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Hydraulic Oil SIL POWER HV46 Hydraulic Oil SIL POWER HV68

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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 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	100-04-04-001
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 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	100-08-01-001
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 $\cdot$ MC150B $\cdot$ MC200 $\cdot$ MC200H $\cdot$ 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) Susterin 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 mm)	1,80 Kg.	
140-08-01-RIW-00002	(1"+3/4") = (25,401 + 19,051 mm)	1,50 Kg.	
140-08-01-RIW-00003	1″1/2 = 38,101 mm	1,40 Kg.	
140-08-01-RIW-00004	2″ = 50,802 mm	1,20 Kg.	
140-08-01-RIW-00005	2″1/2 = 63,502 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 **threedriven 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) Susterin 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 mm)	7,87 Kg.	
140-08-13-RIISO0002	(1'' + 3/4'') = (33,7 + 26,9  mm)	6,98 Kg.	
140-08-13-RIISO0003	1″ 1/4 = 42,4 mm	7,07 Kg.	
140-08-13-RIISO0004	1″ 1/2 = 48,3 mm	6,68 Kg.	
140-08-13-RIISO0005	2″ = 60,3 mm	5,75 Kg.	
140-08-13-RIISO0006	2″ 1/2 = 73 mm	4,89 Kg.	
	For inches pipe		
140-08-13-RIWT0001	(1/2"+1"1/4) = (12,70 + 31,75 mm)	7,54 Kg.	
140-08-13-RIWT0002	(1"+3/4") = (25,40 + 19,05 mm)	7,66 Kg.	
140-08-13-RIWT0003	1″1/2 = 38,1 mm	7,33 Kg.	
140-08-13-RIWT0004	2″ = 50,8 mm	6,50 Kg.	
140-08-13-RIWT0005	2″1/2 = 63,5 mm	5,47 Kg.	
140-08-13-RIWT0006	3″ = 76,2 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
	Higher 80 mm
Useful axes length	130 mm
Dimensions	990x1310x1300 mm
Weight	1290 Kg





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.  $5 - (25 - 20) = (1/2)^n + 1/1 + (1/2)^n$ 

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	8-RHISOT0005 2″ = 60,3 mm			
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.		



#### Set of Steel Treated Rollers UPN-100-120mm

Set of 3 steel treated rollers for UPN mild steel or stainless steel profiles. Always clean up the rollers well before using stainless steel not to get the pipe contaminated.

Reference	Dimensions	Weight
140-08-08-RHT0010	Adjustable from 100 to 120 mm	52,72 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) Susterin 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 mm)	10,10 Kg.
140-08-08-RIISOT0002	(1" + 3/4") = (33,7 + 26,9 mm)	9,00 Kg.
140-08-08-RIISOT0003	1″ 1/4 = 42,4 mm	9,15 Kg.
140-08-08-RIISOT0004	1″ 1/2 = 48,3 mm	8,65 Kg.
140-08-08-RIISOT0005	2″=60,3 mm	7,55 Kg.
140-08-08-RIISOT0006	2″ 1/2 = 73 mm	12,30 Kg.
140-08-08-RIWT0007	3″ = 88,9 mm	10,50 Kg.
140-08-08-RIWT0008	3″ 1/2 = 101,6 mm	8,50 Kg.
	For inches pipe	
140-08-08-RIWT0001	(1/2"+1"1/4) = (12,70 + 31,75 mm)	9,65 Kg.
140-08-08-RIWT0002	(1"+3/4") = (25,40 + 19,05 mm)	9,80 Kg.
140-08-08-RIWT0003	1″1/2 = 38,1 mm	9,40 Kg.
140-08-08-RIWT0004	2″= 50,8 mm	8,45 Kg.
140-08-08-RIWT0005	2″1/2 = 63,5 mm	7,25 Kg.
140-08-08-RIWT0006	3″ = 76,2 mm	12,30 Kg.
140-08-08-RIWT0007	3″ 1/2 = 88,9 mm	10,50 Kg.
140-08-08-RIWT0008	4″ = 101,6 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
Mossurement scope	De 55 a 11.250 m
Measurement scope	o de 2″ a 443″
Error tolerance over the radius	$\Delta R = (0.01*R)mm$
Error toler. over the touch sensor	$\Delta L = 0.02 mm$
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).
- $\cdot$  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	60,3mm or 2" Schedule-40
round steel pipe	or 2″ 1/4 x 4mm.
Maximum angle of curvature	180°
Dimensions	630x1000x1150 mm
Weight	365 Kg





