 \mathrm{~V} / 240 \mathrm{~V}$ |
| :--- | :---: |
| Frequency | $50 / 60 \mathrm{~Hz}$ |

## The punching machine is supplied with the following items:

N. 1 punch holder (code 10101L) for round dies up to $\emptyset 40,5 \mathrm{~mm}$ max.
$\mathbf{N} .1$ die holder flange (code 10191) for round dies up to $\emptyset 40,5 \mathrm{~mm}$ max, for square dies up to $\emptyset 26 \mathrm{~mm}$ max. and rectangular dies or specials with max dimension within 37 mm . dia.

The MULTIFOR hydraulic punching machines, which combine high power with compact dimensions, are built to resolve the problems of making holes in panels, lids, sheet steel, aluminium strip or plastic. These units are studied exclusively for making holes. They are quick and practical as they avoids marks working on a special rail sysstem of $X-Y$ axis, on which the panel board is fixed.
The pre-hole is not necessary.
With the special punches, you can realize the following holes: round, square, rectangular, shaped, round with more holes, square with round holes, rectangular with round holes, tools for ventilation slots, etc.
N. 2 series of extractors (code 10141 -
10142) for the extraction of punch from the steel
N. 1 punch holder lock nut $\emptyset 28 \mathrm{~mm}$ (cod. 10171)
N. 1 metal basement (code 10100/90)
N. 1 positioning valve (code 9162).

The MULTIFOR punching machines can be connected with a rapid connector to the MULTIFOR electric units.
These units can be also used in small workshop due to their versatility and small size. All our hydraulic punching machines are equipped with carter protection, safety micro switch and electric micro end-stroke.
The dies assembly is very simple and it is not necessary to take away the panel board. In order to reduce the working cycles, a rise stroke regulator allows to reduce the opening between the punch and the die.

## Hydraulic punching machine 10098 With PLC X-Y axis control

It is a punching machine with same features as the standard version.
In addition, it is equipped with re-circulating ball screw and motors for axis shifting.
This programmable logic control permits to carry out complete automatic working cycles with pauses for changing the tools. With the menu all the positioning operations, single or automatic, can be performed. Storage up to 96 programs of 30 steps each.
All operations are readable on a display. The
control board is complete with feeding and start-stop-alarm, axis shifting manual control.

The hydraulic punching machine is equipped with safety barrier and photocells. The visualizer is calibrated by the manufacturer in order to visualize dimensions with absolute values. However the operator can set the value 0 (zero) and use the visualizer for movements with incremental values.

Electric cabinet for axis-control with PLC.


## Accessories for punching machines

## DIE FLANGES

The flanges are used for positioning the different dies. As shown in the list, based on the die flanges on the left column, you can see the possible dimensions.

| Die flanges for 1004OL | Die flanges | Round dies <br> 0 mm | Square dies <br> $\square$ max | Rectangular Dies <br> Within 0 mm |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 0 1 3 1}$ | $2,5-40,5$ | 26 | 37 |
|  | $\mathbf{1 0 1 3 2}$ | $41-48,5$ | 36 | 51 |

Dies flanges for 10050L

| Die flanges | Round dies <br> 0 mm | Square dies <br> $\square$ max mm | Rectangular Dies <br> Within 0 mm |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 0 1 6 1}$ | $2,5-40,5$ | 26 | 37 |
| $\mathbf{1 0 1 6 2}$ | $41-48,5$ | 36 | 51 |
| $\mathbf{1 0 1 6 3}$ | $49-68,5$ | 48,5 | 68 |
| $\mathbf{1 0 1 6 4}$ | $69-99$ | 70 | 99 |
| $\mathbf{1 0 1 6 5}$ | 143 | 92 | 143 |

Dies flanges for 10090


| Die flanges | Round dies <br> 0 mm | Square dies <br> $\square$ max | Rectangular Dies <br> Within 0 mm |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 0 1 9 1}$ | $2,5-40,5$ | 26 | 37 |
| $\mathbf{1 0 1 9 2}$ | $41-48,5$ | 36 | 51 |
| $\mathbf{1 0 1 9 3}$ | $49-68,5$ | 48,5 | 68 |
| $\mathbf{1 0 1 9 4}$ | $69-99$ | 70 | 99 |
| $\mathbf{1 0 1 9 5}$ | $100-143$ | 101 | 143 |

N.B. The round dies for the 10090 with higher dimensions up to $\emptyset 170 \mathrm{~mm}$, are built to be inserted directly in the machine.
This is also the case of square and rectangular dies within $\emptyset 144 \mathrm{~mm}$ to max. $\varnothing 170 \mathrm{~mm}$.

## PUNCH HOLDERS

Punch holders are used to assemble the different round, square,rectangular and special punches. They are held in position by lock nut and must be chosen in relation to the type and dimensions of the punch to be used, as shown in the table. The reference pin is re-entering less the one code 10104.


The punch holders for the hydraulic punching machines with laser pointing have not the central reference re-entering, but a passer-by hole.

## Accessories for hydraulic punching machines

## LOCK NUTS



10171


10172


10173

| Code | Description | Application field |
| :--- | :--- | :--- |
| $\mathbf{1 0 1 7 1}$ | Lock nut $\emptyset 30$ | Punch holders 10101－10106 |
| $\mathbf{1 0 1 7 2}$ | Lock nut $\emptyset 5$ | Special punch holders |
| $\mathbf{1 0 1 7 3}$ | Lock nut for punches superior to 100 mm |  |

## EXCTRACTORS

The extractors are used for extracting the punch from the steel after perforation．Their position can be adjusted so that they can be placed as close as possible to the punch．
Two series are supplied；one for round holes，the other for square，rectangular or special holes．

10141

10142

10145

| Code | Normally used for |
| :--- | :--- |
| $\mathbf{1 0 1 4 1}$ | Round punches |
| $\mathbf{1 0 1 4 2}$ | Square and rectangular punches |
| $\mathbf{1 0 1 4 3}$ | Big and special punches |
| $\mathbf{1 0 1 4 5}$ | Round punches on 10030L |

## TOOLING FOR VENTILATION SLOTS

## 10804 for 10090

Tooll for ventilation slots of 500 sq ． $\mathbf{m m}$ on sheet steel of max．thickness 2 mm ．This tooling is equipped with blank holder．For different material thickness，please contact our Technical Department


10804

．


## 10803 for 10050

Tool to realize ventilation slots of 350 sq mm on sheet steel of max．thickness 2 mm ． This tooling is supplied with a blank holder． On request，we can realize tooling for small sizes．
For different thickness，please contact our Technical Department．



# Standard round punches for hydraulic punching machines 



PUNCH WITH THREAD


All our of round punches are made of special tempered steel. They have 3 cutting edges and they are used to punch holes on sheet steel max.thickness $2,0 \mathrm{~mm}$ and stainless steel max. $1,8 \mathrm{~mm}$. Aluminium plastic laminates and other material from 0,5 to 5 mm max.
The punching is carried out with maximum precision and without deformation of the material. The dia of the punches is clearly marked with the nominal $\emptyset$, in order to avoid mistakes.

The punches in the following list are mounted directly on the machine without punch holders.

The punches in this list can be used on punching machine 10030L up to 10241; on our 10040L punching machine until code 10269 and on our 10050 L until code 10301.


- To assemble with lock nut code 10173

When ordering punches, it is suggested to check the right column of the list to identify the kind of holders and flanges to use depending on the hydraulic punching machine.
Please verify, also, if the hydraulic punching machine has the LASER POINTING.

* Please add to the code the letter "L" if the operator has an hydraulic punching machine with Laser

| PUNCH |  | Flange to use |
| :---: | :---: | :---: |
| code | 0 mm | code |
| 10200/2,5 | 2,5 | 10191 / 10161 / 10131 |
| 10200/3 | 3 | 10191/10161/10131 |
| 10200/3,25 | 3,25 | 10191 / 10161/10131 |
| 10200/3,5 | 3,5 | 10191 / 10161 / 10131 |
| 10200/4 | 4 | 10191/10161/10131 |
| *10200/4,25 | 4,25 | 10191 / 10161 / 10131 |
| *10200/4,5 | 4,5 | 10191/10161/10131 |
| *10200/5 | 5 | 10191 / 10161 / 10131 |
| *10200/5,5 | 5,5 | 10191/10161/10131 |
| *10200/6 | 6 | 10191 / 10161 / 10131 |
| *10200/6,75 | 6,75 | 10191/10161/10131 |
| *10200/7 | 7 | 10191/10161/10131 |
| *10200/7,75 | 7,75 | 10191 / 10161 / 10131 |
| *10200/8 | 8 | 10191 / 10161 / 10131 |
| *10200/8,5 | 8,5 | 10191 / 10161 / 10131 |
| *10200/9 | 9 | 10191/10161/10131 |
| *10200/9,5 | 9,5 | 10191 / 10161 / 10131 |
| *10201 | 10 | 10191 / 10161 / 10131 |
| *10203 | 13 | 10191/10161/10131 |
| *10205 | 15,5 | 10191 / 10161 / 10131 |
| *10207 | 16,2 | 10191/10161/10131 |
| *10209 | 17 | 10191/10161 / 10131 |

When ordering punches, it is recommended to check the right column of the list to identify the kind of holders and flanges to use depending on the hydraulic punching machine.

| PUNGH |  | Punch holder to use |  | Flange |
| :---: | :---: | :---: | :---: | :---: |
| code | 9 mm | code | 0 mm |  |
| 10211 | 18,5 | 10101 | 11 | 10191/10161/ |
| 10213 | 19,5 | 10101 | 11 | 10191/10161/101 |
| 10215 | 21 | 10101 | 11 | 10191/1016 |
| 10217 | 22,5 | 1010 | 11 | 10191/1016 |
| 10219 | 24 | 10101 | 11 | 10191/1016 |
| 10221 | 25,5 | 10101 | 11 | 10191/10161 |
| 10223 | 26,5 | 10101 | 11 | 10191 |
| 10225 | 27,5 | 10101 | 11 | 10191/10161 |
| 10227 | 28,5 | 10101 | 11 | 10191/10161 |
| 10229 | 30,5 | 10101 | 11 | 10191/10161/ |
| 10231 | 32,5 | 10101 | 11 | 1019 |
| 10233 | 33,5 | 10101 | 11 | 10191/101 |
| 10235 | 35,5 | 10101 | 11 | 10191 |
| 10237 | 37 | 1010 | 11 | 10191 |
| 10239 | 38,5 | 10101 | 11 | 10191/1016 |
| 10241 | 40,5 | 10 | 11 | 10191/10161 |
| 10243 | 42,5 | 101 | 16 | 10192 |
| 10245 | 45,5 | 10102 | 16 | 10192/10162/ |
| 10247 | 47 | 10102 | 16 | 10192/10162/10 |
| 10249 | 48,5 | 10102 | 16 | 10192/10162/10132 |
| 10251 | 50,5 | 10102 | 16 | 10193/10163/ |
| 10253 | 52,5 | 10102 | 16 | 10193/1016 |



## Shaped punches for handles, locks and push buttons

Special punches have been studied for the assembly of handles, locks and push buttons.

10811


10812


10813



10831


Measures on request


10826


10842


10841


The punches of this list can be used on all our IMB hydraulic punching machines. Special punches are fixed directly on the hydraulic punching machine.

| PUNGH |  |  |  |
| :---: | :---: | :---: | :---: |
| Code | Slot dimension mm | Nut code | Lock Flange to use |
| * 10811 | 19,5x18,5 | 10171 | 10191 / 10161 / 10131 |
| * 10812 | 20,5x18 | 10171 | 10191 / 10161 / 10131 |
| * 10813 | $22,5 \times 19,5$ | 10171 | 10191 / 10161/10131 |
| * 10814 | 22,5x20,5 | 10171 | 10191 / 10161/10131 |
| * 10822 | 21,5×30,5 | 10172 | 10191 / 10161 / 10131 |
| * 10824 | 22,5x28,5 | 10172 | 10191 / 10161 / 10131 |
| * 10826 | 22,5×30,5 | 10172 | 10191 / 10161 / 10131 |
| * 10831 | 22,5x26 | 10171 | 10191/10161/10131 |
| * 10832 | 30,5x34 | 10172 | 10191 / 10161 / 10131 |
| * 10841 | 22,3x23,5 | 10171 | 10191 / 10161 / 10131 |
| * 10842 | 30,5×32,85 | 10172 | 10191 / 10161 / 10131 |

[^0] hydraulic machine with laser.

