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According to evolution of regulations and material, the features indicated by the description and pictures in this document do not commit us until a further confirmation by our sales department. Prices may be subjected to variation and thus the material will be always invoiced according to the ruling conditions at delivery.



## Forge furnaces

### Forge furnace H1

---

The new propane forging furnace H1 NARGESA, has been designed to heat up steel in a more efficient and safe way, respecting environment.

More efficient: up to a 75% less gas, achieving higher temperature that any furnace of its range.

Safer: new safety systems for the operator, according to the regulation RD919/2006.

100% Respectful with environment: lower than 0.002€ CO. Inside cover with vermiculite 100% natural and eco-friendly.

|                                  |                   |
|----------------------------------|-------------------|
| Reference                        | 100-04-03-001     |
| Dimensions of combustion chamber | 236x140x100 mm    |
| Type of fuel                     | Propane gas (GLP) |
| Gas intake as 1 per bar          | 0,35 Kg/h         |
| Adjustable working pressure      | 0,1 - 1,5 bar     |
| Power (Hi)                       | 4 kW              |
| Maximum temperature              | 1300 °C           |
| Nr of burners                    | 1                 |
| External dimensions              | 310x450x370 mm    |
| Weight                           | 27 Kg             |



### Forge furnace H2

---

The new propane forging furnace H2 NARGESA, has been designed to heat up steel in a more efficient and safe way, respecting environment.

More efficient: up to a 75% less gas, achieving higher temperature that any furnace of its range.

Safer: new safety systems for the operator, according to the regulation RD919/2006.

100% Respectful with environment: lower than 0.002€ CO. Inside cover with vermiculite 100% natural and eco-friendly.

|                                  |                   |
|----------------------------------|-------------------|
| Reference                        | 100-04-01-001     |
| Dimensions of combustion chamber | 324x240x100 mm    |
| Type of fuel                     | Propane gas (GLP) |
| Gas intake as 1 per bar          | 0,7 Kg/h          |
| Adjustable working pressure      | 0,1 - 1,5 bar     |
| Power (Hi)                       | 8 kW              |
| Maximum temperature              | 1300 °C           |
| Nr of burners                    | 2                 |
| External dimensions              | 500x440x370 mm    |
| Weight                           | 40 Kg             |





## Forge furnaces

### Forge furnace H3

---

The new propane forging furnace H3 NARGESA, has been designed to heat up steel in a more efficient and safe way, respecting environment.

More efficient: up to a 75% less gas, achieving higher temperature than any furnace of its range.

Safer: new safety systems for the operator, according to the regulation RD919/2006.

100% Respectful with environment: lower than 0.002€ CO. Inside cover with vermiculite 100% natural and eco-friendly.

|                                  |                   |
|----------------------------------|-------------------|
| Reference                        | 100-04-04-001     |
| Dimensions of combustion chamber | 464x240x100 mm    |
| Type of fuel                     | Propane gas (GLP) |
| Gas intake as 1 per bar          | 1 Kg/h            |
| Adjustable working pressure      | 0,1 - 1,5 bar     |
| Power (Hi)                       | 12 kW             |
| Maximum temperature              | 1300 °C           |
| Nr of burners                    | 3                 |
| External dimensions              | 510x580x370 mm    |
| Weight                           | 53 Kg             |





## Profile Formers

### Profile former MC150B

Section bending, pipe curving machine MC150B Nargesa. Our pipe bender MC150B is designed to minimize the manufacturing cost and provide maximum performance when bending pipes and profiles. It has been manufactured for different profiles such as flat bar or bar section, T-profile, rolling U-profile, bending angle, bending solid rod, both square and round types, spiral tube or even to perform square, rectangular or round pipe.

|                      |                 |
|----------------------|-----------------|
| Reference            | 100-08-07-001   |
| Engine power         | 0,75 KW / 1 HP  |
| Tension Single-phase | 230 V           |
| Speed                | 6 r.p.m.        |
| Axes diameter        | 40 mm           |
| Rollers diameter     | 127 mm          |
| Useful axes length   | 74 mm           |
| Dimensions           | 680x950x1240 mm |
| Weight               | 270 Kg          |



### Profile former MC200

Profile former MC200 Nargesa, is made of mechanized and weldes Steel sheet. Unlike others, this one's not made of melting. It has been conceived for work pipes and profiles. It is ideal for making spiral stairs, to bend pipes in spiral shapes, flanges for pipes, greenhouses, handrails, tables, chairs, doors, windows... making all kind of circular shapes in all kinds of profiles.

|                    |                 |
|--------------------|-----------------|
| Reference          | 100-08-02-002   |
| Engine power       | 1,1 KW / 1,5 HP |
| Tension 3-phased   | 230 / 400 V     |
| Speed              | 8 r.p.m.        |
| Axes diameter      | 40 mm           |
| Rollers diameter   | 127 mm          |
| Useful axes length | 74 mm           |
| Dimensions         | 790x810x1300 mm |
| Weight             | 320 Kg          |







## Profile Formers

### Profile former MC400

Profile former MC400 Nargesa, is made of mechanized and welded Steel sheet. Unlike others, this one's not made of melting. It has been conceived for work pipes and profiles. It is ideal for making spiral stairs, to bend pipes in spiral shapes, flanges for pipes, greenhouses, handrails, tables, chairs, doors, windows... making all kind of circular shapes in all kinds of profiles.

|                    |                 |
|--------------------|-----------------|
| Reference          | 100-08-01-001   |
| Engine power       | 1,1 KW / 1,5 HP |
| Tension 3-phased   | 230 / 400 V     |
| Speed              | 7 r.p.m.        |
| Axes diameter      | 40 mm           |
| Rollers diameter   | 130 mm          |
| Useful axes length | 80 mm           |
| Dimensions         | 660x760x1250 mm |
| Weight             | 365 Kg          |



### Profile former MC200H

Profile Former MC200H Nargesa, made of welded and mechanized steel sheet. Unlike the others, this one is not made of cast iron. Ideal for making flanges, greenhouses, balausters, tables, chairs, doors, windows... making a great number of circular shape in all kinds of profiles. Its robustness, axis diameter, reducer capacity and other features, make it one of the best bending machines in the market, within the category of two traction rollers.

|                    |                  |
|--------------------|------------------|
| Reference          | 100-08-03-001    |
| Engine power       | 1,85 KW / 2,5 HP |
| Tension 3-phased   | 230 / 400 V      |
| Speed              | 8 r.p.m.         |
| Axes diameter      | 40 mm            |
| Rollers diameter   | 127 mm           |
| Useful axes length | 74 mm            |
| Dimensions         | 790x810x1540 mm  |
| Weight             | 360 Kg           |



## Accessories for Profile formers MC150B, MC200, MC200H and MC400

### Set of treated steel rollers • MC150B • MC200 • MC200H • MC400



Set of 3 treated steel rollers for steel round pipe or stainless steel, thickness bigger than 2 mm.

When pipe sizes are smaller, two sizes are included in the same roller.

Eg. (25 + 30) o (1/2" + 1"1/4")

*Always clean up the rollers well before using stainless steel not to get the pipe contaminated.*

| Tube size in mm      |                                       |           |
|----------------------|---------------------------------------|-----------|
| Reference            | Dimensions                            | Weight    |
| 140-08-01-RHT0007    | (25 + 30)                             | 17,00 Kg. |
| 140-08-01-RHT0006    | (20 + 35)                             | 16,50 Kg. |
| 140-08-01-RHT0001    | 40                                    | 16,60 Kg. |
| 140-08-01-RHT0002    | 50                                    | 14,25 Kg. |
| 140-08-01-RHT0003    | 60                                    | 11,10 Kg. |
| For Schedule pipe    |                                       |           |
| 140-08-01-RHISOT0006 | (3/4" + 1/2") = (26,9 + 21,3 mm)      | 17,70 Kg. |
| 140-08-01-RHISOT0007 | (1" + 3/8") = (33,7 + 17,2 mm)        | 17,00 Kg. |
| 140-08-01-RHISOT0002 | 1" 1/4 = 42,4 mm                      | 16,00 Kg. |
| 140-08-01-RHISOT0003 | 1" 1/2 = 48,3 mm                      | 14,40 Kg. |
| 140-08-01-RHISOT0004 | 2" = 60,3 mm                          | 11,15 Kg. |
| For inches pipe      |                                       |           |
| 140-08-01-RHWT-00001 | (1/2" + 1"1/4) = (12,700 + 31,751 mm) | 18,00 Kg. |
| 140-08-01-RHWT-00002 | (1" + 3/4") = (25,401 + 19,051 mm)    | 18,50 Kg. |
| 140-08-01-RHWT-00003 | 1"1/2 = 38,101 mm                     | 17,25 Kg. |
| 140-08-01-RHWT-00004 | 2" = 50,802 mm                        | 13,60 Kg. |
| 140-08-01-RHWT-00005 | 2"1/2 = 63,502 mm                     | 9,75 Kg.  |



## Accessories for Profile formers MC150B, MC200, MC200H and MC400

### Set of Sustarín rollers • MC150B • MC200 • MC200H • MC400



Set of 3 Sustarin rollers for stainless steel pipes, aluminium and delicate materials for thickness smaller than 2.5 mm.

When pipe sizes are smaller, two sizes are included in the same roller. Eg. (25 + 30)

*Sustarin rollers do not spoil or contaminate the pipe.*

*For any other size or profile please ask the manufacturer.*

| Tube size in mm     |   |          |
|---------------------|---|----------|
| Reference           | Dimensions                                      | Weight   |
| 140-08-01-RI0007    | (25 + 30)                                       | 1,40 Kg. |
| 140-08-01-RI0001    | (20 + 35)                                       | 1,40 Kg. |
| 140-08-01-RI0010    | 33  | 1,50 Kg. |
| 140-08-01-RI0004    | 40  | 1,40 Kg. |
| 140-08-01-RI0003    | 43  | 1,30 Kg. |
| 140-08-01-RI0006    | 50  | 1,20 KG. |
| 140-08-01-RI0008    | 60  | 0,90 KG. |
| For inches pipe     |   |          |
| 140-08-01-RIW-00001 | $(1/2" + 1"1/4) = (12,700 + 31,751 \text{ mm})$ | 1,80 Kg. |
| 140-08-01-RIW-00002 | $(1" + 3/4") = (25,401 + 19,051 \text{ mm})$    | 1,50 Kg. |
| 140-08-01-RIW-00003 | $1"1/2 = 38,101 \text{ mm}$                     | 1,40 Kg. |
| 140-08-01-RIW-00004 | $2" = 50,802 \text{ mm}$                        | 1,20 Kg. |
| 140-08-01-RIW-00005 | $2"1/2 = 63,502 \text{ mm}$                     | 0,90 Kg. |



## Profile formers

### Profile formers MC550

The NEW MC550 Nargesa Section and pipe bending machine is specially designed to carry out mass production through the control, which saves the position of the rollers in each curve to repeat the same operations later, without longitudinal positioning control. It is ideal for manufacturing flanges, greenhouses, railings, large structures for construction... **Maximum capacity for bending round pipe: 3" inches (76,2 mm) or 80 mm.** Its robustness, axis diameter, reduction capacity, Control Panel and 4.0 Technology make out of it one of the best bending machines on the market in the **three-driven roller category, an essential condition for working tubes and large profiles with a perfect finish.**

|                         |                  |
|-------------------------|------------------|
| Reference               | 100-08-13-001    |
| Engine power            | 1,5 Kw / 2 HP    |
| Hydraulic motor power   | 0,75 Kw / 1 CV   |
| Tension Single-phase    | 220 V            |
| Adjustable roller speed | From 3 to 8 RPM. |
| Axes diameter           | 50 mm            |
| Useful axes length      | 90 mm            |
| Dimensions              | 925x1190x1341mm  |
| Weight                  | 840 Kg           |



Nargesa MC550 pipe benders are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **You only need to do the first piece and save each step so that the control will repeat the same operations on the other pieces in the same series automatically, without longitudinal positioning control.** You can add the type and dimensions of the pipe or profile, the material and position of the rollers to the program so all of this is saved for the following series.

## Accessories for Profile formers MC550

### Set of treated steel rollers MC550



Set of 3 treated steel rollers for steel round pipe or stainless steel, thickness bigger than 2 mm.

When pipe sizes are smaller, two sizes are included in the same roller.

Eg. (25 + 30) o (1/2" + 1"1/4")

*Always clean up the rollers well before using stainless steel not to get the pipe contaminated.*

| Tube size in mm      |                                      |           |
|----------------------|--------------------------------------|-----------|
| Reference            | Dimensions                           | Weight    |
| 140-08-13-RHT0001    | (25 + 30)                            | 40,04 Kg. |
| 140-08-13-RHT0002    | (20 + 35)                            | 39,65 Kg. |
| 140-08-13-RHT0003    | 40                                   | 39,93 Kg. |
| 140-08-13-RHT0004    | 50                                   | 36,24 Kg. |
| 140-08-13-RHT0005    | 60                                   | 31,92 Kg. |
| 140-08-13-RHT0006    | 70                                   | 28,57 Kg. |
| 140-08-13-RHT0007    | 80                                   | 23,22 Kg. |
| For Schedule pipe    |                                      |           |
| 140-08-13-RHISOT0001 | (3/8" + 1/2") = (17,2 + 21,3 mm)     | 43,53 Kg. |
| 140-08-13-RHISOT0002 | (1" + 3/4") = (33,7 + 26,9 mm)       | 38,57 Kg. |
| 140-08-13-RHISOT0003 | 1" 1/4 = 42,4 mm                     | 39,11 Kg. |
| 140-08-13-RHISOT0004 | 1" 1/2 = 48,3 mm                     | 36,91 Kg. |
| 140-08-13-RHISOT0005 | 2" = 60,3 mm                         | 31,77 Kg. |
| 140-08-13-RHISOT0006 | 2" 1/2 = 73 mm                       | 27,01 Kg. |
| For inches pipe      |                                      |           |
| 140-08-13-RHWT0001   | (1/2" + 1" 1/4) = (12,70 + 31,75 mm) | 41,67 Kg. |
| 140-08-13-RHWT0002   | (1" + 3/4") = (25,40 + 19,05 mm)     | 42,35 Kg. |
| 140-08-13-RHWT0003   | 1" 1/2 = 38,1 mm                     | 40,56 Kg. |
| 140-08-13-RHWT0004   | 2" = 50,8 mm                         | 35,92 Kg. |
| 140-08-13-RHWT0005   | 2" 1/2 = 63,5 mm                     | 30,28 Kg. |
| 140-08-13-RHWT0006   | 3" = 76,2 mm                         | 25,31 Kg. |

## Accessories for Profile formers MC550

### Set of Sustarín rollers MC550



Set of 3 Sustarin rollers for stainless steel pipes, aluminium and delicate materials for thickness smaller than 2.5 mm.

When pipe sizes are smaller, two sizes are included in the same roller. Eg. (25 + 30)

*Sustarin rollers do not spoil or contaminate the pipe.*

*For any other size or profile please ask the manufacturer.*

| Tube size in mm     |  |          |
|---------------------|--|----------|
| Reference           | Dimensions                                     | Weight   |
| 140-08-13-RI0001    | (25 + 30)                                      | 7,24 Kg. |
| 140-08-13-RI0002    | (20 + 35)                                      | 7,17 Kg. |
| 140-08-13-RI0003    | 40   | 7,22 Kg. |
| 140-08-13-RI0004    | 50   | 6,55 Kg. |
| 140-08-13-RI0005    | 60   | 5,77 Kg. |
| 140-08-13-RI0006    | 70   | 5,17 Kg. |
| 140-08-13-RI0007    | 80   | 4,20 Kg. |
| For Schedule pipe   |  |          |
| 140-08-13-RIISO0001 | $(3/8" + 1/2") = (17,2 + 21,3 \text{ mm})$     | 7,87 Kg. |
| 140-08-13-RIISO0002 | $(1" + 3/4") = (33,7 + 26,9 \text{ mm})$       | 6,98 Kg. |
| 140-08-13-RIISO0003 | $1" 1/4 = 42,4 \text{ mm}$                     | 7,07 Kg. |
| 140-08-13-RIISO0004 | $1" 1/2 = 48,3 \text{ mm}$                     | 6,68 Kg. |
| 140-08-13-RIISO0005 | $2" = 60,3 \text{ mm}$                         | 5,75 Kg. |
| 140-08-13-RIISO0006 | $2" 1/2 = 73 \text{ mm}$                       | 4,89 Kg. |
| For inches pipe     |  |          |
| 140-08-13-RIWT0001  | $(1/2" + 1" 1/4) = (12,70 + 31,75 \text{ mm})$ | 7,54 Kg. |
| 140-08-13-RIWT0002  | $(1" + 3/4") = (25,40 + 19,05 \text{ mm})$     | 7,66 Kg. |
| 140-08-13-RIWT0003  | $1" 1/2 = 38,1 \text{ mm}$                     | 7,33 Kg. |
| 140-08-13-RIWT0004  | $2" = 50,8 \text{ mm}$                         | 6,50 Kg. |
| 140-08-13-RIWT0005  | $2" 1/2 = 63,5 \text{ mm}$                     | 5,47 Kg. |
| 140-08-13-RIWT0006  | $3" = 76,2 \text{ mm}$                         | 4,58 Kg. |



## Profile formers

### Profile formers MC650

The NEW MC650 Nargesa Section and pipe bending machine is specially designed to carry out mass production through the control, which saves the position of the rollers in each curve to repeat the same operations later, without longitudinal positioning control. It is ideal for manufacturing flanges, greenhouses, railings, large structures for construction... **Maximum capacity for bending round pipe: 4" inches or 101,6 mm.**

Its robustness, axis diameter, reduction capacity, Control Panel and 4.0 Technology make out of it one of the best bending machines on the market in the **three-driven roller category, an essential condition for working tubes and large profiles with a perfect finish.**

|                         |                             |
|-------------------------|-----------------------------|
| Reference               | 100-08-08-001               |
| Engine power            | 3 Kw / 4 HP                 |
| Hydraulic motor power   | 0,75 Kw / 1 CV              |
| Tension 3-phased        | 230/400 V                   |
| Adjustable roller speed | De 3 a 7 r.p.m.             |
| Axes diameter           | Lower 65 mm<br>Higher 80 mm |
| Useful axes length      | 130 mm                      |
| Dimensions              | 990x1310x1300 mm            |
| Weight                  | 1290 Kg                     |



**NEW**



Nargesa MC650 pipe benders are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **You only need to do the first piece and save each step so that the control will repeat the same operations on the other pieces in the same series automatically, without longitudinal positioning control.**

You can add the type and dimensions of the pipe or profile, the material and position of the rollers to the program so all of this is saved for the following series.

## Accessories for Profile formers MC650

### Set of treated steel rollers MC650



Set of 3 treated steel rollers for steel round pipe or stainless steel, thickness bigger than 2 mm.

When pipe sizes are smaller, two sizes are included in the same roller.

Eg. (25 + 30) o (1/2" + 1"1/4")

*Always clean up the rollers well before using stainless steel not to get the pipe contaminated.*

| Tube size in mm      |                                     |           |
|----------------------|-------------------------------------|-----------|
| Reference            | Dimensions                          | Weight    |
| 140-08-08-RHT0001    | (25 + 30)                           | 45,30 Kg. |
| 140-08-08-RHT0002    | (20 + 35)                           | 44,80 Kg. |
| 140-08-08-RHT0003    | 40                                  | 45,30 Kg. |
| 140-08-08-RHT0004    | 50                                  | 40,80 Kg. |
| 140-08-08-RHT0005    | 60                                  | 35,70 Kg. |
| 140-08-08-RHT0006    | 70                                  | 64,70 Kg. |
| 140-08-08-RHT0007    | 80                                  | 57,40 Kg. |
| 140-08-08-RHT0008    | 90                                  | 49,50 Kg. |
| 140-08-08-RHT0009    | 100                                 | 41,00 Kg. |
| For Schedule pipe    |                                     |           |
| 140-08-08-RHISOT0001 | (3/8" + 1/2") = (17,2 + 21,3 mm)    | 49,50 Kg. |
| 140-08-08-RHISOT0002 | (1" + 3/4") = (33,7 + 26,9 mm)      | 43,75 Kg. |
| 140-08-08-RHISOT0003 | 1" 1/4 = 42,4 mm                    | 44,40 Kg. |
| 140-08-08-RHISOT0004 | 1" 1/2 = 48,3 mm                    | 41,60 Kg. |
| 140-08-08-RHISOT0005 | 2" = 60,3 mm                        | 35,50 Kg. |
| 140-08-08-RHISOT0006 | 2" 1/2 = 73 mm                      | 60,20 Kg. |
| 140-08-08-RHWT0007   | 3" = 88,9 mm                        | 50,35 Kg. |
| 140-08-08-RHWT0008   | 3" 1/2 = 101,6 mm                   | 39,50 Kg. |
| For inches pipe      |                                     |           |
| 140-08-08-RHWT0001   | (1/2" + 1"1/4) = (12,70 + 31,75 mm) | 47,25 Kg. |
| 140-08-08-RHWT0002   | (1" + 3/4") = (25,40 + 19,05 mm)    | 48,00 Kg. |
| 140-08-08-RHWT0003   | 1" 1/2 = 38,1 mm                    | 45,90 Kg. |
| 140-08-08-RHWT0004   | 2" = 50,8 mm                        | 40,70 Kg. |
| 140-08-08-RHWT0005   | 2" 1/2 = 63,5 mm                    | 33,70 Kg. |
| 140-08-08-RHWT0006   | 3" = 76,2 mm                        | 60,20 Kg. |
| 140-08-08-RHWT0007   | 3" 1/2 = 88,9 mm                    | 50,35 Kg. |
| 140-08-08-RHWT0008   | 4" = 101,6 mm                       | 39,50 Kg. |

## Accessories for Profile formers MC650

### Set of Sustarín rollers MC650



Set of 3 Sustarin rollers for stainless steel pipes, aluminium and delicate materials for thickness smaller than 2.5 mm.

When pipe sizes are smaller, two sizes are included in the same roller.

Eg. (25 + 30)

*Sustarin rollers do not spoil or contaminate the pipe.*

*For any other size or profile please ask the manufacturer.*

| Tube size in mm      |  |           |
|----------------------|--|-----------|
| Reference            | Dimensions                                     | Weight    |
| 140-08-08-RI0001     | (25 + 30)                                      | 9,35 Kg.  |
| 140-08-08-RI0002     | (20 + 35)                                      | 9,25 Kg.  |
| 140-08-08-RI0003     | 40   | 9,30 Kg.  |
| 140-08-08-RI0004     | 50   | 8,50 Kg.  |
| 140-08-08-RI0005     | 60   | 7,60 Kg.  |
| 140-08-08-RI0006     | 70   | 6,50 Kg.  |
| 140-08-08-RI0007     | 80   | 11,80 Kg. |
| 140-08-08-RI0008     | 90   | 10,35 Kg. |
| 140-08-08-RI0009     | 100  | 8,80 Kg.  |
| For Schedule pipe    |  |           |
| 140-08-08-RIISOT0001 | $(3/8" + 1/2") = (17,2 + 21,3 \text{ mm})$     | 10,10 Kg. |
| 140-08-08-RIISOT0002 | $(1" + 3/4") = (33,7 + 26,9 \text{ mm})$       | 9,00 Kg.  |
| 140-08-08-RIISOT0003 | $1" 1/4 = 42,4 \text{ mm}$                     | 9,15 Kg.  |
| 140-08-08-RIISOT0004 | $1" 1/2 = 48,3 \text{ mm}$                     | 8,65 Kg.  |
| 140-08-08-RIISOT0005 | $2" = 60,3 \text{ mm}$                         | 7,55 Kg.  |
| 140-08-08-RIISOT0006 | $2" 1/2 = 73 \text{ mm}$                       | 12,30 Kg. |
| 140-08-08-RIWT0007   | $3" = 88,9 \text{ mm}$                         | 10,50 Kg. |
| 140-08-08-RIWT0008   | $3" 1/2 = 101,6 \text{ mm}$                    | 8,50 Kg.  |
| For inches pipe      |  |           |
| 140-08-08-RIWT0001   | $(1/2" + 1" 1/4) = (12,70 + 31,75 \text{ mm})$ | 9,65 Kg.  |
| 140-08-08-RIWT0002   | $(1" + 3/4") = (25,40 + 19,05 \text{ mm})$     | 9,80 Kg.  |
| 140-08-08-RIWT0003   | $1" 1/2 = 38,1 \text{ mm}$                     | 9,40 Kg.  |
| 140-08-08-RIWT0004   | $2" = 50,8 \text{ mm}$                         | 8,45 Kg.  |
| 140-08-08-RIWT0005   | $2" 1/2 = 63,5 \text{ mm}$                     | 7,25 Kg.  |
| 140-08-08-RIWT0006   | $3" = 76,2 \text{ mm}$                         | 12,30 Kg. |
| 140-08-08-RIWT0007   | $3" 1/2 = 88,9 \text{ mm}$                     | 10,50 Kg. |
| 140-08-08-RIWT0008   | $4" = 101,6 \text{ mm}$                        | 8,50 Kg.  |



## Digital radius gauge

### High precision digital radius gauge

**Especially designed for measuring radii on profiles.**

The High precision digital radius gauge allows the user to have a direct and immediate reading of inner and outer radius in a range from 55 to 11.250 millimeters or from 2" to 443" inches.

The High precision digital radius gauge measures radii in spherical objects such as tubes, profiles and pipes in a quick and accurate way.

It is really fast and easy to use! It indicates the inner or outer radius of the part we are bending without removing it from the machine and without needing to previously draw and cut a guide template.

|                                    |  |
|------------------------------------|--|
| Reference                          | 140-MED08-00001                        |
| Measurement scope                  | De 55 a 11.250 m<br>o de 2" a 443"     |
| Error tolerance over the radius    | $\Delta R = (0.01 \cdot R) \text{ mm}$ |
| Error toler. over the touch sensor | $\Delta L = 0.02 \text{ mm}$           |
| Power supply                       | Pila de litio 3V CR2032                |
| Radius gauge dimensions            | 250x60x40 mm                           |
| 100 arc meter dimensions           | 125x57x20 mm                           |
| 200 arc meter dimensions           | 225x54x20 mm                           |
| 300 arc meter dimensions           | 325x59x20 mm                           |
| Weight                             | 1,3 Kg                                 |



- Includes 3V CR2032 lithium battery
- Includes 3 measurement arcs (100, 200 and 300 mm).
- Supplied with a shock-resistant stainless Steel briefcase.



## Non-Mandrel Pipe Benders

### Non-mandrel pipe bender CC60

The new generation of CC60 non-mandrel pipe benders makes up to 180° curves on hollow pipes with the best finish, the greatest speed and thinner than other machines in the same category. Pipes may be round, oval, square, rectangular... made of different materials, iron, aluminum, stainless steel, copper...

**Maximum working stroke:** 60.3 mm or 2" Schedule-40 or 2" 1/4 x 4 mm.

|  |   |
|--|---|
| Reference                                  | 100-17-01-001                             |
| Engine power                               | 1,1 KW / 1,5 HP                           |
| Tension                                    | 230 V Single-phase 50/60 Hz               |
| Automatic rotation speed                   | From 1,1 to 3,5 r.p.m.                    |
| Intensity                                  | 5 A                                       |
| Minimum radius of curvature                | 3 times the pipe diameter                 |
| Maximum radius of curvature                | 320 mm                                    |
| Maximum working stroke on round steel pipe | 60,3mm or 2" Schedule-40 or 2" 1/4 x 4mm. |
| Maximum angle of curvature                 | 180°                                      |
| Dimensions                                 | 630x1000x1150 mm                          |
| Weight                                     | 365 Kg                                    |



**NEW**



Narges tube and pipes benders are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **Just enter the pipe dimensions, thickness, angle of the curve or curves and choose a die from the library and the control programs the rest of the parameters automatically;** elastic recovery correction (springback), recommended rotation speed, whether a tool post support is necessary or not, and if the intended curve is possible... All of this may be modified by the end user based on their own needs. These are some of the most relevant features of this control system.

## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for round pipes in millimeters · 12 to 60 mm



Rollers made of treated Steel. Units suitable for bending all types of round pipes 12 to 60 millimeters.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.                              | Radius    | Min. thickness | Max. thickness | Weight                      |
|-------------------------------------|-----------|----------------|----------------|-----------------------------|
| <b>Set diameter 12mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10012</b> |
| 12 mm                               | 60 mm     | 1 mm           | 5 mm           | 3,26 Kg                     |
| <b>Set diameter 15mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10001</b> |
| 15 mm                               | 4D=60 mm  | 1 mm           | 5 mm           | 3,18 Kg                     |
| <b>Set diameter 18mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10010</b> |
| 18 mm                               | 60 mm     | 1 mm           | 5 mm           | 3,11 Kg                     |
| <b>Set diameter 20mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10002</b> |
| 20 mm                               | 3D=60 mm  | 1 mm           | 5 mm           | 3,22 Kg                     |
| <b>Set diameter 22mm Radius 66</b>  |           |                |                | <b>REF: 140-17-01-10014</b> |
| 22 mm                               | 3D=66 mm  | 1 mm           | 5 mm           | 4,10 Kg                     |
| <b>Set diameter 25mm Radius 75</b>  |           |                |                | <b>REF: 140-17-01-10003</b> |
| 25 mm                               | 3D=75 mm  | 1,2 mm         | 5 mm           | 5,55 Kg                     |
| <b>Set diameter 28mm Radius 84</b>  |           |                |                | <b>REF: 140-17-01-10011</b> |
| 28 mm                               | 3D=84 mm  | 1,2 mm         | 5 mm           | 7,28 Kg                     |
| <b>Set diameter 30mm Radius 90</b>  |           |                |                | <b>REF: 140-17-01-10004</b> |
| 30 mm                               | 3D=90 mm  | 1,2 mm         | 5 mm           | 8,29 Kg                     |
| <b>Set diameter 32mm Radius 98</b>  |           |                |                | <b>REF: 140-17-01-10013</b> |
| 32 mm                               | 3D=98 mm  | 1,5 mm         | 5 mm           | 10,16 Kg                    |
| <b>Set diameter 35mm Radius 105</b> |           |                |                | <b>REF: 140-17-01-10005</b> |
| 35 mm                               | 3D=105 mm | 1,5 mm         | 5 mm           | 12,14 Kg                    |
| <b>Set diameter 40mm Radius 120</b> |           |                |                | <b>REF: 140-17-01-10006</b> |
| 40 mm                               | 3D=120 mm | 1,5 mm         | 5 mm           | 17,11 Kg                    |
| <b>Set diameter 50mm Radius 150</b> |           |                |                | <b>REF: 140-17-01-10007</b> |
| 50 mm                               | 3D=150 mm | 2 mm           | 5 mm           | 31,41 Kg                    |
| <b>Set diameter 60mm Radius 180</b> |           |                |                | <b>REF: 140-17-01-10008</b> |
| 60 mm                               | 3D=180 mm | 2 mm           | 2,5 mm         | 40,88 Kg                    |

## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for 60mm round pipes



Rollers made of treated steel. Suitable kit to bend 60mm tube of 3mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-01-00002 is required*

| Ø Ext.   | Radius    | Min. thickness | Max. thickness | Weight               |
|--|-----------|----------------|----------------|----------------------|
| Set diameter 60mm Radius 180 with support holder |           |                |                | REF: 140-17-01-10009 |
| 60 mm  | 3D=180 mm | 3mm            | 4 mm           | 40,58 Kg             |

\* The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine.

## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for round pipes 3/8" to 1" 1/2 Schedule



Rollers made of treated Steel. Units suitable for bending all types of round pipes 3/8" to 1" 1/2 Schedule.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.   | Ø Ext.  | Radius      | SCH10   | SCH40   | SCH80   | SCH160  | Weight               |
|--|---------|-------------|---------|---------|---------|---------|----------------------|
| Set diameter 17,10mm Radius 60mm Diameter 3/8" Schedule      |         |             |         |         |         |         | REF: 140-17-01-20001 |
| 3/8"   | 17,1 mm | 60 mm       | 1,65 mm | 2,31 mm | 3,20 mm | --      | 4,22 Kg              |
| Set diameter 21,30mm Radius 63,9mm Diameter 1/2" Schedule    |         |             |         |         |         |         | REF: 140-17-01-20002 |
| 1/2"   | 21,3 mm | 3D=63,9 mm  | 2,11 mm | 2,77 mm | 3,73 mm | 4,78 mm | 3,56 Kg              |
| Set diameter 26,70mm Radius 80,1mm Diameter 3/4" Schedule    |         |             |         |         |         |         | REF: 140-17-01-20003 |
| 3/4"   | 26,7 mm | 3D=80,1 mm  | 2,11 mm | 2,87 mm | 3,91 mm | 5,56 mm | 6,74 Kg              |
| Set diameter 33,70mm Radius 101,1mm Diameter 1" Schedule     |         |             |         |         |         |         | REF: 140-17-01-20004 |
| 1"   | 33,7 mm | 3D=101,1 mm | 2,77 mm | 3,38 mm | 4,55 mm | 6,35 mm | 11,18 Kg             |
| Set diameter 42,40mm Radius 127,2mm Diameter 1" 1/4 Schedule |         |             |         |         |         |         | REF: 140-17-01-20005 |
| 1" 1/4   | 42,4 mm | 3D=127,2 mm | 2,77 mm | 3,56 mm | 4,85 mm | 6,35 mm | 18,86 Kg             |
| Set diameter 48,30mm Radius 144,9mm Diameter 1" 1/2 Schedule |         |             |         |         |         |         | REF: 140-17-01-20006 |
| 1" 1/2   | 48,3 mm | 3D=144,9 mm | 2,77 mm | 3,68 mm | 5,08 mm | --      | 27,05 Kg             |

### Accessories for 2" Schedule round pipes



Rollers made of treated steel. Suitable kit to bend 2" tube of 2,77mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-01-00002 is required*

| Ø Ext.  | Ø Ext.  | Radius      | SCH10   | SCH40   | SCH80 | SCH160 | Weight               |
|---|---------|-------------|---------|---------|-------|--------|----------------------|
| Set diameter 60,3mm Radius 180,9mm Diameter 2" Schedule |         |             |         |         |       |        | REF: 140-17-01-20007 |
| 2"  | 60,3 mm | 3D=180,9 mm | 2,77 mm | 3,91 mm | --    | --     | 45,75 Kg             |

\* All capacities are based on the norm of carbon steel tubes according to ASTM, Standard A-53 grade A with a maximum resistance strength of 330MPa. The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine. Check with your material supplier for the specifications of this one.



## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for round pipes in inches · 1/2" to 2" 1/4 inches



Rollers made of treated Steel. Units suitable for bending all types of round pipes 1/2" to 2" 1/4 inches.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.   | Ø Ext.   | Radius       | Min. thickness | Max. thickness | Weight                      |
|--|----------|--------------|----------------|----------------|-----------------------------|
| <b>Set diameter 9,52mm Radius 60mm Diameter 3/8" inches</b>        |          |              |                |                | <b>REF: 140-17-01-30012</b> |
| 3/8"   | 9,52 mm  | 60 mm        | 1 mm           | 4 mm           | 3,40 Kg                     |
| <b>Set diameter 12,7mm Radius 60mm Diameter 1/2" inches</b>        |          |              |                |                | <b>REF: 140-17-01-30011</b> |
| 1/2"   | 12,7 mm  | 60 mm        | 1 mm           | 4 mm           | 3,37 Kg                     |
| <b>Set diameter 15,88mm Radius 60mm Diameter 5/8" inches</b>       |          |              |                |                | <b>REF: 140-17-01-30001</b> |
| 5/8"   | 15,88 mm | 60 mm        | 1 mm           | 4 mm           | 3,61 Kg                     |
| <b>Set diameter 19,05mm Radius 60mm Diameter 3/4" inches</b>       |          |              |                |                | <b>REF: 140-17-01-30002</b> |
| 3/4"   | 19,05 mm | 60 mm        | 1 mm           | 4 mm           | 2,79 Kg                     |
| <b>Set diameter 22,22mm Radius 66mm Diameter 7/8" inches</b>       |          |              |                |                | <b>REF: 140-17-01-10014</b> |
| 7/8"   | 22,22 mm | 66 mm        | 1 mm           | 5 mm           | 4,10 Kg                     |
| <b>Set diameter 25,40mm Radius 76,20mm Diameter 1" inches</b>      |          |              |                |                | <b>REF: 140-17-01-30003</b> |
| 1"   | 25,40 mm | 3D=76,2 mm   | 1,2 mm         | 5 mm           | 5,72 Kg                     |
| <b>Set diameter 28,57mm Radius 85,7mm Diameter 1" 1/8 inches</b>   |          |              |                |                | <b>REF: 140-17-01-30009</b> |
| 1" 1/8   | 28,57 mm | 3D=85,7 mm   | 1,5 mm         | 5 mm           | 7,70 Kg                     |
| <b>Set diameter 31,75mm Radius 95,25mm Diameter 1" 1/4 inches</b>  |          |              |                |                | <b>REF: 140-17-01-30004</b> |
| 1" 1/4   | 31,75 mm | 3D=95,25 mm  | 1,5 mm         | 6 mm           | 10,21 Kg                    |
| <b>Set diameter 38,10mm Radius 114,30mm Diameter 1" 1/2 inches</b> |          |              |                |                | <b>REF: 140-17-01-30005</b> |
| 1" 1/2   | 38,10 mm | 3D=114,3 mm  | 1,5 mm         | 7 mm           | 15,69 Kg                    |
| <b>Set diameter 44,45mm Radius 133,35mm Diameter 1" 3/4 inches</b> |          |              |                |                | <b>REF: 140-17-01-30010</b> |
| 1" 3/4   | 44,45 mm | 3D=133,35 mm | 2 mm           | 5 mm           | 21,86 Kg                    |
| <b>Set diameter 50,8mm Radius 152,4mm Diameter 2" inches</b>       |          |              |                |                | <b>REF: 140-17-01-30006</b> |
| 2"   | 50,80 mm | 3D=152,4 mm  | 2 mm           | 5 mm           | 32,24 Kg                    |
| <b>Set diameter 57,15mm Radius 171,45mm Diameter 2" 1/4 inches</b> |          |              |                |                | <b>REF: 140-17-01-30007</b> |
| 2" 1/4   | 57,15 mm | 3D=171,45 mm | 2 mm           | 2,5 mm         | 36,13 Kg                    |

## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for 2" 1/4 round pipes



Rollers made of treated Steel. Suitable kit to bend 2" 1/4 tube of 3mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-01-00002 is required*

| Ø Ext.   | Ø Ext.   | Radius       | Min. thickness | Max. thickness       | Weight   |
|--|----------|--------------|----------------|----------------------|----------|
| Set diameter 57,15mm Radius 171,45mm Diameter 2" 1/4 with support holder |          |              |                | REF: 140-17-01-30008 |          |
| 2" 1/4   | 57,15 mm | 3D=171,45 mm | 3 mm           | 4 mm                 | 35,91 Kg |

\* The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine.

### Supporting Roller Kit CC60



**Reference: 140-17-01-00002**

The CC60 Supporting Roller Kit is used to bend:

- 60mm tube of 3mm wall thickness or thicker
- 2" Schedule tube of 2,77mm wall thickness or thicker
- 2" 1/4 tube of 3mm wall thickness or thicker

**Weight: 9,85Kg**

## Accessories for Non-Mandrel Pipe Bender CC60

### Accessories for square pipes in millimeters · 20 to 40 mm



Rollers made of treated Steel. Units suitable for bending all types of square pipes 20 to 40mm.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Section                                      | Radius    | Min. thickness | Max. thickness | Weight                      |
|--|-----------|----------------|----------------|-----------------------------|
| <b>Square Tube Die Set 20mm Radius 100mm</b> |           |                |                | <b>REF: 140-17-01-10101</b> |
| 20x20 mm                                     | 5D=100 mm | 1,5 mm         | 4 mm           | 11,1 Kg                     |
| <b>Square Tube Die Set 25mm Radius 115mm</b> |           |                |                | <b>REF: 140-17-01-10102</b> |
| 25x25 mm                                     | 115 mm    | 2 mm           | 4 mm           | 14,75 Kg                    |
| <b>Square Tube Die Set 30mm Radius 135mm</b> |           |                |                | <b>REF: 140-17-01-10103</b> |
| 30x30 mm                                     | 135 mm    | 2 mm           | 4 mm           | 22 Kg                       |
| <b>Square Tube Die Set 40mm Radius 165mm</b> |           |                |                | <b>REF: 140-17-01-10104</b> |
| 40x40 mm                                     | 165 mm    | 2 mm           | 5 mm           | 34,15 Kg                    |

### Accessories for square pipes in inches · 3/4" to 1" 1/2 inches



Rollers made of treated Steel. Units suitable for bending all types of square pipes 3/4" to 1" 1/2 inches.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Section   | Section       | Radius | Radius  | Min. Thick. | Max. Thick. | Weight                      |
|---|---------------|--------|---------|-------------|-------------|-----------------------------|
| <b>Square Tube Die Set 3/4" (19,05mm) Radius 4" (101,6mm)</b>     |               |        |         |             |             | <b>REF: 140-17-01-30101</b> |
| 3/4"x3/4"   | 19,05x19,05mm | 4"     | 101,6mm | 1,5 mm      | 4 mm        | 11,5 Kg                     |
| <b>Square Tube Die Set 1" (25,4mm) Radius 4,5" (114,3mm)</b>      |               |        |         |             |             | <b>REF: 140-17-01-30102</b> |
| 1"x1"   | 25,4x25,4mm   | 4" 1/2 | 114,3mm | 2 mm        | 4 mm        | 14,6 Kg                     |
| <b>Square Tube Die Set 1" 1/4 (31,75mm) Radius 5,5" (139,7mm)</b> |               |        |         |             |             | <b>REF: 140-17-01-30103</b> |
| 1" 1/4x1" 1/4   | 31,75x31,75mm | 5" 1/2 | 139,7mm | 2 mm        | 4 mm        | 23,3 Kg                     |
| <b>Square Tube Die Set 1" 1/2 (38,1mm) Radius 6,5" (165,1mm)</b>  |               |        |         |             |             | <b>REF: 140-17-01-30104</b> |
| 1" 1/2x1" 1/2   | 38,1x38,1mm   | 6" 1/2 | 165,1mm | 2 mm        | 5 mm        | 34,6 Kg                     |

## Accessories for Non-Mandrel Pipe Bender CC60

### Nargesa BEND8 aerosol lubricant



The CC60 pipe bender comes with a 400 ml bottle of BEND8 lubricant.

This is a high-additive and low-viscosity aerosol oil. Contains PTFE. Does not contain silicone.

- Enables the finish on the outer bend
- Inhibits roughness and inner marks
- Reduces wear of the tooling
- Especially designed for tubes of small thickness
- Lubricates to reduce friction
- Avoids and dissolves corrosion
- Gives shine and protects
- Cleans up and removes dirt

| Reference     | Description              | Quantity | Weight |
|---------------|--------------------------|----------|--------|
| 060-SPR-00003 | Aerosol lubricant bottle | 400ml    | 0,39Kg |
| 060-SPR-00004 | Box of 12 bottles        | 12x400ml | 4,83Kg |

### CC60 2-axis positioning gauge



The gauge of the CC60 allows to make mass produced parts, much faster, more accurate and repetitively.

- Adjustable longitudinal positioning with 6 positions
- Angular head rotation every 5 degrees
- Four-clamp plate adjustable to round and square tube
- Longitudinal movement with high precision linear guides
- Automatic anti-collision control
- Easy handling and preparation for difficult parts

| Reference       | Gauge length | Maximum capacity    | Weight |
|-----------------|--------------|---------------------|--------|
| 140-17-01-50000 | 3000mm       | 60,3mm, 2" Schedule | 125Kg  |



## Non-Mandrel Pipe Benders

### Non-mandrel pipe bender CC90

The new generation of CC90 non-mandrel pipe benders makes up to 180° curves on hollow pipes with the best finish, the greatest speed and thinner than other machines in the same category. Pipes may be round, oval, square, rectangular...made of different materials, iron, aluminum, stainless steel, copper...

**Maximum working stroke:** 88.9 mm or 3" Schedule 40 or 3" 1/2 Whitworth or 3" ISO x 6 mm.

|  |   |
|--|---|
| Reference                                  | 100-17-02-001                           |
| Engine power                               | 2,2 Kw / 3 HP                           |
| Tension                                    | 230/400 V 50/60 Hz                      |
| Automatic rotation speed                   | From 0,75 to 2,2 r.p.m.                 |
| Intensity                                  | 9/5 A                                   |
| Minimum radius of curvature                | 3 times the pipe diameter               |
| Maximum radius of curvature                | 346 mm                                  |
| Maximum working stroke on round steel pipe | 90mm or 3" Schedule-40 or 3" 1/2 x 6mm. |
| Maximum angle of curvature                 | 180°                                    |
| Dimensions                                 | 700x1300x1360 mm                        |
| Weight                                     | 860 Kg                                  |



**NEW**



Nargesa tube and pipes benders are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **Just enter the pipe dimensions, thickness, angle of the curve or curves and choose a die from the library and the control programs the rest of the parameters automatically;** elastic recovery correction (springback), recommended rotation speed, whether a tool post support is necessary or not, and if the intended curve is possible... All of this may be modified by the end user based on their own needs. These are some of the most relevant features of this control system.

## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for round pipes in millimeters · 12 to 80 mm



Rollers made of treated Steel. Units suitable for bending all types of round pipes 12 to 80 millimeters.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.                              | Radius    | Min. thickness | Max. thickness | Weight                      |
|-------------------------------------|-----------|----------------|----------------|-----------------------------|
| <b>Set diameter 12mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10012</b> |
| 12 mm                               | 60 mm     | 1 mm           | 5 mm           | 3,26 Kg                     |
| <b>Set diameter 15mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10001</b> |
| 15 mm                               | 4D=60 mm  | 1 mm           | 5 mm           | 3,18 Kg                     |
| <b>Set diameter 18mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10010</b> |
| 18 mm                               | 60 mm     | 1 mm           | 5 mm           | 3,11 Kg                     |
| <b>Set diameter 20mm Radius 60</b>  |           |                |                | <b>REF: 140-17-01-10002</b> |
| 20 mm                               | 3D=60 mm  | 1 mm           | 5 mm           | 3,22 Kg                     |
| <b>Set diameter 22mm Radius 66</b>  |           |                |                | <b>REF: 140-17-01-10014</b> |
| 22 mm                               | 3D=66 mm  | 1 mm           | 5 mm           | 4,10 Kg                     |
| <b>Set diameter 25mm Radius 75</b>  |           |                |                | <b>REF: 140-17-01-10003</b> |
| 25 mm                               | 3D=75 mm  | 1,2 mm         | 5 mm           | 5,55 Kg                     |
| <b>Set diameter 28mm Radius 84</b>  |           |                |                | <b>REF: 140-17-01-10011</b> |
| 28 mm                               | 3D=84 mm  | 1,2 mm         | 5 mm           | 7,28 Kg                     |
| <b>Set diameter 30mm Radius 90</b>  |           |                |                | <b>REF: 140-17-01-10004</b> |
| 30 mm                               | 3D=90 mm  | 1,2 mm         | 5 mm           | 8,29 Kg                     |
| <b>Set diameter 32mm Radius 98</b>  |           |                |                | <b>REF: 140-17-01-10013</b> |
| 32 mm                               | 3D=98 mm  | 1,5 mm         | 5 mm           | 10,16 Kg                    |
| <b>Set diameter 35mm Radius 105</b> |           |                |                | <b>REF: 140-17-01-10005</b> |
| 35 mm                               | 3D=105 mm | 1,5 mm         | 5 mm           | 12,14 Kg                    |
| <b>Set diameter 40mm Radius 120</b> |           |                |                | <b>REF: 140-17-01-10006</b> |
| 40 mm                               | 3D=120 mm | 1,5 mm         | 5 mm           | 17,11 Kg                    |
| <b>Set diameter 50mm Radius 150</b> |           |                |                | <b>REF: 140-17-01-10007</b> |
| 50 mm                               | 3D=150 mm | 2 mm           | 5 mm           | 31,41 Kg                    |
| <b>Set diameter 60mm Radius 180</b> |           |                |                | <b>REF: 140-17-01-10008</b> |
| 60 mm                               | 3D=180 mm | 2 mm           | 5 mm           | 40,88 Kg                    |
| <b>Set diameter 70mm Radius 210</b> |           |                |                | <b>REF: 140-17-02-10001</b> |
| 70 mm                               | 3D=210 mm | 3,6 mm         | 6 mm           | 72,40 Kg                    |
| <b>Set diameter 80mm Radius 240</b> |           |                |                | <b>REF: 140-17-02-10002</b> |
| 80 mm                               | 3D=240 mm | 4 mm           | 5 mm           | 88,17 Kg                    |

## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for 90mm round pipes



Rollers made of treated steel. Suitable kit to bend 90mm tube of 4mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-02-00002 is required*

| Ø Ext.                             | Radius    | Min. thickness | Max. thickness              | Weight    |
|------------------------------------|-----------|----------------|-----------------------------|-----------|
| <b>Set diameter 90mm Radio 270</b> |           |                | <b>REF: 140-17-02-10003</b> |           |
| 90 mm                              | 3D=270 mm | 4 mm           | 5 mm                        | 114,36 Kg |

*\* The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine.*

## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for round pipes 3/8" to 2" 1/2 Schedule



Rollers made of treated Steel. Units suitable for bending all types of round pipes 3/8" to 2" 1/2 Schedule.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.  | Ø Ext.   | Radius      | SCH10   | SCH40   | SCH80   | SCH160  | Weight                      |
|---|----------|-------------|---------|---------|---------|---------|-----------------------------|
| <b>Set diameter 17,10mm Radius 60mm Diameter 3/8" Schedule</b>      |          |             |         |         |         |         | <b>REF: 140-17-01-20001</b> |
| 3/8"  | 17,1 mm  | 60 mm       | 1,65 mm | 2,31 mm | 3,20 mm | --      | 4,22 Kg                     |
| <b>Set diameter 21,30mm Radius 63,9mm Diameter 1/2" Schedule</b>    |          |             |         |         |         |         | <b>REF: 140-17-01-20002</b> |
| 1/2"  | 21,3 mm  | 3D=63,9 mm  | 2,11 mm | 2,77 mm | 3,73 mm | 4,78 mm | 3,56 Kg                     |
| <b>Set diameter 26,70mm Radius 80,1mm Diameter 3/4" Schedule</b>    |          |             |         |         |         |         | <b>REF: 140-17-01-20003</b> |
| 3/4"  | 26,7 mm  | 3D=80,1 mm  | 2,11 mm | 2,87 mm | 3,91 mm | 5,56 mm | 6,74 Kg                     |
| <b>Set diameter 33,70mm Radius 101,1mm Diameter 1" Schedule</b>     |          |             |         |         |         |         | <b>REF: 140-17-01-20004</b> |
| 1"  | 33,7 mm  | 3D=101,1 mm | 2,77 mm | 3,38 mm | 4,55 mm | 6,35 mm | 11,18 Kg                    |
| <b>Set diameter 42,40mm Radius 127,2mm Diameter 1" 1/4 Schedule</b> |          |             |         |         |         |         | <b>REF: 140-17-01-20005</b> |
| 1" 1/4  | 42,4 mm  | 3D=127,2 mm | 2,77 mm | 3,56 mm | 4,85 mm | 6,35 mm | 18,86 Kg                    |
| <b>Set diameter 48,30mm Radius 144,9mm Diameter 1" 1/2 Schedule</b> |          |             |         |         |         |         | <b>REF: 140-17-01-20006</b> |
| 1" 1/2  | 48,3 mm  | 3D=144,9 mm | 2,77 mm | 3,68 mm | 5,08 mm | --      | 27,05 Kg                    |
| <b>Set diameter 60,30mm Radius 180,9mm Diameter 2" Schedule</b>     |          |             |         |         |         |         | <b>REF: 140-17-02-20001</b> |
| 2"  | 60,30 mm | 3D=180,9 mm | 2,77 mm | 3,91 mm | 5,54 mm | --      | 45,75 Kg                    |
| <b>Set diameter 73mm Radius 219mm Diameter 2" 1/2 Schedule</b>      |          |             |         |         |         |         | <b>REF: 140-17-02-20002</b> |
| 2" 1/2  | 73,0 mm  | 3D=219 mm   | 3,05 mm | 5,16 mm | 7,01 mm | --      | 72,00 Kg                    |

### Accessories for 3" Schedule round pipes



Rollers made of treated steel. Suitable kit to bend 3" Schedule tube of 3,05mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-02-00002 is required*

| Ø Ext.   | Ø Ext.  | Radius      | SCH10   | SCH40   | SCH80 | SCH160 | Weight                      |
|--|---------|-------------|---------|---------|-------|--------|-----------------------------|
| <b>Set diameter 88,9mm Radius 266,7mm Diameter 3" Schedule</b> |         |             |         |         |       |        | <b>REF: 140-17-02-30003</b> |
| 3"   | 88,9 mm | 3D=266,7 mm | 3,05 mm | 5,49 mm | --    | --     | 110,80 Kg                   |

\* All capacities are based on the norm of carbon steel tubes according to ASTM, Standard A-53 grade A with a maximum resistance strength of 330MPa. The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine. Check with your material supplier for the specifications of this one.

## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for round pipes in inches · 1/2" to 3" inches



Rollers made of treated Steel. Units suitable for bending all types of round pipes 1/2" to 3" inches.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Ø Ext.  | Ø Ext.   | Radius       | Min. thickness | Max. thickness | Weight               |
|---|----------|--------------|----------------|----------------|----------------------|
| Set diameter 9,52mm Radius 60mm Diameter 3/8" inches        |          |              |                |                | REF: 140-17-01-30012 |
| 3/8"  | 9,52 mm  | 60 mm        | 1 mm           | 4 mm           | 3,40 Kg              |
| Set diameter 12,7mm Radius 60mm Diameter 1/2" inches        |          |              |                |                | REF: 140-17-01-30011 |
| 1/2"  | 12,7 mm  | 60 mm        | 1 mm           | 4 mm           | 3,37 Kg              |
| Set diameter 15,88mm Radius 60mm Diameter 5/8" inches       |          |              |                |                | REF: 140-17-01-30001 |
| 5/8"  | 15,88 mm | 60 mm        | 1 mm           | 4 mm           | 3,61 Kg              |
| Set diameter 19,05mm Radius 60mm Diameter 3/4" inches       |          |              |                |                | REF: 140-17-01-30002 |
| 3/4"  | 19,05 mm | 60 mm        | 1 mm           | 4 mm           | 2,79 Kg              |
| Set diameter 22,22mm Radius 66mm Diameter 7/8" inches       |          |              |                |                | REF: 140-17-01-10014 |
| 7/8"  | 22,22 mm | 66 mm        | 1 mm           | 5 mm           | 4,10 Kg              |
| Set diameter 25,40mm Radius 76,20mm Diameter 1" inches      |          |              |                |                | REF: 140-17-01-30003 |
| 1"  | 25,40 mm | 3D=76,2 mm   | 1,2 mm         | 5 mm           | 5,72 Kg              |
| Set diameter 28,57mm Radius 85,7mm Diameter 1" 1/8 inches   |          |              |                |                | REF: 140-17-01-30009 |
| 1" 1/8  | 28,57 mm | 3D=85,7 mm   | 1,5 mm         | 5 mm           | 7,70 Kg              |
| Set diameter 31,75mm Radius 95,25mm Diameter 1" 1/4 inches  |          |              |                |                | REF: 140-17-01-30004 |
| 1" 1/4  | 31,75 mm | 3D=95,25 mm  | 1,5 mm         | 6 mm           | 10,21 Kg             |
| Set diameter 38,10mm Radius 114,30mm Diameter 1" 1/2 inches |          |              |                |                | REF: 140-17-01-30005 |
| 1" 1/2  | 38,10 mm | 3D=114,3 mm  | 1,5 mm         | 7 mm           | 15,69 Kg             |
| Set diameter 44,45mm Radius 133,35mm Diameter 1" 3/4 inches |          |              |                |                | REF: 140-17-01-30010 |
| 1" 3/4  | 44,45 mm | 3D=133,35 mm | 2 mm           | 5 mm           | 21,86 Kg             |
| Set diameter 50,8mm Radius 152,4mm Diameter 2" inches       |          |              |                |                | REF: 140-17-01-30006 |
| 2"  | 50,80 mm | 3D=152,4 mm  | 2 mm           | 5 mm           | 32,24 Kg             |
| Set diameter 57,15mm Radius 171,45mm Diameter 2" 1/4 inches |          |              |                |                | REF: 140-17-01-30007 |
| 2" 1/4  | 57,15 mm | 3D=171,45 mm | 2 mm           | 5 mm           | 36,13 Kg             |
| Set diameter 63,5mm Radius 190,5mm Diameter 2" 1/2 inches   |          |              |                |                | REF: 140-17-02-30001 |
| 2" 1/2  | 63,50 mm | 3D=190,5 mm  | 3 mm           | 8,64 mm        | 40,50 Kg             |
| Set diameter 76,2mm Radius 228,6mm Diameter 3" inches       |          |              |                |                | REF: 140-17-02-30002 |
| 3"  | 76,20 mm | 3D=228,6 mm  | 3 mm           | 7,21 mm        | 80,68 Kg             |



## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for 3" 1/2 round pipes



Rollers made of treated Steel. Suitable kit to bend 3" 1/2 tube of 4mm wall thickness or thicker.

The following is supplied with the unit: A main roller, a clamp with a fastener, a support holder

*Check with the manufacturer for other dimensions*

*Supporting Roller Kit REF: 140-17-02-00002 is required*

| Ø Ext.  | Ø Ext.  | Radius      | Min. thickness | Max. thickness | Weight               |
|---|---------|-------------|----------------|----------------|----------------------|
| Set diameter 88,9mm Radius 266,7mm Diameter 3" 1/2 inches |         |             |                |                | REF: 140-17-02-30003 |
| 3" 1/2  | 88,9 mm | 3D=266,7 mm | 4 mm           | 6,05 mm        | 110,80 Kg            |

\* The walls with more thickness to the established one and the materials with more resistance, reduce the capacities of the machine.

### Supporting Roller Kit CC90



**Reference:** 140-17-02-00002

The CC90 Supporting Roller Kit is used to bend:

- 90mm tube of 4mm wall thickness or thicker
- 3" Schedule tube of 3,05mm wall thickness or thicker
- 3" 1/2 tube of 4mm wall thickness or thicker.

**Weight:** 24,57 Kg.

## Accessories for Non-Mandrel Pipe Bender CC90

### Accessories for square pipes in millimeters · 20 to 50 mm



Rollers made of treated Steel. Units suitable for bending all types of square pipes 20 to 50mm.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Section                                      | Radius    | Min. thickness | Max. thickness | Weight                      |
|--|-----------|----------------|----------------|-----------------------------|
| <b>Square Tube Die Set 20mm Radius 100mm</b> |           |                |                | <b>REF: 140-17-01-10101</b> |
| 20x20 mm                                     | 5D=100 mm | 1,5 mm         | 4 mm           | 11,1 Kg                     |
| <b>Square Tube Die Set 25mm Radius 115mm</b> |           |                |                | <b>REF: 140-17-01-10102</b> |
| 25x25 mm                                     | 115 mm    | 2 mm           | 4 mm           | 14,75 Kg                    |
| <b>Square Tube Die Set 30mm Radius 135mm</b> |           |                |                | <b>REF: 140-17-01-10103</b> |
| 30x30 mm                                     | 135 mm    | 2 mm           | 4 mm           | 22 Kg                       |
| <b>Square Tube Die Set 40mm Radius 165mm</b> |           |                |                | <b>REF: 140-17-01-10104</b> |
| 40x40 mm                                     | 165 mm    | 2 mm           | 5 mm           | 34,15 Kg                    |
| <b>Square Tube Die Set 50mm Radius 180mm</b> |           |                |                | <b>REF: 140-17-02-10101</b> |
| 50x50 mm                                     | 180 mm    | 2,5 mm         | 5 mm           | 45,7 Kg                     |

### Accessories for square pipes in inches · 3/4" to 2" inches



Rollers made of treated Steel. Units suitable for bending all types of square pipes 3/4" to 2" inches.