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 round pipes in millimeters $\cdot$ 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
Set diameter 12mm Ra	dius 60		REF:	140-17-01-10012
12 mm	60 mm	1 mm	5 mm	3,26 Kg
Set diameter 15mm Ra	dius 60		REF:	140-17-01-10001
15 mm	4D=60 mm	1 mm	5 mm	3,18 Kg
Set diameter 18mm Ra	dius 60		REF:	140-17-01-10010
18 mm	60 mm	1 mm	5 mm	3,11 Kg
Set diameter 20mm Ra	dius 60		REF:	140-17-01-10002
20 mm	3D=60 mm	1 mm	5 mm	3,22 Kg
Set diameter 22mm Ra	dius 66		REF:	140-17-01-10014
22 mm	3D=66 mm	1 mm	5 mm	4,10 Kg
Set diameter 25mm Ra	dius 75		REF:	140-17-01-10003
25 mm	3D=75 mm	1,2 mm	5 mm	5,55 Kg
Set diameter 28mm Ra	dius 84		REF:	140-17-01-10011
28 mm	3D=84 mm	1,2 mm	5 mm	7,28 Kg
Set diameter 30mm Ra	dius 90		REF:	140-17-01-10004
30 mm	3D=90 mm	1,2 mm	5 mm	8,29 Kg
Set diameter 32mm Ra	dius 98		REF:	140-17-01-10013
32 mm	3D=98 mm	1,5 mm	5 mm	10,16 Kg
Set diameter 35mm Ra	dius 105		REF:	140-17-01-10005
35 mm	3D=105 mm	1,5 mm	5 mm	12,14 Kg
Set diameter 40mm Ra	dius 120		REF:	140-17-01-10006
40 mm	3D=120 mm	1,5 mm	5 mm	17,11 Kg
Set diameter 50mm Ra	dius 150		REF:	140-17-01-10007
50 mm	3D=150 mm	2 mm	5 mm	31,41 Kg
Set diameter 60mm Ra	dius 180		REF:	140-17-01-10008
60 mm	3D=180 mm	2 mm	2,5 mm	40,88 Kg

### 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 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	Set diameter 17,10mm Radius 60mm Diameter 3/8" Schedule						0-17-01-20001
3/8″	17,1 mm	60 mm	1 <i>,</i> 65 mm	2,31 mm	3,20 mm		4,22 Kg
Set diameter	r 21,30mm Rad	ius 63,9mm Diamet	er 1/2" Sched	ule		REF: 14	0-17-01-20002
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: 14	0-17-01-20003	
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	r 33,70mm Rad	ius 101,1mm Diame	eter 1″ Schedu	le		REF: 14	0-17-01-20004
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	r 42,40mm Rad	ius 127,2mm Diame	eter 1″ 1/4 Sch	edule		REF: 14	0-17-01-20005
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	Set diameter 48,30mm Radius 144,9mm Diameter 1" 1/2 Schedule				REF: 14	0-17-01-20006	
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	0-17-01-20007
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 round pipes in inches $\cdot 1/2''$ 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	
Set diameter 9,	Set diameter 9,52mm Radius 60mm Diameter 3/8″ inches					
3/8″	9,52 mm	60 mm	1 mm	4 mm	3,40 Kg	
Set diameter 12	Set diameter 12,7mm Radius 60mm Diameter 1/2" inches					
1/2″	12,7 mm	60 mm	1 mm	4 mm	3,37 Kg	
Set diameter 15	5,88mm Radius 60	mm Diameter 5/8″ incl	nes	RI	EF: 140-17-01-30001	
5/8″	15,88 mm	60 mm	1 mm	4 mm	3,61 Kg	
Set diameter 19	9,05mm Radius 60	mm Diameter 3/4″ incl	nes	RI	EF: 140-17-01-30002	
3/4″	19,05 mm	60 mm	1 mm	4 mm	2,79 Kg	
Set diameter 22	Set diameter 22,22mm Radius 66mm Diameter 7/8" inches					
7/8″	22,22 mm	66 mm	1 mm	5 mm	4,10 Kg	
Set diameter 25,40mm Radius 76,20mm Diameter 1″ inches					EF: 140-17-01-30003	
1″	25,40 mm	3D=76,2 mm	1,2 mm	5 mm	5,72 Kg	
Set diameter 28	3,57mm Radius 85	,7mm Diameter 1″ 1/8	inches	RI	EF: 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	4 inches	RI	EF: 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	3,10mm Radius 11	4,30mm Diameter 1″ 1	/2 inches	RI	EF: 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	l,45mm Radius 13	3,35mm Diameter 1" 3	/4 inches	RI	EF: 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" inch	ies	RI	EF: 140-17-01-30006	
2″	50,80 mm	3D=152,4 mm	2 mm	5 mm	32,24 Kg	
Set diameter 57	7,15mm Radius 17	1,45mm Diameter 2″ 1	/4 inches	RI	EF: 140-17-01-30007	
2″ 1/4	57,15 mm	3D=171,45 mm	2 mm	2,5 mm	36,13 Kg	