## Punches for

 D-SUBconnectors


| Position | Code |
| :---: | :---: |
| 9 | ${ }^{* 10850}$ |
| 15 | $\mathbf{1 0 8 5 1}$ |
| 25 | $\mathbf{1 0 8 5 2}$ |

* Assemble with lock nut 10172 nut



## Square punches for hydraulic punching machines

They have four cutting edges on the mid point of each side．This patented technical innovation leads to a better auto－centering，an easier and fast punching on the sheet metal and less stress for a longer tool life．
These punches can be used on sheet steel thickness from $\mathbf{0 , 5}$ to $\mathbf{2 ~ m m ~ m a x . ; ~ o n ~ s t a i n l e s s ~ s t e e l ~ f r o m ~} \mathbf{0 , 5} \mathbf{5} \mathbf{~ t ~} \mathbf{1 , 8} \mathbf{~ m m}$ ；on aluminium，plastic laminates or other materials from 0,5 to 5 mm ．
For higher thickness，please call our Technical Department．
When ordering punches，we recommend to check the list for appropriate punch holders and flanges．
We remember you，to verify，if your punching machine has the LASER POINTING


| PUNCH |  | Punch holder to use |  | Flange to use |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | side－mm | Code | 口 mm | 10030 | 10040 | 10050 | 10090 |
| ＊10401 | $12 \times 12$ |  | － | Direct | 10131 | 10161 | 10191 |
| ＊10403 | $15 \times 15$ |  | － | Direct | 10131 | 10161 | 10191 |
| ＊10405 | $18 \times 18$ | Mounted directly | － | Direct | 10131 | 10161 | 10191 |
| ＊10407 | $19 \times 19$ | on the piston | － | Direct | 10131 | 10161 | 10191 |
| ＊10409 | $20 \times 20$ |  | － | Direct | 10131 | 10161 | 10191 |
| ＊＊＊10411 | $22 \times 22$ |  | － | Direct | 10131 | 10161 | 10191 |
| 10413 | $25 \times 25$ | 10104 | 10 | Direct | 10131 | 10161 | 10191 |
| 10415 | $26 \times 26$ | 10104 | 10 | Direct | 10131 | 10161 | 10191 |
| 10417 | $30 \times 30$ | 10105 | 14 | X | 10132 | 10162 | 10192 |
| 10419 | $35 \times 35$ | 10105 | 14 | X | 10132 | 10162 | 10192 |
| 10421 | $40 \times 40$ | 10105 | 14 | X | 10133 | 10163 | 10193 |
| 10423 | $45 \times 45$ | 10105 | 14 | X | 10133 | 10163 | 10193 |
| 10425 | $46 \times 46$ | 10105 | 14 | X | 10133 | 10163 | 10193 |
| 10427 | 48，5x48，5 | 10106 | 20 | X | 10133 | 10163 | 10193 |
| 10429 | $50 \times 50$ | 10106 | 20 | X | 10134 | 10164 | 10194 |
| 10431 | $55 \times 55$ | 10106 | 20 | X | 10134 | 10164 | 10194 |
| 10433 | $57 \times 57$ | 10106 | 20 | X | 10134 | 10164 | 10194 |
| 10435 | 60，5x60，5 | 10106 | 20 | X | 10134 | 10164 | 10194 |
| 10437 | $68 \times 68$ | 10106 | 20 | X | 10134 | 10164 | 10194 |
| 10439 | 80，5x80，5 | 10106 | 20 | X | X | 10165 | 10195 |
| 10441 | 90，5×90，5 | 10106 | 20 | X | X | 10165 | 10195 |
| 10443 | $92 \times 92$ | 10106 | 20 | X | X | 10165 | 10195 |
| 10445 | $96 \times 96$ | 10106 | 20 | $x$ | $x$ | X | 10195 |
| －10448 | $112 \times 112$ | 10106 | 20 | X | X | X | Direct |
| －．10450 | $126 \times 126$ | 10106 | 20 | X | $x$ | $x$ | Direct |
| － 10452 | $138 \times 138$ | 10106 | 20 | X | X | X | Direct |

Other sizes available on request．
＊Please add to the code the letter＂$L$＂if the user has a laser hydraulic punching machine．
＊＊In order to assemble，use 10172 lock nut．
－Assemble with lock nut 10173.
－Use extractors 10143 and the big lock nut 10173.

## Rectangular punches for hydraulic punching machines

They have four cutting edges on the mid point of each side．This patented technical innovation leads to a better auto－centering，an easier and fast punching on the sheet metal and less stress for a longer tool life．
These punches can be used on sheet steel thickness from $\mathbf{0 , 5}$ to $\mathbf{2 ~ m m ~ m a x . ; ~ o n ~ s t a i n l e s s ~ s t e e l ~ f r o m ~} \mathbf{0 , 5} \mathbf{5}$ to $\mathbf{1 , 8} \mathbf{~ m m}$ ；on aluminium，plastic laminates or other materials from 0,5 to 5 mm ．
For higher thickness，please call our Technical Department．
When ordering punches，recommend to check the list for appropriate punch holders and flanges．
We remember you，to verify，if your punching machine has the LASER POINTING


| PUNCH |  | Punch holder to use |  | Flange to use |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | side．mm | Code | 口 mm | 10040 | 10050 | 10090 |
| ＊••10607 | 17，5x33，5 | Direct |  | 10132 | 10162 | 10192 |
| 10609 | $20 \times 41$ | 10104 | 10 | 10132 | 10162 | 10192 |
| 10611 | $22 \times 30$ | 10104 | 10 | 10132 | 10162 | 10192 |
| 10613 | $22 \times 42$ | 10104 | 10 | 10132 | 10162 | 10192 |
| 10615 | $24 \times 36$ | 10104 | 10 | 10132 | 10162 | 10192 |
| 10／29x71 | $29 \times 71$ | 10105 | 14 | 10134 | 10164 | 10194 |
| 10617 | $30 \times 45$ | 10105 | 14 | 10133 | 10163 | 10193 |
| 10619 | $32 \times 60$ | 10105 | 14 | 10133 | 10163 | 10193 |
| 10621 | $34 \times 68$ | 10105 | 14 | 10134 | 10164 | 10194 |
| 10623 | $36 \times 46$ | 10106 | 20 | 10134 | 10164 | 10194 |
| 10625 | $36 \times 85$ | 10106 | 20 | 10134 | 10164 | 10194 |
| 10627 | $36 \times 112$ | 10106 | 20 | X | 10165 | 10195 |
| 10631 | $44 \times 92$ | 10106 | 20 | X | 10165 | 10195 |
| 10632 | $45 \times 93$ | 10106 | 20 | X | 10165 | 10195 |
| 10633 | $46 \times 53,5$ | 10106 | 20 | X | 10164 | 10194 |
| 10635 | $46 \times 71$ | 10106 | 20 | X | 10164 | 10194 |
| 10637 | $50 \times 98$ | 10106 | 20 | X | 10165 | 10195 |
| －10640 | $68 \times 138$ | 10106 | 20 | X | X | Direct |
| －10642 | $81 \times 117$ | 10106 | 20 | X | X | Direct |
| Other sizes available on request． All rectangular punches are to be considered as specials． |  | ＊Please add the letter＂L＂if the user has a laser hydraulic punching machine． |  |  | －Assemble with the big lock nut 10173 and with extractors 10143. <br> －• Equipped with lock nut 10172. |  |



How to assemble square and rectangular punches


## DIN rail cutting machines

## TECHNICAL APPLICATION


hOLES AND CUT ACHIEVABLE WITH ART. 9050-52-54-55
hole and cut achievable WITH ART. 9056-58

hOLE ACHIEVABLE WITH ART. 9056
hole achievable WITH ART. 9050-52-54-55


HOLE AND CUT ACHIEVABLE WITH ART. 9050-52-54
hOLES AND CUT ACHIEVABLE WITH ART. 9050-52-54

## Manual din rail cutting machines <br> For cutting and punching standard and special Din Rails

## 9050

It cuts four profiles in the desired positions and punches oval holes 6,5 x12 mm in longitudinal and transversal position.
It is equipped with 1-meter ruler and slider.

| Characteristics |  |
| :--- | :---: |
| Weight | 19 Kg |
| Width | 180 mm |
| Height complete with | 990 mm |
| lever | 1.160 mm <br> (with ruler) |



## 9056

It cuts 4 standard din rails and punches a round hole $\emptyset 6,5 \mathrm{~mm}$
It is equipped complete with 1 meter ruler and slider.

| Characterigtics |  |
| :--- | :---: |
| Weight 14 Kg <br> Width 180 mm <br> Height complete with <br> lever 990 mm <br> Lenght 1.160 mm <br> (with ruler)  |  |

## 9058

It cuts two din rails impressions in the desired position and it punches a round hole $\emptyset 6,5 \mathrm{~mm}$ at the beginning of the din rail.
It is equipped with 1 mt . ruler and slider.

| Characteristics |  |
| :--- | :---: |
| Weight | 11 Kg |
| Width | 130 mm |
| Height complete with <br> lever | 870 mm |
| Lenght | 1.150 mm <br> (with ruler) |



## Din rail cutting machines

For cutting and punching standard and special Din rails

9052
Pneumatic
Very fast machine and effortless user experience. It cuts with rapidity and with a low air consumption with a feeding pressure from 7 to 9 bars.
The pneumatic version is equipped with a foot pedal. It cuts four standard din rails in the desired positions and punches oval holes 6,5x12 mm in a longitudinal and transversal position. It is equipped with 1 meter ruler and slider.

| Characteristics |  |
| :--- | :---: |
| Dimensions without <br> ruler | $180 \times 110 \times \mathrm{h} 540 \mathrm{~mm}$ |
| Total Weight | 31 Kg |
| Patented model. |  |

## 9054

## Oleodynamic

It has the same features of the model 9050 . Very fast machine and effortless user experience. This tool takes advantage of the strength of an oleodynamic cylinder, which acts directly on the cutting blade.
It can be used with all IMB pumps or electric controls units.
It is equipped with 1 meter ruler and slider.


## 9055

## For Tris unit

It has the same working characteristics of the din rail model 9050.
It is easy to install it on the Tris Unit.


| Characteristics |  |
| :--- | :---: |
| Lenght | 180 mm |
| Width | 70 mm |
| Height | 120 mm |
| Weight | 12 Kg |

## STANDARD DIN RAILS

Special rail shapes and holes on request. Also on aluminium.


## Perforation cylinders for metal panels and sheets.

## TECHNICAL APPLICATION



## 9070

## Manual punching cylinder

Manual punching cylinder. It punches steel sheet from1 to 2 mm but it depends on the diameter of the hole.
For aluminium and plastic laminates max. 5 mm thickness.
For other material, please contact our Technical Department.
Supplied with a plastic case and complete of spacers for the use of pins of the perforation cylinder 9022.

| Characteristics |  |
| :--- | :---: |
| Power | 50 kN |
| Weight | $2,2 \mathrm{Kg}$ |
| Round hole max | $\emptyset 72,5 \mathrm{~mm}$ |
| Square hole $\boldsymbol{\operatorname { m a x }}$ | $68 \times 68 \mathrm{~mm}$ |
| Stroke | 20 mm |

## Kit Manual Punching cylinder PG 9861

| Code | Description | Quantity |
| :---: | :---: | :---: |
| 9070 | Cylinder | 1 |
| 9192 | Punch Ø 15,5 | 1 |
| 9206 | Punch Ø 18,5 | 1 |
| 9210 | Punch Ø 21 | 1 |
| 9212 | Punch Ø 22,5 | 1 |
| 9222 | Punch Ø 28,5 | 1 |
| 9224 | Punch Ø 30,5 | 1 |
| 9180 | Drill for pre-hole | 1 |
| 9601 | Pin $\emptyset 9$ | 1 |
| 9602 | Pin $\emptyset 11$ | 1 |
| 9825 | Case | 1 |

Kit Manual punching cylinder ISO 9862

| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{9 0 7 0}$ | Cylinder | 1 |
| $\mathbf{9 2 0 2}$ | Punch $\emptyset 16,2$ | 1 |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{9 2 1 6}$ | Punch $\emptyset 25,5$ | 1 |
| $\mathbf{9 2 2 8}$ | Punch $\emptyset 32,5$ | 1 |
| $\mathbf{9 1 8 0}$ | Drill for pre-hole | 1 |
| $\mathbf{9 6 0 1}$ | Pin $\emptyset 9$ | 1 |
| $\mathbf{9 6 0 2}$ | Pin $\emptyset 11$ | 1 |
| $\mathbf{9 6 0 3}$ | Pin $\emptyset 16$ | 1 |
| $\mathbf{9 8 2 5}$ | Case | 1 |

Kit Manual Punching Cylinder GAS 9863

| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{9 0 7 0}$ | Cylinder | 1 |
| $\mathbf{9 2 0 4}$ | Punch $\emptyset 17$ | 1 |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{9 2 1 4}$ | Punch $\emptyset 24$ | 1 |
| $\mathbf{9 2 1 8}$ | Punch $\emptyset 26,5$ | 1 |
| $\mathbf{9 2 2 4}$ | Punch $\emptyset 30,5$ | 1 |
| $\mathbf{9 1 8 0}$ | Drill for pre-hole | 1 |
| $\mathbf{9 6 0 1}$ | Pin $\emptyset 9$ | 1 |
| $\mathbf{9 6 0 2}$ | Pin $\emptyset 11$ | 1 |
| $\mathbf{9 8 2 5}$ | Case | 1 |

## 9070E

## Punching cylinder with battery

| Characteristics |  |
| :--- | :---: |
| Power | 63 kN |
| Weight | $3,3 \mathrm{Kg}$ |
| Max. round hole | $\emptyset 120 \mathrm{~mm}$ |
| Max. square hole | $92 \times 92 \mathrm{~mm}$ |

Cylinder with battery, provided with a trigger switch and manual lever for the cylinder return. Tool used for punching panels and sheets of steel max. thickness 2 mm ; alluminium and plastic max. 5 mm .
Please contact our Technical Department for other material.
Supplied with a plastic case, battery charger and spacers for the use of series pins of our cylinder perforation 9022.
Patented Model


## KIT Punching cylinder with battery PG 9861E

| Code | Description | Quantity |
| :---: | :--- | :---: |
| $\mathbf{9 0 7 0 E}$ | Cylinder | 1 |
| $\mathbf{9 1 9 2}$ | Punch $\emptyset 15,5$ | 1 |
| $\mathbf{9 2 0 6}$ | Punch $\emptyset 18,5$ | 1 |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{9 2 2 2}$ | Punch $\emptyset 28,5$ | 1 |
| $\mathbf{9 2 2 4}$ | Punch $\emptyset 30,5$ | 1 |
| $\mathbf{9 1 8 0}$ | Drill for pre-hole | 1 |
| $\mathbf{9 6 0 1}$ | Pin $\emptyset 9$ | 1 |
| $\mathbf{9 6 0 2}$ | Pin $\emptyset 11$ | 1 |
| $\mathbf{9 8 2 9}$ | Case | 1 |
| $\mathbf{9 8 4 3}$ | Battery charger 18 V | 1 |