The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener

*Check with the manufacturer for other dimensions*

| Section   | Section       | Radius | Radius   | Min. Thick. | Max. Thick. | Weight                      |
|---|---------------|--------|----------|-------------|-------------|-----------------------------|
| <b>Square Tube Die Set 3/4" (19,05mm) Radius 4" (101,6mm)</b>       |               |        |          |             |             | <b>REF: 140-17-01-30101</b> |
| 3/4"x3/4"   | 19,05x19,05mm | 4"     | 101,6mm  | 1,5 mm      | 4 mm        | 11,5 Kg                     |
| <b>Square Tube Die Set 1" (25,4mm) Radius 4,5" (114,3mm)</b>        |               |        |          |             |             | <b>REF: 140-17-01-30102</b> |
| 1"x1"   | 25,4x25,4mm   | 4" 1/2 | 114,3mm  | 2 mm        | 4 mm        | 14,6 Kg                     |
| <b>Square Tube Die Set 1" 1/4 (31,75mm) Radius 5,5" (139,7mm)</b>   |               |        |          |             |             | <b>REF: 140-17-01-30103</b> |
| 1" 1/4x1" 1/4   | 31,75x31,75mm | 5" 1/2 | 139,7mm  | 2 mm        | 4 mm        | 23,3 Kg                     |
| <b>Square Tube Die Set 1" 1/2 (38,1mm) Radius 6,5" (165,1mm)</b>    |               |        |          |             |             | <b>REF: 140-17-01-30104</b> |
| 1" 1/2x1" 1/2   | 38,1x38,1mm   | 6" 1/2 | 165,1mm  | 2 mm        | 5 mm        | 34,6 Kg                     |
| <b>Square Tube Die Set 1" 3/4 (44,45mm) Radius 6,75" (171,45mm)</b> |               |        |          |             |             | <b>REF: 140-17-02-30101</b> |
| 1" 3/4x1" 3/4   | 44,45x44,45mm | 6" 3/4 | 171,45mm | 2,5 mm      | 5 mm        | 39 Kg                       |
| <b>Square Tube Die Set 2" (50,8mm) Radius 7" (177,8mm)</b>          |               |        |          |             |             | <b>REF: 140-17-02-30102</b> |
| 2"x2"   | 50,8x50,8mm   | 7"     | 177,8mm  | 2,5 mm      | 5 mm        | 44 Kg                       |

## Accessories for Non-Mandrel Pipe Bender CC90

### Nargesa BEND8 aerosol lubricant



The CC90 pipe bender comes with a 400 ml bottle of BEND8 lubricant.

This is a high-additive and low-viscosity aerosol oil. Contains PTFE. Does not contain silicone.

- Enables the finish on the outer bend
- Inhibits roughness and inner marks
- Reduces wear of the tooling
- Especially designed for tubes of small thickness
- Lubricates to reduce friction
- Avoids and dissolves corrosion
- Gives shine and protects
- Cleans up and removes dirt

| Reference     | Description              | Quantity | Weight |
|---------------|--------------------------|----------|--------|
| 060-SPR-00003 | Aerosol lubricant bottle | 400ml    | 0,39Kg |
| 060-SPR-00004 | Box of 12 bottles        | 12x400ml | 4,83Kg |

### CC90 2-axis positioning gauge



The gauge of the CC90 allows to make mass produced parts, much faster, more accurate and repetitively.

- Adjustable longitudinal positioning with 6 positions
- Angular head rotation every 5 degrees
- Four-clamp plate adjustable to round and square tube
- Longitudinal movement with high precision linear guides
- Automatic anti-collision control
- Easy handling and preparation for difficult parts

| Referencia      | Gauge length | Maximum capacity  | Weight |
|-----------------|--------------|-------------------|--------|
| 140-17-02-50000 | 3000mm       | 90mm, 3" Schedule | 135Kg  |



## Forging twisting machines

### Forging twisting machine MT150A

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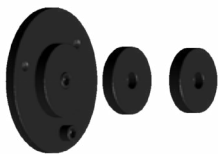
The twisting machine MT150A Nargesa was patented by Prada Nargesa many years ago. It makes us lead the manufacturing of this kind of machinery. It is made in a welded and mechanized Steel monoblock. It has been thought to transform cold iron. It is ideal for working all kind of ornamental pieces, handrails, scrolls...

|  |                          |
|--|--------------------------|
| Reference                              | 100-01-02-001            |
| Engine Power                           | 0,37 KW / 0,5 HP         |
| 2 phased tension                       | 230 V Single phased      |
| Rotary speed                           | Adjustable 0 to 9 r.p.m. |
| Twisting maximum capacity              | 20 mm or 3/4"            |
| Bending maximum capacity               | 16 mm or 5/8"            |
| Max. Scrolling and bending in flat bar | 35x10 mm or 1 1/4"x3/8"  |
| Máx. continued scrolling length        | 960 mm                   |
| Dimensions                             | 2270x635x1115 mm         |
| Weight                                 | 260 Kg                   |



## Accessories for Forging twisting machine MT150A

### Flat bent rings 96,100,110mm MT150A



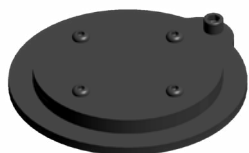
**Reference: 140-01-01-00001**

Steel Die to make round or square bent, the so called English railing.



| Inner diameter | Max. Capacity         | Weight |
|----------------|-----------------------|--------|
| 96,100,110mm   | Round or square 16 mm | 10 Kg. |

### Belly top railing die MT150A



**Reference: 140-01-01-00002**

Steel Die to make the Belly Top Railing, used in balconies and windows.



| Inner diameter | Max. Capacity         | Weight |
|----------------|-----------------------|--------|
| 225mm          | Round or square 16 mm | 12 Kg. |

### Flat bar bent die MT150A



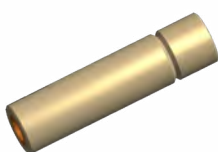
**Reference: 140-01-01-00003**

Treated Steel die for making flat bar folding operations, handrails or clods in all kinds. Folding with minimum external radius.



| Max. Capacity     | Weight  |
|-------------------|---------|
| 40x10 mm flat bar | 3,1 Kg. |

### Edge scrolls MT150A



**Reference: 140-01-01-00004**

Treated steel Die to make scrolls or edge spirals in order to give it a different styling touch, it's commonly used in some specific countries.



| Max. capacity         | Weight   |
|-----------------------|----------|
| Round or square 16 mm | 0,75 Kg. |





# Accessories for Forging twisting machine MT150A

## Baskets tooling MT150A



**Reference: 140-01-01-00005**  
Tooling to make all kinds of baskets, in different sizes for square or round bars.  
Available tooling for millimeter and inch square sizes



| Max. Capacity           | Weight |
|-------------------------|--------|
| 4 square or round 10 mm | 45 Kg. |



## Forging twisting machines

### Forging twisting machine MT500A

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The twisting machine MT500A Nargesa was patented by Prada Nargesa many years ago. It makes us lead the manufacturing of this kind of machinery. It is made in a welded and mechanized Steel monoblock. It has been thought to transform cold iron. It is ideal for working all kind of ornamental pieces, handrails, scrolls...

|  |                           |
|--|---------------------------|
| Reference                              | 100-01-03-001             |
| Engine Power                           | 4 KW / 5,5 HP             |
| Three-phased tension                   | 230 / 400 V               |
| Rotary speed                           | Adjustable 0 to 10 r.p.m. |
| Twisting maximum capacity              | 40 mm or 1 3/8"           |
| Bending maximum capacity               | 25 mm or 1"               |
| Max. Scrolling and bending in flat bar | 50x10 mm or 2"x3/8"       |
| Máx. continued scrolling length        | 1.620 mm                  |
| Dimensions                             | 2200x800x1270 mm          |
| Weight                                 | 1350 Kg                   |



## Accessories for Forging twisting machine MT500A

### Double eyed tooling



**Reference: 140-01-03-00001**

Tooling to make the folding commonly called "pig's tail" it's very used in balconies, handrails and many ornamental utilities.



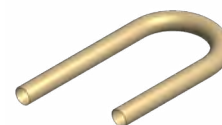
| Max. Capacity | Weight |
|---------------|--------|
| 16 mm round   | 35 Kg. |

### Bent pipe die up to 180°



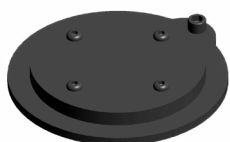
**Reference: 140-01-03-00002**

Steel die to make curves in pipes with fixed and adjustable radius to different degrees.



| Pipe max. diameter | Pipe min. thickness | Piece radius      | Degrees         | Weight    |
|--------------------|---------------------|-------------------|-----------------|-----------|
| 40mm               | 3mm                 | 3 x pipe diameter | Max.180 degrees | 15/35 Kg. |

### Belly top railing



**Reference: 140-01-03-00003**

Steel die to make Belly top railing commonly used in balconies and windows.



| Inner diameter | Max. Capacity         | Weight |
|----------------|-----------------------|--------|
| 225mm          | Round or square 16 mm | 12 Kg. |

### Oval scrolls die



**Reference: 140-01-03-00004**

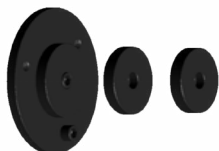
Steel die to make oval scrolls for all kind of railings.



| Outer diameter | Max. Capacity            | Weight |
|----------------|--------------------------|--------|
| 240x190mm      | Round or square de 16 mm | 11 Kg. |

## Accessories for Forging twisting machine MT500A

### Flat bent rings 96,100,110mm



**Reference: 140-01-03-00005**

Steel die to mke folding operations in round or square bars such as the so called English railings.



| Inner diameter | Max. Capacity         | Weight |
|----------------|-----------------------|--------|
| 96,100,110mm   | Round or square 16 mm | 10 Kg. |

### Edge scrolls die



**Reference: 140-01-03-00006**

Treated Steel bar to make scrolls or edge spirals in order to give it a different styling touch, it is very used in specific countries.



| Max. Capacity         | Weight    |
|-----------------------|-----------|
| Round or square 25 mm | 0,400 Kg. |

### Baskets tooling



**Reference: 140-01-03-00012**

Tooling to make all kinds of baskets, different sizes in square or round bars.  
Available tooling for millimeter and inch square sizes.



| Max. Capacity               | Weight |
|-----------------------------|--------|
| 4 square or round de 12 mm. | 55 Kg. |



## End Forging Machines

### End forgin machine PC16

The End Hot Wrought Machine Nargesa PC16, eases up the rolling job of hot steel. It rolls up the snail forged shaped end. This decorations are commonly used as extremes in scrolls and decorative parts. Gates, windows, fencing, metal furniture...

|                              |                  |
|------------------------------|------------------|
| Reference                    | 100-15-01-001    |
| Engine power                 | 2,2 KW / 3HP     |
| Three phased tensión         | 230/400 V        |
| Maximum capacity in round    | 20 mm            |
| Maximum capacity in square   | 20 mm            |
| Maximum capacity in flat bar | 50x10 mm         |
| Working speed                | 45 mm/s          |
| Return speed                 | 70 mm/s          |
| Cycle time                   | 10 s             |
| Pieces per minute            | 4 pieces         |
| Dimensions                   | 640x1300x1110 mm |
| Weight                       | 336 Kg           |



### Wrowght iron machine NF70

The Wrought iron Machine Nargesa NF70 smashes and molds irons up to obtaining the desired shape depending on the mold design. It forges arrow ends or lances of different kinds; flat, pyramidal, etc. It also makes baluster extremes to accomplish nice ornamental parts by changing the die. It forges and smashes balusters in the middle to make different designs.

|                              |                  |
|------------------------------|------------------|
| Reference                    | 100-12-02-001    |
| Engine power                 | 5,5 KW / 7HP     |
| Three phased tensión         | 230/400 V        |
| Maximum capacity in round    | 20 mm            |
| Maximum capacity in square   | 20 mm            |
| Maximum capacity in flat bar | 40x10 mm         |
| Rotation speed               | 20 rpm a 50Hz    |
| Dimensions                   | 620x1040x1250 mm |
| Weight                       | 493 Kg           |







## Accessories for End Forging Machine NF70

### Set of special rollers



**Reference: 140-12-02-00001**

We design and manufacture all kind of special rollers under request.

### Set of trilobular rollers



**Reference: 140-12-02-00003**

Set of trilobular rollers to emboss decoration in the middle of a baluster.



| Units per set | Maximum capacity      | Maximum capacity    | Weight      |
|---------------|-----------------------|---------------------|-------------|
| 2             | Round and square 20mm | Rectangular 50x10mm | 4,2 Kg./uni |

### Set of triple middle marking rollers



**Reference: 140-12-02-00004**

Set of excentric rollers to emboss the middle of ba-lusters. Triple design, flat, striped and discontuous in the same roller.



| Units per set | Maximum capacity      | Maximum capacity    | Weight      |
|---------------|-----------------------|---------------------|-------------|
| 2             | Round and square 20mm | Rectangular 50x10mm | 8,5 Kg./uni |

### Set of fishtail roller



**Reference: 140-12-02-00005**

Two-grooved roller, one for big diameters and the other one for smaller diameters.



| Units per set | Maximum capacity      | Maximum capacity    | Weight      |
|---------------|-----------------------|---------------------|-------------|
| 1             | Round and square 20mm | Rectangular 50x10mm | 7,7 Kg./uni |



## Iron embossing machine

### Iron embossing machine NOA60

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The purpose of NOA60 Nargesa is to conform and emboss designs on cold flat bars, square bars and square pipes. The shape and the design of the job will depend on the rollers used.

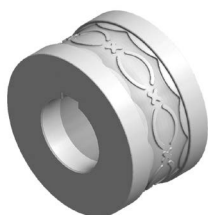
|                              |                   |
|------------------------------|-------------------|
| Reference                    | 100-11-01-002     |
| Engine power                 | 5,5 KW / 7,5 HP   |
| Three phased tensión         | 230 / 400 V       |
| Power consumption            | 21/12 A           |
| Nominal working speed        | 20 r.p.m. a 50 Hz |
| Max. on square pipe          | 60 mm o 2" 1/2    |
| Max. on square bar           | 20 mm o 3/4"      |
| Max. on handrail or flat bar | 60x10 mm o 2"x3/8 |
| Dimensions                   | 780x1230x1400 mm  |
| Weight                       | 746 Kg            |





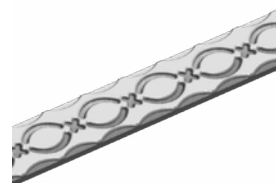
## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 01 NOA60



**Reference: 140-11-01-00001.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



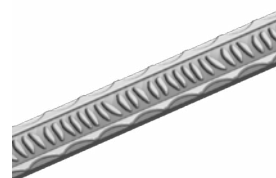
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 02 NOA60



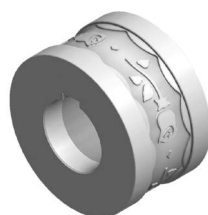
**Reference: 140-11-01-00002.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



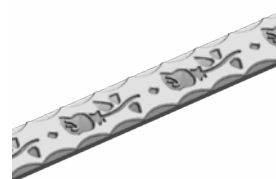
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 03 NOA60



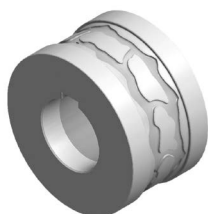
**Reference: 140-11-01-00003.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



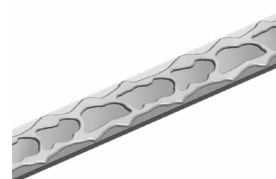
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 04 NOA60



**Reference: 140-11-01-00004.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*

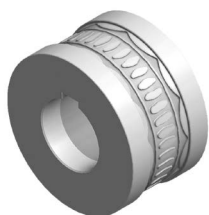


| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |



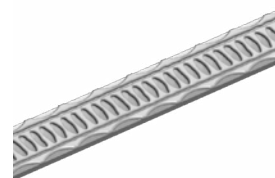
## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 05 NOA60



**Reference: 140-11-01-00005.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



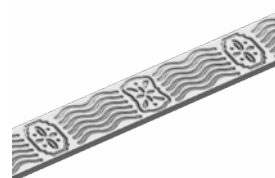
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 06 NOA60



**Reference: 140-11-01-00006.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



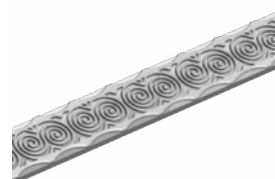
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 07 NOA60



**Reference: 140-11-01-00007.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



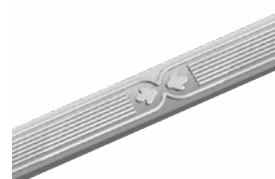
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 08 NOA60



**Reference: 140-11-01-00008.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*

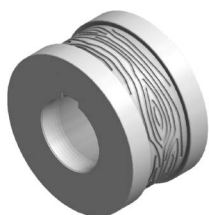


| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |



## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 09 NOA60

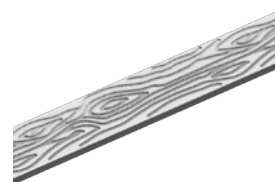


**Reference: 140-11-01-00009**

Roller to emboss handrail up to 60 mm

Guide 140-11-01-00401, 140-11-01-00402 or 140-11-01-00400 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,1 Kg. |

### Handrails embossing roller 10 NOA60



**Reference: 140-11-01-00010.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Guide 140-11-01-00401 or 140-11-01-00402 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 11 NOA60



**Reference: 140-11-01-00011.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail

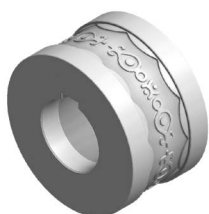
Guide 140-11-01-00401 or 140-11-01-00402 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 12 NOA60



**Reference: 140-11-01-00012.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Guide 140-11-01-00401 or 140-11-01-00402 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |



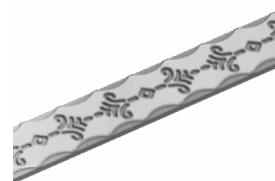
## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 13 NOA60



**Reference: 140-11-01-00013.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 14 NOA60



**Reference: 140-11-01-00014.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



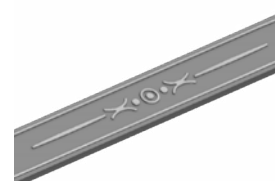
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

### Handrails embossing roller 15 NOA60



**Reference: 140-11-01-00015.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails embossing roller 16 NOA60



**Reference: 140-11-01-00016.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
*Guide 140-11-01-00401 or 140-11-01-00402 is required*  
*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |





## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 17 NOA60



**Reference: 140-11-01-00017.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
Guide 140-11-01-00401 or 140-11-01-00402 is required  
Ask the manufacturer about different dimensions



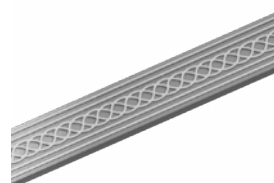
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails embossing roller 18 NOA60



**Reference: 140-11-01-00018.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
Guide 140-11-01-00401 or 140-11-01-00402 is required  
Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails embossing roller 19 NOA60



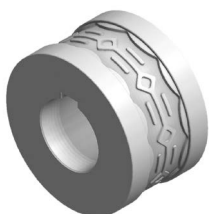
**Reference: 140-11-01-00019.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
Guide 140-11-01-00401 or 140-11-01-00402 is required  
Ask the manufacturer about different dimensions



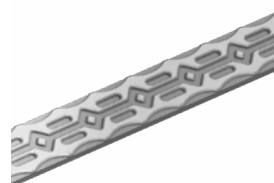
| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails embossing roller 20 NOA60



**Reference: 140-11-01-00020.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail  
Guide 140-11-01-00401 or 140-11-01-00402 is required  
Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,5 Kg. |

## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 21 NOA60

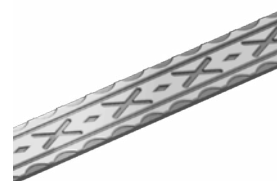


**Referencia: 140-11-01-00021.50**

Rodillo para grabar pasamano de 50 mm o 2" pulgadas.

*Para su uso es necesaria la guía 140-11-01-00401 o la guía 140-11-01-00402.*

*Para medidas distintas consultar con el fabricante.*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails embossing roller 22 NOA60

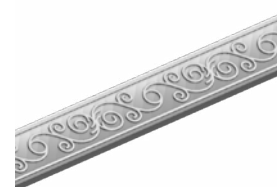


**Referencia: 140-11-01-00022.40**

Rodillo para grabar pasamano de 40 mm o 1" 1/2 pulgadas.

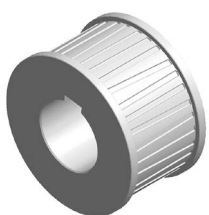
*Para su uso es necesaria la guía 140-11-01-00401 o la guía 140-11-01-00402.*

*Para medidas distintas consultar con el fabricante.*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |

### Handrails and square bars embossing roller 23 NOA60



**Referencia: 140-11-01-00023**

Roller to emboss handrail up to 60 mm and square bar up to 25 mm.

*Guide 140-11-01-00401, 140-11-01-00402,*

*140-11-01-00400 or 140-11-01-00300 is required*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight |
|-------------------|--------------------|--------|
| 1                 | From 6 to 10mm     | 6 Kg.  |

### Handrails embossing roller 24 NOA60



**Reference: 140-11-01-00024.40**

Roller to emboss a 40 mm or 1"-1/2 inches handrail

*Guide 140-11-01-00401 or 140-11-01-00402 is required*

*Ask the manufacturer about different dimensions*

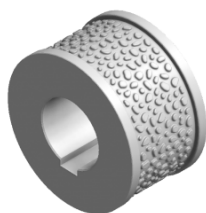


| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,4 Kg. |



## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 25 NOA60

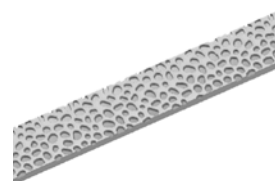


**Reference: 140-11-01-00025**

Roller to emboss handrail up to 60 mm

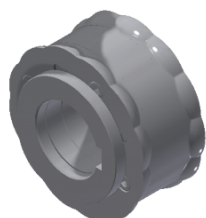
Guide 140-11-01-00401, 140-11-01-00402 or 140-11-01-00400 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 6 to 10mm     | 6,3 Kg. |

### Roller for the side marking of flat bar NOA60



**Reference: 140-11-01-00028**

Sectioned roller to emboss different flat bar sizes on the same kit. Adjustable to flat bars of 25mm o 1", 30mm o 1" 1/4, 40mm o 1" 1/2 and 50mm o 2".

Guide 140-11-01-00401, 140-11-01-00402, 140-11-01-00403 or 140-11-01-00404 is required

Ask the manufacturer about different dimensions



| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | From 5 to 12mm     | 12,5 Kg. |

### Rollerstand



**Reference: 140-00-00-00004**

Seven-rollers stand

Ask the manufacturer about different dimensions

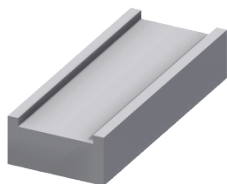
| Working Height | Dimensions  | Load capacity | Weight |
|----------------|-------------|---------------|--------|
| 650 / 1200 mm  | 2050x470 mm | 800 Kg.       | 65 Kg. |



## Accessories for Iron embossing machine NOA60

### Entrance guide for 60 mm handrail NOA60

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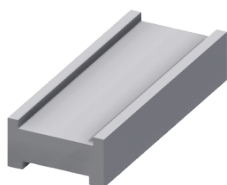


**Reference:** 140-11-01-00400  
Entrance guide for 60 mm handrail.

**Weight:** 4,3 Kg.

### Entrance guide for 40 and 50 mm handrail NOA60

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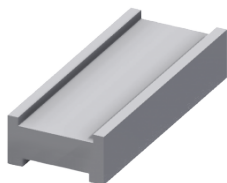


**Reference:** 140-11-01-00401  
Inlet guide for 40 and 50 mm handrail

**Weight:** 4 Kg.

### Entrance guide for 1" 1/2 y 2" inches handrail NOA60

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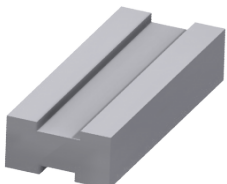


**Reference:** 140-11-01-00402  
Inlet guide for 1" 1/2 and 2" inches handrail.

**Weight:** 4 Kg.

### Entrance guide for 25 and 30mm handrail NOA60

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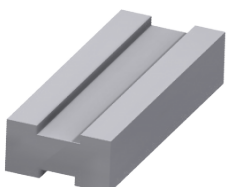


**Reference:** 140-11-01-00403  
Inlet guide for 25 and 30 mm handrail.

**Weight:** 4,3 Kg.

### Entrance guide for 1" and 1" 1/4 inches handrail NOA60

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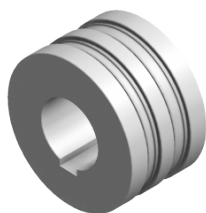


**Reference:** 140-11-01-00404  
Inlet guide for 1" and 1" 1/4 inches handrail.

**Weight:** 4,3 Kg.

## Accessories for Iron embossing machine NOA60

### Handrails embossing roller 201 NOA60

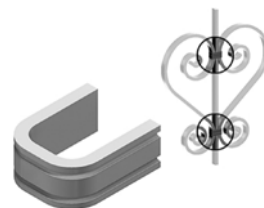


**Reference: 140-11-01-00201**

Roller to emboss 12 and 15 mm or 1/2 inch handrail. For clamp forming

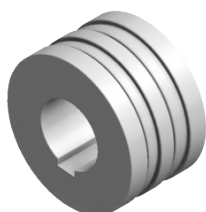
*Guide 140-11-01-00200 is required*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 1 to 4 mm     | 6,5 Kg. |

### Handrails embossing roller 202 NOA60

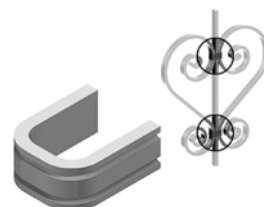


**Reference: 140-11-01-00202**

Roller to emboss 12 and 15 mm or 1/2 inch handrail. For clamp forming

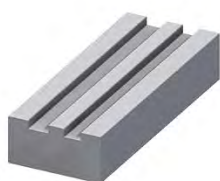
*Guide 140-11-01-00200 is required*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight  |
|-------------------|--------------------|---------|
| 1                 | From 1 to 4 mm     | 6,6 Kg. |

### Entrance guide for 12mm or 1/2" inch and 15 mm handrail NOA60



**Reference: 140-11-01-00200**

Entrance guide for 12 mm and 15 mm or 1/2" inch handrail

**Weight: 4,6 Kg.**



## Accessories for Iron embossing machine NOA60

### Set of handrails and square bars embossing rollers 26 NOA60



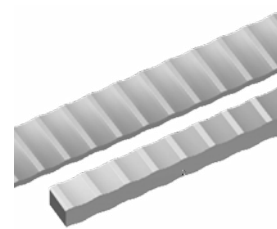
**Reference:** 140-11-01-00026

Rollers to emboss handrail up to 60 mm and square bar up to 20 mm or 3/4" inch

*Guide 140-11-01-00401, 140-11-01-00402, 140-11-01-00400 o 140-11-01-00300 is required*

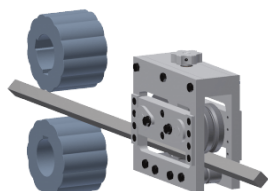
*To emboss edge square bar, an entrance guide is required 140-11-01-00027*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | --                 | 11,4 Kg. |

### Entrance guide for edge square bar NOA60



**Reference:** 140-11-01-00027

Entrance guide to emboss edge square bar up to 20mm or 3/4" inch

*Set of embossing rollers 140-11-01-00026 is required*

**Weight:** 18 Kg.



### Set of square bar embossing rollers 301 NOA60



**Reference:** 140-11-01-00301

Rollers to emboss square bar up to 10 mm or 3/8", 14 mm or 9/16" and 20 mm or 3/4" inch

*Guide 140-11-01-00300 is required*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | --                 | 12,6 Kg. |

### Set of square bar embossing rollers 302 NOA60



**Referencia:** 140-11-01-00302

Rollers to emboss square bar up to 12 mm or 1/2", 16 mm or 5/8" and 18 mm.