### 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 57,1	5mm Radius 171,4	REF: 14	0-17-01-30008		
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

 $\cdot$  2" Schedule tube of 2,77mm wall thickness or thicker

 $\cdot$  2" 1/4 tube of 3mm wall thickness or thicker

Weight: 9,85Kg

### 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
Square Tube Die Set 2	0mm Radius 100mm		REF:	140-17-01-10101
20x20 mm	5D=100 mm	1,5 mm	4 mm	11,1 Kg
Square Tube Die Set 25mm Radius 115mm			REF:	140-17-01-10102
25x25 mm	115 mm	2 mm	4 mm	14,75 Kg
Square Tube Die Set 3	0mm Radius 135mm		REF:	140-17-01-10103
30x30 mm	135 mm	2 mm	4 mm	22 Kg
Square Tube Die Set 40mm Radius 165mm			REF:	140-17-01-10104
40x40 mm	165 mm	2 mm	5 mm	34,15 Kg

#### Accessories for square pipes in inches $\cdot 3/4''$ 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
Square Tube Die	Square Tube Die Set 3/4" (19,05mm) Radius 4" (101,6mm)					
3/4"x3/4"	19,05x19,05mm	4″	101,6mm	1,5 mm	4 mm	11,5 Kg
Square Tube Die	REF: 140	-17-01-30102				
1"x1"	25,4x25,4mm	4″ 1/2	114,3mm	2 mm	4 mm	14,6 Kg
Square Tube Die	Set 1″ 1/4 (31,75mm)	Radius 5,5"	(139,7mm)		REF: 140	-17-01-30103
1″ 1/4x1″ 1/4	31,75x31,75mm	5″ 1/2	139,7mm	2 mm	4 mm	23,3 Kg
Square Tube Die Set 1″ 1/2 (38,1mm) Radius 6,5″ (165,1mm)					REF: 140	-17-01-30104
1″ 1/2x1″ 1/2	38,1x38,1mm	6″ 1/2	165,1mm	2 mm	5 mm	34,6 Kg

#### 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.

- $\cdot$  Enables the finish on the outer bend
- · Inhibits roughness and inner marks
- · Reduces wear of the tooling
- · Especially designed for tubes of small thickness
- $\cdot$  Lubricates to reduce friction
- $\cdot$  Avoids and disolves corrosion
- $\cdot$  Gives shine and protects
- $\cdot$  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

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# Non-mandrel pipe bender CC90

**Non-Mandrel Pipe Benders** 

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	90mm or 3″ Schedule-40 or
steel pipe	3″ 1/2 x 6mm.
Maximum angle of curvature	180°
Dimensions	700x1300x1360 mm
Weight	860 Kg