## Kit Punching cylinder with battery ISO 9862E

| Code | Description |
| :---: | :---: |
| $\mathbf{9 0 7 0 E}$ | Cylinder |
| $\mathbf{9 2 0 2}$ | Punch $\emptyset 16,2$ |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ |
| $\mathbf{9 2 1 6}$ | Punch $\emptyset 25,5$ |
| $\mathbf{9 2 2 8}$ | Punch $\emptyset 32,5$ |
| $\mathbf{9 1 8 0}$ | Drill for pre-hole |
| $\mathbf{9 6 0 1}$ | Pin $\emptyset 9$ |
| $\mathbf{9 6 0 2}$ | Pin $\emptyset 11$ |
| $\mathbf{9 6 0 3}$ | Pin $\emptyset 16$ |
| $\mathbf{9 8 2 9}$ | Case |
| $\mathbf{9 8 4 3}$ | Battery charger 18 V |

## Kit Punching Cylinder GAS

 9863E| Code | Description | Quantity |
| :---: | :--- | :---: |
| $\mathbf{9 0 7 0 E}$ | Cylinder | 1 |
| $\mathbf{9 2 0 4}$ | Punch $\emptyset 17$ | 1 |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{9 2 1 4}$ | Punch $\emptyset 24$ | 1 |
| $\mathbf{9 2 1 8}$ | Punch $\emptyset 26,5$ | 1 |
| $\mathbf{9 2 2 4}$ | Punch $\emptyset 30,5$ | 1 |
| $\mathbf{9 1 8 0}$ | Prill for pre-hole | 1 |
| $\mathbf{9 6 0 1}$ | Pin $\emptyset 9$ | 1 |
| $\mathbf{9 6 0 2}$ | Pin $\emptyset 11$ | 1 |
| $\mathbf{9 8 2 9}$ | Case | 1 |
| $\mathbf{9 8 4 3}$ | Battery charger 18 V | 1 |

9022

## Perforation cylinder

For punching metals, inox, aluminium, masonite, plastic laminates panels and sheets

This is a hydraulic cylinder with simple acting made of high quality steel, which ensures maximum efficiency and constant results. It is used in combination with pumps and all our MULTIFOR control units. It works with its relative punches to make holes in sheet metal, aluminium, masonite and plastic laminates. This tool can use punches from $\emptyset 13$ to $\emptyset$

170 mm ; square punches from 12 to dia. - 145 mm and rectangular punches of equal dimensions.
This tool can punch sheet metal max. thickness $2,5 \mathrm{~mm}$; stainless steel max. 2 mm ; aluminium and plastic laminates 5 mm .
It is equipped with male rapid connector ready to be used.

| Characteristics |  |
| :--- | :---: |
| Power | 130 kN |
| Max. Working pressure | 700 bar |
| Max. Stroke | 30 mm |
| Oil capacity for full | $0,080 \mathrm{lt}$. |
| stroke | 200 mm |
| Lenght | 70 mm |
| Diameter | $2,9 \mathrm{Kg}$ |
| Weight |  |

## External diameter in mm GAS, PG and ISO

| GAS <br> thread | $\boldsymbol{g}$ ext. <br> GAS thread | Recomm. <br> punch |
| :---: | :---: | :---: |
| $1 / 4^{\prime \prime}$ | 13,15 | - |
| $3 / 8^{\prime \prime}$ | 16,66 | 17 |
| $1 / 2^{\prime \prime}$ | 20,9 | 21 |
| $5 / 8^{\prime \prime}$ | 22,9 | 24 |
| $3 / 4^{\prime \prime}$ | 26,44 | 26,5 |
| $\mathbf{1 "}^{\prime \prime}$ | 33,24 | 33,5 |
| $11 / 4^{\prime \prime}$ | 41,9 | 42,5 |
| $112^{\prime \prime}$ | 47,8 | 48,5 |
| 2 " | 59,62 | 60,5 |
| $21 / 2^{\prime \prime}$ | 75,18 | 76 |
| $3^{\prime \prime}$ | 87,8 | 90 |
| 4 " | 112,5 | 113 |


| PG <br> thread | Ø ext. <br> PG thread | Recomm. <br> punch |
| :---: | :---: | :---: |
| 7 | 12,5 | 13 |
| 9 | 15,2 | 15,5 |
| 11 | 18,5 | 18,5 |
| 13,5 | 20,4 | 21 |
| 16 | 22,5 | 22,5 |
| 21 | 28,3 | 28,5 |
| 29 | 37 | 37 |
| 36 | 47 | 47 |
| 42 | 53,9 | 54,2 |
| 48 | 59,3 | 59,5 |


| ISO <br> thread | Ø ext. <br> ISO thread | Recomm. <br> punch |
| :---: | :---: | :---: |
| 16 | 16 | 16,2 |
| 20 | 20 | 21 |
| 25 | 25 | 25,5 |
| 32 | 32 | 32,5 |
| 40 | 40 | 40,5 |
| 50 | 50 | 50,5 |
| 63 | 63 | 65 |

## 9180 <br> Drill for pre-hole

This special drill has been realized to carry out the pre-holes. It has to be installed on portable drilling machines with little chucks and it has a special cutting angle to soften and decrease the cutting strength avoiding strokes. The use is very easy. This drill has 3 working measures; one for the starting hole $\emptyset 6.4$; one for the pre-hole $\emptyset 12$

## 9022/18Ton

 Perforation cylinderIt has the same features and the same use of the cylinder 9022 but it has a bigger power and stroke. This tool can punch bigger thicknesses and it realizes special works as for example, holes for drawing.

It is equipped with male rapid connector ready to be used.

Please contact our IMB Technical Department for any question.

| Characteristics |  |
| :--- | :---: |
| Power | 180 kN |
| Max. Working pressure | 700 bar |
| Max. Stroke | 40 mm |
| Oil capacity for full <br> stroke | $0,110 \mathrm{lt}$. |
| Lenght | 265 mm |
| Diameter | 92 mm |
| Weight | $7,5 \mathrm{Kg}$ |



## Round pins for 9022/18 Ton

They are composed by a special pin and a lock nut. This lock nut is screwed over the punch in order to lighten the strain of the punch. They are suited for HD punches only.

| Code | Ø mm | Ø pare-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 1 0 / 1 1}$ | 11 | 13 |
| $\mathbf{9 6 1 0 / 1 6}$ | 16 | 12 |
| $\mathbf{9 6 1 0 / 2 7}$ | 27 | 27,5 |



## Manual punching kit

## 9853 <br> Manual kit ISO

On request manual pins and punches of different diameters can be supplied.
The kit is equipped with a special pawl wrench to facilitate the punching operation.


| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{9 2 0 2}$ | Punch $\emptyset 16,2$ | 1 |
| $\mathbf{9 2 1 0}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{9 2 1 2}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{9 2 1 6}$ | Punch $\emptyset 25,5$ | 1 |
| $\mathbf{9 2 2 8}$ | Punch $\emptyset 32,5$ | 1 |
| $\mathbf{9 6 4 2}$ | Manual pins $\emptyset 9$ | 1 |
| $\mathbf{9 6 4 3}$ | Manual pins $\emptyset 11$ | 1 |
| $\mathbf{9 6 4 4}$ | Manual pins $\emptyset 16$ | 1 |
| $\mathbf{9 1 8 0}$ | Drill $\emptyset 12$ and $\emptyset 17$ | 1 |
| $\mathbf{9 8 7 0}$ | Pawl wrench with 2 bushes 1 |  |
| $\mathbf{9 8 2 6}$ | Case | 1 |

## Manual pins

For small needs or where it is impossible to use Multifor pumps, manual pins are available. With the help of a wrench, they can punch thickness max. $1,5 \mathrm{~mm}$.
These pins are suggested until a $\emptyset 50,5 \mathrm{~mm}$ max.


| Code | Ø mm | Ø pre-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 4 2}$ | 9 | 10 |
| $\mathbf{9 6 4 3}$ | 11 | 12 |
| $\mathbf{9 6 4 4}$ | 16 | 17 |

## Punch with handle for thin sheets and down pipes

9570 Punch $\emptyset 79$
9572 Punch $\emptyset 98$
9875 Wrench


## Standard round pins

Round punches use pins in the list. It is essential that the pre-hole is increased by about 1 mm .


| Code | Ø mm | Ø Pre-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 0 1}$ | 9 | 10 |
| $\mathbf{9 6 0 2}$ | 11 | 12 |
| $\mathbf{9 6 0 3}$ | 16 | 17 |

## Standard round punches

These round punches are made of special tempered steel. They have cutting edges with 3 or 4 bits and they can realize holes in sheet steel from 0,5 to 2 mm . max.- in stainless steel from 0,5 to $1,8 \mathrm{~mm}$ max - in aluminium, plastic laminates or other material from 0,5 to 5 mm .
For greater material thickness, recommend to use our HD series.
The holes are built with the maximum precision and without bucking; all punches are stamped with its nominal $\emptyset$ for an easy selection and to avoid mistakes during the use.
Male and female spares are available. It is sufficient to add to the code "M "or "F".

Please contact our Technical Department for thicker material.


| Code | $\emptyset$ punch | $\emptyset$ pin | Ø pre-hole | Male spare | Suitable with |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 9022 | 9022/18ton | 9070 | 90705 |
| 9200 | 13 | 9 | 10 | 9200M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9192 | 15,5 | 9 | 10 | 9192M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9202 | 16,2 | 9 | 10 | 9202M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9204 | 17 | 9 | 10 | 9204M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9206 | 18,5 | 11 | 12 | 9206M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9208 | 19,5 | 11 | 12 | 9208M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9210 | 21 | 11 | 12 | 9210M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9212 | 22,5 | 11 | 12 | 9212M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9214 | 24 | 11 | 12 | 9214M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9216 | 25,5 | 11 | 12 | 9216M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9218 | 26,5 | 11 | 12 | 9218M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9220 | 27,5 | 11 | 12 | 9220M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9222 | 28,5 | 11 | 12 | 9222M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9224 | 30,5 | 11 | 12 | 9224M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9226 | 30,5 | 16 | 17 | 9226M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9228 | 32,5 | 16 | 17 | 9228M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9230 | 33,5 | 16 | 17 | 9230M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9232 | 35,5 | 16 | 17 | 9232M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9194 | 37 | 16 | 17 | 9194M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9234 | 38,5 | 16 | 17 | 9234M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9236 | 40,5 | 16 | 17 | 9236M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9238 | 42,5 | 16 | 17 | 9238M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9240 | 45,5 | 16 | 17 | 9240M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9196 | 47 | 16 | 17 | 9196M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9242 | 48,5 | 16 | 17 | 9242M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9244 | 50,5 | 16 | 17 | 9244M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9246 | 52,5 | 16 | 17 | 9246M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9248 | 54,2 | 16 | 17 | 9248M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9250 | 55,5 | 16 | 17 | 9250M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9252 | 57,5 | 16 | 17 | 9252M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9198 | 59,5 | 16 | 17 | 9198M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9254 | 60,5 | 16 | 17 | 9254M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9256 | 62,5 | 16 | 17 | 9256M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9258 | 65 | 16 | 17 | 9258M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9260 | 68 | 16 | 17 | 9260M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9262 | 70,5 | 16 | 17 | 9262M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9264 | 72,5 | 16 | 17 | 9264M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |

*The dimensions of the punches are suitable for our standard max. thickness. The possibility is reduced with different material and thickness.

Round HD punches


These punches have the same characteristics of our standard ones. These have the passer-by hole and not threaded, in order to lighten the strain of
the punch. They are used with their pins and they make holes on the sheet steel from 0,5 to $2,5 \mathrm{~mm}$ max. and on stainless steel 2 mm max.

Male and female spares are availabe. It is sufficient to add the code " $M$ " and " $F$ ".
Please contact our IMB Technical
Department for thicker material.

| Code | $\begin{gathered} \text { punch } \end{gathered}$ | $\begin{gathered} \emptyset \\ \text { pin } \end{gathered}$ | 0 prehole | Male spare | Suitable with |  |  |  | Code | $\begin{gathered} \text { ø } \\ \text { punch } \end{gathered}$ | $\begin{gathered} \emptyset \\ \text { pin } \end{gathered}$ | $\sigma$ prehole | Male spare | Suitable with |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 9022 | $\begin{aligned} & \text { 9022/ } \\ & \text { 18ton } \end{aligned}$ | 9070 | 9070E |  |  |  |  |  | 9022 | $\begin{aligned} & \text { 9022/ } \\ & \text { 18ton } \end{aligned}$ | 9070 | 9070E |
| 9201 | 13 | 9 | 10 | 9201M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ | 9251 | 55,5 | 16 | 17 | 9251M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9193 | 15,5 | 9 | 10 | 9193M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ | 9253 | 57,5 | 16 | 17 | 9253M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9203 | 16,2 | 9 | 10 | 9203M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ | 9199 | 59,5 | 16 | 17 | 9199M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9205 | 17 | 9 | 10 | 9205M | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ | 9255 | 60,5 | 16 | 17 | 9255M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9207 | 18,5 | 11 | 12 | 9207M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9257 | 62,5 | 16 | 17 | 9257M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9209 | 19,5 | 11 | 12 | 9209M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9259 | 65 | 16 | 17 | 9259M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9211 | 21 | 11 | 12 | 9211M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9261 | 68 | 16 | 17 | 9261M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9213 | 22,5 | 11 | 12 | 9213M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9263 | 70,5 | 16 | 17 | 9263M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9215 | 24 | 11 | 12 | 9215M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9265 | 72,5 | 16 | 17 | 9265M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9217 | 25,5 | 11 | 12 | 9217M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9266 | 76 | 27 | 27,5 | 9266M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9219 | 26,5 | 11 | 12 | 9219M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9268 | 78 | 27 | 27,5 | 9268M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9221 | 27,5 | 11 | 12 | 9221M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9270 | 80,5 | 27 | 27,5 | 9270M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9223 | 28,5 | 11 | 12 | 9223M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9272 | 82 | 27 | 27,5 | 9272M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9225 | 30,5 | 11 | 12 | 9225M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9274 | 87 | 27 | 27,5 | 9274M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9227 | 30,5 | 16 | 17 | 9227M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9276 | 90 | 27 | 27,5 | 9276M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9229 | 32,5 | 16 | 17 | 9229M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9278 | 92 | 27 | 27,5 | 9278M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9231 | 33,5 | 16 | 17 | 9231M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9280 | 96 | 27 | 27,5 | 9280M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9233 | 35,5 | 16 | 17 | 9233M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9282 | 100,5 | 27 | 27,5 | 9282M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9195 | 37 | 16 | 17 | 9195M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9284 | 103 | 27 | 27,5 | 9284M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9235 | 38,5 | 16 | 17 | 9235M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9286 | 105 | 27 | 27,5 | 9286M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9237 | 40,5 | 16 | 17 | 9237M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9288 | 113 | 27 | 27,5 | 9288M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9239 | 42,5 | 16 | 17 | 9239M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9290 | 116 | 27 | 27,5 | 9290M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9241 | 45,5 | 16 | 17 | 9241M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9291 | 120 | 27 | 27,5 | 9291M | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9197 | 47 | 16 | 17 | 9197M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9292 | 134 | 27 | 27,5 | 9292M | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| 9243 | 48,5 | 16 | 17 | 9243M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9293 | 140 | 27 | 27,5 | 9293M | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| 9245 | 50,5 | 16 | 17 | 9245M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9294 | 145 | 27 | 27,5 | 9294M | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| 9247 | 52,5 | 16 | 17 | 9247M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9295 | 160 | 27 | 27,5 | 9295M | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| 9249 | 54,2 | 16 | 17 | 9249M | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | 9296 | 170 | 27 | 27,5 | 9296M | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |

*The dimensions of the punches are suitable for our standard max. thickness. The possibility is reduced with different material and thickness.