*Guide 140-11-01-00300 is required*

*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | --                 | 12,6 Kg. |



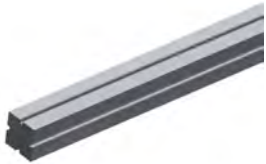


# Accessories for Iron embossing machine NOA60

## Set of square bar embossing rollers 303 NOA60

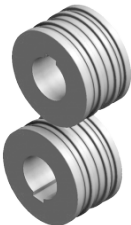


**Reference: 140-11-01-00303**  
 Rollers to emboss square bar up to 10 mm or 3/8", 14 mm or 9/16" and 20 mm o 3/4" inch  
*Guide 140-11-01-00300 is required*  
*Ask the manufacturer about different Ask the manufacturer*

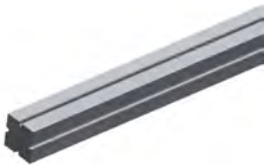


| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | --                 | 12,9 Kg. |

## Set of square bar embossing rollers 304 NOA60



**Reference: 140-11-01-00304**  
 Rollers to emboss square bar up to 12 mm or 1/2", 16 mm or 5/8" and 18 mm.  
*Guide 140-11-01-00300 is required*  
*Ask the manufacturer about different dimensions*



| Units per machine | Material thickness | Weight   |
|-------------------|--------------------|----------|
| 1                 | --                 | 12,9 Kg. |

## Entrance guide for square bar NOA60

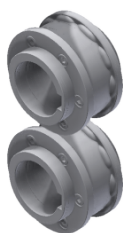


**Reference: 140-11-01-00300**  
 Entrance guide for square bar of 10mm or 3/8", 12mm or 1/2", 14mm or 9/16", 16mm or 5/8" , 18mm and 20 mm or 3/4" inch  
**Weight: 4 Kg.**



## Accessories for Iron embossing machine NOA60

### Set of embossing rollers for 25 mm or 1", 30 mm or 1" 1/4, 35 and 40 mm pipes NOA60



**Reference: 140-11-01-00500**

Set of sectioned rollers to emboss different square or rectangular pipe sizes with the same set. Adjustable to the following pipes:

**Square pipes:** 25mm or 1", 30mm or 1" 1/4, 35 and 40mm

**Rectangular pipes:** 25x20mm or 1"x3/4", 30x20mm or 1"1/4x3/4", 30x25mm, 35x20mm, 35x25mm, 40x20mm, 40x25mm, 40x30mm, 40x35mm

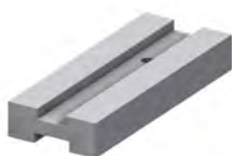
*Guide 140-11-01-00501 or 140-11-01-00502 is required*

*Ask the manufacturer about different dimensions*



| Set per machine | Material minimum thickness suggested by manufacturer | Weight |
|-----------------|--|--------|
| 1               | 3 mm   | 12 Kg. |

### Inlet guide for 25 mm or 1" and 30 mm or 1" 1/4 pipe NOA60

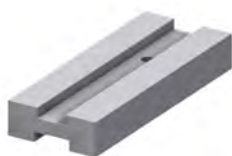


**Reference: 140-11-01-00501**

Inlet guide for 25 mm or 1" and 30 mm or 1" 1/4 pipe

**Weight:** 3 Kg.

### Inlet guide for 35 and 40 mm pipe NOA60



**Reference: 140-11-01-00502**

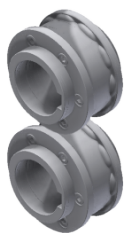
Inlet guide for 35 and 40 mm pipe

**Weight:** 2,8 Kg.



## Accessories for Iron embossing machine NOA60

### Set of embossing rollers for 50 and 60mm pipes NOA60



**Reference:** 140-11-01-00503

Set of sectioned rollers to emboss different square or rectangular pipe sizes with the same set. Adjustable to the following pipes:

**Square pipes:** 50mm or 60mm

**Rectangular pipes:** 50x20mm, 50x25mm, 50x30mm, 50x35mm, 50x40mm, 50x45mm, 60x20mm, 60x25mm, 60x30mm, 60x35mm, 60x40mm, 60x45mm, 60x50mm or 60x55mm

*Guide 140-11-01-00505 or 140-11-01-00506 is required*

*Ask the manufacturer about different dimensions*



| Set per machine | Material minimum thickness suggested by manufacturer | Weight |
|-----------------|--|--------|
| 1               | 3 mm   | 6 Kg.  |

### Inlet guide for 50 mm pipe NOA60



**Reference:** 140-11-01-00505

Inlet guide for 50 mm pipe

**Weight:** 2,4 Kg.

### Inlet guide for 60 mm pipe NOA60



**Reference:** 140-11-01-00506

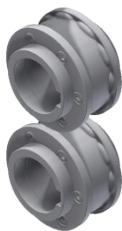
Inlet guide for 60 mm pipe

**Weight:** 2,2 Kg.



# Accessories for Iron embossing machine NOA60

## Set of embossing rollers for 1" 1/2, 2" and 2" 1/2 inches pipes NOA60



**Reference:** 140-11-01-00507  
Set of sectioned rollers to emboss different square or rectangular pipe sizes with the same set. Adjustable to the following pipes:  
**Square pipes:** 1" 1/2, 2" and 2" 1/2 inches  
**Rectangular pipes:** 1"1/2x3/4", 1"1/2x1", 2"x1", 2"x1"1/4, 2"x1"1/2, 2"1/2x1"1/2 inches  
*Guide 140-11-01-00508, 140-11-01-00509 or 140-11-01-00510 is required*  
*Ask the manufacturer about different dimensions*



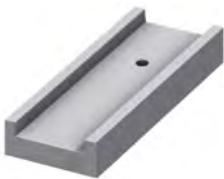
| Set per machine | Material minimum thickness suggested by manufaturer | Weight |
|-----------------|---|--------|
| 1               | 3 mm  | 6 Kg.  |

## Inlet guide for 1" 1/2 inches pipe NOA60



**Reference:** 140-11-01-00508  
Inlet guide for 1" 1/2 inches pipe  
**Weight:** 2,6 Kg.

## Inlet guide for 2" inches pipe NOA60



**Reference:** 140-11-01-00509  
Inlet guide for 2" inches pipe  
**Weight:** 2,4 Kg.

## Inlet guide for 2" 1/2 inches pipe NOA60



**Reference:** 140-11-01-00510  
Inlet guide for 2" 1/2 inches pipe  
**Weight:** 2,2 Kg.



## Power hammer

### Power hammer MP60

Power hammers or pile drivers MP60 Nargesa, are manufactured in welded and mechanized steel sheet. They are used in many blacksmith workshops to make all kinds of forging ornamental pieces which eases the job of moulding hot steel. Different tooling are used: for inlaying, moulding, cutting, piercing, rivetting, embossing, etc, in all kinds of metals.

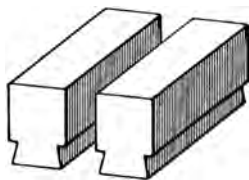
|                              |                 |
|------------------------------|-----------------|
| Reference                    | 100-14-03-001   |
| Engine power                 | 5.5 KW / 7,5 HP |
| Nominal dropping weight      | 60Kg            |
| Strokes per minute           | 220             |
| Strokes max. Displacement    | 230 mm          |
| Max. round working capacity  | 70 mm           |
| Max. square working capacity | 60x60 mm        |
| Dimensions                   | 900x1600x1600mm |
| Weight                       | 1190 Kg         |





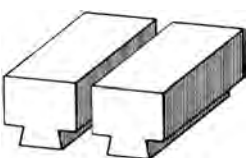
# Accessories for Power hammer

Reference: 140-14-01-00001



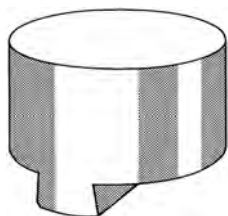
Dimensions  
120x60 mm

Reference: 140-14-01-00002



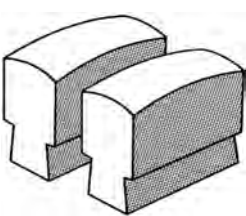
Dimensions  
160x80 mm

Reference: 140-14-01-00003



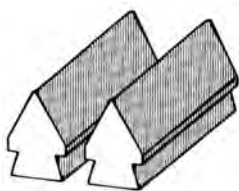
Dimensions  
Ø 200 mm

Reference: 140-14-01-00004



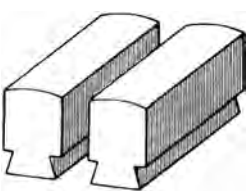
Dimensions  
100x60 mm

Reference: 140-14-01-00005



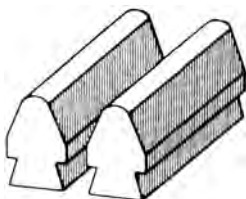
Dimensions  
120x60 mm

Reference: 140-14-01-00006



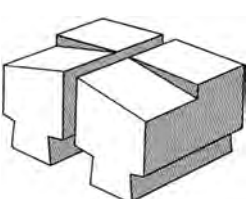
Dimensions  
120x60 mm

Reference: 140-14-01-00007



Dimensions  
120x60 mm

Reference: 140-14-01-00008



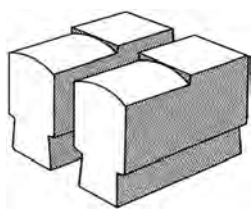
Dimensions  
130x100 mm





## Accessories for Power hammer

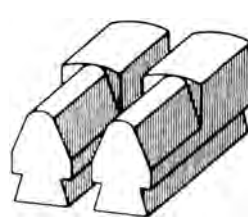
Reference: 140-14-01-00009



**Dimensions**

120x60 mm

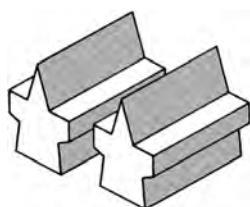
Reference: 140-14-01-00010



**Dimensions**

120x60 mm

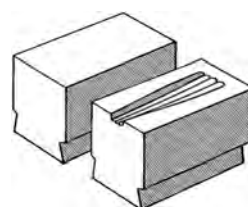
Reference: 140-14-01-00011



**Dimensions**

L110 mm

Reference: 140-14-01-00012



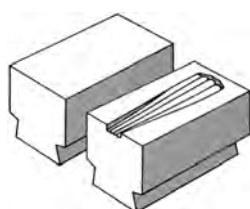
**Dimensions**

100x60 mm

**Capacity**

12x6 mm

Reference: 140-14-01-00013



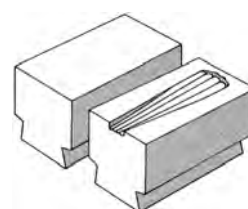
**Dimensions**

120x60 mm

**Capacity**

12 / Ø12 mm

Reference: 140-14-01-00014



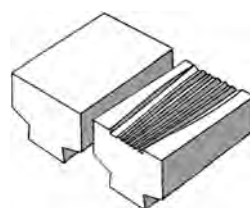
**Dimensions**

120x80 mm

**Capacity**

20x6 / 25x8 mm

Reference: 140-14-01-00015



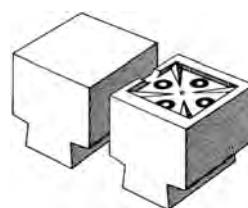
**Dimensions**

130x80 mm

**Capacity**

40x8 / 40x6 mm

Reference: 140-14-01-00016



**Dimensions**

80x80 mm

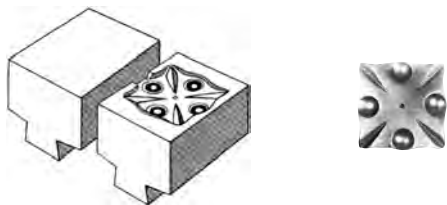
**Capacity**

60x60 mm



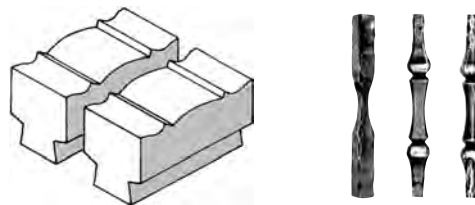
## Accessories for Power hammer

Reference: 140-14-01-00017



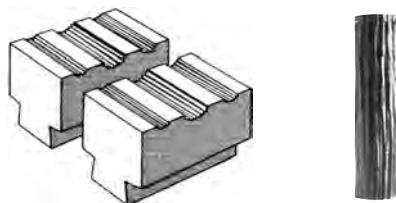
| Dimensions | Capacity |
|------------|----------|
| 100x100 mm | 80x80 mm |

Reference: 140-14-01-00018



| Dimensions | Capacity |
|------------|----------|
| 160x80 mm  |          |

Reference: 140-14-01-00019



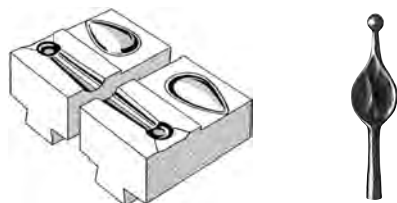
| Dimensions | Capacity |
|------------|----------|
| 130x80 mm  |          |

Reference: 140-14-01-00020



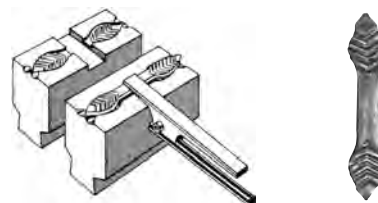
| Dimensions | Capacity |
|------------|----------|
| 120x100 mm | 12x12 mm |

Reference: 140-14-01-00021



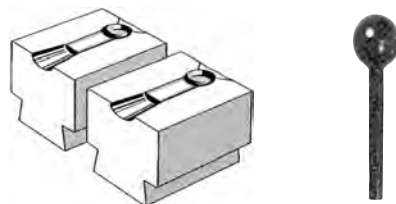
| Dimensions | Capacity |
|------------|----------|
| 120x70 mm  | Ø14 mm   |

Reference: 140-14-01-00022



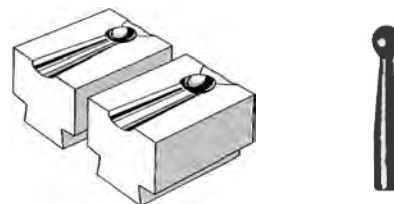
| Dimensions | Capacity |
|------------|----------|
| 135x60 mm  |          |

Reference: 140-14-01-00023



| Dimensions | Capacity |
|------------|----------|
| 70x60 mm   | Ø16 mm   |

Reference: 140-14-01-00024

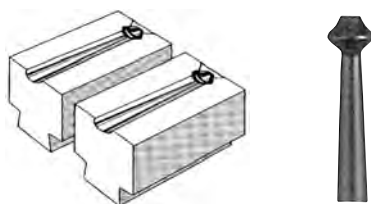


| Dimensions | Capacity         |
|------------|------------------|
| 70x60 mm   | Ø 16 mm / Ø16 mm |



## Accessories for Power hammer

Reference: 140-14-01-00025



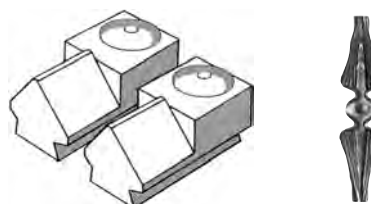
**Dimensions**

70x60 mm

**Capacity**

∅ 12 mm / Ø12 mm

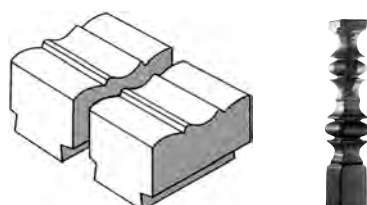
Reference: 140-14-01-00026



**Dimensions**

120x60 mm

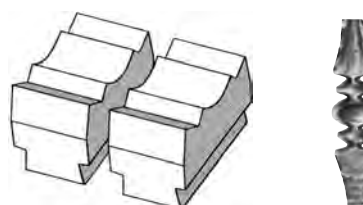
Reference: 140-14-01-00027



**Dimensions**

100x60 mm

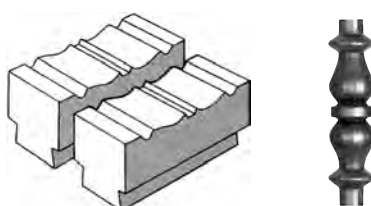
Reference: 140-14-01-00028



**Dimensions**

130x60 mm

Reference: 140-14-01-00029



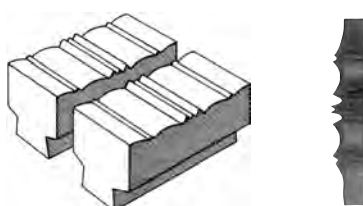
**Dimensions**

160x80 mm

**Capacity**

Ø40 mm

Reference: 140-14-01-00030



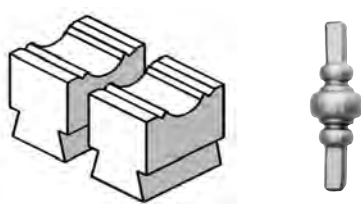
**Dimensions**

160x80 mm

**Capacity**

∅ 30 mm

Reference: 140-14-01-00031



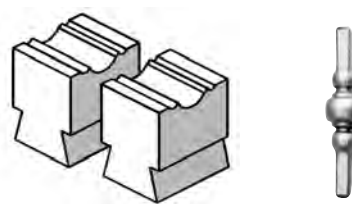
**Dimensions**

100x60 mm

**Capacity**

Ø40 mm

Reference: 140-14-01-00032



**Dimensions**

100x60 mm

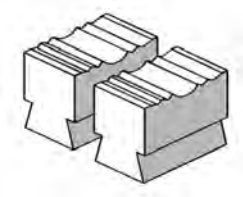
**Capacity**

Ø30 mm



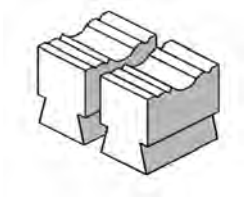
Accessories for Power hammer

Reference: 140-14-01-00033



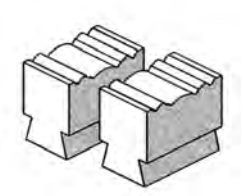
| Dimensions | Capacity |
|------------|----------|
| 160x80 mm  | Ø 40 mm  |

Reference: 140-14-01-00034



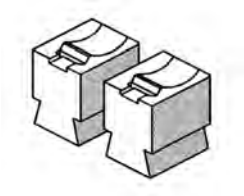
| Dimensions | Capacity |
|------------|----------|
| 150x60 mm  | Ø40 mm   |

Reference: 140-14-01-00035



| Dimensions | Capacity |
|------------|----------|
| 180x80 mm  | Ø 30 mm  |

Reference: 140-14-01-00036



| Dimensions | Capacity |
|------------|----------|
| 100x60 mm  | Ø 40 mm  |

Reference: 140-14-01-00037



| Dimensions |
|------------|
| 120x60 mm  |



## Hydraulic press for locks

### Hydraulic press for locks PI85

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Hydraulic Press for locks PI85 Nargesa, is a NOVELTY in the locksmith's branch. It was patented by Nargesa from year 2006. It makes us lead this kind of machinery. It is suitable for 85% locks in the market, reagrding trademarks and models.

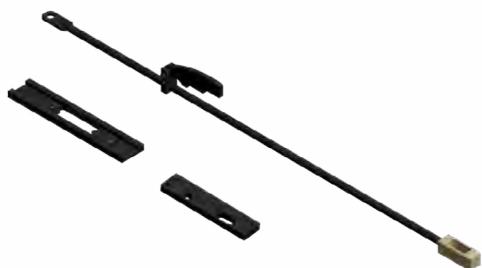
|                      |                       |
|----------------------|-----------------------|
| Reference            | 100-07-01-001         |
| Engine power         | 0,75 KW / 1 HP        |
| Three-phased tension | 230 / 400 V           |
| Pipe thickness       | 1,5 and 2mm           |
| Lock entrance        | Adjustable 18 to 37mm |
| Dimensions           | 1500x570x1470mm       |
| Weight               | 200 Kg                |





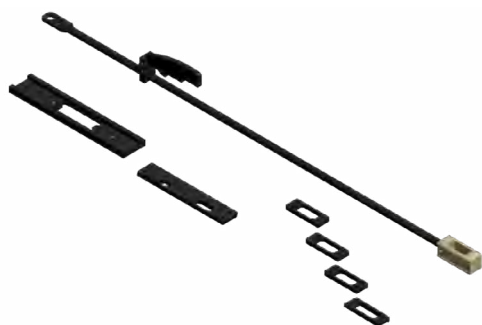
## Accessories for Hydraulic press for locks

### Tooling for 35X35. Wall thickness 1,5mm



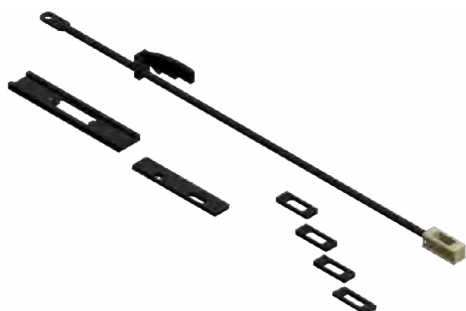
|                   |                 |
|-------------------|-----------------|
| Reference         | 140-07-01-00001 |
| Pipe              | 35 x 35 mm      |
| Thickness         | 1,5 mm          |
| Pieces by tooling | 3 units         |
| Weight            | 5 Kg            |

### Tooling for 40x40mm up to 40x80mm. Wall 1,5mm



|                   |   |
|-------------------|---|
| Reference         | 140-07-01-00003                                 |
| Pipe              | 40x40 mm, 40x50 mm, 40x60 mm, 40x70 mm, 40x80mm |
| Thickness         | 1,5 mm  |
| Pieces by tooling | 8 units   |
| Weight            | 5,3 Kg  |

### Tooling for 40x40mm up to 40x80mm. Wall 2mm



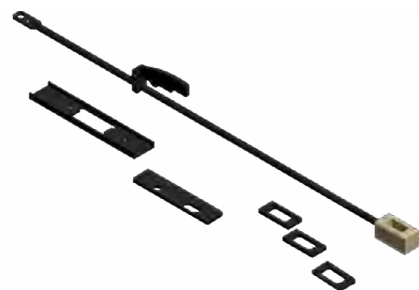
|                   |   |
|-------------------|---|
| Reference         | 140-07-01-00004                                 |
| Pipe              | 40x40 mm, 40x50 mm, 40x60 mm, 40x70 mm, 40x80mm |
| Thickness         | 2 mm  |
| Pieces by tooling | 8 units   |
| Weight            | 5,3 Kg  |





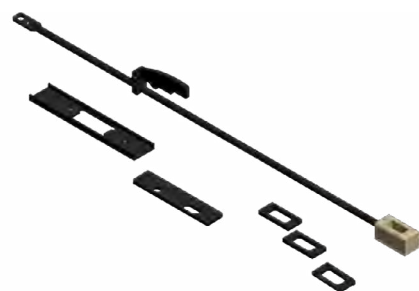
# Accessories for Hydraulic press for locks

## Tooling for 50x50mm up to 50x80mm. Wall 1,5mm



|                   |   |
|-------------------|---|
| Reference         | 140-07-01-00005                         |
| Pipe              | 50x50 mm, 50x60 mm, 50x70 mm<br>50x80mm |
| Thickness         | 1,5 mm                                  |
| Pieces by tooling | 7 units                                 |
| Weight            | 5,5 Kg                                  |

## Tooling for 50x50 up to 50x80mm. Wall 2mm



|                   |   |
|-------------------|---|
| Reference         | 140-07-01-00006                         |
| Pipe              | 50x50 mm, 50x60 mm, 50x70 mm<br>50x80mm |
| Thickness         | 2 mm                                    |
| Pieces by tooling | 7 units                                 |
| Weight            | 5,5 Kg                                  |



## Broaching machine

### Broaching machine BM25

The Hydraulic Broaching machine BM25 Nargesa, has been manufactured in a welded and mechanized steel monoblock. It is a machine to make slots and broaching operations in all kinds of parts. Sprockets, belts, gears, etc... It is also used as a press to straighten and unbolting oxidated parts, set baerings...

|                               |                  |
|-------------------------------|------------------|
| Reference                     | 100-09-01-001    |
| Motor power                   | 2,2 KW / 3 HP    |
| 3-phased tensión              | 230 / 400 V      |
| Hydraulic power               | 10 Tm            |
| Working speed                 | 24 mm/s          |
| Return speed                  | 54 mm/s          |
| Pump Flow                     | 7,5 L            |
| Shank displacement            | 600 mm           |
| Goosneck                      | 300 mm           |
| Maximum diameter of the piece | 600 mm*          |
| Bench dimensions              | 420x420 mm       |
| Dimensions                    | 750x1240x2400 mm |
| Weight                        | 850 Kg           |



\* For different sizes, please ask the manufacturer



## Accessories for Broaching machine



Broaching time  
0:30 min.

### Keyway broaches 2mm

REF: 125-09-01-BR-00001

|                              |                       |
|------------------------------|-----------------------|
| Tolerance                    | JS9 (-0,014 +0,009)   |
| Model                        | A                     |
| Broach dimensions            | 3,175 x 127mm         |
| Standard keys                | 2 x 2mm               |
| Min./Max. Cutting length     | 5,159mm / 28,575mm    |
| Required pressure            | 720lbs / 326,58Kg     |
| Required shims/ Nr of passes | 0 shims / 1 pass      |
| Bushing diameter             | 6, 8, 10, 12 and 15mm |
| Bushing length               | 28,575mm              |
| Weight                       | 0,020 Kg. Approx.     |



Broaching time  
0:45 min.

### Keyway broaches 3mm

REF: 125-09-01-BR-00002

|                              |                     |
|------------------------------|---------------------|
| Tolerance                    | JS9 (-0,013 +0,009) |
| Model                        | A                   |
| Broach dimensions            | 3,175 x 127mm       |
| Standard keys                | 3 x 3mm             |
| Min./Max. Cutting length     | 5,159mm / 28,575mm  |
| Required pressure            | 650lbs / 294,83Kg   |
| Required shims/ Nr of passes | 1 shim / 2 passes   |
| Thickness                    | 0,787mm             |
| Bushing diameter             | 6, 8, 10, 12 y 15mm |
| Bushing length               | 28,575mm            |
| Weight                       | 0,020 Kg. Approx.   |



Broaching time  
1:00 min.

### Keyway broaches 4mm

REF: 125-09-01-BR-00003

|                              |                                 |
|------------------------------|---------------------------------|
| Tolerance                    | JS9 (-0,015 +0,01)              |
| Model                        | B1                              |
| Broach dimensions            | 6,35 x 171,45mm                 |
| Standard keys                | 4 x 4mm                         |
| Min./Max. Cutting length     | 7,54mm / 42,862mm               |
| Required pressure            | 1.140lbs / 517,09Kg             |
| Required shims/ Nr of passes | 1 shim / 2 passes               |
| Thickness                    | 0,965mm                         |
| Bushing diameter             | 12, 14, 15, 16, 17, 18 and 19mm |
| Bushing length               | 42,862mm                        |
| Weight                       | 0,100 Kg. Approx.               |



## Accessories for Broaching machine



Broaching time  
1:00 min.

| Keyway broaches 5mm          | REF: 125-09-01-BR-00004         |
|------------------------------|---------------------------------|
| Tolerance                    | JS9 (-0,014 +0,008)             |
| Model                        | B1                              |
| Broach dimensions            | 6,35 x 171,45mm                 |
| Standard keys                | 5 x 5mm                         |
| Min./Max. Cutting length     | 7,54mm / 42,862mm               |
| Required pressure            | 1.860lbs / 843,68Kg             |
| Required shims/ Nr of passes | 1 shim / 2 passes               |
| Thickness                    | 1,27mm                          |
| Bushing diameter             | 12, 14, 15, 16, 17, 18 and 19mm |
| Bushing length               | 42,862mm                        |
| Weight                       | 0,100 Kg. Approx.               |



Broaching time  
1:20 min.

| Keyway broaches 5mm          | REF: 125-09-01-BR-00005                                 |
|------------------------------|---|
| Tolerance                    | JS9 (-0,014 +0,008)                                     |
| Model                        | C   |
| Broach dimensions            | 9,52 x 298,45mm   |
| Standard keys                | 5 x 5mm   |
| Min./Max. Cutting length     | 9,921mm / 63,5mm  |
| Required pressure            | 1.470lbs / 666,78Kg                                     |
| Required shims/ Nr of passes | 1 shim / 2 passes                                       |
| Thickness                    | 1,193mm   |
| Bushing diameter             | 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35 and 36mm |
| Bushing length               | 63,5mm  |
| Weight                       | 0,350 Kg. Approx.                                       |



Broaching time  
1:20 min.

| Keyway broaches 6mm          | REF: 125-09-01-BR-00006                                 |
|------------------------------|---|
| Tolerance                    | JS9 (-0,016 +0,009)                                     |
| Model                        | C   |
| Broach dimensions            | 9,52 x 298,45mm   |
| Standard keys                | 6 x 6mm   |
| Min./Max. Cutting length     | 9,921mm / 63,5mm  |
| Required pressure            | 2.100lbs / 952,54Kg                                     |
| Required shims/ Nr of passes | 1 shim / 2 passes                                       |
| Thickness                    | 1,587mm   |
| Bushing diameter             | 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35 and 36mm |
| Bushing length               | 63,5mm  |
| Weight                       | 0,350 Kg. Approx.                                       |

## Accessories for Broaching machine

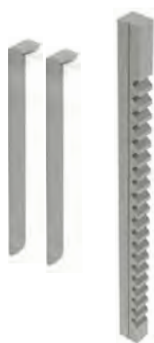


Broaching time  
2:30 min.

### Keyway broaches 8mm

REF: 125-09-01-BR-00008

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (-0,017 +0,013)                                     |
| Model                        | C   |
| Broach dimensions            | 9,52 x 298,45mm   |
| Standard keys                | 8 x 7mm   |
| Min./Max. Cutting length     | 9,921mm / 63,5mm  |
| Required pressure            | 3.680lbs / 1.669,22Kg                                   |
| Required shims/ Nr of passes | 2 shims / 3 passees                                     |
| Thickness                    | 1,27mm  |
| Bushing diameter             | 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35 and 36mm |
| Bushing length               | 63,5mm  |
| Weight                       | 0,350 Kg. Approx.                                       |



Broaching time  
2:30 min.