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 round pipes in millimeters $\cdot$ 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
Set diameter 12mr	n Radius 60			REF: 140-17-01-10012
12 mm	60 mm	1 mm	5 mm	3,26 Kg
Set diameter 15mr	n Radius 60			REF: 140-17-01-10001
15 mm	4D=60 mm	1 mm	5 mm	3,18 Kg
Set diameter 18mr	n Radius 60			REF: 140-17-01-10010
18 mm	60 mm	1 mm	5 mm	3,11 Kg
Set diameter 20mr	n Radius 60			REF: 140-17-01-10002
20 mm	3D=60 mm	1 mm	5 mm	3,22 Kg
Set diameter 22mr	n Radius 66			REF: 140-17-01-10014
22 mm	3D=66 mm	1 mm	5 mm	4,10 Kg
Set diameter 25mr	n Radius 75			REF: 140-17-01-10003
25 mm	3D=75 mm	1,2 mm	5 mm	5,55 Kg
Set diameter 28mr	n Radius 84			REF: 140-17-01-10011
28 mm	3D=84 mm	1,2 mm	5 mm	7,28 Kg
Set diameter 30mr	n Radius 90			REF: 140-17-01-10004
30 mm	3D=90 mm	1,2 mm	5 mm	8,29 Kg
Set diameter 32mr	n Radius 98			REF: 140-17-01-10013
32 mm	3D=98 mm	1,5 mm	5 mm	10,16 Kg
Set diameter 35mr	n Radius 105			REF: 140-17-01-10005
35 mm	3D=105 mm	1,5 mm	5 mm	12,14 Kg
Set diameter 40mr	n Radius 120			REF: 140-17-01-10006
40 mm	3D=120 mm	1,5 mm	5 mm	17,11 Kg
Set diameter 50mr	n Radius 150			REF: 140-17-01-10007
50 mm	3D=150 mm	2 mm	5 mm	31,41 Kg
Set diameter 60mr	n Radius 180			REF: 140-17-01-10008
60 mm	3D=180 mm	2 mm	5 mm	40,88 Kg
Set diameter 70mr	n Radius 210			REF: 140-17-02-10001
70 mm	3D=210 mm	3,6 mm	6 mm	72,40 Kg
Set diameter 80mr	n Radius 240			REF: 140-17-02-10002
80 mm	3D=240 mm	4 mm	5 mm	88,17 Kg

### 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
Set diameter 90mn	n Radio 270			REF: 140-17-02-10003
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 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
Set diamete	r 17,10mm Radi	us 60mm Diameter	3/8″ Schedule	2		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 diamete	r 21,30mm Radi	us 63,9mm Diamet	er 1/2″ Schedu	ıle		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 diamete	r 26,70mm Radi	us 80,1mm Diamet	er 3/4″ Schedu	ıle		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 diamete	r 33,70mm Radi	us 101,1mm Diame	ter 1″ Schedu	le		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 diamete	r 42,40mm Radi	us 127,2mm Diame	ter 1″ 1/4 Sch	edule		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 diamete	r 48,30mm Radi	us 144,9mm Diame	ter 1″ 1/2 Sch	edule		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
Set diamete	Set diameter 60,30mm Radius 180,9mm Diameter 2" Schedule						-17-02-20001
2″	60,30 mm	3D=180,9 mm	2,77 mm	3,91 mm	5,54 mm		45,75 Kg
Set diamete	Set diameter 73mm Radius 219mm Diameter 2" 1/2 Schedule						-17-02-20002
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
Set diameter 88,9mm Radius 266,7mm Diameter 3" Schedule						REF: 14	0-17-02-30003
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 round pipes in inches $\cdot 1/2''$ 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. thic	kness 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 mr	m 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 mr	m 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 mr	m 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 mr	m 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	m 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 mr	m 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 mr	m 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 mr	m 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 mr	m 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 mr	m 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 mr	m 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 mr	m 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 m	nm 40,50 Kg
Set diameter 76,2mm Radius 228,6mm Diameter 3" inches	REF: 140-17-02-30002

### 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 266,7	REF: 1	40-17-02-30003		
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

 $\cdot$  3" Schedule tube of 3,05mm wall thickness or thicker

 $\cdot$  3" 1/2 tube of 4mm wall thickness or thicker.

Weight: 24,57 Kg.