Round pins for HD punches
They are composed by a threaded pin and lock nut, which is screwed over the HD punch in order to lighten the strain of the punch


| Code | Ø $\mathbf{~ m m}$ | Ø pre-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 1 1}$ | 9 | 10 |
| $\mathbf{9 6 1 2}$ | 11 | 12 |
| $\mathbf{9 6 1 3}$ | 16 | 17 |
| $\mathbf{9 6 1 4}$ | 27 | 27,5 |

## Square punches

These punches have a special feature on male parts as they have four cutting edges on the mid points.
This patented technical innovation allows a better self-centring, a faster perforation with less strain. This is a guarantee for the tool life.
These punches realize holes on sheet of stainless steel from 0, 5 to $2,0 \mathrm{~mm}$ max. and on aluminium, laminated plastics or other sheet materials from 0,5 to 5 mm

Please contact our Technical Department for thicker material.

*The dimensions of the punches are suitable for our standard max. thickness. The possibility is reduced with different material and thickness.

Pins for square punches
Please use square pins for square punches (see the list ).
It is essential to do the pre-hole indicated.

| Code | Pin size | Ø pre-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 2 1}$ | $6 \times 6$ | 9 |
| $\mathbf{9 6 2 2}$ | $8 \times 8$ | 11 |
| $\mathbf{9 6 2 3}$ | $10 \times 10$ | 15 |
| $\mathbf{9 6 2 4}$ | $12 \times 12$ | 17 |
| $\mathbf{9 6 2 5}$ | $14 \times 14$ | 19,5 |
| $\mathbf{9 6 2 6}$ | $20 \times 20$ | 27,5 |
| $\mathbf{9 6 2 7}$ | $22 \times 22$ | 28,5 |



Pins for square punches
9022/18Ton

| Code | Pin size | Ø pre-hole |
| :---: | :---: | :---: |
| $\mathbf{9 6 2 0 / 1 4}$ | $14 \times 14$ | 19,5 |
| $\mathbf{9 6 2 0 / 2 0}$ | $20 \times 20$ | 27,5 |
| $\mathbf{9 6 2 0 / 2 2}$ | $22 \times 22$ | 28,5 |

## Rectangular punches

These punches have a special feature on male part as they have four cutting edges on the mid points.
This patented technical innovation allows a better self-centring, a faster perforation with less strain. This is a guarantee for the tool life.
These punches realize holes on sheet of stainless steel from 0, 5 to 2,0 mm max. and on aluminium, laminated plastics or other sheet materials from 0,5 to 5 mm .

Please contact our Technical Department for thicker material.


| Code | Punch size | Pin size | $\emptyset$ pre-hole | Suitable with |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 9022 | 9022/18ton | 9070 | 9070E |
| 9405 | 17,5x33,5 | 10x10 | 15 | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9410 | $20 \times 41$ | $10 \times 10$ | 15 | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9412 | $22 \times 30$ | 10x10 | 15 | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9411 | $22 \times 42$ | 10×10 | 15 | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9414 | $22 \times 46$ | 10x10 | 15 | $\checkmark$ | $\times$ | $\checkmark$ | $\checkmark$ |
| 9417 | $24 \times 36$ | $14 \times 14$ | 19,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 94/29x71 | $29 \times 71$ | 20x20 | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9421 | $30 \times 45$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9425 | $34 \times 68$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9428 | $36 \times 46$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9431 | $36 \times 85$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9433 | $36 \times 52$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9434 | $36 \times 112$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9443 | $44 \times 92$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9452 | $45 \times 93$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9450 | 46x53,5 | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9451 | $46 \times 71$ | $20 \times 20$ | 27,5 | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 9459 | $50 \times 98$ | 20x20 | 27,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\checkmark$ |
| 9478 | $68 \times 138$ | $22 \times 22$ | 28,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| 9485 | $81 \times 117$ | $22 \times 22$ | 28,5 | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |

*The dimensions of the punches are suitable for our standard max. thickness. The possibility is reduced with different material and thickness.

## Pins with reference mark

## for rectangular punches

Rectangular punches use square pins with a reference mark to avoid punch positioning mistakes.

| Code | Lato $\mathbf{x}$ lato | Ø preforo |
| :---: | :---: | :---: |
| $\mathbf{9 6 3 1}$ | $6 \times 6$ | 9 |
| $\mathbf{9 6 3 2}$ | $8 \times 8$ | 11 |
| $\mathbf{9 6 3 3}$ | $10 \times 10$ | 15 |
| $\mathbf{9 6 3 4}$ | $12 \times 12$ | 17 |
| $\mathbf{9 6 3 5}$ | $14 \times 14$ | 19,5 |
| $\mathbf{9 6 3 6}$ | $20 \times 20$ | 27,5 |
| $\mathbf{9 6 3 7}$ | $22 \times 22$ | 28,5 |



Pins with reference mark for rectangular punches 9022/18Ton

| Code | Pin size | Ø pre-hole |
| :---: | :---: | :---: |
| 9620/14R | $14 \times 14$ | 19,5 |
| $\mathbf{9 6 2 0 / 2 0 R}$ | $20 \times 20$ | 27,5 |
| $\mathbf{9 6 2 0 / 2 2 R}$ | $22 \times 22$ | 28,5 |

## Special and shaped punches

We have built special punches for mounting handles, locks and push buttons. These punches can be used with our perforation cylinder 9022 , with the manual puncher 9070 and with the electric puncher 9070E.


| Code | Description | Pin | Pin type |
| :---: | :--- | :---: | :---: |
| $\mathbf{9 5 5 2}$ | for $19,5 \mathrm{~mm}$ locks | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 5 4}$ | for $20,5 \mathrm{~mm}$ locks | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 5 6}$ | for $22,5 \mathrm{~mm}$ locks | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 5 7}$ | for $22,5 \mathrm{~mm}$ locks | $10 \times 10$ | $\mathbf{9 6 2 3}$ |
| $\mathbf{9 5 5 8}$ | for $21,5 \mathrm{~mm}$ handle | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 5 9}$ | for $22,5 \mathrm{~mm}$ handle | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 6 0}$ | for $22,5 \mathrm{~mm}$ push button | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 6 1}$ | for 22,5 mm handle | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 6 2}$ | for $30,5 \mathrm{~mm}$ push button | $14 \times 14$ | $\mathbf{9 6 3 5}$ |
| $\mathbf{9 5 6 4}$ | with cave 22,3 | $10 \times 10$ | $\mathbf{9 6 3 3}$ |
| $\mathbf{9 5 6 5}$ | with cave 30,5 | $14 \times 14$ | $\mathbf{9 6 3 5}$ |
| $\mathbf{9 5 6 6}$ | for 16A CEE sockets | $20 \times 20$ | $\mathbf{9 6 3 6}$ |
| $\mathbf{9 5 6 8}$ | for 32 A CEE sockets | $20 \times 20$ | $\mathbf{9 6 3 6}$ |

9552


9558


9562


9554


9559


9564


9556


9560


9565


9557


9561


Sizes on request


## Special rectangular punches

We designed with the same features of the standard punches, special punches but with bevelled or with radius corners in most of the common sizes. When ordering, it is important to specify the material and the thickness to punch.

| Code | Description | Pin size | $\boldsymbol{\sigma}$ <br> pre-hole |
| :--- | :--- | :---: | :---: |
| $\mathbf{9 4 9 5}$ | $70,5 \times 117,5$ with bevel $\mathrm{L}=15$ | $20 \times 20$ | 27,5 |
| $\mathbf{9 4 9 6}$ | $40 \times 90 \mathrm{R}=4$ with radius | $20 \times 20$ | 27,5 |
| $\mathbf{9 4 9 7}$ | $51 \times 118 \mathrm{R}=4$ with radius | $20 \times 20$ | 27,5 |
| $\mathbf{9 4 9 9}$ | $107 \times 119 \mathrm{R}=4$ with radius | $20 \times 20$ | 28,5 |

## Punches for D-Sub connectors

Pin for cylinder 9022 -code 9648 Manual pin - code 9649
Pre-hole Ø 13


## Punching cylinder for cable channels and boxes

## TECHNICAL APPLICATION



## 7001

## Manual punching cylinder for cable channels



It is a reliable and practical tool for punching cable channels in steel and plastic sheets without prehole.
It is composed by an hydraulic manual pump with incorporated cylinder. Light and easily handled. Designed for punching the edges of cable channels with max. thickness $1,2 \mathrm{~mm}$. and maximum $\emptyset 41 \mathrm{~mm}$.
A special punch can be installed to make holes on the extremities of cable channels for junctions,
without tracing wheelbases (7040).
Please specify the trademark of the cable channel when ordering.
It can punch several types of metal sheet.
It is equipped with a plastic case.
On request, we can design special punches for stainless steel channels.

We make punches for clinching on demand.

Technical Characteristics

| Power | 28 kN |
| :--- | :---: |
| Max. hole | 41 mm |
| Internal depth | 50 mm |
| External depth | 25 mm |
| Max. thickness steel | $1,2 \mathrm{~mm}$ |
| Stroke | 16 mm |
| Weight | $3,8 \mathrm{Kg}$ |
| Rotating head | $290^{\circ}$ |

Kit


## 7002

## Hydraulic punching cylinder for cable channels

It is a reliable and practical tool for punching cable channels in steel and plastic sheets without prehole.
It is composed by an hydraulic cylinder which works connected to our power units. Light and easily handled. It has been designed for punching the edges of cable channels with max. thickness $1,2 \mathrm{~mm}$. and maximum $\emptyset 41 \mathrm{~mm}$.
It is possible to install a special punch in order to do holes on the extremity of cable channels for junctions, without tracing wheelbases (7040). On request, we can realize special punches for stainless steel channels.


## 7009

## Punching cylinder for cable channels with battery

It is a reliable and practical tool for punching cable channels in steel and plastic sheets without pre－hole． It is composed by an hydraulic pump supllied with an indipendent battery．Light and easily handled． It has been studied for punching the edges of cable channels with max．thickness $1,2 \mathrm{~mm}$ ．and maximum $\emptyset 41 \mathrm{~mm}$ ．
A special punch can be installed to make holes on the extremities of cable channels for junctions， without tracing wheelbases（7040）．
It can punch different types of metal sheets．

## It is equipped with a plastic case and a battery charger code 9843

On request，it is possible to make special punches for stainless steel．

| Characteristics |  |
| :--- | :---: |
| Power | 32 kN |
| Max．hole | 41 mm |
| Internal depht | 50 mm |
| External depht | 25 mm |
| Max．thickness steel | $1,2 \mathrm{~mm}$ |
| Stroke | 16 mm |
| Weight | 5 Kg |
| Rotating head | $325^{\circ}$ |
| Autonomy | about |
|  | 140 punching |



## Accessories



9829
Case for punching cylinders with battery


7099
Adapter／Punch holder

9843
Battery charger 18 V （recharge 1 h．）



Rechargeable battery 18 V ．

9825
Case for manual punching cylinders

## Punching cylinder for bottom channels

It is a tool designed for punching the bottom cable channels and edges of particular boxes.
It can also punch sheet in aluminium and plastic.
Principal characteristic, it is the possibility of punching without pre-hole.
It is built in light alloy; it is handy and the introduction of the cable
channel is very simple.

The metal tube carrying the dies is sliding in order to facilitate the placement in channels already mounted.
With a simple manual operation, one takes the die on the part to punch, reducing the punching time in few seconds.