### Keyway broaches 10mm

REF: 125-09-01-BR-00009

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,018 +0,012)  |
| Model                        | D  |
| Broach dimensions            | 14,28 x 352,42mm   |
| Standard keys                | 10 x 8mm   |
| Min./Max. Cutting length     | 25,4mm / 152,4mm   |
| Required pressure            | 6.500lbs / 2.948,35Kg  |
| Required shims/ Nr of passes | 2 shims / 3 passes   |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54, 56mm |
| Bushing length               | 101,6 and 127mm  |
| Weight                       | 1 Kg. Approx.  |



Broaching time  
2:30 min.


### Keyway broaches 12mm

REF: 125-09-01-BR-00010

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,022 +0,014)  |
| Model                        | D  |
| Broach dimensions            | 14,28 x 352,42mm   |
| Standard keys                | 12 x 8mm   |
| Min./Max. Cutting length     | 25,4mm / 152,4mm   |
| Required pressure            | 8.400lbs / 3.810,17Kg  |
| Required shims/ Nr of passes | 2 shims / 3 passes   |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54, 56mm |
| Bushing length               | 101,6 and 127mm  |
| Weight                       | 1 Kg. Approx.  |

## Accessories for Broaching machine

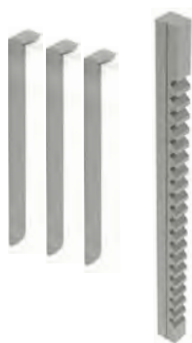



 Broaching time  
2:30 min.

### Keyway broaches 14mm

REF: 125-09-01-BR-00011

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,023 +0,013)  |
| Model                        | D  |
| Broach dimensions            | 14,28 x 352,42mm   |
| Standard keys                | 14 x 9mm   |
| Min./Max. Cutting length     | 25,4mm / 152,4mm   |
| Required pressure            | 11.100lbs / 5.034,87Kg                                       |
| Required shims/ Nr of passes | 2 shims / 3 passes   |
| Thickness                    | 1,587mm  |
| Bushing diameter             | 32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54, 56mm |
| Bushing length               | 101,6 and 127mm  |
| Weight                       | 1 Kg. Approx.  |




 Broaching time  
3:40 min.

### Keyway broaches 16mm

REF: 125-09-01-BR-00012

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,024 +0,012)                                      |
| Model                        | E  |
| Broach dimensions            | 19,05 x 393,7mm  |
| Standard keys                | 16 x 10mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm   |
| Required pressure            | 9.400lbs / 4.263,76Kg                                    |
| Required shims/ Nr of passes | 3 shims / 4 passes                                       |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 52, 54, 55, 56, 58, 60, 62, 63, 64, 65, 66, 68, 70, 72mm |
| Bushing length               | 127 and 152,4mm  |
| Weight                       | 1,5 Kg. Approx.  |



 Broaching time  
3:40 min.

### Keyway broaches 18mm

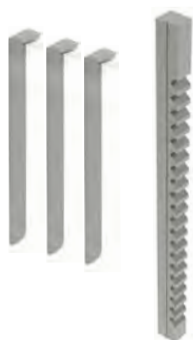
REF: 125-09-01-BR-00013

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,022 +0,013)                                      |
| Model                        | E  |
| Broach dimensions            | 19,05 x 393,7mm  |
| Standard keys                | 18 x 11mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm   |
| Required pressure            | 10.600lbs / 4.808,07Kg                                   |
| Required shims/ Nr of passes | 3 shims / 4 passes                                       |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 52, 54, 55, 56, 58, 60, 62, 63, 64, 65, 66, 68, 70, 72mm |
| Bushing length               | 127 and 152,4mm  |
| Weight                       | 1,5 Kg. Approx.  |





## Accessories for Broaching machine



Broaching time  
4:20 min.

### Keyway broaches 20mm

REF: 125-09-01-BR-00014

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,026 +0,015)                              |
| Model                        | F  |
| Broach dimensions            | 25,40 x 514,35mm                                 |
| Standard keys                | 20 x 12mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm                                 |
| Required pressure            | 8.800lbs / 3.991,61Kg                            |
| Required shims/ Nr of passes | 3 shims / 4 passes                               |
| Thickness                    | 1,587mm  |
| Bushing diameter             | 75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm |
| Bushing length               | 152,4mm  |
| Weight                       | 3,5 Kg. Approx.                                  |



Broaching time  
5:00 min.

### Keyway broaches 22mm

REF: 125-09-01-BR-00015

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,027 +0,014)                              |
| Model                        | F  |
| Broach dimensions            | 25,40 x 514,35mm                                 |
| Standard keys                | 22 x 14mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm                                 |
| Required pressure            | 9.400lbs / 4.263,76Kg                            |
| Required shims/ Nr of passes | 4 shims / 5 passes                               |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm |
| Bushing length               | 152,4mm  |
| Weight                       | 3,5 Kg. Approx.                                  |



Broaching time  
5:00 min.

### Keyway broaches 24mm

REF: 125-09-01-BR-00016

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,025 +0,015)                              |
| Model                        | F  |
| Broach dimensions            | 25,40 x 514,35mm                                 |
| Standard keys                | 24 x 14mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm                                 |
| Required pressure            | 10.600lbs / 4.808,07Kg                           |
| Required shims/ Nr of passes | 4 shims / 5 passes                               |
| Thickness                    | 1,587mm  |
| Bushing diameter             | 75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm |
| Bushing length               | 152,4mm  |
| Weight                       | 3,5 Kg. Approx.                                  |



## Accessories for Broaching machine



Broaching time  
5:00 min.

### Keyway broaches 25mm

REF: 125-09-01-BR-00017

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (-0,027 +0,013)                              |
| Model                        | F  |
| Broach dimensions            | 25,40 x 514,35mm                                 |
| Standard keys                | 25 x 14mm  |
| Min./Max. Cutting length     | 25,4mm / 152,4mm                                 |
| Required pressure            | 12.300lbs / 5.579,18Kg                           |
| Required shims/ Nr of passes | 4 shims / 5 passes                               |
| Thickness                    | 1,422mm  |
| Bushing diameter             | 75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm |
| Bushing length               | 152,4mm  |
| Weight                       | 3,5 Kg. Approx.                                  |



Broaching time  
0:30 min.

### Keyway broaches 1/16 inch

REF: 125-09-01-BRP-00001

|                              |                                   |
|------------------------------|-----------------------------------|
| Tolerance                    | JS9 (0,0625 · 0,0635)             |
| Model                        | A                                 |
| Broach dimensions            | 1/8 x 5 inches                    |
| Min./Max. Cutting length     | 13/64 inch / 1 1/8 inches         |
| Required pressure            | 390lbs                            |
| Required shims/ Nr of passes | 0 shims / 1 pass                  |
| Bushing diameter             | 1/4, 5/16, 3/8, 7/16 and 1/2 inch |
| Bushing length               | 1 1/8 inches                      |
| Weight                       | 0,020 Kg. Approx.                 |



Broaching time  
0:30 min.

### Keyway broaches 3/32 inch

REF: 125-09-01-BRP-00002

|                              |                                     |
|------------------------------|-------------------------------------|
| Tolerance                    | JS9 (0,0938 · 0,0948)               |
| Model                        | A                                   |
| Broach dimensions            | 1/8 x 5 inches                      |
| Min./Max. Cutting length     | 13/64 inch / 1 1/8 inches           |
| Required pressure            | 780lbs                              |
| Required shims/ Nr of passes | 0 shims / 1 pass                    |
| Bushing diameter             | 1/4, 5/16, 3/8, 7/16 and 1/2 inches |
| Bushing length               | 1 1/8 inches                        |
| Weight                       | 0,020 Kg. Approx.                   |



## Accessories for Broaching machine



Broaching time  
0:45 min.

### Keyway broaches 1/8 inch

REF: 125-09-01-BRP-00003

|                              |                                     |
|------------------------------|-------------------------------------|
| Tolerance                    | JS9 (0,1252 · 0,1262)               |
| Model                        | A                                   |
| Broach dimensions            | 1/8 x 5 inches                      |
| Min./Max. Cutting length     | 13/64 inch / 1 1/8 inches           |
| Required pressure            | 650lbs                              |
| Required shims/ Nr of passes | 1 shim / 2 passes                   |
| Thickness                    | 0,0310 inches                       |
| Bushing diameter             | 1/4, 5/16, 3/8, 7/16 and 1/2 inches |
| Bushing length               | 1 1/8 inches                        |
| Weight                       | 0,020 Kg. Approx.                   |



Broaching time  
0:40 min.

### Keyway broaches 3/32 inch

REF: 125-09-01-BRP-00004

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,0938 · 0,0948)                          |
| Model                        | B  |
| Broach dimensions            | 3/16 x 6 3/4 inches                            |
| Min./Max. Cutting length     | 19/64 inch / 1 11/16 inches                    |
| Required pressure            | 930lbs   |
| Required shims/ Nr of passes | 0 shims / 1 pass                               |
| Bushing diameter             | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inch |
| Bushing length               | 1 11/16 inches                                 |
| Weight                       | 0,100 Kg. Approx.                              |



Broaching time  
1:00 min.

### Keyway broaches 1/8 inch

REF: 125-09-01-BRP-00005

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,1252 · 0,1262)                            |
| Model                        | B  |
| Broach dimensions            | 3/16 x 6 3/4 inches                              |
| Min./Max. Cutting length     | 19/64 inch / 1 11/16 inches                      |
| Required pressure            | 720lbs   |
| Required shims/ Nr of passes | 1 shim / 2 passes                                |
| Thickness                    | 0,0310 inches                                    |
| Bushing diameter             | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inches |
| Bushing length               | 1 11/16 inches                                   |
| Weight                       | 0,100 Kg. Approx.                                |



## Accessories for Broaching machine



Broaching time  
1:00 min.

| Keyway broaches 5/32 inch    |  | REF: 125-09-01-BRP-00006 |
|------------------------------|--|--------------------------|
| Tolerance                    | JS9 (0,1564 · 0,1574)                          |                          |
| Model                        | B  |                          |
| Broach dimensions            | 3/16 x 6 3/4 inches                            |                          |
| Min./Max. Cutting length     | 19/64 inch / 1 11/16 inches                    |                          |
| Required pressure            | 1.320lbs                                       |                          |
| Required shims/ Nr of passes | 1 shim / 2 passes                              |                          |
| Thickness                    | 0,0420 inches                                  |                          |
| Bushing diameter             | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inch |                          |
| Bushing length               | 1 11/16 inches                                 |                          |
| Weight                       | 0,100 Kg. Approx.                              |                          |



Broaching time  
1:00 min.

| Keyway broaches 3/16 inch    |  | REF: 125-09-01-BRP-00007 |
|------------------------------|--|--------------------------|
| Tolerance                    | JS9 (0,1877 · 0,1887)                            |                          |
| Model                        | B  |                          |
| Broach dimensions            | 3/16 x 6 3/4 inches                              |                          |
| Min./Max. Cutting length     | 19/64 inch / 1 11/16 inches                      |                          |
| Required pressure            | 1.860lbs   |                          |
| Required shims/ Nr of passes | 1 shim / 2 passes                                |                          |
| Thickness                    | 0,0500 inches                                    |                          |
| Bushing diameter             | 1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inches |                          |
| Bushing length               | 1 11/16 inches                                   |                          |
| Weight                       | 0,100 Kg. Approx.                                |                          |



Broaching time  
1:20 min.

| Keyway broaches 3/16 inch    |   | REF: 125-09-01-BRP-00008 |
|------------------------------|---|--------------------------|
| Tolerance                    | JS9 (0,1877 · 0,1887)   |                          |
| Model                        | C   |                          |
| Broach dimensions            | 3/8 x 11 3/4 inches   |                          |
| Min./Max. Cutting length     | 25/64 inch / 2 1/2 inches   |                          |
| Required pressure            | 1.540lbs  |                          |
| Required shims/ Nr of passes | 1 shim / 2 passes   |                          |
| Thickness                    | 0,0500 inches   |                          |
| Bushing diameter             | 3/4, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4, 1 5/16, 1 3/8, 1 7/16, 1 1/2 and 1 9/16 inches |                          |
| Bushing length               | 2 1/2 inches  |                          |
| Weight                       | 0,350 Kg. Approx.   |                          |



## Accessories for Broaching machine



Broaching time  
1:20 min.

### Keyway broaches 1/4 inch

REF: 125-09-01-BRP-00009

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,2502 - 0,2512)  |
| Model                        | C  |
| Broach dimensions            | 3/8 x 11 3/4 inches  |
| Min./Max. Cutting length     | 25/64 inch / 2 1/2 inches  |
| Required pressure            | 2.520lbs   |
| Required shims/ Nr of passes | 1 shim / 2 passes  |
| Thickness                    | 0,0625 inches  |
| Bushing diameter             | 3/4, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4,<br>1 5/16, 1 3/8, 1 7/16, 1 1/2 and 1 9/16 inches |
| Bushing length               | 2 1/2 inches   |
| Weight                       | 0,350 Kg. Approx.  |



Broaching time  
2:30 min.

### Keyway broaches 5/16 inch

REF: 125-09-01-BRP-00010

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,3127 - 0,3137)  |
| Model                        | C  |
| Broach dimensions            | 3/8 x 11 3/4 inches  |
| Min./Max. Cutting length     | 25/64 inch / 2 1/2 inches  |
| Required pressure            | 3.960lbs   |
| Required shims/ Nr of passes | 2 shims / 3 passes   |
| Thickness                    | 0,0550 inches  |
| Bushing diameter             | 3/4, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4,<br>1 5/16, 1 3/8, 1 7/16, 1 1/2 and 1 9/16 inches |
| Bushing length               | 2 1/2 inches   |
| Weight                       | 0,350 Kg. Approx.  |



Broaching time  
2:30 min.

### Keyway broaches 3/8 inch


REF: 125-09-01-BRP-00011

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,3755 - 0,3765)  |
| Model                        | C  |
| Broach dimensions            | 3/8 x 11 3/4 inches  |
| Min./Max. Cutting length     | 25/64 inch / 2 1/2 inches  |
| Required pressure            | 4.340lbs   |
| Required shims/ Nr of passes | 2 shims / 3 passes   |
| Thickness                    | 0,0625 inches  |
| Bushing diameter             | 3/4, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4,<br>1 5/16, 1 3/8, 1 7/16, 1 1/2 and 1 9/16 inches |
| Bushing length               | 2 1/2 inches   |
| Weight                       | 0,350 Kg. Approx.  |



## Accessories for Broaching machine




 Broaching time  
2:30 min.

### Keyway broaches 5/16 inch REF: 125-09-01-BRP-00012

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (0,3127 · 0,3137)   |
| Model                        | D   |
| Broach dimensions            | 9/16 x 13 7/8 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches   |
| Required pressure            | 8.000lbs  |
| Required shims/ Nr of passes | 2 shims / 3 passes  |
| Thickness                    | 0,0560 inches   |
| Bushing diameter             | 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches |
| Bushing length               | 4 inches  |
| Weight                       | 1,00 Kg. Approx.  |



 Broaching time  
2:30 min.

### Keyway broaches 3/8 inch REF: 125-09-01-BRP-00013

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (0,3755 · 0,3765)   |
| Model                        | D   |
| Broach dimensions            | 9/16 x 13 7/8 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches   |
| Required pressure            | 7.000lbs  |
| Required shims/ Nr of passes | 2 shims / 3 passes  |
| Thickness                    | 0,0625 inches   |
| Bushing diameter             | 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches |
| Bushing length               | 4 inches  |
| Weight                       | 1,00 Kg. Approx.  |





## Accessories for Broaching machine



Broaching time  
3:00 min.

### Keyway broaches 7/16 inch

REF: 125-09-01-BRP-00014

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (0,4380 - 0,4390)   |
| Model                        | D   |
| Broach dimensions            | 9/16 x 13 7/8 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches   |
| Required pressure            | 9.400lbs  |
| Required shims/ Nr of passes | 3 shims / 4 passes  |
| Thickness                    | 0,0560 inches   |
| Bushing diameter             | 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches |
| Bushing length               | 4 inches  |
| Weight                       | 1,00 Kg. Approx.  |



Broaching time  
3:00 min.

### Keyway broaches 1/2 inch

REF: 125-09-01-BRP-00015

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (0,5006 - 0,5016)   |
| Model                        | D   |
| Broach dimensions            | 9/16 x 13 7/8 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches   |
| Required pressure            | 9.800lbs  |
| Required shims/ Nr of passes | 3 shims / 4 passes  |
| Thickness                    | 0,0625 inches   |
| Bushing diameter             | 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches |
| Bushing length               | 4 inches  |
| Weight                       | 1,00 Kg. Approx.  |



## Accessories for Broaching machine



Broaching time  
3:40 min.

|                                     |  |                                 |
|-------------------------------------|--|---------------------------------|
| <b>Keyway broaches 9/16 inch</b>    |  | <b>REF: 125-09-01-BRP-00016</b> |
| <b>Tolerance</b>                    | JS9 (0,5631 · 0,5641)  |                                 |
| <b>Model</b>                        | D  |                                 |
| <b>Broach dimensions</b>            | 9/16 x 13 7/8 inches   |                                 |
| <b>Min./Max. Cutting length</b>     | 1 inch / 6 inches  |                                 |
| <b>Required pressure</b>            | 8.900lbs   |                                 |
| <b>Required shims/ Nr of passes</b> | 4 shims / 5 passes   |                                 |
| <b>Thickness</b>                    | 0,0560 inches  |                                 |
| <b>Bushing diameter</b>             | 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16,<br>1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16,<br>2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4,<br>2 13/16, 2 7/8, 2 15/16 and 3 inches |                                 |
| <b>Bushing length</b>               | 6 inches   |                                 |
| <b>Weight</b>                       | 1,00 Kg. Approx.   |                                 |



Broaching time  
4:00 min.

|                                     |   |                                 |
|-------------------------------------|---|---------------------------------|
| <b>Keyway broaches 5/8 inch</b>     |   | <b>REF: 125-09-01-BRP-00017</b> |
| <b>Tolerance</b>                    | JS9 (0,6260 · 0,6270)   |                                 |
| <b>Model</b>                        | E   |                                 |
| <b>Broach dimensions</b>            | 3/4 x 15 1/2 inches   |                                 |
| <b>Min./Max. Cutting length</b>     | 1 inch / 6 inches   |                                 |
| <b>Required pressure</b>            | 9.600lbs  |                                 |
| <b>Required shims/ Nr of passes</b> | 4 shims / 5 passes  |                                 |
| <b>Thickness</b>                    | 0,0625 inches   |                                 |
| <b>Bushing diameter</b>             | 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16,<br>2 3/4, 2 13/16, 2 7/8, 2 15/16, 3, 3 1/16, 3 1/8, 3 3/16,<br>3 1/4, 3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 9/16, 3 5/8,<br>3 11/16, 3 3/4, 3 13/16, 3 7/8, 3 15/16 and 4 inches |                                 |
| <b>Bushing length</b>               | 6 inches  |                                 |
| <b>Weight</b>                       | 1,500 Kg. Approx.   |                                 |

## Accessories for Broaching machine



Broaching time  
5:00 min.

### Keyway broaches 3/4 inch

REF: 125-09-01-BRP-00018

|                              |   |
|------------------------------|---|
| Tolerance                    | JS9 (0,7515 · 0,7525)   |
| Model                        | E   |
| Broach dimensions            | 3/4 x 15 1/2 inches   |
| Min./Max. Cutting length     | 1 inch / 6 inches   |
| Required pressure            | 11.900lbs   |
| Required shims/ Nr of passes | 5 shims / 6 passes  |
| Thickness                    | 0,0625 inches   |
| Bushing diameter             | 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16,<br>2 3/4, 2 13/16, 2 7/8, 2 15/16, 3, 3 1/16, 3 1/8, 3 3/16,<br>3 1/4, 3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 9/16, 3 5/8,<br>3 11/16, 3 3/4, 3 13/16, 3 7/8, 3 15/16 and 4 inches |
| Bushing length               | 6 inches  |
| Weight                       | 1,500 Kg. Approx.   |



Broaching time  
6:00 min.

### Keyway broaches 7/8 inch

REF: 125-09-01-BRP-00019

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (0,8765 · 0,8775)  |
| Model                        | F  |
| Broach dimensions            | 1 x 20 1/4 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches  |
| Required pressure            | 9.800lbs   |
| Required shims/ Nr of passes | 6 shims / 7 passes   |
| Thickness                    | 0,0625 inches  |
| Bushing diameter             | 3 1/16, 3 1/8, 3 3/16, 3 1/4, 3 5/16, 3 3/8, 3 7/16,<br>3 1/2, 3 9/16, 3 5/8, 3 11/16, 3 3/4, 3 13/16, 3 7/8,<br>3 15/16, 4, 4 1/16, 4 1/8, 4 3/16, 4 1/4, 4 5/16,<br>4 3/8, 4 7/16, 4 1/2, 4 9/16, 4 5/8, 4 11/16, 4 3/4, 4<br>13/16, 4 7/8, 4 15/16 and 5 inches |
| Bushing length               | 6 inches   |
| Weight                       | 3,500 Kg. Approx.  |



## Accessories for Broaching machine



Broaching time  
8:00 min.

### Keyway broaches 1 inch

REF: 125-09-01-BRP-00020

|                              |  |
|------------------------------|--|
| Tolerance                    | JS9 (1,0015 · 1,0025)  |
| Model                        | F  |
| Broach dimensions            | 1 x 20 1/4 inches  |
| Min./Max. Cutting length     | 1 inch / 6 inches  |
| Required pressure            | 11.100lbs  |
| Required shims/ Nr of passes | 7 shims / 8 passes   |
| Thickness                    | 0,0625 inches  |
| Bushing diameter             | 3 1/16, 3 1/8, 3 3/16, 3 1/4, 3 5/16, 3 3/8, 3 7/16,<br>3 1/2, 3 9/16, 3 5/8, 3 11/16, 3 3/4, 3 13/16,<br>3 7/8, 3 15/16, 4, 4 1/16, 4 1/8, 4 3/16, 4 1/4,<br>4 5/16, 4 3/8, 4 7/16, 4 1/2, 7 9/16, 4 5/8, 4 11/16,<br>4 3/4, 4 13/16, 4 7/8, 4 15/16 and 5 inches |
| Bushing length               | 6 inches   |
| Weight                       | 3,500 Kg. Approx.  |



## Accessories for Broaching machine

### Bushings



F114 steel guide bushes in H8 diameter tolerance to optimize the perfect finish of the part.

*For other dimensions, request the manufacturer.*

| Reference           | Model | Diameter | Length | Tolerance | Broaches             |
|---------------------|-------|----------|--------|-----------|----------------------|
| 125-09-01-CBR-00002 | A     | 10 mm    | 32 mm  | J9        | 2 - 3 mm             |
| 125-09-01-CBR-00004 | B     | 12 mm    | 46 mm  | J9        | 4 - 5C mm            |
| 125-09-01-CBR-00005 | B     | 14 mm    | 46 mm  | J9        | 4 - 5C mm            |
| 125-09-01-CBR-00006 | B     | 16 mm    | 46 mm  | J9        | 4 - 5C mm            |
| 125-09-01-CBR-00007 | B     | 17 mm    | 46 mm  | J9        | 4 - 5C mm            |
| 125-09-01-CBR-00008 | C     | 18 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00009 | C     | 19 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00010 | C     | 20 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00011 | C     | 22 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00012 | C     | 24 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00013 | C     | 25 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00014 | C     | 28 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00015 | C     | 30 mm    | 65 mm  | J9        | 5 - 6 - 8 mm         |
| 125-09-01-CBR-00016 | D     | 32 mm    | 102 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00017 | D     | 35 mm    | 102 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00018 | D     | 38 mm    | 102 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00020 | D     | 40 mm    | 102 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00021 | D     | 42 mm    | 102 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00022 | D     | 45 mm    | 127 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00023 | D     | 48 mm    | 127 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00024 | D     | 50 mm    | 127 mm | J9        | 10 - 12 - 14 mm      |
| 125-09-01-CBR-00025 | E     | 55 mm    | 127 mm | J9        | 16 - 18 mm           |
| 125-09-01-CBR-00026 | E     | 60 mm    | 154 mm | J9        | 16 - 18 mm           |
| 125-09-01-CBR-00027 | E     | 65 mm    | 154 mm | J9        | 16 - 18 mm           |
| 125-09-01-CBR-00028 | F     | 70 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |
| 125-09-01-CBR-00029 | F     | 75 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |
| 125-09-01-CBR-00030 | F     | 80 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |
| 125-09-01-CBR-00031 | F     | 85 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |
| 125-09-01-CBR-00032 | F     | 90 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |
| 125-09-01-CBR-00033 | F     | 95 mm    | 154 mm | J9        | 20 - 22 - 24 - 25 mm |



## Horizontal Press Brake

### Horizontal Press Brake PP200CNC

The versatility of the 20 Tons Horizontal Press Brake Nargesa PP200CNC allows us to bend, fold, cut and shape in cold, stretch and reduce, inlay, notch and assemble...

• **The new ECO mode** of our latest products saves energy and contributes to the conservation of the environment. Nowadays, we know the remarkable importance of saving energy. This is the main reason why our new machinery incorporates an "ECO mode" that automatically disconnects the electrical parts that generate greater energy consumption if a period of inactivity is detected. Thus, when it is necessary to restart the operation, all you have to do is press the pedal to continue working.

We strongly believe that this feature is a core point both for the savings of our clients and for the sustainability of our planet, since we are a company very committed to the environment.

- **Quick start-up:** The machine is shipped fully assembled, it is only required to connect it to the electrical supply and run it.
- **Versatility:** Nargesa PP200 has a catalog with a great deal of optional tooling.
- **Easy fabrication of tooling:** The customer himself or any toolmaker can manufacture dies and punches.

|                       |                            |
|-----------------------|----------------------------|
| Reference             | 100-16-01-001              |
| Engine power          | 2,2 KW / 3 HP to 1400r.p.m |
| Three-phased tension  | 230 / 400 V                |
| Working strength      | 20.000 Kg / 200 KN         |
| Working speed         | 10 mm/s                    |
| Return speed          | 35 mm/s                    |
| Maximum displacement  | 250 mm                     |
| Repetitivity          | 0,05 mm                    |
| Tooling support table | 600x1170 mm                |
| Dimensions            | 660x1180x1130 mm           |
| Weight                | 665 Kg                     |



**NEW**



Nargesa horizontal press brakes have a 7" color touch screen control, **very intuitive and easy to handle, with the latest 4.0 technology and a more comfortable and accurate regulation.**

We only have to introduce the material, the thickness, the bending angle, choose the punch and the die from the library and the control will program the rest of the parameters automatically.

## Accessories for Horizontal Press Brake

### Folding die at 161 mm. · V16, 22 35 50 mm PP200CNC



Folding or bending die up to 161mm with 4 openings (16, 22, 35, 50mm) and a punch of 80°. This multi-V die allows 1mm up to 8mm sheet to be folded. The 70mm outer die diameter punch allows to make completely closed shapes to a minimum of 75mm inner wing.



**Folding die reference:** 125-16-01-00006

**Folding punch reference:** 131-16-01-00041

**V 16:** Sheet from 1 to 3mm

**V 22:** Sheet from 2 to 4mm

**V 35:** Sheet from 3 to 6mm

**V 50:** Sheet from 4 to 8mm

**Max. Folding length:** 161mm

**Max. Folding thickness:** 8mm

*Standard tooling provided along with the machine.*

### Baluster forming die 01



**Reference:** 140-16-01-00001

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer.*



| Max. width | Thickness    | Die length | Weight |
|------------|--------------|------------|--------|
| 20mm       | 4, 5, 6, 8mm | 656mm      | 21Kg   |

### Ring forming



**Reference:** 140-16-01-00003

Die to form rings or English banister railing, used as ornamental piece in forging railings, gates, fences... for bars bonding.

*For other sizes and applications consult the manufacturer*



| Max. width | Thickness | Outer sizes | Weight |
|------------|-----------|-------------|--------|
| 50mm       | 6mm       | 90mm        | 9,3Kg  |



## Accessories for Horizontal Press Brake

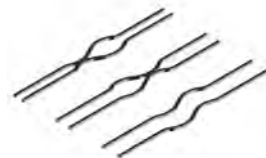
### Baluster forming die 4



**Reference: 140-16-01-00004**

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer.*



| Square sizes                  | Die length | Weight  |
|-------------------------------|------------|---------|
| 5, 6, 8, 10, 12, 14, 16, 18mm | 600mm      | 20,5 Kg |

### Bending tool for big radius PP200CNC



**Reference: 140-16-01-00006**

Die to form curves in flat bars, pipes, bars or profiles at big radius. It's perfect for bending small series or special parts without requiring a specific custom mold.



| Max. bar capacity | Max. pipe capacity | Min. diameter | Max. diameter       | Weight |
|-------------------|--------------------|---------------|---------------------|--------|
| 40mm or 1 1/2"    | 80x80 mm or 3"     | 300mm         | There is no maximum | 35 Kg  |

### Baluster forming die 08



**Reference: 140-16-01-00008**

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer*



| Max. width | Thickness    | Die length | Weight |
|------------|--------------|------------|--------|
| 20mm       | 4, 5, 6, 8mm | 650mm      | 19,5Kg |

### Baluster forming die 09



**Reference: 140-16-01-00009**

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer.*



| Flat bar size     | Die length | Weight |
|-------------------|------------|--------|
| 5, 6, 8, 10, 12mm | 522mm      | 22Kg   |

## Accessories for Horizontal Press Brake

### Baluster forming die 10



**Reference: 140-16-01-00010**

Die to form cold forging balusters shaped parts for grills, so called "belly top railing".