### 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
Square Tube Die Set 20m	nm Radius 100mm		RI	EF: 140-17-01-10101
20x20 mm	5D=100 mm	1,5 mm	4 mm	11,1 Kg
Square Tube Die Set 25m	nm Radius 115mm		RI	EF: 140-17-01-10102
25x25 mm	115 mm	2 mm	4 mm	14,75 Kg
Square Tube Die Set 30m	nm Radius 135mm		RI	EF: 140-17-01-10103
30x30 mm	135 mm	2 mm	4 mm	22 Kg
Square Tube Die Set 40m	nm Radius 165mm		RI	EF: 140-17-01-10104
40x40 mm	165 mm	2 mm	5 mm	34,15 Kg
Square Tube Die Set 50m	nm Radius 180mm		RI	EF: 140-17-02-10101
50x50 mm	180 mm	2,5 mm	5 mm	45,7 Kg

#### Accessories for square pipes in inches $\cdot 3/4''$ 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
Square Tube Die Set 3/4" (19,05mm) Radius 4" (101,6mm)				REF: 140-1	7-01-30101	
3/4″x3/4″	19,05x19,05mm	4″	101,6mm	1,5 mm	4 mm	11,5 Kg
Square Tube Die Set 1" (25,4mm) Radius 4,5" (114,3mm)				REF: 140-1	7-01-30102	
1″x1″	25,4x25,4mm	4″ 1/2	114,3mm	2 mm	4 mm	14,6 Kg
Square Tube Die Set 1″ 1/4 (31,75mm) Radius 5,5″ (139,7mm)				REF: 140-1	7-01-30103	
1″ 1/4x1″ 1/4	31,75x31,75mm	5″ 1/2	139,7mm	2 mm	4 mm	23,3 Kg
Square Tube Die S	et 1″ 1/2 (38,1mm) Rac	dius 6,5″ (165,	1mm)		REF: 140-1	7-01-30104
1″ 1/2x1″ 1/2	38,1x38,1mm	6″ 1/2	165,1mm	2 mm	5 mm	34,6 Kg
Square Tube Die Set 1" 3/4 (44,45mm) Radius 6,75" (171,45mm)				REF: 140-1	7-02-30101	
1″ 3/4x1″ 3/4	44,45x44,45mm	6″ 3/4	171,45mm	2,5 mm	5 mm	39 Kg
Square Tube Die Set 2" (50,8mm) Radius 7" (177,8mm)				REF: 140-1	7-02-30102	
2″x2″	50,8x50,8mm	7″	177,8mm	2,5 mm	5 mm	44 Kg

#### 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.

- $\cdot$  Enables the finish on the outer bend
- $\cdot$  Inhibits roughness and inner marks
- $\cdot$  Reduces wear of the tooling
- · Especially designed for tubes of small thickness
- $\cdot$  Lubricates to reduce friction
- $\cdot$  Avoids and disolves corrosion
- $\cdot$  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

The twisting machine MT150A Nargesa was patented by Prada Nargesa many yeasr 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 cols 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 máximum capacity	20 mm or 3/4"
Bending máximum 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	Roun or square 16 mm	10 Kg.

#### Belly top railing die MT150A

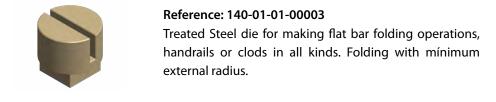


**Reference: 140-01-01-00002** Steel Die to make the Belly Top Railing , used in balco-nies and windows.



Inner diameter	Max. Capacity	Weight
225mm	Roun or square 16 mm	12 Kg.

### Flat bar bent die MT150A





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

The twisting machine MT500A Nargesa was patented by Prada Nargesa many yeasr 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 cols 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 máximum capacity	40 mm or 1 3/8"
Bending máximum 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.



12 Kg.

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

· · · ·	<b>Reference: 140-01-03-00003</b> Steel die to make Belly top railing commonly used in balconies and windows.	
Inner diameter	Max. Capacity	Weight

Round or square 16 mm

Oval	scrol	ls	die
<b>U</b> vui	JUIDI	5	uic -

225mm

	<b>Reference: 140-01-03-00004</b> Steel die to make oval scrolls for all kind of railings.	0
Outer diemeter	Max. Capacity	Weight

# 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 Eglish 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





## 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

the second	roller.	
0	<b>Reference: 140-12-02-00004</b> Set of excentric rollers to emboss the Triple design, flat, striped and dis	

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

## Set of fishtail roller

6)	<b>Reference: 140-12-02-00005</b> Two-grooved roller, one for big diameters and the other one for smaller diameters.	
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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

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

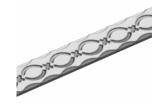


## Handrails embossing roller 01 NOA60



#### 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 inch

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



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

## 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



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

## 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



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

## 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



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

## 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



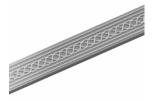
Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg.