## 7060

It works with a pump with battery 18 V CC. The rotating cylinder is included.
Weight 7 Kg .

| Characteristics |  |
| :--- | :---: |
| Power | 28 kN |
| Stroke | 16 mm |
| Max.hole | $\emptyset 33,5 \mathrm{~mm}$ |
| Max.thickness steel | $1,2 \mathrm{~mm}$ |
| Internal depth | 50 mm |
| External depth | 35 mm |
| Total depht | 85 mm |



## 7061

Manual tool, it works with a pump. The rotating cylinder is included.
Weight Kg. 5,2

| Characteristics |  |
| :--- | :---: |
| Power | 28 kN |
| Stroke | 16 mm |
| Max. hole | $\emptyset 33,5 \mathrm{~mm}$ |
| Max. thickness steel | $1,2 \mathrm{~mm}$ |
| Internal depth | 50 mm |
| External depth | 35 mm |
| Total depht | 85 mm |



## 7062

It is composed by an oleodynamic cylinder, which can operate with all our power units: foot pedal, pneumatic pump or electric unit. Weight kg. 4,8

| Characteristics |  |
| :--- | :---: |
| Power | 28 kN |
| Stroke | 16 mm |
| Max. hole | $\emptyset 33,5 \mathrm{~mm}$ |
| Max. thickness steel | $1,2 \mathrm{~mm}$ |
| Internal depth | 50 mm |
| External depth | 35 mm |
| Total depht | 85 mm |



## Round punches for punching cylinders for cable channels

|  | Round Punches |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Code | 0 | Type of punch | Die dischage |
|  | 7010/13 | 13 | Direct | Direct |
|  | 7010/15,5 | 15,5 | Direct | Direct |
|  | 7011 | 16,5 | Adapter | Direct |
|  | 7012 | 17 | Adapter | Direct |
|  | 7013 | 18,5 | Adapter | Direct |
|  | 7014 | 19,5 | Adapter | Direct |
|  | 7015 | 21 | Adapter | Direct |
|  | 7016 | 22,5 | Adapter | Direct |
|  | 7017 | 24 | Adapter | Direct |
| Patented Model of memer | 7018 | 25,5 | Adapter | Direct |
|  | 7019 | 26,5 | Adapter | Direct |
|  | 7020 | 27,5 | Adapter | Direct |
|  | 7021 | 28,5 | Adapter | Direct |
|  | 7022 | 30,5 | Adapter | Direct |
|  | 7023 | 32,5 | Adapter | Direct |
|  | 7024 | 33,5 | Adapter | Direct |
|  | 7010/37 | 37 | Adapter | Direct |
|  | 7010/41 | 41 | Adapter | Front assembly |


| GAS Channel puncher kit - $\mathbf{7 0 0 3}$ |  |  |
| :--- | :--- | :---: |
| Battery - 7003E |  |  |
| Code | Description | Quantity |
| $\mathbf{7 0 0 1 / 9}$ | Channel Puncher | 1 |
| $\mathbf{7 0 1 2}$ | Punch $\emptyset 17$ | 1 |
| $\mathbf{7 0 1 5}$ | Punch $\emptyset 21$ | 1 |
| $\mathbf{7 0 1 9}$ | Punch $\emptyset 26,5$ | 1 |
| $\mathbf{7 0 2 4}$ | Punch $\emptyset 33,5$ | 1 |
| $\mathbf{9 8 2 5 / 9}$ | Case | 1 |


| Code | Description | Quantity |
| :---: | :---: | :---: |
| 7001/9 | Channel Puncher | 1 |
| 7013 | Punch $\emptyset 18,5$ | 1 |
| 7015 | Punch Ø 21 | 1 |
| 7016 | Punch Ø 22,5 | 1 |
| 7021 | Punch Ø 28,5 | 1 |
| 9825/9 | Case | 1 |


| ISO Channel puncher kit - 7005 Battery-7005E |  |  |
| :---: | :---: | :---: |
| Code | Description | Quantity |
| 7001/9 | Channel Puncher | 1 |
| 7011 | Punch Ø 16,5 | 1 |
| 7015 | Punch $\emptyset 21$ | 1 |
| 7016 | Punch Ø 22,5 | 1 |
| 7018 | Punch Ø 25,5 | 1 |
| 7023 | Punch Ø 32,5 | 1 |
| 9825/9 | Case | 1 |

On demand, we realise punches for clinching process. Please contact our Technical Department for special requests.

Special punch for double oval holes for channel junctions. 7040


With this special punch 7040 , it is possible to realize oval holes for channel junctions.
The die has a reference in oder to punch with the standard interaxis. Its performance is the faster as the one of standard punches.
It doesn't leave any burrs on the cable channels. This punch 7040 can be used on all our standard heads 7000


## Punching cylinders for boxes

## Portable and rapid tool, without pre-hole

## 7050

It is a handy and rapid tool, particularly indicated for the punching of plastic boxes with internal ribbing.
It doesn't need the pre-hole and the extraction of the punch is easy. It is composed by a hydraulic system. It is equipped with a particularly head realized to enter in the little spaces between the ribbing.
It is used in workshops or on-site.
Patented Model


| Technical Characteristics |  |
| :--- | :---: |
| Power | 28 kN |
| Weight | $3,7 \mathrm{Kg}$ |
| Head rotation | $290^{\circ}$ |
| Internal depth | 50 mm |
| Round hole max | $\emptyset 32,5 \mathrm{~mm}$ |
| Thickness sheet max. | $1,2 \mathrm{~mm}$ |
| Thickness plastic max. | 3 mm |

## 7051

It is a handy and rapid tool, particularly indicated for the punching of plastic boxes with internal ribbing.
It doesn't need the pre-hole and the extraction of the punch is easy. It is composed by a hydraulic system which works with any of our power units. It is equipped with a particularly head realized to enter in the little spaces between the ribbing. It is used in workshops or on-site.
Patented Model


| Characteristics |  |
| :--- | :---: |
| Power | 34 kN |
| Weight | $3,2 \mathrm{Kg}$ |
| Head rotation | $360^{\circ}$ |
| Internal depth | 50 mm |
| Round hole max | $\emptyset 32,5 \mathrm{~mm}$ |
| Thickness sheet max. | $1,2 \mathrm{~mm}$ |
| Thickness plastic max. | 3 mm |

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## 7052

It is a handy and rapid tool, particularly indicated for the punching of plastic boxes with internal ribbing.
It doesn't need the pre-hole and the extraction of the punch is easy. It is composed by a hydraulic system which works with a battery 18 V . It is equipped with a particularly head realized to enter in the little spaces between the ribbing. It is used in workshops or on-site. Patented Model


| Characteristics |  |
| :--- | :---: |
| Power | 32 kN |
| Weight | $4,9 \mathrm{Kg}$ |
| Head rotation | $325^{\circ}$ |
| Internal depth | 50 mm |
| Round hole max | $\emptyset 32,5 \mathrm{~mm}$ |
| Thickness sheet max. | $1,2 \mathrm{~mm}$ |
| Thickness plastic max. | 3 mm |

## 7053

## Punching cylinder for boxes

## With adjustments for positioning

It has the same characteristics of the other punching cylinders for boxes, but this tool has the rulers with sliders for repetitive working. These rulers simplify the work.

It can be used also without adjustments

It is an easy tool for punching in particularly uncomfortable positions. It can be used also for cable channels, panels, panel boards already in operation. It is very easy to disassemble the brackets.

| Characteristics |  |
| :--- | :---: |
| Power | 34 kN |
| Weight | $3,2 \mathrm{Kg}$ |
| Head rotating | $360^{\circ}$ |
| Internal depth | 50 mm |
| Round hole max. | $\emptyset 32,5 \mathrm{~mm}$ |
| Plastic thickness max. | 3 mm |
| Adjustment | min. 33 mm, |
|  | max 300 mm |

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## Punches and kit

Kit manual puncher for boxes ISO - 7006

| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{7 0 5 0}$ | Puncher | 1 |
| $\mathbf{7 2 9 9 / 1 6 , 5}$ | Punch $\varnothing 16,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 0 , 5}$ | Punch $\varnothing 20,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 2 , 5}$ | Punch $\varnothing 22,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 5 , 2}$ | Punch $\varnothing 25,2$ | 1 |
| $\mathbf{9 8 2 5}$ | Case | 1 |

Punches for punching cylinder for boxes

Kit puncher for boxes with
battery ISO - 7006E

| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{7 0 5 2}$ | Puncher | 1 |
| $\mathbf{7 2 9 9 / 1 6 , 5}$ | Punch $\varnothing 16,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 0 , 5}$ | Punch $\varnothing 20,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 2 , 5}$ | Punch $\varnothing 22,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 5 , 2}$ | Punch $\emptyset 25,2$ | 1 |
| $\mathbf{9 8 2 9}$ | Case | 1 |

Kit puncher for boxes with adjustments ISO-7007

| Code | Description | Quantity |
| :--- | :--- | :---: |
| $\mathbf{7 0 5 3}$ | Puncher | 1 |
| $\mathbf{7 2 9 9 / 1 6 , 5}$ | Punch $\emptyset 16,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 0 , 5}$ | Punch $\emptyset 20,5$ | 1 |
| $\mathbf{7 2 9 9 / 2 2 , 5}$ | Punch $\emptyset 22,5$ | 1 |
| $\mathbf{7 2 9 9} / \mathbf{2 5 , 2}$ | Punch $\emptyset 25,2$ | 1 |


| Code | Ø Diameter |
| :--- | :---: |
| $\mathbf{7 2 9 9 / 1 3}$ | 13 |
| $\mathbf{7 2 9 9 / 1 5 , 5}$ | 15,5 |
| $\mathbf{7 2 9 9 / 1 6 , 5}$ | 16,5 |
| $\mathbf{7 2 9 9 / 1 8 , 5}$ | 18,5 |
| $\mathbf{7 2 9 9 / 2 0 , 5}$ | 20,5 |
| $\mathbf{7 2 9 9 / 2 2 , 5}$ | 22,5 |
| $\mathbf{7 2 9 9 / 2 5 , 2}$ | 25,5 |
| $\mathbf{7 2 9 9 / 2 6 , 5}$ | 26,5 |
| $\mathbf{7 2 9 9 / 2 8 , 5}$ | 28,5 |
| $\mathbf{7 2 9 9 / 3 2 , 5}$ | 32,5 |



Cable cutting shears

## TECHNICAL APPLICATION



## Cable cutting shears

## Copper and aluminium until $\varnothing 95 \mathrm{~mm}$.

The cable cutting shears are hydraulically operated tools for cutting copper and aluminium cables of different sizes or compositions, plain or insulated with PVC covering up to $800-\mathrm{mmq}$ section.

These tools are also availble with insulated version with grounding cable. All the cable cutting shears are equipped with protection carter.

## 9030

The 9030 cable cutting shears works with the cylinder 9022 and with all our power units. It is sufficient to screw well its pin on the cylinder before starting to work.


| Characteristics |  |
| :--- | :---: |
| Lenght | 410 mm |
| Width | 150 mm |
| Cable | $\emptyset$ from 10 to 48 mm |
| Weight with cylinder | $5,2 \mathrm{Kg}$ |
| Power | 80 kN |
| Max. working pressure | $650 \div 700 \mathrm{bar}$ |
| Oil capacity for a | $0,080 \mathrm{lt}$. |

## 9032

The cable cutting shears 9032 cuts cables until $\emptyset 48 \mathrm{~mm}$.
Thanks to its rapid connector, it works with all our power units.
It is equipped with a clear protection carter which allows to see the working area. It is handy thanks to its light weight.

| Characteristics |  |
| :--- | :---: |
| Lenght | 300 mm |
| Width | 150 mm |
| Cable | $\emptyset$ from 10 to 48 mm |
| Weight | $5,2 \mathrm{Kg}$ |
| Power | 80 kN |
| Max. working pressure | $650 \div 700 \mathrm{bar}$ |
| Oil capacity for a <br> complete stroke | $0,050 \mathrm{lt}$. |

## 9034

The cable cutting shears 9034 cuts cables until $\emptyset 95 \mathrm{~mm}$.
Thanks to its rapid connector, it works with all our power units.
It is equipped with a clear protection carter which allows to see the working area.
The transport is easy thanks to its handle.
This cable is an insulated version with grounding cable.

| Characteristics |  |
| :--- | :---: |
| Lenght | 400 mm |
| Width | 270 mm |
| Cable | $\emptyset$ from 30 to 95 mm |
| Weight | $10,1 \mathrm{Kg}$ |
| Power | 150 kN |
| Max. working pressure | $650 \div 700 \mathrm{bar}$ |
| Oil capacity for a <br> complete stroke | $0,140 \mathrm{It}$. |
| Fornita con cassetta $\mathbf{9 8 2 3}$ |  |

## 9035

The cable cutting shears with battery 9035 cuts cables until $\emptyset 25 \mathrm{~mm}$.
Thanks to its weight and to its balance, it is easy to handle it with a hand.
The battery has an autonomy of about 150 cuts (depending on working conditions).
It is equipped with a plastic case, a battery charger and a battery 18 V 2 Ah .
A second battery can be delivered on demand.


| Characteristics |  |
| :--- | :---: |
| Lenght | 300 mm |
| Width | 75 mm |
| Height | 280 mm |
| Power | 55 kN |
| Weight | $3,4 \mathrm{Kg}$ |
| Cable | $\emptyset 25 \mathrm{~mm} \mathrm{max}$ |
| Battery | 18 V 2.0 Ah |
| Autonomy | about 150 cuts |

## Cable cutting shears

## HIGH OUALITY CABLE CUTTING SHEARS WITH BENDED AND INTERCHANGEABLE BLADES

9980
For copper and aluminium cables up to $\emptyset 20 \mathrm{~mm}$ and max. section for connectors
120 mmq .
Lenght 370 mm
Weight $0,650 \mathrm{Kg}$


9981
For copper and aluminium cables up to $\emptyset 35 \mathrm{~mm}$ and max. section for connectors 180 mmq .
Lenght 530 mm
Weight $1,5 \mathrm{Kg}$


9982
For copper and

## CABLE CUTTING SHEARS WITH INSULATED HANDLES

9983
For copper and aluminium cables up to $\emptyset 20 \mathrm{~mm}$ and max section for connectors 120 mmq.
Lenght 370 mm
Weight $0,750 \mathrm{Kg}$


9984
For copper and aluminium cables up to $\emptyset 35$ and max section for connectors 180 mmq .
Lenght 530 mm
Weight $1,8 \mathrm{Kg}$


9985
For copper and aluminium cables up to $\emptyset 50 \mathrm{~mm}$ and max section for connectors 500 mmq .
Lenght 780 mm
Weight $3,8 \mathrm{Kg}$

## CABLE CUTTING SHEARS WITH FORGED BLADES

## 9986

It cuts aluminium and copper cables up to Ø 38 mm .