*For other shapes or capacities, please consult the manufacturer.*



| Flat bar size | Die length | Weight |
|---------------|------------|--------|
| 12mm          | 1165mm     | 50Kg   |

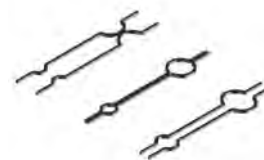
### Baluster forming die 11



**Reference: 140-16-01-00011**

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer.*



| Flat bar size  | Die length | Weight |
|----------------|------------|--------|
| 6, 8, 10, 12mm | 760mm      | 32,5Kg |

### Twisted bars forming die



**Reference: 140-16-01-00013**

Die to bend metal plate, flat bar or square bar to obtain a nice braid twisted effect. It's very used to make fences and grills. For flat bar from 6, 12 and 14mm.

*For different sizes, please ask the manufacturer*



| Max. capacity | Min. capacity       | Weight |
|---------------|---------------------|--------|
| Square 14 mm  | 2x40 mm metal sheet | 18Kg   |

### Flat bar cutting tooling 100x10 mm.



**Reference: 140-16-01-00014**

Flat bar and metal sheet cutting die up to 100mm through a maximum thickness of 10mm in mild steel.



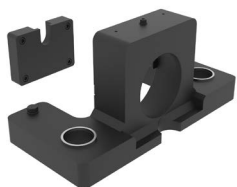
| Max. Cutting length | Max. Cutting thickness | Weight |
|---------------------|------------------------|--------|
| 100mm               | 10mm                   | 23Kg   |



## Accessories for Horizontal Press Brake

### Tool to shape pipe ends PP200CNC

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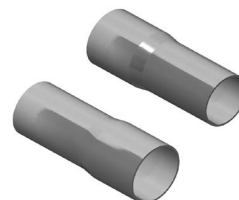


**Reference:** 140-16-01-00016

Basic die to modify the ends of the tubes for their assembly.  
You can make all kinds of shapes and flaps according to the customer needs.

*For special forms consult the manufacturer.*

**Weight:** 110 Kg aprox.



### Diameter reduction tools for PP200CNC

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#### PP200CNC reduction cone

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**Reference:** 140-16-01-RE001

This accessory is adapted to the **Tooling to shape pipe ends**, to perform the operation of reducing the ends of the tubes.

This accessory is used in all tube sizes, that is to say, it is not necessary to buy more than one since it is adaptable to all diameters.

**Weight:** 12,7 Kg.

#### Reducing clamp holder PP200CNC

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**Reference:** 140-16-01-RE002

Accessory to set the **Reducing Clamps** of different diameters.

This accessory is used in all tube sizes, that is to say, it is not necessary to buy more than one since it is adaptable to all diameters.

**Weight:** 4,6 Kg.

## Accessories for Horizontal Press Brake

### PP200CNC reducer clamp



This accessory attaches to the **Reducing clamp holder**, to carry out the operation of reducing the ends of the tubes.

It is necessary to buy one specific reducing clamp for each tube according to its initial diameter and the final diameter that we want to achieve.

See the following table of Reducing Clamps:

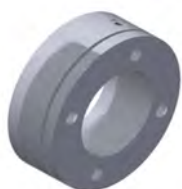


| ØA max. | ØB min. | C max. | Reference         | Description                               |
|---------|---------|--------|-------------------|---|
| 16mm    | 10mm    | 76mm   | 140-16-01-RE16-10 | Tube Reducer Clamp 16-10 Length Max. 76mm |
| 19mm    | 13mm    | 76mm   | 140-16-01-RE19-13 | Tube Reducer Clamp 19-13 Length Max. 76mm |
| 22mm    | 16mm    | 76mm   | 140-16-01-RE22-16 | Tube Reducer Clamp 22-16 Length Max. 76mm |
| 25mm    | 19mm    | 76mm   | 140-16-01-RE25-19 | Tube Reducer Clamp 25-19 Length Max. 76mm |
| 28mm    | 22mm    | 76mm   | 140-16-01-RE28-22 | Tube Reducer Clamp 28-22 Length Max. 76mm |
| 32mm    | 26mm    | 76mm   | 140-16-01-RE32-26 | Tube Reducer Clamp 32-26 Length Max. 76mm |
| 35mm    | 29mm    | 76mm   | 140-16-01-RE35-29 | Tube Reducer Clamp 35-29 Length Max. 76mm |
| 38mm    | 32mm    | 76mm   | 140-16-01-RE38-32 | Tube Reducer Clamp 38-32 Length Max. 76mm |
| 42mm    | 36mm    | 76mm   | 140-16-01-RE42-36 | Tube Reducer Clamp 42-36 Length Max. 76mm |
| 45mm    | 39mm    | 76mm   | 140-16-01-RE45-39 | Tube Reducer Clamp 45-39 Length Max. 76mm |
| 48mm    | 42mm    | 76mm   | 140-16-01-RE48-42 | Tube Reducer Clamp 48-42 Length Max. 76mm |
| 51mm    | 45mm    | 76mm   | 140-16-01-RE51-45 | Tube Reducer Clamp 51-45 Length Max. 76mm |
| 54mm    | 48mm    | 76mm   | 140-16-01-RE54-48 | Tube Reducer Clamp 54-48 Length Max. 76mm |
| 57mm    | 51mm    | 76mm   | 140-16-01-RE57-51 | Tube Reducer Clamp 57-51 Length Max. 76mm |
| 60mm    | 54mm    | 76mm   | 140-16-01-RE60-54 | Tube Reducer Clamp 60-54 Length Max. 76mm |
| 63mm    | 57mm    | 76mm   | 140-16-01-RE63-57 | Tube Reducer Clamp 63-57 Length Max. 76mm |
| 66mm    | 60mm    | 76mm   | 140-16-01-RE66-60 | Tube Reducer Clamp 66-60 Length Max. 76mm |
| 69mm    | 63mm    | 76mm   | 140-16-01-RE69-63 | Tube Reducer Clamp 69-63 Length Max. 76mm |
| 73mm    | 67mm    | 76mm   | 140-16-01-RE73-67 | Tube Reducer Clamp 73-67 Length Max. 76mm |

## Accessories for Horizontal Press Brake

### Diameter expansion tools PP200CNC

#### Clamp Holder to Expand Tube PP200CNC



**Reference: 140-16-01-EX001**

This accessory is adapted to the **Tooling to shape pipe ends**, to perform the operation of expanding the ends of the tubes.

This accessory is used in all tube sizes, that is to say, it is not necessary to buy more than one since it is adaptable to all diameters.

#### Expansion Mandrel PP200CNC



**Reference: 140-16-01-EX002**

This accessory is adapted to the **Tooling to shape pipe ends**, to perform the operation of expanding the ends of the tubes.

This accessory is used in all tube sizes, that is to say, it is not necessary to buy more than one since it is adaptable to all diameters.

#### Tube Expander Clamp PP200CNC



This accessory is adapted to the **Tooling to shape pipe ends**, to perform the operation of expanding the ends of the tubes.

It is necessary to buy one specific expanding clamp for each tube according to its initial diameter and the final diameter that we want to achieve.

See the following table of Expanding Clamps:



| ØA min. | ØB max. | C max. | Reference         | Description                                |
|---------|---------|--------|-------------------|--|
| 22mm    | 28mm    | 40mm   | 140-16-01-EX22-28 | Tube Expander Clamp 22-28 Length Max. 40mm |
| 25mm    | 31mm    | 40mm   | 140-16-01-EX25-31 | Tube Expander Clamp 25-31 Length Max. 40mm |
| 28mm    | 34mm    | 50mm   | 140-16-01-EX28-34 | Tube Expander Clamp 28-34 Length Max. 50mm |
| 31mm    | 37mm    | 60mm   | 140-16-01-EX31-37 | Tube Expander Clamp 31-37 Length Max. 60mm |
| 35mm    | 41mm    | 60mm   | 140-16-01-EX35-41 | Tube Expander Clamp 35-41 Length Max. 60mm |
| 38mm    | 44mm    | 65mm   | 140-16-01-EX38-44 | Tube Expander Clamp 38-44 Length Max. 65mm |
| 41mm    | 47mm    | 65mm   | 140-16-01-EX41-47 | Tube Expander Clamp 41-47 Length Max. 65mm |
| 44mm    | 50mm    | 80mm   | 140-16-01-EX44-50 | Tube Expander Clamp 44-50 Length Max. 80mm |
| 47mm    | 53mm    | 80mm   | 140-16-01-EX47-53 | Tube Expander Clamp 47-53 Length Max. 80mm |
| 51mm    | 57mm    | 80mm   | 140-16-01-EX51-57 | Tube Expander Clamp 51-57 Length Max. 80mm |
| 54mm    | 60mm    | 80mm   | 140-16-01-EX54-60 | Tube Expander Clamp 54-60 Length Max. 80mm |
| 60mm    | 66mm    | 80mm   | 140-16-01-EX60-66 | Tube Expander Clamp 60-66 Length Max. 80mm |

## Accessories for Horizontal Press Brake

### Die to straighten out profiles



**Reference: 140-16-01-00017**

Tool used to bend straight profiles or parts. It is adjustable to different capacities according to the profiles.



| Maximum capacity | Weight |
|------------------|--------|
| H 150 mm         | 72 Kg  |

### Baluster forming die 20



**Reference: 140-16-01-00020**

Die to form cold forging balusters for grills, gates, fences, handrails...

*For other shapes or capacities, request the manufacturer.*



| Square sizes | Circumference size | Weight |
|--------------|--------------------|--------|
| 12x12mm      | 90mm               | 11 Kg  |

### Punching die



**Reference: 140-16-01-00022**

Punch-holder die, compatible with our Nargesa brand punches.

**Gooseneck: 54 mm**

**Free distance of tooling: 95 mm**



|                        | Round | Square | Rectangular | Oval    | Weight |
|------------------------|-------|--------|-------------|---------|--------|
| Max. Punching capacity | 43mm  | 35mm   | 20x34mm     | 21x40mm | 52 Kg  |

### Promecam punch holder



**Reference: 140-16-01-00023**

Punch holder for all kind of punches for Promecam bending or folding press.

*Compatible with any Promecam punch.*



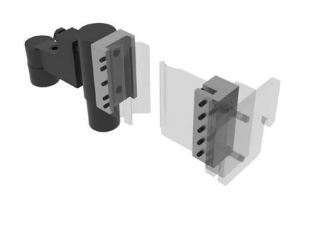
| Max. Folding length | Weight |
|---------------------|--------|
| 161mm               | 14kg   |



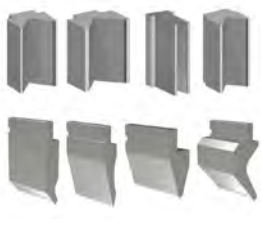


# Accessories for Horizontal Press Brake

## Inverted Promecam-holder PP200CNC



**Reference: 140-16-01-00039**  
Punch holder for all kind of punches for Promecam bending or folding press with inverted position.  
*Compatible with any Promecam punch.*



| Max. Folding length | Weight |
|---------------------|--------|
| 161mm               | 19,8kg |

## Clamp forming die PP200CNC



**Reference: 140-16-01-00024**  
Die to form all kinds of clamps. This tooling is manufactured according to the user's needs thus it is required to have a technical drawing or a sample piece.  
**Maximum capacity:** 100x4 mm



## Special punches

Folding punches to bend special pieces of small sizes or folded up to 30°.



Folding Punch D70 30°  
**REF: 140-16-01-00025**  
**Max. Folding length:** 100mm  
**Punch degrees:** 30°  
**Punch diameter:** 70mm



Folding Punch D40 80°  
**REF: 140-16-01-00026**  
**Max. Folding length:** 60mm  
**Punch degrees:** 80°  
**Punch diameter:** 40mm



Folding Punch D22 80°  
**REF: 140-16-01-00027**  
**Max. Folding length:** 60mm  
**Punch degrees:** 80°  
**Punch diameter:** 22mm



**Weight:** 3Kg each unit approximately





## Accessories for Horizontal Press Brake

### Bar clamps forming die



**Reference:** 140-16-01-00028  
Clamp forming die, used to manufacture the clamps used to join different forging bars with no need to get them welded.



| Max. capacity | Weight |
|---------------|--------|
| 25x5mm        | 9Kg    |

### Forming die adaptor

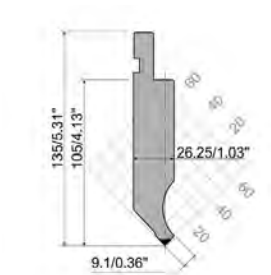


**Reference:** 140-16-01-00029  
It is an exchangeable fitting device for the forming dies, suitable for each of the different baluster forming tools. It is advisable to get one in order to work with the specified dies.



**Weight:** 3,1 Kg.

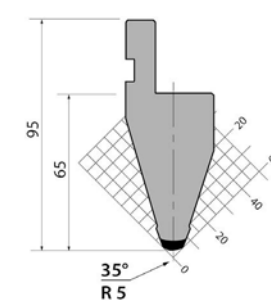
### Punch Promecam PS.135.85.R08



**Reference:** 140-16-01-00030  
**Folding length:** 161 mm  
**Weight:** 3,2 Kg.



### Punch Promecam P.95.35.R5

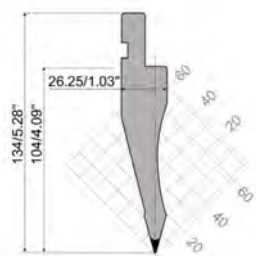


**Referencia:** 140-16-01-00031  
**Folding length:** 161 mm  
**Weight:** 2,3 Kg.



## Accessories for Horizontal Press Brake

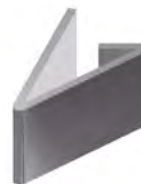
### Punch Promecam PS.134.30.R08



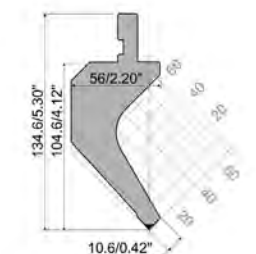
**Referencia:** 140-16-01-00032

**Folding length:** 161 mm

**Weight:** 2,7 Kg.



### Punch Promecam PK.135.85.R08



**Referencia:** 140-16-01-00038

**Folding length:** 161 mm

**Weight:** 4,4 Kg.



## Dies to fold thick metal sheet

Promecam dies of different openings to fold sheets, flat bars or thicker plate sections up to 15mm. in order to fold even thicker sizes, ask the manufacture.



Folding die T80.25.35 PP200CNC

**REF.** 140-16-01-00036

**Folding length:** 161mm

**Thickness:** From 1,5 to 5mm

**Weight:** 4Kg.



Folding die M75-85-63 PP200CNC

**REF:** 140-16-01-00033

**Folding length:** 161mm

**Thickness:** From 5 to 10mm

**Weight:** 5Kg.



Folding die M80-85-80 PP200CNC

**REF:** 140-16-01-00034

**Folding length:** 161mm

**Thickness:** From 6 to 12mm

**Weight:** 6Kg.



Folding die M95-80-100 PP200CNC

**REF:** 140-16-01-00035

**Folding length:** 161mm

**Thickness:** From 8 to 15mm

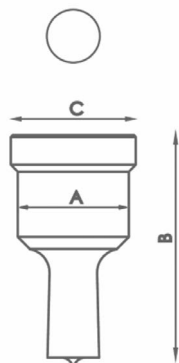
**Weight:** 9Kg



## Accessories for Horizontal Press Brake

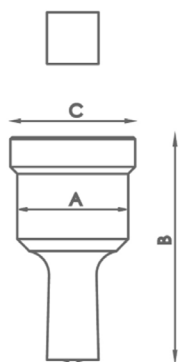
### Punches and dies

#### Standard round punches



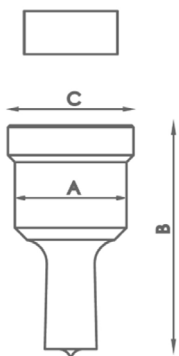
| Type  | Available sizes in mm Ø   | A     | B     | C       |
|---|---|-------|-------|---------|
| N28   | 3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8/8'5<br>up to 28mm from 0'5 in 0'5mm | 28 mm | 58 mm | 31,5 mm |
| N40   | 29/30/31/32/33/34/35/36/37/38/39/40mm                               | 40 mm | 64 mm | 43,5 mm |
| N50   | 41/42/43mm  | 50 mm | 58 mm | 54 mm   |
| <i>For different sizes, please ask the manufacturer</i> |   |       |       |         |

#### Standard square punches



| Type  | Available sizes in mm                             | A     | B     | C       |
|---|---|-------|-------|---------|
| N28   | 4/5/6/7/8/9/10/11/12/13/14/15/16/17<br>18/19/20mm | 28 mm | 58 mm | 31,5 mm |
| N40   | 21/22/24/26/28mm                                  | 40 mm | 64 mm | 43,5 mm |
| N50   | 31/33/35mm  | 50 mm | 58 mm | 54 mm   |
| <i>For different sizes, please ask the manufacturer</i> |   |       |       |         |

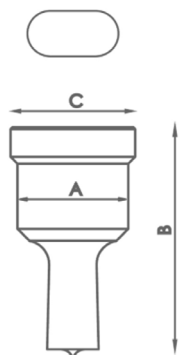
#### Standard rectangular punches



| Type  | Available sizes in mm                            | A     | B     | C       |
|---|--|-------|-------|---------|
| N28   | 7x10/7x15/9x13/9x19/11x17/11x23<br>13x19/15x21mm | 28 mm | 58 mm | 31,5 mm |
| N40   | 13x25/15x27/17x25/19x30/20x34mm                  | 40 mm | 64 mm | 43,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |  |       |       |         |

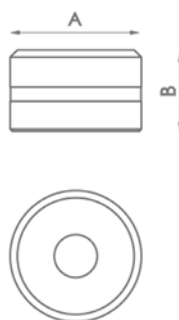
## Accessories for Horizontal Press Brake

### Standard oval punches



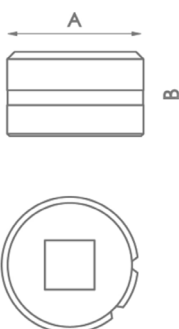
| Type  | Available sizes in mm   | A     | B     | C       |
|---|---|-------|-------|---------|
| N28   | 7x10/7x15/7x20/9x13/9x19/11x17/11x23<br>13x18 /13x22/13x27/15x20/15x24/15x27<br>17x22/17x26 19x26/21x27mm | 28 mm | 58 mm | 31,5 mm |
| N40   | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm  | 40 mm | 64 mm | 43,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |   |       |       |         |

### Standard round dies



| Type  | Available sizes in mm Ø   | A     | B       |
|---|---|-------|---------|
| N46   | 3/3,5/4/4,5/5/5,5/6/6,5/7/7,5/8/8,5<br>9mm up to 28mm from 0,5 in 0,5mm | 46 mm | 28,5 mm |
| N60   | 29/30/31/32/33/34/35/36/37/38/39/40mm                                   | 60 mm | 32 mm   |
| N78   | 41/42/43mm  | 78 mm | 28,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |   |       |         |

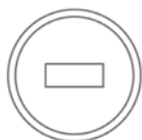
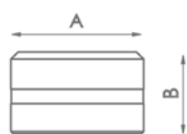
### Standard square dies



| Type  | Available sizes in mm                             | A     | B       |
|---|---|-------|---------|
| N46   | 4/5/6/7/8/9/10/11/12/13/14/15/16<br>17/18/19/20mm | 46 mm | 28,5 mm |
| N60   | 21/22/24/26/28mm                                  | 60 mm | 32 mm   |
| N78   | 31/33/35mm  | 78 mm | 28,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |   |       |         |

## Accessories for Horizontal Press Brake

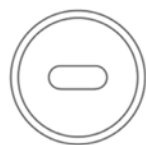
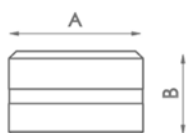
### Standard rectangular dies



| Type | Available sizes in mm                                    | A     | B       |
|------|--|-------|---------|
| N46  | 7x10/7x15/9x13/9x19/11x17/11x23/<br>13x19/13x25/ 15x21mm | 46 mm | 28,5 mm |
| N60  | 15x27/17x25/19x30/20x34mm                                | 60 mm | 32 mm   |

*For different sizes, please ask the manufacturer*

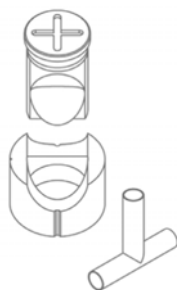
### Oval dies



| Type | Available sizes in mm  | A     | B       |
|------|--|-------|---------|
| N46  | 7x10/7x15/7x20/9x13/9x19/11x17/11x23/<br>13x18/13x22/13x27/15x20/15x24/15x27/<br>17x22/17x26/19x26/21x27mm | 46 mm | 28,5 mm |
| N60  | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm   | 60 mm | 32 mm   |

*For different sizes, please ask the manufacturer*

### Tube notching tooling

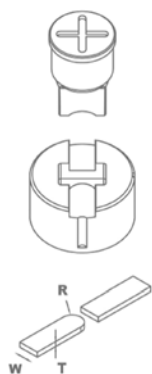


| Reference | Available sizes in mm  | Required fitting |        |
|-----------|------------------------|------------------|--------|
| MAN28     | Tube from 16 to 28mm   | TAP 28           | CAB 46 |
| MAN40     | Tube from 28,5 to 40mm | TAP 40           | CAB 60 |
| MAN50     | Tube from 40,5 to 50mm | TAP 50           | CAB 78 |

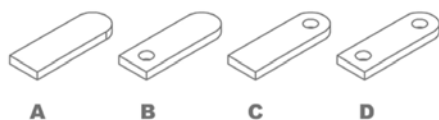
*For different sizes, please ask the manufacturer*

## Accessories for Horizontal Press Brake

### Flat bar round end tooling R1



| Reference | Model | Width size      | Required fitting        |
|-----------|-------|-----------------|-------------------------|
| MOR1-35A  | A     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35B  | B     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35C  | C     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35D  | D     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-50A  | A     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50B  | B     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50C  | C     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50D  | D     | From 40 to 50mm | TAP50 / TAP60 with ATAP |



For different sizes, please ask the manufacturer.

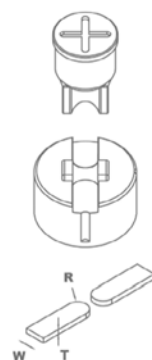
When placing order it must be specified the REFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness)

In models B, C and D specify diameter of the hole.

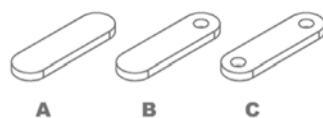
The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

### Flat bar round end tooling R2



| Reference | Model | Width size      | Required fitting        |
|-----------|-------|-----------------|-------------------------|
| MOR2-35A  | A     | From 20 to 35mm | TAP28 / TAP40           |
| MOR2-35B  | B     | From 20 to 35mm | TAP28 / TAP40           |
| MOR2-35C  | C     | From 20 to 35mm | TAP28 / TAP40           |
| MOR2-50A  | A     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR2-50B  | B     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR2-50C  | C     | From 40 to 50mm | TAP50 / TAP60 with ATAP |



For different sizes, please ask the manufacturer.

When placing order it must be specified the REFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness)

In models B and C specify hole diameter.

The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.



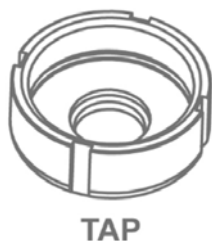
## Accessories for Horizontal Press Brake

### Corner rounding tooling



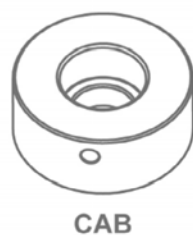
| Reference   | Available sizes in mm    | Required fitting |        |
|---|--------------------------|------------------|--------|
| <b>MRE28</b>  | Radius from 3 to 15mm    | TAP 28           | CAB 46 |
| <b>MRE40</b>  | Radius from 16 to 26mm   | TAP 40           | CAB 60 |
| <b>MRE50</b>  | Radius from 26,5 to 32mm | TAP 50           | CAB 78 |
| <i>For different sizes, please ask the manufacturer</i> |                          |                  |        |

### Fitting nuts for punches



| Reference              | Type  | Fitting nuts for punches     |
|------------------------|-------|------------------------------|
| <b>120-02-01-00011</b> | TAP28 | Fitting nuts for punches N28 |
| <b>140-02-01-00019</b> | TAP40 | Fitting nuts for punches N40 |
| <b>140-02-01-00020</b> | TAP50 | Fitting nuts for punches N50 |
| <b>140-02-01-00021</b> | TAP60 | Fitting nuts for punches N60 |

### Fitting for dies



| Reference              | Type | Fitting for dies     |
|------------------------|------|----------------------|
| <b>120-02-01-00012</b> | N46  | Fitting for dies N46 |
| <b>140-02-01-00024</b> | N60  | Fitting for dies N60 |
| <b>140-02-01-00025</b> | N78  | Fitting for dies N78 |





## Hydraulic iron worker

### Hydraulic iron worker MX340G

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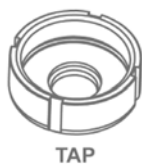
The Hydraulic Punching Machine MX340G Nargesa main feature is its versatility. It can make several functions as punching operations in metal sheet, flat bar, pipe, angle, U-T-UPN-IPN profiles, folding, cutting, tube notching, inlaying, punching, bending sheets, stamping... It can be suitable for any other kind of tooling.

|                       |                 |
|-----------------------|-----------------|
| Reference             | 100-02-01-002   |
| Engine power          | 2,2 KW / 3 HP   |
| Three-phased tension  | 230 / 400 V     |
| Hydraulic power       | 40 Tn           |
| Working speed         | 7,1 mm/s        |
| Return speed          | 9,3 mm/s        |
| Punch displacement    | 100 mm          |
| Neck                  | 180 mm          |
| Tooling support table | 245x265 mm      |
| Dimensions            | 690x870x1780 mm |
| Weight                | 615 Kg          |



## Accessories for Hydraulic iron worker MX340G

### Fitting nuts for punches MX340



TAP



ATAP

| Reference       | Type  | Fitting nuts for punches                     |
|-----------------|-------|--|
| 120-02-01-00011 | TAP28 | Fitting nuts for punches N28 <i>Standard</i> |
| 140-02-01-00019 | TAP40 | Fitting nuts for punches N40                 |
| 140-02-01-00020 | TAP50 | Fitting nuts for punches N50                 |
| 140-02-01-00021 | TAP60 | Fitting nuts for punches N60                 |
| 125-02-01-00002 | ATAP  | Fitting part for TAP60                       |

### Fitting parts for dies MX340



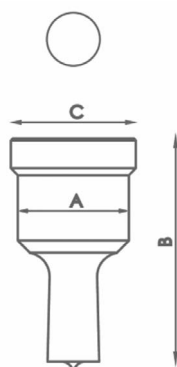
CAB



PORTABASES

| Reference       | Type | Fitting for dies                     |
|-----------------|------|--------------------------------------|
| 120-02-01-00012 | N46  | Fitting for dies N46 <i>Standard</i> |
| 140-02-01-00024 | N60  | Fitting for dies N60                 |
| 140-02-01-00025 | N78  | Fitting for dies N78                 |
| 140-02-01-00037 | N100 | Base holder for dies N100            |
| 140-02-01-00038 | N125 | Base holder for dies N125            |

### Standard round punches MX340

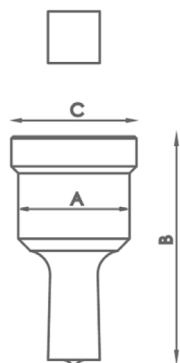


| Type | Available sizes in mm Ø  | A      | B     | C       |
|------|--|--------|-------|---------|
| N28  | 3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8<br>8'5 /9mm up to 28mm from 0'5 in 0'5mm | 28 mm  | 58 mm | 31,5 mm |
| N40  | 29/30/31/32/33/34/35<br>36/37/38/39/40mm                                 | 40 mm  | 64 mm | 43,5 mm |
| N50  | 41/42/43/44/45/46/47/48/49/50mm  | 50 mm  | 58 mm | 54 mm   |
| N60  | 52/54/56/58/60mm   | 60 mm  | 58 mm | 64 mm   |
| N75  | 62/64/66/68/70/72/74mm   | 75 mm  | 58 mm | 79 mm   |
| N100 | 76/78/80/82/84/86/88<br>90/92/94/96/98/100mm                             | 100 mm | 58 mm | 104 mm  |

*For different sizes, please ask the manufacturer*

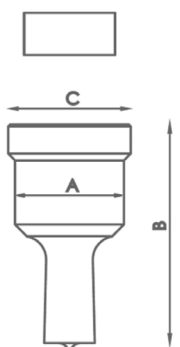
## Accessories for Hydraulic iron worker MX340G

### Standard square punches MX340



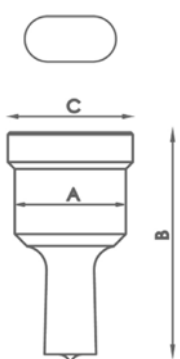
| Type  | Available sizes in mm                             | A      | B     | C       |
|---|---|--------|-------|---------|
| N28   | 4/5/6/7/8/9/10/11/12/13/14/15<br>16/17/18/19/20mm | 28 mm  | 58 mm | 31,5 mm |
| N40   | 21/22/24/26/28mm                                  | 40 mm  | 64 mm | 43,5 mm |
| N50   | 31/33/35mm  | 50 mm  | 58 mm | 54 mm   |
| N75   | 40/44/48/53mm                                     | 75 mm  | 58 mm | 79 mm   |
| N100  | 58/64/70mm  | 100 mm | 58 mm | 104 mm  |
| <i>For different sizes, please ask the manufacturer</i> |   |        |       |         |