#### 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



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

## 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



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

## 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.

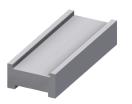
## Entrance guide for 60 mm handrail NOA60



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

Weight: 4,3 Kg.

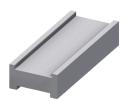
#### Entrance guide for 40 and 50 mm handrail NOA60



**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



**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



**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



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

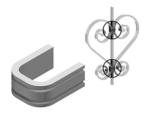
Weight: 4,3 Kg.

## 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.

#### 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.

## 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.

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

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	Square pipes: 25mm or 1", Rectangular pipes: 25x20 1"1/4x3/4", 30x25mm, 35x 40x25mm, 40x30mm, 40x3 Guide 140-11-01-00501 or 1	, 30mm or 1″ 1/4, 35 and 40 0mm or 1″x3/4″, 30x20mn x20mm, 35x25mm, 40x20r 35mm 140-11-01-00502 is required	Imm n or	
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## 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.

## 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	

Material minimum thickness suggested by manufaturer	Weight
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.

## 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 Reference: 140-14-01-00002 Dimensions Dimensions 120x60 mm 160x80 mm Reference: 140-14-01-00003 Reference: 140-14-01-00004 Dimensions Dimensions Ø 200 mm 100x60 mm Reference: 140-14-01-00005 Reference: 140-14-01-00006 Dimensions Dimensions 120x60 mm 120x60 mm Reference: 140-14-01-00007 Reference: 140-14-01-00008

Dimensions

57

Dimensions

130x100 mm

# Accessories for Power hammer

Dimensions

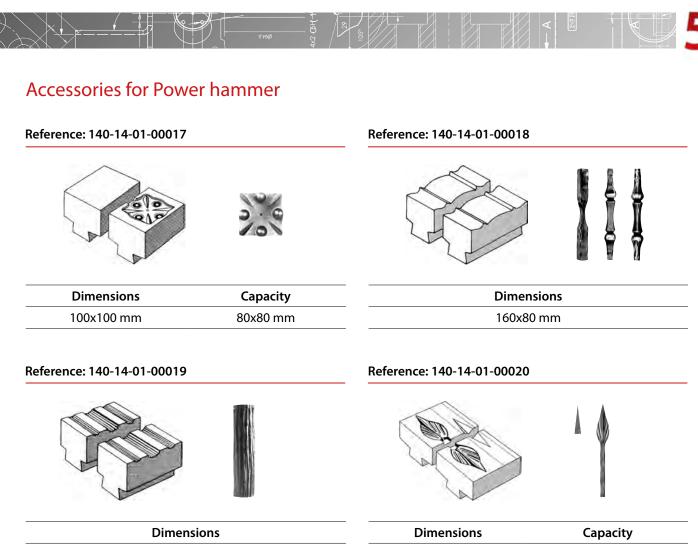
130x80 mm

Reference: 140-14-01-00009	Reference: 140-14-01-00010	
Dimensions	Dimensi	ions
120x60 mm	120x60	mm
Reference: 140-14-01-00011	Reference: 140-14-01-00012	
Dimensions	Dimensions	Capacity
L110 mm	100x60 mm	12x6 mm
Reference: 140-14-01-00013	Reference: 140-14-01-00014	
Dimensions Capacity	Dimensions	Capacity
120x60 mm 🛛 12 / Ø12 mm	120x80 mm	20x6 / 25x8 mm
Reference: 140-14-01-00015	Reference: 140-14-01-00016	
		0.0