## Maximum section

180 mmq .
Weight $0,8 \mathrm{Kg}$


9987
It cuts aluminium and copper cables up to Ø 45 mm .

## Maximum section

240 mmq .
Weight $0,9 \mathrm{Kg}$


9988
It cuts rigid wire ropes up to $\emptyset 14$ mm and flexible metal cables up to $\emptyset 16 \mathrm{~mm}$.
Weight $0,8 \mathrm{Kg}$


## Crimping tools

## TECHNICAL APPLICATION



CRIMPING OF A COPPER BRAID

## 9028

## Manual crimping tool

It is a tool operated with one hand.
Its power, capacity and lightness, make a
tool fitted for all type of crimping for copper
conductors.
It is equipped with a case.


| Characteristics |  |
| :---: | :---: |
| Power | 35 kN |
| Capacity | until $120 \mathrm{~mm}^{2}$ |
| Stroke of the piston | adjustable from 5 to 8 mm |
| Hydraulic system | with two speeds |
| Valve | automatic of max. pressure audible with a "click" |
| Return of the piston | with the help of a discharge lever |
| Weight | $1,5 \mathrm{Kg}$ |
| Head | with $360^{\circ}$ rotation with rapid opening and closing |
| Dies | interchangeable |

## 9038

## Crimping tool with battery

It is a tool operated with one hand.
Light and handy, it has the necessary strengh to crimp cables max. section up to 240 mmq. It has a relief valve with automatic return when
the crimping is completed and a valve for the manual return.
Available on request, "V" dies with semicircular or circular punch.


| Characteristics |  |
| :--- | :---: |
| Dimensions | $285 \times 60 \times 270 \mathrm{~mm}$ |
| Weight | $3,15 \mathrm{~kg}$ with battery |
| Power | 55 kN |
| Piston stroke | 13 mm |
| Tempo di aggraffatura | $3 \div 5 \mathrm{~s}$ |
| Autonomy | about 220 crimpings <br> (on section 185 <br> mmq |

## Dies and crimping kit 9028



## Hexagonal dies

They are used for the crimping of non-insulated tube terminals and head connectors. Supplied in pair.

| Cable section mmq | Die code |
| :---: | :---: |
| 10 | $\mathbf{9 9 0 1}$ |
| 16 | $\mathbf{9 9 0 2}$ |
| 25 | $\mathbf{9 9 0 3}$ |
| 35 | $\mathbf{9 9 0 4}$ |
| 50 | $\mathbf{9 9 0 5}$ |
| 70 | $\mathbf{9 9 0 6}$ |
| 95 | $\mathbf{9 9 0 7}$ |
| 120 | $\mathbf{9 9 0 8}$ |

V Crimping Kit 9867

| Code | Description | Quantity |
| :---: | :---: | :---: |
| $\mathbf{9 0 2 8}$ | Crimping tool | 1 |
| $\mathbf{9 9 1 2}$ | Die 10 | 1 |
| $\mathbf{9 9 1 3}$ | Die 16 | 1 |
| $\mathbf{9 9 1 4}$ | Die 25 | 1 |
| $\mathbf{9 9 1 5}$ | Die 35 | 1 |
| $\mathbf{9 9 1 6}$ | Die 50 | 1 |
| $\mathbf{9 9 1 7}$ | Die 70 | 1 |
| $\mathbf{9 9 1 8}$ | Die 95 | 1 |
| $\mathbf{9 9 1 9}$ | Die 120 | 1 |
| $\mathbf{9 9 1 0}$ | Punch | 1 |
| $\mathbf{9 9 1 1}$ | Punch | 1 |



## V dies and punches

These are used for ther crimping of non-insulated tube terminals and head connectors. Supplied separately.

| Cable <br> sect. | Non-insulated |  | Pre-insulated |  |
| :---: | :---: | :---: | :---: | :---: |
| mmq. | Code | Code | Code | Code |
| Cunch | die | Punch |  |  |
| 10 | $\mathbf{9 9 1 2}$ | 9910 | $\mathbf{9 9 1 3}$ | 9910 |
| 16 | $\mathbf{9 9 1 3}$ | 9910 | $\mathbf{9 9 1 4}$ | 9910 |
| 25 | $\mathbf{9 9 1 4}$ | 9910 | $\mathbf{9 9 1 5}$ | 9910 |
| 35 | $\mathbf{9 9 1 5}$ | 9911 | $\mathbf{9 9 1 6}$ | 9911 |
| 50 | $\mathbf{9 9 1 6}$ | 9911 | $\mathbf{9 9 1 6}$ | 9910 |
| 70 | $\mathbf{9 9 1 7}$ | 9911 |  |  |
| 95 | $\mathbf{9 9 1 8}$ | 9911 |  |  |
| 120 | $\mathbf{9 9 1 9}$ | 9911 |  |  |

Hexagonal crimping Kit 9865

| Code | Description | Quantity |
| :---: | :---: | :---: |
| $\mathbf{9 0 2 8}$ | Crimping tool | 1 |
| $\mathbf{* 9 9 0 1}$ | Die 10 | 1 |
| $\mathbf{* 9 9 0 2}$ | Die 16 | 1 |
| $\mathbf{9 9 0 3}$ | Die 25 | 1 |
| $\mathbf{9 9 0 4}$ | Die 35 | 1 |
| $\mathbf{9 9 0 5}$ | Die 50 | 1 |
| $\mathbf{9 9 0 6}$ | Die 70 | 1 |
| $\mathbf{9 9 0 7}$ | Die 95 | 1 |
| $\mathbf{9 9 0 8}$ | Die 120 | 1 |

* Not included in the kit. Supplied on request.



## Semicircular dies

These are used for "C" connectors.
Supplied in pair.

| Cable section mmq. | Die code |
| :---: | :---: |
| 6 | $\mathbf{9 9 2 0}$ |
| 10 | $\mathbf{9 9 2 1}$ |
| $16-25$ | $\mathbf{9 9 2 2}$ |
| 35 | $\mathbf{9 9 2 3}$ |
| $50-70$ | $\mathbf{9 9 2 4}$ |

## DIES FOR 9038

Hexagonal dies


| Cable section mmq. | Die code |
| :---: | :---: |
| $6 / 35$ | $\mathbf{9 9 2 5}$ |
| $10 / 50$ | $\mathbf{9 9 2 6}$ |
| $16 / 70$ | $\mathbf{9 9 2 7}$ |
| $25 / 95$ | $\mathbf{9 9 2 8}$ |
| $4 / 120$ | $\mathbf{9 9 2 9}$ |
| 150 | $\mathbf{9 9 3 0}$ |
| 185 | $\mathbf{9 9 3 1}$ |
| 240 | $\mathbf{9 9 3 2}$ |

On demand, dies for "V" crimping, semi-circular and circular are available.

## 9026

## Manual C crimping tool 130 kN

It is used for the crimping of: Tube terminals and connectors non-insulated section $10-300 \mathrm{mmq}$.; tube terminals pre-insulated section $10 \div 120 \mathrm{mmq}$.; C connectors section $16 \div 185 \mathrm{mmq}$

| Characteristics |  |
| :--- | ---: |
| Weight | $5,3 \mathrm{Kg}$ |
| Power | 130 Kn |
| Lenght | 565 mm |
| Width | 160 mm |
| Thickness | 70 mm |
| Insulated handles |  |
| Rotating head 180 |  |
| Supplied with case complete with <br> compartment for dies. |  |



## 9025

## "C" Crimping head

This hydraulic head works with all our pumps and control units. It is particularly practical with a frontal opening, which allows an easy positioning of the terminal to crimp. As the technical characteristics are similar to other Multifor tools, maximum reliability is assured. It uses dies for crimping terminals and connectors non-insulated with a section from 10 to 300 mmq ; dies for crimping tube terminals pre-insulated section $10 \div 120 \mathrm{mmq}$; and for " C " connectors section $10 \div 185 \mathrm{mmq}$.

| Characteristics |  |
| :--- | :---: |
| Power | 130 kN |
| Max. Working <br> pressure | 700 bars |
| Stroke | 22 mm |
| Oil capacity for full <br> stroke | $0,040 \mathrm{It}$ |
| Lenght | 235 mm |
| Width | 140 mm |
| Thickness | 78 mm |
| Weight | $4,5 \mathrm{Kg}$ |



## Dies for the "C" head 9025-9026



## Hexagonal dies

For the crimping of non- insulated tube terminals and head connectors. They are inserted on the " C " head 9025 " C " and they are manufactured with special steel in order to withstand the heavy load to which they are subjected. The standard impression is hexagonal. They are supplied in pairs

| Cable section mmq. | Die code |
| :---: | :---: |
| 10 | $\mathbf{9 7 7 1}$ |
| 16 | $\mathbf{9 7 7 3}$ |
| 25 | $\mathbf{9 7 7 5}$ |
| 35 | $\mathbf{9 7 7 7}$ |
| 50 | $\mathbf{9 7 7 9}$ |
| 70 | $\mathbf{9 7 8 1}$ |
| 95 | $\mathbf{9 7 8 3}$ |
| 120 | $\mathbf{9 7 8 5}$ |
| 150 | $\mathbf{9 7 8 7}$ |
| 185 | $\mathbf{9 8 0 0}$ |
| 240 | $\mathbf{9 8 0 1}$ |



## Semicircular dies of medium tension

These dies are for circular crimping with automatic cutting of possible burrs.
They are supplied in pairs.

| Cable section mmq. | Die code |
| :---: | :---: |
| $25-40$ | 9723 |
| $50-70$ | 9725 |
| $95-120$ | 9727 |
| $150-185$ | 9729 |


"V" punches and dies
For the crimping of non-insulated tube terminals and head connectors. The punches and dies are supplied separately

| Cable section <br> mmq. | Die code | Punch <br> code |
| :---: | :---: | :---: |
| 10 | $\mathbf{9 7 3 5}$ | 9731 |
| 16 | $\mathbf{9 7 3 6}$ | 9731 |
| 25 | $\mathbf{9 7 3 7}$ | 9731 |
| 35 | $\mathbf{9 7 3 8}$ | 9731 |
| 50 | $\mathbf{9 7 3 9}$ | 9732 |
| 70 | $\mathbf{9 7 4 0}$ | 9732 |
| 95 | $\mathbf{9 7 4 1}$ | 9732 |
| 120 | $\mathbf{9 7 4 2}$ | 9733 |
| 150 | $\mathbf{9 7 4 3}$ | 9733 |
| 185 | $\mathbf{9 7 4 4}$ | 9733 |
| 240 | $\mathbf{9 7 4 5}$ | 9734 |
| 300 | $\mathbf{9 7 4 6}$ | 9734 |



## Semicircular dies for "C" connectors

They are for the crimping of " C " connectors They are supplied in pairs.

| Cable section mmq. | Die code |
| :---: | :---: |
| 6 | $\mathbf{9 7 4 8}$ |
| 10 | $\mathbf{9 7 4 9}$ |
| $16-25$ | $\mathbf{9 7 5 3}$ |
| 35 | $\mathbf{9 7 5 5}$ |
| $50-70$ | $\mathbf{9 7 5 6}$ |
| 95 | $\mathbf{9 7 5 7}$ |
| $120-185$ | $\mathbf{9 7 5 9}$ |

## Pre-insulated "V" punches and dies

They are used for the crimping of pre-insulated power terminals. Punches and dies are supplied separately

| Cable section <br> mmq. | Die code | Punch <br> code |
| :---: | :---: | :---: |
| 10 | $\mathbf{9 7 3 6}$ | 9731 |
| 16 | $\mathbf{9 7 3 7}$ | 9731 |
| 25 | $\mathbf{9 7 3 8}$ | 9731 |
| 35 | $\mathbf{9 7 3 9}$ | 9732 |
| 50 | $\mathbf{9 7 4 0}$ | 9732 |
| 70 | $\mathbf{9 7 4 1}$ | 9733 |
| 95 | $\mathbf{9 7 4 2}$ | 9733 |
| 120 | $\mathbf{9 7 4 3}$ | 9733 |

## "U " head for the crimping of tube terminals and connectors

## 9024



This hydrailic head crimps tube terminals on cables from 10 to 400 mmq .
Due to its compact size, the cramping tool is very practical.
It has been realized with high quality steel.
It is used with all our pumps and electric units.
This head with different dies can crimp tube terminals ,"C" connectors, cable joints and shunts.
It is supplied with male rapid connector, ready to use.

| Characteristics |  |
| :--- | :---: |
| Power $\mathbf{k N}$ | 200 |
| Max working pression bars | 700 |
| Stroke $\mathbf{~ m m}$ | 23 |
| Oil capacity for full stroke It. | 0,080 |
| Lenght $\mathbf{~ m m}$ | 250 |
| Width $\boldsymbol{\varnothing} \mathbf{~ m}$ | 90 |
| Weight $\mathbf{K g}$ | 5,6 |

## DIES FOR 9024

Hexagonal dies


These dies are for the crimping of: plein tube terminals , plein head connectors.

| Gable section <br> mmq. | Die code |
| :---: | :---: |
| 10 | $\mathbf{9 7 7 0}$ |
| 16 | $\mathbf{9 7 7 2}$ |
| 25 | $\mathbf{9 7 7 4}$ |
| 35 | $\mathbf{9 7 7 6}$ |
| 50 | $\mathbf{9 7 7 8}$ |
| 70 | $\mathbf{9 7 8 0}$ |
| 95 | $\mathbf{9 7 8 2}$ |
| 120 | $\mathbf{9 7 8 4}$ |
| 150 | $\mathbf{9 7 8 6}$ |
| 185 | $\mathbf{9 7 9 3}$ |
| 240 | $\mathbf{9 7 9 5}$ |
| 300 | $\mathbf{9 7 9 7}$ |
| 400 | $\mathbf{9 7 9 8}$ |