### Standard rectangular punches MX340



| Type  | Available sizes in mm                            | A      | B     | C       |
|---|--|--------|-------|---------|
| N28   | 7x10/7x15/9x13/9x19/11x17/11x23<br>13x19/15x21mm | 28 mm  | 58 mm | 31,5 mm |
| N40   | 13x25/15x27/17x25/19x30/20x34mm                  | 40 mm  | 64 mm | 43,5 mm |
| N50   | 25x43mm  | 50 mm  | 58 mm | 54 mm   |
| N75   | 25x70mm  | 75 mm  | 58 mm | 79 mm   |
| N100  | 25x96mm  | 100 mm | 58 mm | 104 mm  |
| <i>For different sizes, please ask the manufacturer</i> |  |        |       |         |

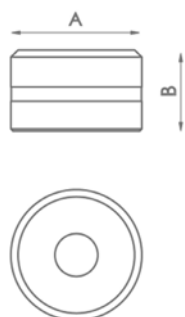
### Standard oval punches MX340



| Type  | Available sizes in mm  | A      | B     | C       |
|---|--|--------|-------|---------|
| N28   | 7x10/7x15/7x20/9x13/9x19/11x17<br>11x23/13x18/13x22/13x27/15x20/15x24<br>15x27/17x22/17x26/19x26/21x27mm | 28 mm  | 58 mm | 31,5 mm |
| N40   | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm   | 40 mm  | 64 mm | 43,5 mm |
| N50   | 25x45/25x50mm  | 50 mm  | 58 mm | 54 mm   |
| N75   | 27x63/27x75mm  | 75 mm  | 58 mm | 79 mm   |
| N100  | 30x87/30x100mm   | 100 mm | 58 mm | 104 mm  |
| <i>For different sizes, please ask the manufacturer</i> |  |        |       |         |

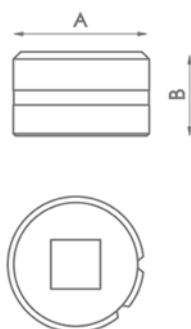
## Accessories for Hydraulic iron worker MX340G

### Standard round dies MX340



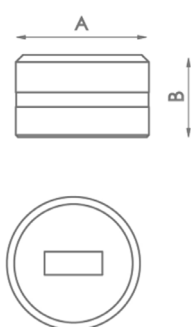
| Type  | Available sizes in mm   | A      | B       |
|---|---|--------|---------|
| N46   | 3/3,5/4/4,5/5/5,5/6/6,5/7/7,5/8/8,5<br>9mm up to 28mm from 0,5 in 0,5mm | 46 mm  | 28,5 mm |
| N60   | 29/30/31/32/33/34/35/36/37/38/39/40mm                                   | 60 mm  | 32 mm   |
| N78   | 41/42/43/44/45/46/47/48/49/50mm   | 78 mm  | 28,5 mm |
| N100  | 52/54/56/58/60/62/64/66/68/70/72/74mm                                   | 100 mm | 28,5 mm |
| N125  | 76/78/80/82/84/86/88/90/92/94/96/98/100mm                               | 125 mm | 28,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |   |        |         |

### Standard square dies MX340



| Type  | Available sizes in mm                          | A      | B       |
|---|--|--------|---------|
| N46   | 4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm | 46 mm  | 28,5 mm |
| N60   | 21/22/24/26/28mm                               | 60 mm  | 32 mm   |
| N78   | 31/33/35mm                                     | 78 mm  | 28,5 mm |
| N100  | 40/44/48/53mm                                  | 100 mm | 28,5 mm |
| N125  | 58/64/70mm                                     | 125 mm | 28,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |  |        |         |

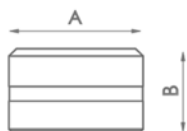
### Standard rectangular dies MX340



| Type  | Available sizes in mm                                  | A      | B       |
|---|--|--------|---------|
| N46   | 7x10/7x15/9x13/9x19/11x17/11x23<br>13x19/13x25/15x21mm | 46 mm  | 28,5 mm |
| N60   | 15x27/17x25/19x30/20x34mm                              | 60 mm  | 32 mm   |
| N78   | 25x43mm  | 78 mm  | 28,5 mm |
| N100  | 25x70mm  | 100 mm | 28,5 mm |
| N125  | 25x96mm  | 125 mm | 28,5 mm |
| <i>For different sizes, please ask the manufacturer</i> |  |        |         |

## Accessories for Hydraulic iron worker MX340G

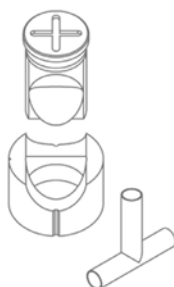
### Oval dies MX340



| Type | Available sizes in mm  | A      | B       |
|------|--|--------|---------|
| N46  | 7x10/7x15/7x20/9x13/9x19/11x17/11x23<br>13x18/13x22/13x27/15x20/15x24/15x27<br>17x22/17x26/19x26/21x27mm | 46 mm  | 28,5 mm |
| N60  | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm   | 60 mm  | 32 mm   |
| N78  | 25x45/25x50mm  | 78 mm  | 28,5 mm |
| N100 | 27x63/27x75mm  | 100 mm | 28,5 mm |
| N125 | 30x87/30x100mm   | 125 mm | 28,5 mm |

*For different sizes, please ask the manufacturer*

### Tube notching tooling MX340



| Reference | Available sizes in mm  | Required fitting |        |
|-----------|------------------------|------------------|--------|
| MAN28     | Tube from 16 to 28mm   | TAP 28           | CAB 46 |
| MAN40     | Tube from 28,5 to 40mm | TAP 40           | CAB 60 |
| MAN50     | Tube from 40,5 to 50mm | TAP 50           | CAB 78 |
| MAN60     | Tube from 50,5 to 60mm | TAP 60           |        |

*For different sizes, please ask the manufacturer*

### Corner rounding tooling MX340

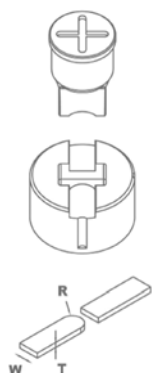


| Reference | Available sizes in mm    | Required fitting |        |
|-----------|--------------------------|------------------|--------|
| MRE28     | Radius from 3 to 15mm    | TAP 28           | CAB 46 |
| MRE40     | Radius from 16 to 26mm   | TAP 40           | CAB 60 |
| MRE50     | Radius from 26,5 to 32mm | TAP 50           | CAB 78 |

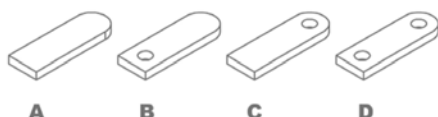
*For different sizes, please ask the manufacturer*

## Accessories for Hydraulic iron worker MX340G

### Flat bar round end tooling R1 MX340



| Reference | Model | Width size      | Required fitting        |
|-----------|-------|-----------------|-------------------------|
| MOR1-35A  | A     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35B  | B     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35C  | C     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35D  | D     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-50A  | A     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50B  | B     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50C  | C     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50D  | D     | From 40 to 50mm | TAP50 / TAP60 with ATAP |



For different sizes, please ask the manufacturer.

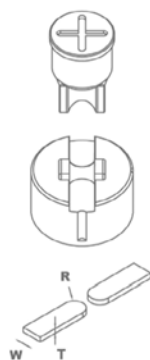
When placing order it must be specified the REFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness)

In models B, C and D specify diameter of the hole.

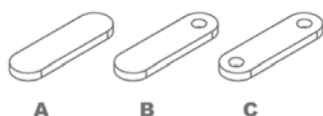
The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

### Flat bar round end tooling R2 MX340



| Reference | Model | Width size      | Required fitting       |
|-----------|-------|-----------------|------------------------|
| MOR2-35A  | A     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-35B  | B     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-35C  | C     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-50A  | A     | From 40 to 50mm | TAP50 / TAP60 con ATAP |
| MOR2-50B  | B     | From 40 to 50mm | TAP50 / TAP60 con ATAP |
| MOR2-50C  | C     | From 40 to 50mm | TAP50 / TAP60 con ATAP |



Para medidas distintas o superiores consultar con el fabricante.

Al realizar el pedido especificar REFERENCIA, MODELO, R (radio), W (ancho pletina), T (grueso pletina)

En los modelos B y C especificar diámetro del agujero.

La longitud de la orejeta siempre es ajustable.

Capacidad de producción: 450 a 600 piezas la hora.

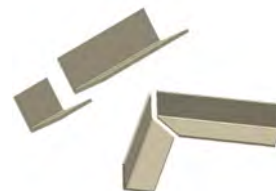
## Accessories for Hydraulic iron worker MX340G

### Angle cutting tooling. MX340



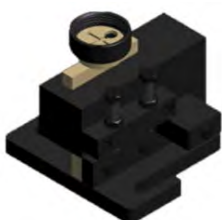
**Reference: 140-02-01-00001**

Angle cutting tooling, from 90° up to 45°.



| Units per machine | Max. Capacity for straight cut | Max. Cutting capacity for miter | Weight |
|-------------------|--------------------------------|---------------------------------|--------|
| 1                 | 60x60mm                        | 50x50mm                         | 32 Kg  |

### Flat bar cutting tooling. MX340



**Reference: 140-02-01-00002**

Tooling for cutting sheet or flat bars from 0.8mm up to 10mm thickness.



| Units per machine | Max. Cutting capacity | Weight |
|-------------------|-----------------------|--------|
| 1                 | 100x10mm              | 28 Kg  |

### Folding tooling 170mm. MX340



**Reference: 140-02-01-00004**

Tooling for folding sheet and flat bar up to 170mm. 88° punch. Dies with V for 56mm and V for 26m.



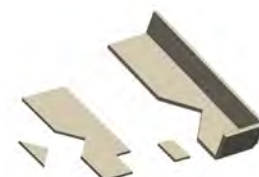
| Units per machine | Max folding length | Max folding thickness | Weight |
|-------------------|--------------------|-----------------------|--------|
| 1                 | 170mm              | 8 to 12mm             | 12 Kg  |

### Stripping tooling to 90° adjustable 100x100 MX340



**Reference: 140-02-01-00005**

Stripping tooling for angle etc. Adjustable up to 100x100mm to 90° fijos.



| Units per machine | Max. Cutting capacity | Weight |
|-------------------|-----------------------|--------|
| 1                 | 100x100x4             | 21 Kg  |





## Accessories for Hydraulic iron worker MX340G

### Arrow tooling for metal sheet MX340



**Reference: 140-02-01-00006**

Tooling for punching metal sheet in arrow shapes for fences.



| Units per machine | Max. Sheet Thickness | Weight |
|-------------------|----------------------|--------|
| 1                 | 3mm                  | 21 Kg  |

### Arrow tooling for pipes MX340



**Reference: 140-02-01-00007**

Tooling to flatten and cut arrow shaped pipes end. Suitable for different diameters.



| Units per machine | Pipe max. Diameter | Min. Pipe diameter | Weight |
|-------------------|--------------------|--------------------|--------|
| 1                 | 30x2mm             | 10x2mm             | 19 Kg  |

### Ventilation grip tooling. MX340



**Reference: 140-02-01-00010**

Tooling to make ventilation grips in metal sheet. Adjustable amount of punchings. They are to made one by one.



| Units per machine | Punchings sizes | Max. thickness | Weight |
|-------------------|-----------------|----------------|--------|
| 1                 | 100x20mm        | 2mm            | 20Kg   |

### Angle & U profile punching tooling MX340



**Reference: 140-02-01-00031**

Base holder for angle punching. Suitable for punches and dies of different diameters, exchangeables.



| Units per machine | Max. Hole diameter | Min. Hole diameter | Weight |
|-------------------|--------------------|--------------------|--------|
| 1                 | 28mm               | 2mm                | 7 Kg   |

## Accessories for Hydraulic iron worker MX340G

### Round bar cutting tooling. MX340



**Reference: 140-02-01-00035**

Tooling for cutting round bar from 3mm up to 35mm.



| Units per machine | Max. Cutting diameter | Min. Cutting diameter | Weight |
|-------------------|-----------------------|-----------------------|--------|
| 1                 | 35mm                  | 3mm                   | 15 Kg  |

### Locks punch and die MX340



**Reference: 140-02-01-00036**

Set for making the lock hole in metal sheet.

Necessary complements: CAB60 and TAP40



| Parts per set | Max. Thickness | Weight |
|---------------|----------------|--------|
| 2             | 6mm            | 1 Kg   |

### Flattening tooling MX340



**Reference: 140-02-01-00039**

It's an extractor which acts as the flat bar holder at the punching time to prevent the flat bar from deformation while being punched.



| Parts per tooling | Flat Bar Max Thickness | Weight |
|-------------------|------------------------|--------|
| 3                 | 15mm                   | 15 Kg  |

### Fence post end tooling MX340



**Reference: 140-02-01-00040**

Tooling to flatten and punch the pipe for fences. It admits different pipe diameters. Exchangeable hole size.



| Parts per tooling | Max. Pipe diameter | Min. Pipe diameter | Hole diameter | Weight |
|-------------------|--------------------|--------------------|---------------|--------|
| 2                 | 50mm               | 10mm               | Exchangeable  | 23 Kg  |



## Hydraulic iron worker

### Hydraulic iron worker MX700

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The Hydraulic Punching Machine MX700 Nargesa main feature is its versatility. It can make several functions as punching operations in metal sheet, flat bar, pipe, angle, U-T-UPN-IPN profiles, folding, cutting, tube notching, inlaying, punching, bending sheets, stamping... It can be suitable for any other kind of tooling.

|                       |                   |
|-----------------------|-------------------|
| Reference             | 100-02-02-003     |
| Engine power          | 5,5 KW / 7,5 HP   |
| Three-phased tension  | 400 V             |
| Hydraulic power       | 70 Tn             |
| Working speed         | 9 mm/s            |
| Return speed          | 14 mm/s           |
| Punch displacement    | 160 mm            |
| Neck                  | 350 mm            |
| Tooling support table | 600x350 mm        |
| Dimensions            | 1130x1370x2060 mm |
| Weight                | 2000 Kg           |



## Accessories for Hydraulic iron worker MX700

### Fitting nuts for punches MX700



TAP



ATAP

| Reference       | Type   | Fitting nuts for punches                     |
|-----------------|--------|--|
| 120-02-02-00312 | TAP28  | Fitting nuts for punches N28 <i>Standard</i> |
| 140-02-02-00011 | TAP40  | Fitting nuts for punches N40                 |
| 140-02-02-00015 | TAP50  | Fitting nuts for punches N50                 |
| 140-02-02-00014 | TAP60  | Fitting nuts for punches N60                 |
| 140-02-02-00010 | TAP75  | Fitting nuts for punches N75                 |
| 140-02-02-00012 | TAP100 | Fitting nuts for punches N100                |
| 125-02-02-00042 | ATAP   | Fitting part for TAP100                      |

### Fitting parts for dies MX700



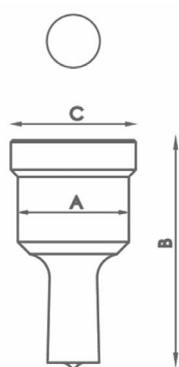
CAB



CAB N125

| Reference       | Type | Fitting for dies                     |
|-----------------|------|--------------------------------------|
| 120-02-02-00313 | N46  | Fitting for dies N46 <i>Standard</i> |
| 140-02-02-00019 | N60  | Fitting for dies N60                 |
| 140-02-02-00028 | N78  | Fitting for dies N78                 |
| 140-02-02-00044 | N85  | Fitting for dies N85                 |
| 140-02-02-00029 | N100 | Fitting for dies N100                |
| 140-02-02-00027 | N125 | Fitting for dies N125                |

### Standard round punches MX700

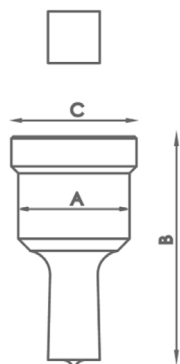


| Type | Available sizes in mm Ø  | A      | B     | C       |
|------|--|--------|-------|---------|
| N28  | 3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8<br>8'5 /9mm up to 28mm from 0'5 in 0'5mm | 28 mm  | 58 mm | 31,5 mm |
| N40  | 29/30/31/32/33/34/35<br>36/37/38/39/40mm                                 | 40 mm  | 64 mm | 43,5 mm |
| N50  | 41/42/43/44/45/46/47/48/49/50mm  | 50 mm  | 58 mm | 54 mm   |
| N60  | 52/54/56/58/60mm   | 60 mm  | 58 mm | 64 mm   |
| N75  | 62/64/66/68/70/72/74mm   | 75 mm  | 58 mm | 79 mm   |
| N100 | 76/78/80/82/84/86/88<br>90/92/94/96/98/100mm                             | 100 mm | 58 mm | 104 mm  |

*For different sizes, please ask the manufacturer*

## Accessories for Hydraulic iron worker MX700

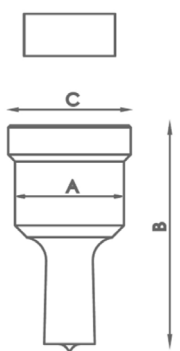
### Standard square punches MX700



| Type | Available sizes in mm                             | A      | B     | C       |
|------|---|--------|-------|---------|
| N28  | 4/5/6/7/8/9/10/11/12/13/14/15<br>16/17/18/19/20mm | 28 mm  | 58 mm | 31,5 mm |
| N40  | 21/22/24/26/28mm                                  | 40 mm  | 64 mm | 43,5 mm |
| N50  | 31/33/35mm  | 50 mm  | 58 mm | 54 mm   |
| N75  | 40/44/48/53mm                                     | 75 mm  | 58 mm | 79 mm   |
| N100 | 58/64/70mm  | 100 mm | 58 mm | 104 mm  |

*For different sizes, please ask the manufacturer*

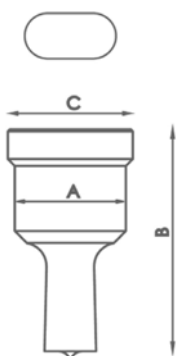
### Standard rectangular punches MX700



| Type | Available sizes in mm                            | A      | B     | C       |
|------|--|--------|-------|---------|
| N28  | 7x10/7x15/9x13/9x19/11x17/11x23<br>13x19/15x21mm | 28 mm  | 58 mm | 31,5 mm |
| N40  | 13x25/15x27/17x25/19x30/20x34mm                  | 40 mm  | 64 mm | 43,5 mm |
| N50  | 25x43mm  | 50 mm  | 58 mm | 54 mm   |
| N75  | 25x70mm  | 75 mm  | 58 mm | 79 mm   |
| N100 | 25x96mm  | 100 mm | 58 mm | 104 mm  |

*For different sizes, please ask the manufacturer*

### Standard oval punches MX700

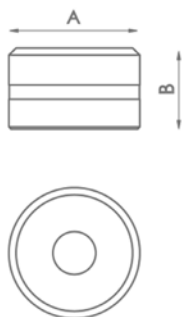


| Type | Available sizes in mm  | A      | B     | C       |
|------|--|--------|-------|---------|
| N28  | 7x10/7x15/7x20/9x13/9x19/11x17<br>11x23/13x18/13x22/13x27/15x20/15x24<br>15x27/17x22/17x26/19x26/21x27mm | 28 mm  | 58 mm | 31,5 mm |
| N40  | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm   | 40 mm  | 64 mm | 43,5 mm |
| N50  | 25x45/25x50mm  | 50 mm  | 58 mm | 54 mm   |
| N75  | 27x63/27x75mm  | 75 mm  | 58 mm | 79 mm   |
| N100 | 30x87/30x100mm   | 100 mm | 58 mm | 104 mm  |

*For different sizes, please ask the manufacturer*

## Accessories for Hydraulic iron worker MX700

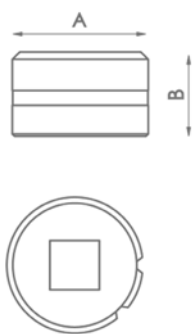
### Standard round dies MX700



| Type | Available sizes in mm   | A      | B       |
|------|---|--------|---------|
| N46  | 3/3,5/4/4,5/5/5,5/6/6,5/7/7,5/8/8,5<br>9mm up to 28mm from 0,5 in 0,5mm | 46 mm  | 28,5 mm |
| N60  | 29/30/31/32/33/34/35/36/37/38/39/40mm                                   | 60 mm  | 32 mm   |
| N78  | 41/42/43/44/45/46/47/48/49/50mm   | 78 mm  | 28,5 mm |
| N100 | 52/54/56/58/60/62/64/66/68/70/72/74mm                                   | 100 mm | 28,5 mm |
| N125 | 76/78/80/82/84/86/88/90/92/94/96/98/100mm                               | 125 mm | 28,5 mm |

*For different sizes, please ask the manufacturer*

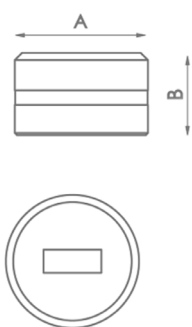
### Standard square dies MX700



| Type | Available sizes in mm                          | A      | B       |
|------|--|--------|---------|
| N46  | 4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm | 46 mm  | 28,5 mm |
| N60  | 21/22/24/26/28mm                               | 60 mm  | 32 mm   |
| N78  | 31/33/35mm                                     | 78 mm  | 28,5 mm |
| N100 | 40/44/48/53mm                                  | 100 mm | 28,5 mm |
| N125 | 58/64/70mm                                     | 125 mm | 28,5 mm |

*For different sizes, please ask the manufacturer*

### Standard rectangular dies MX700

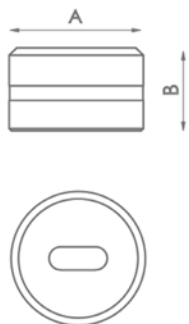


| Type | Available sizes in mm                                  | A      | B       |
|------|--|--------|---------|
| N46  | 7x10/7x15/9x13/9x19/11x17/11x23<br>13x19/13x25/15x21mm | 46 mm  | 28,5 mm |
| N60  | 15x27/17x25/19x30/20x34mm                              | 60 mm  | 32 mm   |
| N78  | 25x43mm  | 78 mm  | 28,5 mm |
| N100 | 25x70mm  | 100 mm | 28,5 mm |
| N125 | 25x96mm  | 125 mm | 28,5 mm |

*For different sizes, please ask the manufacturer*

## Accessories for Hydraulic iron worker MX700

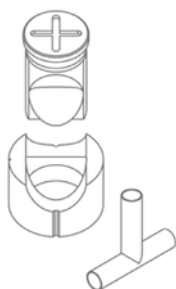
### Oval dies MX700



| Type | Available sizes in mm  | A      | B       |
|------|--|--------|---------|
| N46  | 7x10/7x15/7x20/9x13/9x19/11x17/11x23<br>13x18/13x22/13x27/15x20/15x24/15x27<br>17x22/17x26/19x26/21x27mm | 46 mm  | 28,5 mm |
| N60  | 13x31/15x31/17x31/17x40/19x31<br>19x40/21x31/21x40mm   | 60 mm  | 32 mm   |
| N78  | 25x45/25x50mm  | 78 mm  | 28,5 mm |
| N100 | 27x63/27x75mm  | 100 mm | 28,5 mm |
| N125 | 30x87/30x100mm   | 125 mm | 28,5 mm |

*For different sizes, please ask the manufacturer*

### Tube notching tooling MX700



| Reference | Available sizes in mm  | Required fitting |        |
|-----------|------------------------|------------------|--------|
| MAN28     | Tube from 16 to 28mm   | TAP 28           | CAB 46 |
| MAN40     | Tube from 28,5 to 40mm | TAP 40           | CAB 60 |
| MAN50     | Tube from 40,5 to 50mm | TAP 50           | CAB 78 |
| MAN60     | Tube from 50,5 to 60mm | TAP 60           |        |

*For different sizes, please ask the manufacturer*

### Corner rounding tooling MX



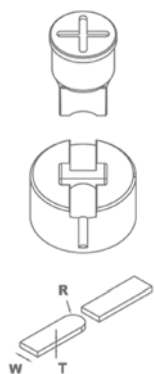
| Reference | Available sizes in mm    | Required fitting |        |
|-----------|--------------------------|------------------|--------|
| MRE28     | Radius from 3 to 15mm    | TAP 28           | CAB 46 |
| MRE40     | Radius from 16 to 26mm   | TAP 40           | CAB 60 |
| MRE50     | Radius from 26,5 to 32mm | TAP 50           | CAB 78 |

*For different sizes, please ask the manufacturer*

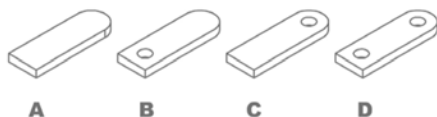


## Accessories for Hydraulic iron worker MX700

### Flat bar round end tooling R1 MX700



| Reference | Model | Width size      | Required fitting        |
|-----------|-------|-----------------|-------------------------|
| MOR1-35A  | A     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35B  | B     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35C  | C     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-35D  | D     | From 20 to 35mm | TAP28 / TAP40           |
| MOR1-50A  | A     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50B  | B     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50C  | C     | From 40 to 50mm | TAP50 / TAP60 with ATAP |
| MOR1-50D  | D     | From 40 to 50mm | TAP50 / TAP60 with ATAP |



For different sizes, please ask the manufacturer.

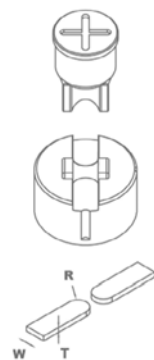
When placing order it must be specified the REFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness)

In models B, C and D specify diameter of the hole.

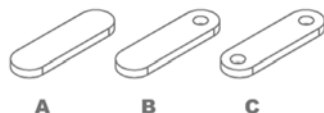
The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

### Flat bar round end tooling R2 MX700



| Reference | Model | Width size      | Required fitting       |
|-----------|-------|-----------------|------------------------|
| MOR2-35A  | A     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-35B  | B     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-35C  | C     | From 20 to 35mm | TAP28 / TAP40          |
| MOR2-50A  | A     | From 40 to 50mm | TAP50 / TAP60 con ATAP |
| MOR2-50B  | B     | From 40 to 50mm | TAP50 / TAP60 con ATAP |
| MOR2-50C  | C     | From 40 to 50mm | TAP50 / TAP60 con ATAP |



For different sizes, please ask the manufacturer.

When placing order it must be specified the REFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness)

In models B and C specify hole diameter.

The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

## Accessories for Hydraulic iron worker MX700

### Ventilation grip tooling MX700



**Reference: 140-02-02-00031**

Tooling to make ventilation grips in metal sheet.  
Adjustable amount of punchings which are to be made one by one.



| Units per machine | Punchings sizes | Max. thickness | Weight |
|-------------------|-----------------|----------------|--------|
| 1                 | 100x20mm        | 2mm            | 21Kg   |

### Locks punch and die MX700



**Reference: 140-02-01-00036**

Set of punch and die to make the locks punching in metal sheet.  
Necessary complements: CAB60 and TAP40



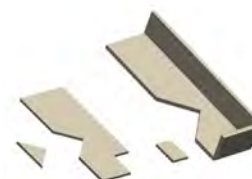
| Pieces per set | Max. Thickness | Weight |
|----------------|----------------|--------|
| 2              | 6mm            | 1 Kg   |

### Stripping tooling 90° adjustable 150x150 MX700



**Reference: 140-02-02-00001**

Stripping tooling for metal sheet, angle... Adjustable up to 150x150mm to 90° fixed.



| Units per machine | Max. Cutting capacity | Weight |
|-------------------|-----------------------|--------|
| 1                 | 150x150x8mm           | 38 Kg  |

### Flat bar cutting tooling 200 x 20. MX700



**Reference: 140-02-02-00002**

Tooling for cutting flat bar or metal sheet from 0.8mm up to 20mm Thickness.

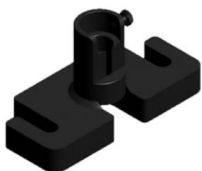


| Units per machine | Max. Cutting capacity | Weight |
|-------------------|-----------------------|--------|
| 1                 | 200x20mm              | 54 Kg  |



## Accessories for Hydraulic iron worker MX700

### Angle and U profile punching machine MX700



**Reference: 140-02-01-00031**

Base holder for punching angles. The punches and dies of different diameters are exchangeable.



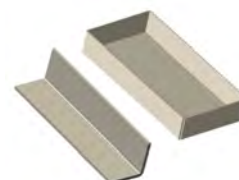
| Units per machine | Max. Hole Diameter | Min. Hole Diameter | Weight |
|-------------------|--------------------|--------------------|--------|
| 1                 | 28mm               | 2mm                | 7 Kg   |

### Folding tooling 170mm. MX700



**Reference: 140-02-02-00034**

Tooling for folding sheet and flat bar up to 170mm. 88° punch. Dies with V for 56mm and V for 26m.