DimensionsCapacity80x80 mm60x60 mm

Capacity

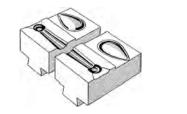
40x8 /40x6 mm



130x80 mm

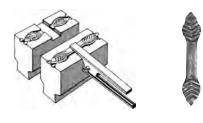
2x12 mm

Reference: 140-14-01-00021



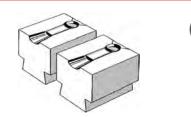
Dimensions	Capacity
120x70 mm	Ø14 mm

Reference: 140-14-01-00022



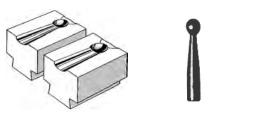
Capacity	Dimensions
Ø14 mm	135x60 mm

#### Reference: 140-14-01-00023

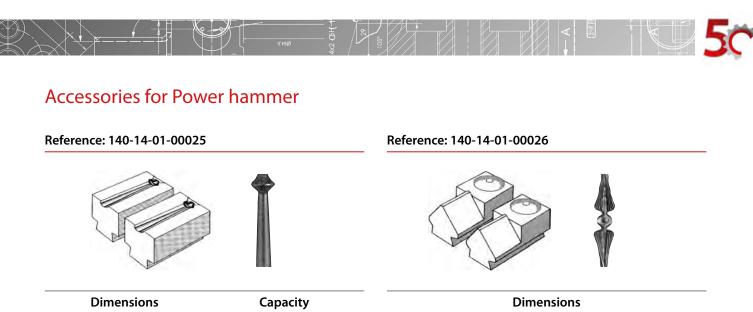


Dimensions	Capacity
70x60 mm	Ø16 mm

#### Reference: 140-14-01-00024

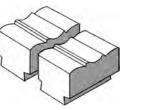


Dimensions	Capacity
70x60 mm	🗹 16 mm / Ø16 mm



Reference: 140-14-01-00027	

70x60 mm

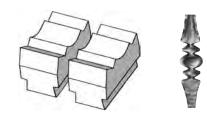


Dimensions

🗹 12 mm / Ø12 mm

100x60 mm

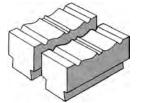
Reference: 140-14-01-00028



Dimensions
130x60 mm

120x60 mm

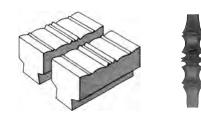
#### Reference: 140-14-01-00029





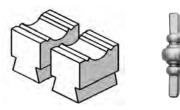
Dimensions	Capacity
160x80 mm	Ø40 mm

Reference: 140-14-01-00030



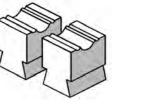
Dimensions	Capacity
160x80 mm	⊠ 30 mm

#### Reference: 140-14-01-00031



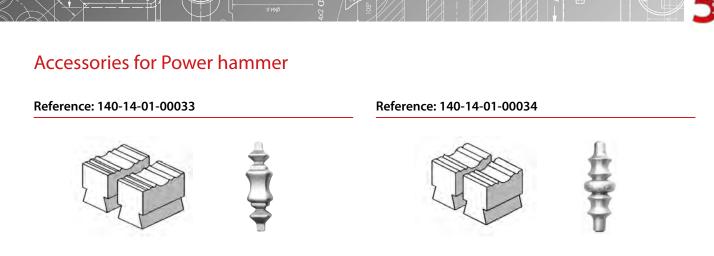
Dimensions	Capacity
100x60 mm	Ø40 mm
100x60 mm	Ø40 mm

#### Reference: 140-14-01-00032



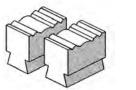


Dimensions	Capacity
100x60 mm	Ø30 mm

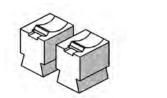


Dimensions	Capacity	Dimensions	Capacity
160x80 mm	⊠ 40 mm	150x60 mm	Ø40 mm

#### Reference: 140-14-01-00035







Reference: 140-14-01-00036



Dimensions	Capacity	Dimensions	Capacity
180x80 mm	⊠ 30 mm	100x60 mm	⊠ 40 mm

Reference: 140-14-01-00037



Dimensions	
120x60 mm	



# Hydraulic press for locks PI85

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
Dimensions	1500x570x1470mm



# 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



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

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

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



Reference	140-07-01-00006
Pipe	50x50 mm, 50x60 mm, 50x70 mm
	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...