Pre-insulated and plein "V" dies


These dies are for the crimping of plein and pre-insulated tube terminals and head connectors
"V" dies

| Cable <br> section <br> mmq. | Die <br> code | Punch <br> code |
| :---: | :---: | :---: |
| 35 | $\mathbf{9 7 0 6}$ | 9702 |
| 50 | $\mathbf{9 7 0 6}$ | 9702 |
| 70 | $\mathbf{9 7 0 8}$ | 9704 |
| 95 | $\mathbf{9 7 0 8}$ | 9704 |
| 120 | $\mathbf{9 7 0 8}$ | 9704 |
| 150 | $\mathbf{9 7 0 8}$ | 9704 |
| 185 | $\mathbf{9 7 1 0}$ | 9704 |
| 240 | $\mathbf{9 7 1 0}$ | 9704 |
| 300 | $\mathbf{9 7 1 2}$ | 9704 |
| 400 | $\mathbf{9 7 1 2}$ | 9704 |

Pre-insulated

| Cable <br> section <br> mmq. | Die code | Punch <br> code |
| :---: | :---: | :---: |
| 25 | $\mathbf{9 7 0 6}$ | $9718 / 9702$ |
| 35 | $\mathbf{9 7 0 6}$ | 9702 |
| 50 | $\mathbf{9 7 0 6}$ | 9702 |
| 70 | $\mathbf{9 7 0 8}$ | 9702 |
| 95 | $\mathbf{9 7 1 0}$ | 9702 |
| 120 | $\mathbf{9 7 1 0}$ | 9704 |

Semicircular dies of medium tension


These dies are for crimping pre-insulated.

| Cable section <br> mmq. | Die code |
| :---: | :---: |
| $25-40$ | $\mathbf{9 7 2 2}$ |
| $50-70$ | $\mathbf{9 7 2 4}$ |
| $95-120$ | $\mathbf{9 7 2 6}$ |
| $150-185$ | $\mathbf{9 7 2 8}$ |
| $240-315$ | $\mathbf{9 7 3 0}$ |

Semicircular dies for "C" connectors


These dies are for the crimping of "C" connectors

| Cable section <br> mmq. | Die code |
| :---: | :---: |
| $16-25$ | $\mathbf{9 7 5 0}$ |
| 35 | $\mathbf{9 7 5 1}$ |
| $50-70$ | $\mathbf{9 7 5 2}$ |
| 95 | $\mathbf{9 7 5 4}$ |
| $120-185$ | $\mathbf{9 7 5 8}$ |

## 9036

This hydrailic head crimps tube terminals on cables from 10 to 630 mmq .
Due to its compact size, the cramping tool is very practical.
It has been realized with high quality steel. It is used with all our pumps and electric units.

This head with different dies can crimp tube terminals, "C" connectors, cable joints and shunts. It is supplied with male rapid connector, ready
to use.

| Characteristics |  |
| :--- | :---: |
| Power kN | 200 |
| Max working pression bars | 700 |
| Stroke $\mathbf{~ m m}$ | 30 |
| Oil capacity for full stroke It. | 0,100 |
| Lenght $\mathbf{~ m m}$ | 290 |
| Width $\boldsymbol{\emptyset ~ \mathbf { ~ m ~ }}$ | 90 |
| Weight $\mathbf{~ K g}$ | 5,9 |

## DIES FOR 9036

Hexagonal dies


These dies are for the crimping of: plein tube terminals, plein head connectors.

| Cable section <br> mmq. | Die code |
| :---: | :---: |
| 10 | $\mathbf{9 7 7 0 / 3 6}$ |
| 16 | $\mathbf{9 7 7 2 / 3 6}$ |
| 25 | $\mathbf{9 7 7 4 / 3 6}$ |
| 35 | $\mathbf{9 7 7 6 / 3 6}$ |
| 50 | $\mathbf{9 7 7 8 / 3 6}$ |
| 70 | $\mathbf{9 7 8 0 / 3 6}$ |
| 95 | $\mathbf{9 7 8 2 / 3 6}$ |
| 120 | $\mathbf{9 7 8 4 / 3 6}$ |
| 150 | $\mathbf{9 7 8 6} / \mathbf{3 6}$ |
| 185 | $\mathbf{9 7 9 3 / 3 6}$ |
| 240 | $\mathbf{9 7 9 5 / 3 6}$ |
| 300 | $\mathbf{9 7 9 7 7 / 3 6}$ |
| 400 | $\mathbf{9 7 9 8} / \mathbf{3 6}$ |
| 500 | $\mathbf{9 7 9 9 / 3 6}$ |
| 630 | $\mathbf{9 8 0 0} / \mathbf{3 6}$ |

Pre-insulated and plein "V" dies


These dies are for the crimping of plein and pre-insulated tube terminals and head connectors

## "V" dies

| Cable <br> section <br> mmq. | Die <br> code | Punch <br> code |
| :---: | :---: | :---: |
| 35 | $\mathbf{9 7 0 6 / 3 6}$ | $9702 / 36$ |
| 50 | $\mathbf{9 0 0 6 / 3 6}$ | $9702 / 36$ |
| 70 | $\mathbf{9 7 0 8 / 3 6}$ | $9704 / 36$ |
| 95 | $\mathbf{9 7 0 8 / 3 6}$ | $9704 / 36$ |
| 120 | $\mathbf{9 7 0 9 / 3 6}$ | $9704 / 36$ |
| 150 | $\mathbf{9 7 0 9 / 3 6}$ | $9704 / 36$ |
| 185 | $\mathbf{9 7 1 0 / 3 6}$ | $9704 / 36$ |
| 240 | $\mathbf{9 7 7 1 0 / 3 6}$ | $9704 / 36$ |
| 300 | $\mathbf{9 7 1 2 / 3 6}$ | $9704 / 36$ |
| 400 | $\mathbf{9 7 1 3 / 3 6}$ | $9716 / 36$ |
| 500 | $\mathbf{9 7 1 4 / 3 6}$ | $9716 / 36$ |
| 630 | $\mathbf{9 7 1 5 / 3 6}$ | $9716 / 36$ |

Pre-insulated

| Cable <br> section <br> mmq. | Die code | Punch <br> code |
| :---: | :---: | :---: |
| 25 | $\mathbf{9 7 0 6 / 3 6}$ | $9702 / 36$ |
| 35 | $\mathbf{9 7 0 6 / 3 6}$ | $9702 / 36$ |
| 50 | $\mathbf{9 7 0 6} / \mathbf{3 6}$ | $9702 / 36$ |
| 70 | $\mathbf{9 7 0 8 / 3 6}$ | $9702 / 36$ |
| 95 | $\mathbf{9 7 1 0 / 3 6}$ | $9702 / 36$ |
| 120 | $\mathbf{9 7 1 0 / 3 6}$ | $9704 / 36$ |

Semicircular dies of medium tension


These dies are for crimping pre-insulated.

| Gable section mmo . | Die code |
| :---: | :---: |
| 25-40 | 9722/36 |
| 50-70 | 9724/36 |
| 95-120 | 9726/36 |
| 150-185 | 9728/36 |
| 240-315 | 9730/36 |
| 400 | 9731/36 |
| 500 | 9732/36 |
| 630 | 9733/36 |

Semicircular dies for "C" connectors


These dies are for the crimping of "C" connectors

| Cable section <br> mmq. | Die code |
| :---: | :---: |
| $16-25$ | $\mathbf{9 7 5 0 / 3 6}$ |
| 35 | $\mathbf{9 7 5 1 / 3 6}$ |
| $50-70$ | $\mathbf{9 7 5 2 / 3 6}$ |
| 95 | $\mathbf{9 7 5 4 / 3 6}$ |
| $120-185$ | $\mathbf{9 7 5 8 / 3 6}$ |
|  |  |

Cut-off machine for wire cable trays

## 9077

## Cut-off machine for perforating cylinder

## Portable, rapid, easy to use

It is a little tool to cut in a fast way rod bars in iron with $\emptyset 8 \mathrm{~mm}$ max. and in stainless steel $\emptyset 5 \mathrm{~mm}$ max.

This tool makes a clean and an exact cut and it is particularly indicated for the wire cable trays. It can be used on field or in a workshop.*

To combine with the cylinder 9022
Total Weight
Tool + cylinder: $3,7 \mathrm{Kg}$


* The life of the tool may be subject to changes due to the type of material and to the use.


## 9075

For punching tools 9070E and art. 9070

## Cut-off machine for portabale tools

To combine with punching cylinders 9070E and 9070
Total Weight: 4 Kg
Execution time: 8 sec .



## Electric pipe bender

## 9080 <br> Electric pipe bender set

Handy tool, easy to use. It is a portable and electric tool, suitable for bending galvanized steel, stainless steel and copper pipes in cooling and air-conditioning technology, pipeline construction and industrial applications.

It is equipped with AUTOMATIC SWITCH OFF, when reaching the preset bending angle. Ideal for fast batch production of bends. Set includes: basic 230 V unit, bending formers and guide shoes for respective pipe diameters (mm 16-20-25) and carrying case.
On demand, we can supply bending formers and guide shoes until $\emptyset 35 \mathrm{~mm}$.

| Characteristics |  |
| :--- | :---: |
| Power | 1010 W |
| Weight | 13 Kg |
| Supply | $230 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ |
| Suitable for pipes | $\emptyset 16-35 \mathrm{~mm}$ |
| Bending | $U \mathrm{pto180}^{\circ}$ |
| Dimensions | $590 \times 145 \times 215 \mathrm{~mm}$ |



## Cutting machine for plastic channels

## 9062

## Cutting machine for plastic channels

This cutting machine 9062 consists of a blade, which acting on the lever above, allows to cut trunking systems, lids and similar plastic or gummy products.

It cuts all the types of PVC sections, distance $4 / 8$, from 25 mm to the maximum measure of 120 mm

Maximum height is till 120 mm . The machine must be steadly screwed to a table or to a base.



## Power units

 Pumps and electric units

## 9000 <br> Foot pump



This is a hydraulic pump made completely of steel, whose internal components - pumping elements and valves - are all made of special hardened, temperated and rectified steel.
It has two speeds: one is the approach speed and the second is the working speed.
It has double pistons and double valves etc.
When this pump is used with crimping cylinders 9024 and 9036, its release valve enters in action. Infact when it reaches the pressure of 700 Bars, this valve allows the automatic return at zero. This operation facilitates the appropriate push foot pedal for piston return. Supplied ready to use.

| Characteristics |  |
| :--- | :--- |
| Max. Working pressure | 700 bars |
| Oil tank capacity | $0,600 \mathrm{It}$. |
| It supplies cylinder of max | $0,380 \mathrm{It}$. |
| capacity |  |


| Pipe | from $2,50 \mathrm{mt}$. |
| :--- | :---: |
| Oil | with female rapid connector <br> (do not use brake or dielectric oil <br> for transformer) |
| Weight | $14,5 \mathrm{Kg}$ |



## 9004

## Battery driven pump



Battery operated hydraulic pump with ergonomic handle for works on filds.
It has a shoulder strap and thanks to its light weight, it can be used everywhere.
Two speeds :

- Approach (very fast)
- High pression (slow)

It is equipped with:

- Pipe 2,5 Mt.
- Carrying strap
- N. 1 Battery 14,4 V 4.0 Ah
- Battery charger

Can be used with all IMB tools

| Characteristics |  |
| :--- | :---: |
| Weight | $6 \mathrm{~kg} .($ (with battery <br> and tank with oil) |
| Dimensions | $240 \times 120 \times 190 \mathrm{~mm}$ |
| Tank | $0,6 \mathrm{It}$. |
| Min. pression | 20 bar |
| Max. pression | 700 bar |
| Working <br> temperature | $5 \div 50^{\circ} \mathrm{C}$ |

## ACCESSORIES FOR 9004



Battery 14,4V Li-ion 4.0 Ah (Weight 500 g )


Carrying strap for the transport of the pump (1,2 mt. about)


High pression hoose connected directly to the power unit ( $2,5 \mathrm{Mt}$.)


Rapid battery charger with operation self-cooled.

## 9002

## Pneumatic control unit



The pneumatic pump 9002 is made with the same technology as the foot pump 9000, offering the advantage of more rapid operation as it uses compressed air to work with. It has two speeds, one for the approach and one for the working phase; it has therefore been equipped with double valves and double pistons. It is able to produce 700 bars when supplied with a constant pressure of $7 \div 10$ bars by a suitable compressor or in-house centralised installation.
It is equipped with air filter and a lubricator already regulated. For the return, it is sufficient to reverse the movement of the foot pedal control. It is ready to use, after the assembly of the breather plug.
It is recommended to have a tank compressor superior to 200 It . It is supplied with a pipe $2,5 \mathrm{Mt}$ with a female rapid connector and a protection carter. N.B. Do not use brake or dielectric oil for the transformer.

| Characteristics |  |
| :--- | :---: |
| Max. Working pressure | 700 bars |
| Oil tank capacity | $1,250 \mathrm{It}$. |
| It supplies cylinder of max <br> capacity | $1,00 \mathrm{It}$. |
| Air absorption with a <br> continuous service <br> Hose | It. $48 /$ minuto |
| Oil | da 2,50 mt. with female <br> rapid connector |
| hydraulic oil AGIP ARNICA 22 |  |
| (do not use brake or dielectric oil |  |
| for transformer) |  |

Weight
$19,5 \mathrm{Kg}$


## 9003

## Simplified air-hydraulic pump



The hydraulic pump 9003 offers the advantage of a rapid operation as it uses compressed air. It has two speeds, one for the approach and one for the working phase.
It is able to produce 700 bars when supplied with a constant pressure of $7 \div 10$ bars by a suitable compressor or in-house centralised installation. For the return, it is sufficient to reverse the movement of the foot pedal control.

It is ready to use and it is equipped with a universal rapid connector for the air.
It is recommended to have a tank compressor superior to 200 It .
Complete with a female rapid connector suitable for all our tools.
It is supplied with a pipe $2,5 \mathrm{Mt}$, a protection carter and a rubber handle for the transport.
N.B. Do not use brake or dielectric oil for the transformer.