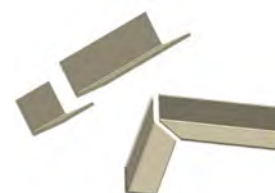
| Units per machine | Max. Folding Length | Max. Folding Thickness | Weight |
|-------------------|---------------------|------------------------|--------|
| 1                 | 170mm               | 8 to 12mm              | 13 Kg  |

### Angle cutting tooling. MX700



**Reference: 140-02-02-00036**

Tooling for cutting angles from 90° up to 45°.



| Units per machine | Max cutting capacity Straight cut | Max. Cutting capacity Miter cut | Weight |
|-------------------|-----------------------------------|---------------------------------|--------|
| 1                 | 80x80mm                           | 50x50mm                         | 32 Kg  |

### Flat bar cutting tooling 100 x 12. MX700



**Reference: 140-02-02-00037**

Tooling for cutting metal sheet or flat bar from 0.8mm up to 12mm thickness.



| Units per machine | Max. Cutting capacity | Weight |
|-------------------|-----------------------|--------|
| 1                 | 100x12mm              | 29 Kg  |



## Accessories for Hydraulic iron worker MX700

### Round bar cutting tooling MX700



**Reference: 140-02-02-00038**

Tooling for cutting round bar from 3mm up to 35mm.



| Units per machine | Max. Cutting diameter | Min. Cutting diameter | Weight |
|-------------------|-----------------------|-----------------------|--------|
| 1                 | 35mm                  | 3mm                   | 16 Kg  |

### Fence post end tooling MX700



**Reference: 140-02-02-00039**

Tooling to flatten and punch the pipe for fences. It admits different pipe diameters. Exchangeable hole size.



| Pieces by tooling | Pipe Max. Diameter | Pipe Min. Diameter | Hole Diameter | Weight |
|-------------------|--------------------|--------------------|---------------|--------|
| 2                 | 50mm               | 10mm               | Exchangeable  | 24 Kg  |

### Arrow tooling for pipes MX700



**Reference: 140-02-02-00040**

Tooling for flattening and cutting pipes in arrow sha-pes. Suitable for different diameters.



| Units per machine | Pipe Max. Diameter | Pipe Min. Diameter | Weight |
|-------------------|--------------------|--------------------|--------|
| 1                 | 30x2mm             | 10x2mm             | 20 Kg  |

### Arrow tooling for metal sheet MX700



**Reference: 140-02-02-00041**

Tooling for punching metal sheet in arrow shapes for fences.



| Units per machine | Sheet Max. Thickness | Weight |
|-------------------|----------------------|--------|
| 1                 | 3mm                  | 22 Kg  |



## Accessories for Hydraulic iron worker MX700

### Flattening tooling MX700



**Reference: 140-02-02-00042**

It's an extruder which acts as the flat bar holder at the punching time to prevent the flat bar from deformation while being punched.



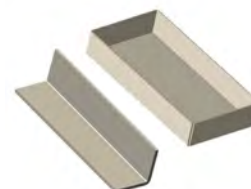
| Pieces per tooling | Bar or flat bar max. thickness | Weight |
|--------------------|--------------------------------|--------|
| 1                  | 15mm                           | 15 Kg  |

### Folding tooling 350mm. MX700



**Reference: 140-02-02-00043**

Tooling to fold metal sheet and flat bar up to 350mm.  
Punch: 88°. Die with adjustable V of 120mm, 80mm, 40mm and 16mm.



| Units per machine | Max. Folding Length | Max. Folding Thicknesss | Weight |
|-------------------|---------------------|-------------------------|--------|
| 1                 | 350mm               | 20mm                    | 45 Kg  |

## Shears

### Hydraulic shears C2006CNC

NEW vertical cut shears C2006CNC Nargesa, from the latest generation, are made with stabilized and welded steel which per-mits to stand big effort with no deformation.

|                                     |                   |
|-------------------------------------|-------------------|
| Reference                           | 100-06-01-001     |
| Engine power                        | 5,87 KW / 7,87 HP |
| Three-phased tension                | 230 / 400 V       |
| Cutting Capacity: mild steel        | 6 mm (450N/mm2)   |
| Cutting capacity: stailless steel   | 4 mm (700N/mm2)   |
| Nº of hammers                       | 10 units          |
| Cutting length                      | 2030 mm           |
| Neck                                | 190 mm            |
| Gauge displacement                  | 700 mm            |
| Strokes per minute                  | 10 strokes        |
| Position accuracy and repeatability | +/- 0,1 mm        |
| Dimensions                          | 2880x2360x1790 mm |
| Weight                              | 5100 Kg           |



Nargesa hydraulic Shears are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **The operator only has to enter the type of material, thickness, distance from the gauge and the CNC will automatically arrange all components to obtain an optimal result.**

Can manage up 3 axes and 16+ 12 I/O with an integrated PLC.



## Accessories for Shears

### Sheet metal back support C2006 CNC

The C2006 CNC sheet metal back support is a holder to prevent sheet metal bending, thus ensuring that it has good contact with the stop.

It is equipped with 49 wheels placed in 7 rows at different distances. These are specifically distributed to provide optimum support on sheets of different sizes.

The support also offers two options to take the material off. In the first choice, when it has performed the support function, it descends and tilts to be able to extract the sheet metal from the rear of the machine. In the second option, after cutting, the support rises and the stop pushes the sheet for its extraction from the front of the machine.

- Pneumatic operation through an external air supply.
- Pressure switch and pressure regulator supplied with the accessory
- Integrated pneumatic system
- Ball recirculation guide for up and down movement



|               |                 |
|---------------|-----------------|
| Reference     | 140-06-01-00002 |
| Work pressure | 4/7 Kg.         |
| Dimensions    | 2260x718x872 mm |
| Weight        | 240 Kg          |



## Shears

### Hydraulic shears C3006CNC

NEW vertical cut shears C3006CNC Nargesa, from the latest generation, are made with stabilized and welded steel which per-mits to stand big effort with no deformation.

|                                     |                   |
|-------------------------------------|-------------------|
| Reference                           | 100-06-02-003     |
| Engine power                        | 9,6 KW / 12,87 HP |
| Three-phased tension                | 230 / 400 V       |
| Cutting Capacity: mild steel        | 6 mm (450N/mm2)   |
| Cutting capacity: stainless steel   | 4 mm (700N/mm2)   |
| Nº of hammers                       | 15 units          |
| Cutting length                      | 3055 mm           |
| Neck                                | 173 mm            |
| Gauge displacement                  | 700 mm            |
| Strokes per minute                  | 12 strokes        |
| Position accuracy and repeatability | +/- 0,1 mm        |
| Dimensions                          | 3880x2460x1820 mm |
| Weight                              | 7500 Kg           |



Nargesa hydraulic Shears are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **The operator only has to enter the type of material, thickness, distance from the gauge and the CNC will automatically arrange all components to obtain an optimal result.**

Can manage up 3 axes and 16+ 12 I/O with an integrated PLC.



## Accessories for Shears

### Sheet metal back support C3006 CNC

The C3006 CNC sheet metal back support is a holder to prevent sheet metal bending, thus ensuring that it has good contact with the stop.

It is equipped with 70 wheels placed in 10 rows at different distances. These are specifically distributed to provide optimum support on sheets of different sizes.

The support also offers two options to take the material off. In the first choice, when it has performed the support function, it descends and tilts to be able to extract the sheet metal from the rear of the machine. In the second option, after cutting, the support rises and the stop pushes the sheet for its extraction from the front of the machine.

- Pneumatic operation through an external air supply.
- Pressure switch and pressure regulator supplied with the accessory
- Integrated pneumatic system
- Ball recirculation guide for up and down movement



|               |                 |
|---------------|-----------------|
| Reference     | 140-06-02-00002 |
| Work pressure | 4/7 Kg.         |
| Dimensions    | 3260x913x760 mm |
| Weight        | 250 Kg.         |

## Press Brakes

### Hydraulic press brake MP1500CNC

The hydraulic sheet metal brake MP1500CNC Nargesa, from the last generation, has been made of welded and stabilized steel which permits it to stand big efforts without any kind of distortion.

|                         |                   |
|-------------------------|-------------------|
| Reference               | 100-05-09-001     |
| Engine Power            | 5,5 KW / 7,5 HP   |
| Three-Phased tension    | 230 / 400 V       |
| Hydraulic power         | 40 Tn             |
| Punch working speed     | 8,3 mm/s          |
| Punch return speed      | 120 mm/s          |
| Punch lowering speed    | 200 mm/s          |
| Max. Punch displacement | 200 mm            |
| Inner folding length    | 1250 mm           |
| Total folding length    | 1500 mm           |
| Back gauge displacement | 600 mm            |
| Neck                    | 270 mm            |
| Dimensions              | 2110x1880x2210 mm |
| Weight                  | 4900 Kg           |



The powerful ESA S630 CNC control system has outstanding processing capacity which permits up to four axes to be managed, interpolated in any combination Y, X, R and Z, providing solutions for the most complex bending operations, and a flash memory for 5000 programs and a full library of Promecam punches and dies.

The 10" high-resolution (1024 x 600 pixels) colour graphics touch screen responds efficiently to user operations and provides clear and detailed information at all times. It enables programs to be edited graphically or numerically, new dies and punches to be managed, edited and added to existing libraries, bending sequences to be controlled, bending collisions to be controlled, bending simulations to be done, sheet metalwork to be calculated and machine sensors and inputs/outputs to be diagnosed in an intuitive and straightforward manner

## Press Brakes

### Hydraulic press brake MP3003CNC

The hydraulic sheet metal brake MP3003CNC Nargesa, from the last generation, has been made of welded and stabilized steel which permits it to stand big efforts without any kind of distortion.

|                         |                   |
|-------------------------|-------------------|
| Reference               | 100-05-06-002     |
| Engine Power            | 9,5 KW / 12 HP    |
| Three-Phased tension    | 230 / 400 V       |
| Hydraulic power         | 120 Tn            |
| Punch working speed     | 6,7 mm/s          |
| Punch return speed      | 43,4 mm/s         |
| Punch lowering speed    | 26,8 mm/s         |
| Max. Punch displacement | 160 mm            |
| Inner folding length    | 2700 mm           |
| Total folding length    | 3125 mm           |
| Back gauge displacement | 600 mm            |
| Neck                    | 320 mm            |
| Dimensions              | 3720x1930x2810 mm |
| Weight                  | 9100 Kg           |



The powerful ESA S630 CNC control system has outstanding processing capacity which permits up to four axes to be managed, interpolated in any combination Y, X, R and Z, providing solutions for the most complex bending operations, and a flash memory for 5000 programs and a full library of Promecam punches and dies.

The 10" high-resolution (1024 x 600 pixels) colour graphics touch screen responds efficiently to user operations and provides clear and detailed information at all times. It enables programs to be edited graphically or numerically, new dies and punches to be managed, edited and added to existing libraries, bending sequences to be controlled, bending collisions to be controlled, bending simulations to be done, sheet metalwork to be calculated and machine sensors and inputs/outputs to be diagnosed in an intuitive and straightforward manner

## Accessories for Press Brakes

### R axis

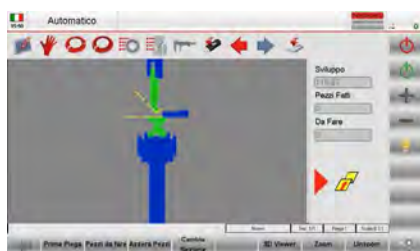
The R Axis is not supplied as standard with the machine; the client may include it when purchasing the machine or add it later. This Axis has a Canopen communication system that enables it to be installed in a rapid and simple manner to the machine. The operator needs only to connect it to the motor of the X axis and Nargesa's technicians will configure the CNC remotely.



|                                      |                        |
|--------------------------------------|------------------------|
| <b>Reference</b>                     | <b>140-05-OP-00001</b> |
| <b>High speed measurement search</b> | 130 mm/sec.            |
| <b>Servo motor</b>                   | 1 Nm to 5000 rpm       |
| <b>R axis limit</b>                  | 150 mm                 |
| <b>Mechanical precision</b>          | 0,05 mm                |

### Graphs and folding calculation on CNC

The user can incorporate the optional software on the press brake CNC and buy it later on. There is also the possibility of carrying out the remote software installation, by our Nargesa Technicians.



|                  |                        |
|------------------|------------------------|
| <b>Reference</b> | <b>140-05-OP-00002</b> |
|------------------|------------------------|

### Z1-Z2 axis

The Z1-Z2 axis enables us to optimize the set up time of the machine. The CNC optimizes the position of gauges Z1 and Z2 according to the dimensions of the piece and the position of the tools.

The parallelism of the gauge needles with the folding unit of the press brake fits automatically by means of micrometers to guarantee the maximum accuracy.



|  |                        |
|--|------------------------|
| <b>Reference</b>   | <b>140-05-OP-00004</b> |
| <b>High search speed of size</b>                               | 400 mm/sec.            |
| <b>Linear guides for recirculation of high precision balls</b> |                        |
| <b>Servo motors</b>  | 1 Nm a 5000 rpm        |
| <b>Stroke axis Z1, Z2</b>                                      | 2600 mm                |
| <b>Mechanical precision</b>                                    | 0,05 mm                |

\* In case of choosing this option the machine will be delivered with the ESA 640 CNC,

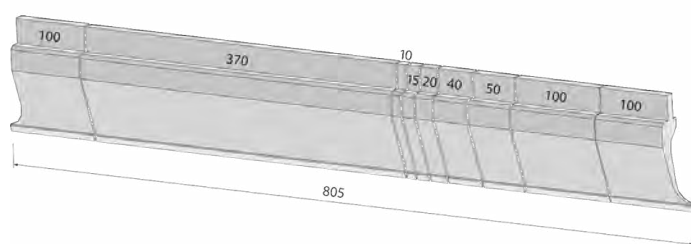
\* This option is only available if you have chosen the following optional accessories: R-axis and Graphics and CNC bending calculation

## Accessories for Press Brakes

### Punches

All accessories for Nargesa Pres Brakes are manufactured according to international standards. Therefore, guaranteeing high resilience and tensile strength. *For different sizes, please ask the manufacturer.*

| Materia Type | Mechanical resistance of the material and the tool body | Hardness of the material and the tool body | Hardness of the operating surfaces after induction hardening |
|--------------|---|--|--|
| ● 42CrM04    | 900 - 1150 N/mm <sup>2</sup>                            | 29.1 - 36.9 HRC                            | 54 - 60 HRC  |
| ● C45        | 560 - 710 N/mm <sup>2</sup>                             | 12 - 15.5 HRC                              | 54 - 60 HRC  |



#### 805 mm segmented

100, 370, 10, 15, 20, 40, 50, 100, 100 mm

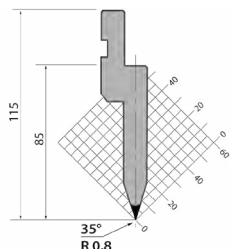
#### 795 mm segmented

100, 250, 20, 25, 30, 35, 40, 45, 50, 100, 100 mm

#### 800 mm segmented

100, 10, 15, 20, 40, 50, 165, 300, 100 mm

#### ● PU.85.35.R08



##### Length

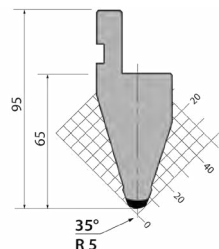
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● P.95.35.R5



##### Length

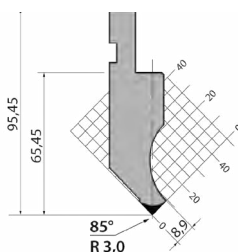
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● PK.95.85.R3



##### Length

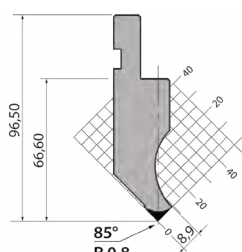
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● P.97.85.R08



##### Length

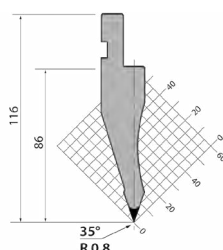
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● P.116.35.R08



##### Length

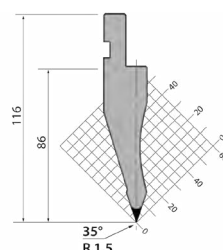
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● P.116.35.R15



##### Length

835 mm.

415 mm.

795 mm. Seg.

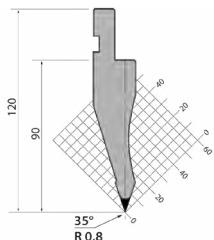
805 mm. Seg.





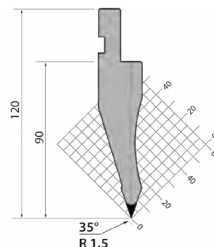
## Accessories for Press Brakes

### • P.120.35.R08



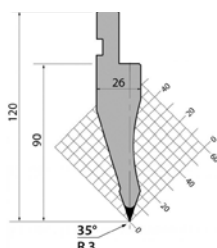
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • P.120.35.R15



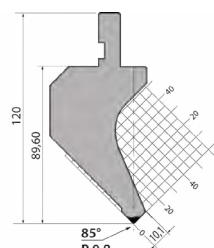
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • P.120.35.R3



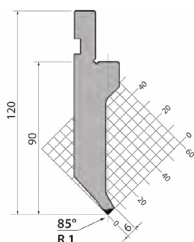
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • PK.120.85.R08



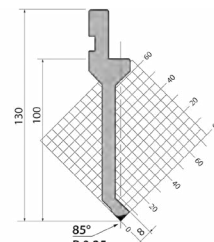
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • P.120.85.R1



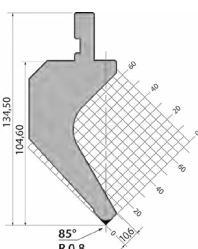
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • P.130.85.R025



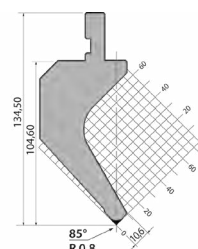
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • PK.135.85.R08



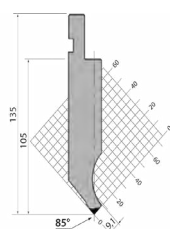
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • P.135.85.R08



| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • PS.135.85.R08



| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

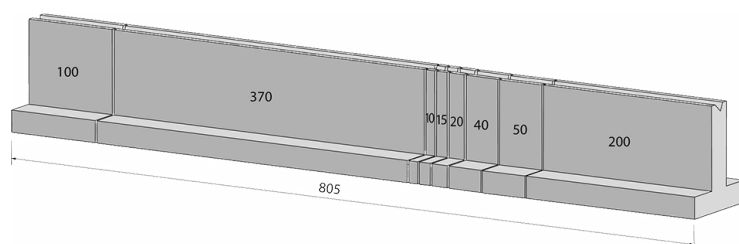


## Accessories for Press Brakes

### Dies

For different sizes, please ask the manufacturer.

| Materia Type | Mechanical resistance of the material and the tool body | Hardness of the material and the tool body | Hardness of the operating surfaces after induction hardening |
|--------------|---|--|--|
| ● 42CrM04    | 900 - 1150 N/mm <sup>2</sup>                            | 29.1 - 36.9 HRC                            | 54 - 60 HRC  |
| ● C45        | 560 - 710 N/mm <sup>2</sup>                             | 12 - 15.5 HRC                              | 54 - 60 HRC  |



#### 805 mm segmented

100, 370, 10, 15, 20, 40, 50, 200 mm

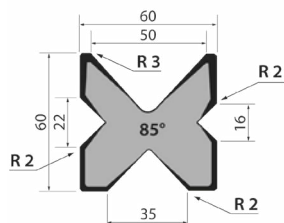
#### 795 mm segmented

100, 250, 20, 25, 30, 35, 40, 45, 50, 200 mm

#### 495 mm segmented

170, 100, 50, 45, 40, 35, 30, 25 mm

#### ● M.460.R



##### Length

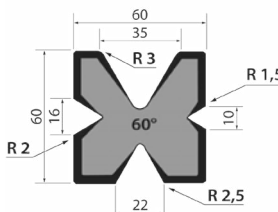
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● M.460.60



##### Length

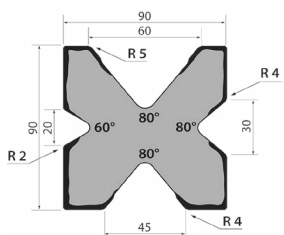
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● M.490



##### Length

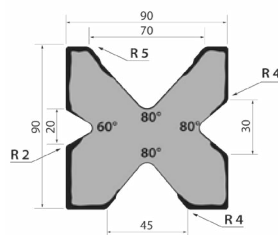
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● M.490.70



##### Length

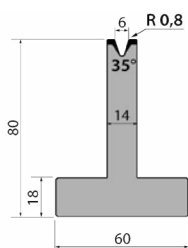
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● T80.06.35



##### Length

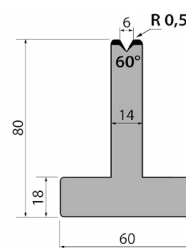
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

#### ● T80.06.60



##### Length

835 mm.

415 mm.

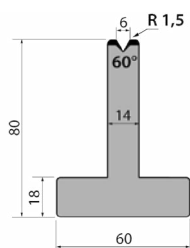
795 mm. Seg.

805 mm. Seg.



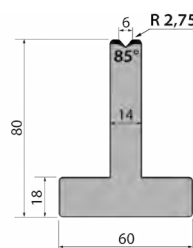
## Accessories for Press Brakes

### • TR80.06.60



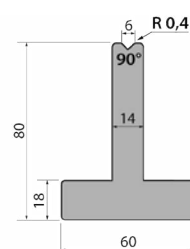
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.06.85



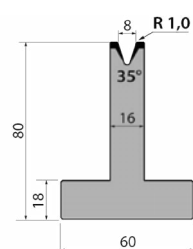
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.06.90



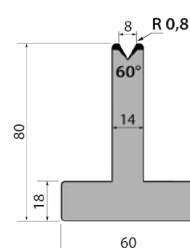
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |
| 900 mm.      |

### • T80.08.35



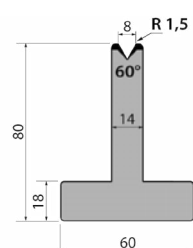
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.08.60



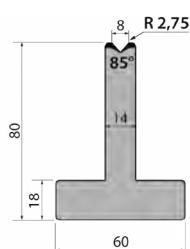
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • TR80.08.60



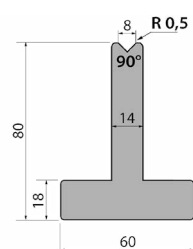
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.08.85



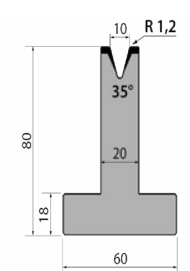
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.08.90



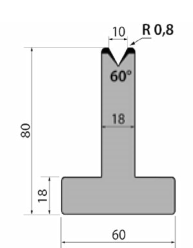
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |
| 900 mm.      |

### • T80.10.35



| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.10.60

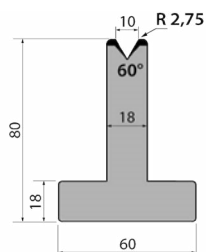


| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |



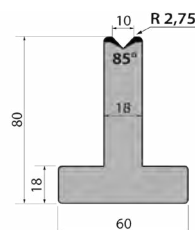
## Accessories for Press Brakes

### • TR80.10.60



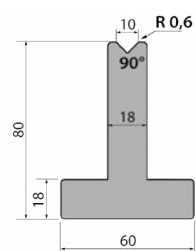
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.10.85



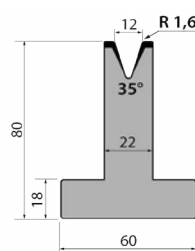
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.10.90



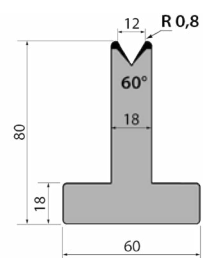
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.12.35



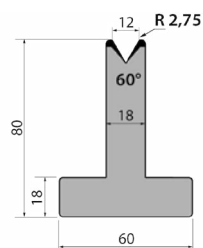
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.12.60



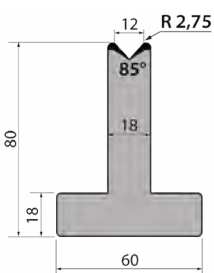
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • TR80.12.60



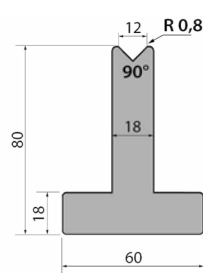
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.12.85



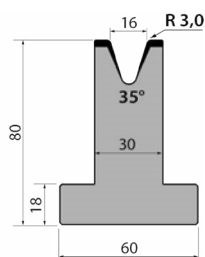
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.12.90



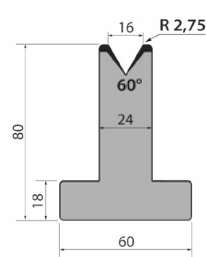
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.16.35



| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.16.60

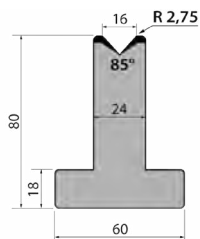


| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |



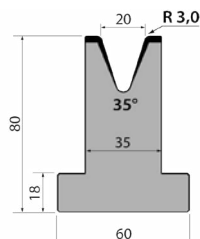
## Accessories for Press Brakes

### • T80.16.85



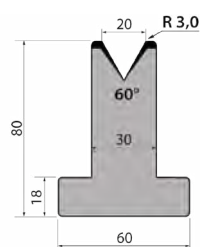
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.20.35



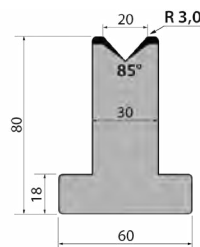
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.20.60



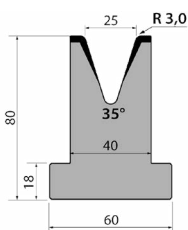
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.20.85



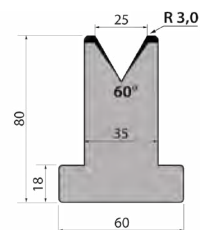
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.25.35



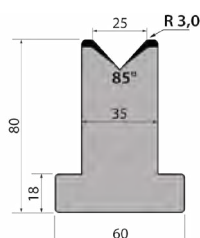
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.25.60



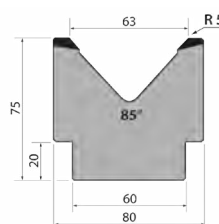
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • T80.25.85



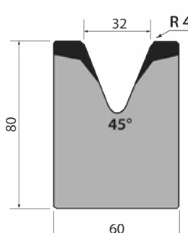
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • M75.85.63



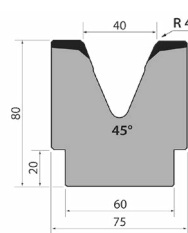
| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • M80.45.32



| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |

### • M80.45.40

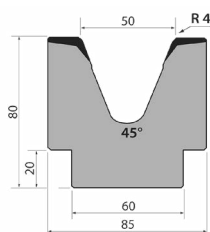


| Length       |
|--------------|
| 835 mm.      |
| 415 mm.      |
| 795 mm. Seg. |
| 805 mm. Seg. |



## Accessories for Press Brakes

### • M80.45.50



#### Length

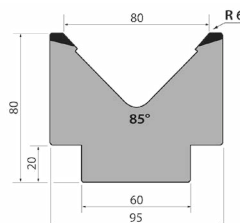
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M80.85.80



#### Length

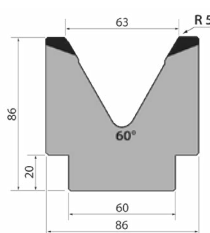
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M86.60.63



#### Length

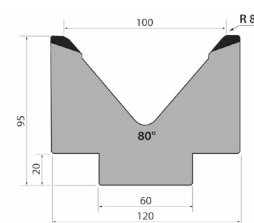
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M95.80.100



#### Length

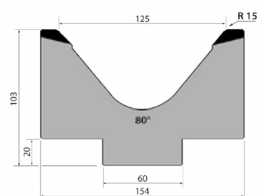
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • MK103.80.125



#### Length

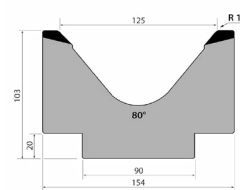
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M103.80.125



#### Length

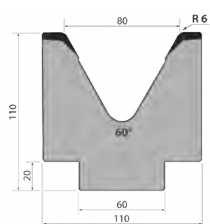
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M110.60.80



#### Length

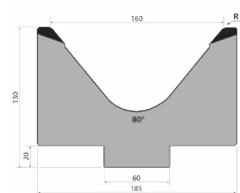
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • MK130.80.160



#### Length

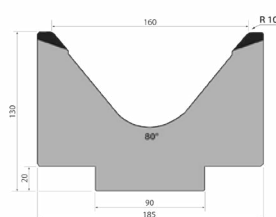
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M130.80.160



#### Length

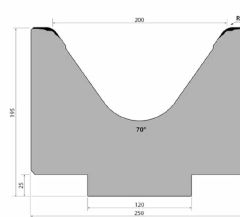
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

### • M195.70.200



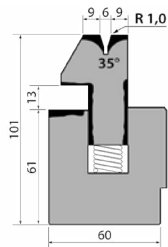
#### Length

415 mm.



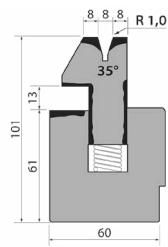
Accessories for Press Brakes

• S101.35.06



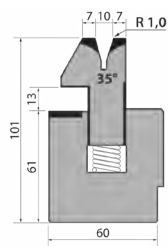
| Length  |
|---------|
| 835 mm. |
| 415 mm. |

• S101.35.08

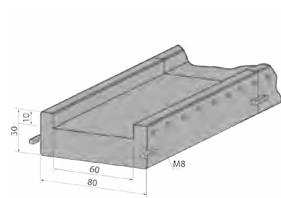


| Length  |
|---------|
| 835 mm. |
| 415 mm. |

• S101.35.10



| Length  |
|---------|
| 835 mm. |
| 415 mm. |



| Length   |
|----------|
| 1050 mm. |
| 520 mm.  |

## Consumables

### Hydraulic Oil SIL POWER HV46

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**Reference: 060-BA-00016**

Extreme Pressure hydraulic fluid for oleo dynamic circuits, power transmission systems that work under severe temperature and pressure conditions. Micro-filtered. It incorporates a viscosity level improver.

**Container: 20L**

**Weight: 20 Kg**

*\* Recommended for Nargesa Press Brakes*

**PRICE: 135,00 €**

### Hydraulic Oil SIL POWER HV68

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**Reference: 060-BA-00017**

Extreme Pressure hydraulic fluid for oleo dynamic circuits, power transmission systems that work under severe temperature and pressure conditions. Micro-filtered. It incorporates a viscosity level improver

**Container: 20L**

**Weight: 20 Kg**

**PRICE: 138,00 €**





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