## Technical Characteristics

| Operated | throught pedal |
| :--- | :---: |
| Oil pressure | 700 bars |
| Tank capacity | $2,4 \mathrm{It}$. |
| Max. noise | 75 dbA |
| Air connection | $\mathrm{G} \mathrm{1/4} /{ }^{\prime \prime}$ |
| Air consumption | $400 \mathrm{~N} / \mathrm{min}$ |
| Connected to the pneumatic access | $(5-10 \mathrm{bar})$ |

Hydraulic oil AGIP ARNICA 22 (Do not use brake or dielectric oil)
Dimensions
$410 \times 295 \times 175 \mathrm{~mm}$
12 Kg


Pneumatic rapid connector


Operated through pedal


Return pedal


Porthole to check oil level

## 9005

## Simplified electric unit 220V



Foot pedal included


This electric unit 9005 has the same characteristics and mobile components as the other units.
This simplified version is without protection carter, pressure gauge, connectors for accessories and a card system.
It is equipped with a direct control and with a standard foot pedal.
It is interchangeable with all our electric units and it can be used with all our equipments less then our hydraulic punching machines.
Supply 230 V 1 Ph
Max. working pression 700 Bar.

| Characteristics |  |
| :---: | :---: |
| Voltage supply | 230 V 1 Ph |
| Power | 0.70 KW |
| Max. Working pressure | 700 bar |
| Oil capacity | 5.0 lt . |
| Supply cylinders max. capacity | 3.0 lt. |
| Type oil | Agip Arnica 22 |
| Weight | 24 Kg |

Do not use brake or dielectric oil for transformers.

## 9007

## Simplified electric unit 380V

This simplified electric unit 9007 has the same characteristics than the 9005 but with a supply 400 V 3Ph.
It is equipped with direct control and a standard foot pedal.
It is interchangeable with all our electric units and it can be used with all our equipments less then our hydraulic punching machines.


| Characteristics |  |
| :--- | :---: |
| Voltage supply | 400 V 3 Ph |
| Power | 0.75 KW |
| Max. Working pressure | 700 bar |
| Oil capacity | 5.0 It. |
| Supply cylinders | 3.0 It. |
| max. capacity | Agip Arnica 22 |
| Type oil | 24 Kg |
| Weight |  |

Do not use brake or dielectric oil for transformers.

## 9008/9009/9010 Electric control units with options



These are high-pressure electric control units with radial pistons of high precision and a system with an electric motor in oil bath.
This performance has been widely tested to ensure maximum reliability.
They are available in different versions.

They are equipped with:

- Electric system on stamped circuit with a protection fuse
- Motor protection switch
- Foot pedal control included
- Selector switch for the security system.

Characteristics 9008

| Voltage | 240 V single-phase |
| :--- | :---: |
| Power | $0,55 \mathrm{~kW}$ |
| Max working pressure | 700 bars |
| Adjustable pressure | $400 \div 700 \mathrm{bar}$ |
| Oil tank capacity | $2,700 \mathrm{It}$. |
| It feeds cylinders of | $2,200 \mathrm{It}$. |
| the maximum capacity | AGIP ARNICA 22 |
| Oil type | 33 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 235 mm |
| Width | 450 mm |
| Height |  |


| Characteristics 9009 |  |
| :--- | :---: |
| Voltage | 400 V three-phase |
| Power | $0,75 \mathrm{~kW}$ |
| Max working pressure | 700 bars |
| Adjustable pressure | $400 \div 700 \mathrm{bar}$ |
| Oil tank capacity | $2,700 \mathrm{It}$. |
| It feeds cylinders of | $2,200 \mathrm{It}$. |
| the maximum capacity | AGIP ARNICA 22 |
| Oil type | 33 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 235 mm |
| Width | 450 mm |
| Height |  |

All our electric control units are supplied with 2,50 meters hoose, female connector and hydraulic oil
AGIP ARNICA 22, ready for use. They are also complete with safety protection socket.


Pressure gauge with electric contacts, adjustable for automatic stop at the reached pressure and consequent cylinder return

- Socket for electrical protractor
- Socket for protection carter
- Socket for remote foot pedal control
- Controls 24 V direct current

| Characteristics $\mathbf{9 0 1 0}$ |  |
| :--- | :---: |
| Voltage | 400 V three-phase |
| Power | $1,4 \mathrm{~kW}$ |
| Max working pressure | 700 bars |
| Adjustable pressure | $400 \div 700 \mathrm{bar}$ |
| Oil tank capacity | $5,4 \mathrm{It}$. |
| It feeds cylinders of the | $4,100 \mathrm{lt}$. |
| maximum capacity | AGIP ARNICA 22 |
| Oil type | 36 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 260 mm |
| Width | 470 mm |
| Height |  |



## 9013/9014/9015

# Electric control units without options 



## Electric control unit 9013

Electric control unit, voltage 240 V single-phase, with 24 V direct current, with motor protection switch and socket micro panel protection for punching machines.

| Characteristics |  |
| :--- | :---: |
| Voltage | 240 V single-phase |
| Power | $0,55 \mathrm{~kW}$ |
| Max. Working pressure | 700 bars |
| Oil tank capacity | $2,700 \mathrm{lt}$. |
| It feeds cylinders of | di $2,200 \mathrm{lt}$. |
| the max capacity | AGIP ARNICA 22 |
| Oil type | 33 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 240 mm |
| Width | 450 mm |
| Height | $2,5 \mathrm{mt}$ |
| Hoose |  |

## Electric control unit 9014

Electric control unit, voltage 400 V three-phase, with 24 V direct current, with motor protection switch and socket micro panel protection for punching machines.

| Characteristics |  |
| :--- | :---: |
| Voltage | 400 V three-phase |
| Power | $0,75 \mathrm{~kW}$ |
| Max. Working pressure | 700 bars |
| Oil tank capacity | $2,700 \mathrm{lt}$. |
| It feeds cylinders of | di $2,200 \mathrm{lt}$. |
| the max capacity | AGIP ARNICA 22 |
| Oil type | 33 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 240 mm |
| Width | 450 mm |
| Height | $2,5 \mathrm{mt}$ |
| Hoose |  |

Electric control unit 9015
Electric control unit, voltage 400 V three-phase, with 24 V direct current, with motor protection switch and socket micro panel protection for punching machines.

| Characteristics |  |
| :--- | :---: |
| Voltage | 400 V three-phase |
| Power | $1,4 \mathrm{~kW}$ |
| Max. Working pressure | 700 bars |
| Oil tank capacity | $5,4 \mathrm{lt}$. |
| It feeds cylinders of | di $4,100 \mathrm{It}$. |
| the max capacity | AGIP ARNICA 22 |
| Oil type | 36 Kg |
| Weight |  |
| Dimensions | 420 mm |
| Lenght | 260 mm |
| Width | 470 mm |
| Height | $2,5 \mathrm{mt}$ |
| Hoose |  |



## 9001

Hand pump


## MATCHING POWER UNITS -EQUUIPMENT




## Accessories and Work benches

## Valves and accessories

## 9162

## Positioning valve

The positioning valve is equipped with male and female rapid connectors, for a fast assembly. The valve can be connected to the TRIS cylinder when the electric unit is used. The small movements of the tool facilitate the positioning of the bars.


9163 for 2 cylinders
9164 for 3 cylinders
9165 for 4 cylinders
Branch valves
Branch valves for 2-3 and 4 cylinders are used when several cylinders have to work with one pump or electrical control unit. These valves avoid to connect or disconnect continually the respective hoses. By just moving a simple lever, the branch valves divert the hydraulic oil to the cylinder to use. All branch valves
 are equipped with hoses and rapid connectors.

## 9817/9819

## Rapid Connectors

All MULTIFOR equipment, cylinders and hoses are supplied complete with rapid connectors with locking and rapid coupler. 1/4" standard version, $3 / 8^{\text {" }}$ on request with screw connector


## 9810 <br> Pipes and extensions

The spare pipe of the MULTIFOR equipment is complete with female rapid connector and it has a standard length of $2,5 \mathrm{mt}$. The working range of cylinders can be extended by a simple addition of a $2,5 \mathrm{mt}$. extensions hose (9812) or 5 mt . (9813). These are realised with highpressure pipe, already filled with oil AGIP ARNICA 22 and with rapid connectors.


## 9828 <br> Hydraulic oil

All MULTIFOR equipment, and hoses contain hydraulic oil. AGIP ARNICA 22. Whenever topping up is required, it is essential to use the same type of oil. For a best working of the pumps, the level must be inspected at regular intervals by checking the oil dipstick.
Available in cans of 1 Kg .
It is highly recommended not to use oils other than those indicated by us, in particular do not use brake oil or dielectric oil for transformers.


## Foot pedal and other accessories

## 9156 <br> Remote foot pedal <br> Remote foot pedal for electric control units.



## 9157

## Remote foot pedal with security

Remote foot pedal for electric control units with a total protection. It is equipped with a security device with a double approval in order to avoid accidental manipulation and with a double pressure switch.
The switch stops the electric control if the pressure on
 the pedal is too high.

## 9806 <br> Bench clamp

A practical accessory for holding punching cylinder (9022) and crimping tools (9024-9036).


## 9808

Stand
Used to hold punching cylinders and crimping tool, where it is not possible to use a bench clamp. Equipped with a cylinder holding clamp, it is a folding and portablle accessory.


## 9809

## Stand with roller

This tripod is for holding the heavy bars.
During the works, the roller allows a good support and the sliding of the bar without effort. The height is adjustable for the different works.


## Tool cases

## 9822

Metal case
The case 9822 is suitable for the transport of the MULTIFOR 9000, 9001 cylinders and different accessories.
Dim. mm 650x250x270 h

## 9823

Metal case
The metal case 9823 is suitable for the transport of shears, cylinders, pump 9001 and different accessories.
Dim. mm 600x270x220 h

## 9830

## Portable tools case

This case 9830 is suitable for the transport of cylinders and accessories.
Dim. mm 330x170x110


9832
Honeycomb for 9822


9834
Honeycomb for 9823


## 9833

Honeycomb for 9830


## 9829

## Case for electric tools

The case 9829 is suitable for the transport of the tools with battery

9825
Portable tools case
The case 9825 is suitable for the transport of manual punching cylinders and its accessories.

## 9826

## Portable tools case

The case 9826 is suitable for the transport of punches and different accessories.


## 9048

## Work bench



The special MAXI work bench has been designed to enable several cylinders to operate from one single control unit within a small space. The TRIS unit is placed on the MAXI work bench, while on the lateral telescopic cylinder, the punching cylinder (9022) and crimping tools (9024-9036) can be supported.

The MAXI work bench is equipped with:

- Branch valve, which allows two or more cylinders to operate (cod. 9163 valve for two cylinders).
It is possible to assemble valves for the working of more cylinders.
- Pressure gauge for regulating the required pressure
- Socket for electrical protractor (9161)
- Socket for remote foot pedal control (9156)

Dimensions: mm $1300 \times 960 \times 870 \mathrm{~h}$
Weight: 96 Kg . without control unit and accessories.
The unit is used only with control units type 9008-9009-9010
Available versions: $220 \mathrm{~V}(9048 / 220 \mathrm{~V})$ and 380 V (9048/380 V)


Connectors for electric units with options


Branch valve with pressure gauge and general switch.

## Work benches

## 10100/50

This base can be used for the support of all our equipment apart from than the hydraulic punching machines 10090 L. it is a simple open bench for lodging the electric unit and other tools. It has a tool-holder drawer.

## Dimensions

Lenght 750 mm .
Width 750 mm .
Height 803 mm .
Weight 55 kg .


## 10100/90E

It is a simple and inexpensive base. It can be used for all our equipments. It has a toolholder drawer and a base for the electric units.

## Dimensions

Lenght 906 mm
Width 756 mm .
Height 786 mm .
Weight 45 kg .


## 10100/90

Specific base for the hydraulic punching machines type 10090 but it can be used also with the other smaller hydraulic punching machines and other equipment.
Equipped with a protection carter, there is the possibility to lodge an electric unit inside.

## Dimensions

Lenght 1026 mm .
Width 800 mm .
Height 750 mm .
Weight 112 kg .


Notes

## CERTIFICATO

Nr. 501003768 -Rev. 006

Si attesta che / This is to certify that
IL SISTEMA QUALITÀ DI THE QUALITY SYSTEM OF

I.M.B. S.r.I.

SEDE LEGALE: REGISTERED OFFICE:
VIA MADRE TERESA DI CALCUTTA 9 IT - 29122 PIACENZA (PC)

SEDE OPERATIVA:
OPERATIONAL SITE:

## STRADA DEL FORNO 66

 IT - 43011 BUSSETO (PR)E CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

## UNI EN ISO 9001:2015

QUESTO CERTIFICATO È VALIDO PER IL SEGUENTE CAMPO DI APPLICAZIONE
THIS CERTIFICATE IS VALID FOR THE FOLLOWING SCOPE

Progettazione e fabbricazione di macchine, attrezzature e utensili per l'impiantistica elettrica e la lavorazione di quadri elettrici (IAF 18)

Design and manufacture of machines, tools and equipment for electrical plants and electric control boards (IAF 18)

| ACCREDIA ? | Per YOrganismo di Certificazione For the Certification Body | Validità / Validity |  |
| :---: | :---: | :---: | :---: |
|  | TÜV Italia S.r.I. | Dal / From: | 2018-12-10 |
| SGQ N ${ }^{\circ}$ 049A |  | Al/ To: | 2021-12-18 |

EA. LAF e ILAC
Signatory of EA, WF and ILAC Mutise Recognibon Agreemerts


Data emissione / Issuing Date
2018-12-10

[^1]
[^0]:    * Add to the codes the letter " $L$ " if the operator uses them with punching

[^1]:    LA VALIDITA DEL PRESENTE CERTIFICATO E SUBORDINATA A SORVEGLIANZA PERIODICA A 12 MESI E AL RUESAME COMPLETO DEL SISTEMA DI GESTIONE AZIENDALE CON PERICDICITA TRIENNALE*
    *THE VALIOITY OF THE PRESENT CERTIFICATE DEPENDS ON THE ANNUAL SURVELLLANCE EVERY 12 MONTHS AND ON THE COMPLETE REVIEW OF COMPANYS MANAGEMENT SYSTEM AFTER THREE-YEARS