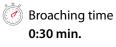
Reference	100-09-01-001
Motor power	2,2 KW / 3 HP
3-phased tensión	230 / 400 V
Hydraulic power	10 Tm
Working speed	24 mm/s
Return speed	54 mm/s
Pump Flow	7,5 L
Shank displacement	600 mm
Goosneck	300 mm
Maximum diameter of the piece	600 mm*
Bench dimensions	420x420 mm
Dimensions	750x1240x2400 mm
Weight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



\* For different sizes, please ask the manufacturer



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.



Broaching time 1:00 min.



Broaching time **1:20 min.** 



Broaching time 1:20 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.

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.

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.



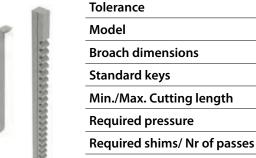
Broaching time 2:30 min.



Broaching time 2:30 min.

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

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.



Thickness

Weight

**Bushing diameter** 

**Bushing length** 

Keyway broaches 8mm

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.

REF: 125-09-01-BR-00008

JS9 (-0,017 +0,013)

9,52 x 298,45mm

9,921mm / 63,5mm

3.680lbs / 1.669,22Kg

18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35 and 36mm

2 shims / 3 passees

0,350 Kg. Approx.

8 x 7mm

1,27mm

63,5mm

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Broaching time 2:30 min.



Broaching time 2:30 min.



Broaching time 3:40 min.



Broaching time 3:40 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 lenght	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.

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.

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.



🧭 Broaching time 4:20 min.



🧭 Broaching time 5:00 min.



🧭 Broaching time 5:00 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.

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.

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.



Broaching time **5:00 min.** 

Broaching time 0:30 min.

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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.

Keyway broaches 1/16 inch	REF: 125-09-01-BRP-00001
Tolerance	JS9 (0,0625 · 0,0635)
Model	Α
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.

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.

Broaching time 0:30 min.

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Broaching time **0:45 min.** 

Keyway broaches 1/8 inch REF: 125-09-01-BRP-00003 Tolerance JS9 (0,1252 · 0,1262) Model А **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.

REF: 125-09-01-BRP-00004
JS9 (0,0938 · 0,0948)
В
3/16 x 6 3/4 inches
19/64 inch / 1 11/16 inches
930lbs
0 shims / 1 pass
1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inch
1 11/16 inches
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	В
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.



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Keyway broaches 5/32 inch	REF: 125-09-01-BRP-00006
Tolerance	JS9 (0,1564 · 0,1574)
Model	В
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	В
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 1:00 min.



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.



Broaching time **1:20 min.** 



Broaching time 2:30 min.



Broaching time 2:30 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,
	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.

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,
	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.

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,
	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.

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		2
		12
		12
		13
		18
		12
2		2
	P	22
		11125

Broaching time **2:30 min.** 

JS9 (0,3127 · 0,3137)
D
9/16 x 13 7/8 inches
1 inch / 6 inches
8.000lbs
2 shims / 3 passes
0,0560 inches
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
4 inches
1,00 Kg. Approx.

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.

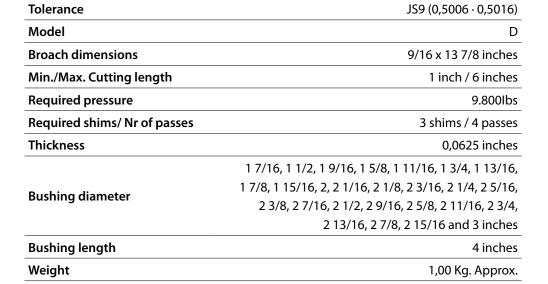


Keyway broaches 7/16 inch	REF: 125-09-01-BRP-00014
Tolerance	JS9 (0,4380 · 0,4390)
Model	D
Broach dimensions	9/16 x 13 7/8 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	9.400lbs
Required shims/ Nr of passes	3 shims / 4 passes
Thickness	0,0560 inches
Bushing diameter	1 7/16, 1 1/2, 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,
	23/8, 27/16, 21/2, 29/16, 25/8, 211/16, 23/4, 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.

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		112
		16
		15
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	P 10	12
		15
		13
		12
		112

Keyway broaches 1/2 inch



REF: 125-09-01-BRP-00015

Broaching time **3:00 min.** 



Broaching time **3:40 min.** 

Keyway broaches 9/16 inch	REF: 125-09-01-BRP-00016
Tolerance	JS9 (0,5631 · 0,5641)
Model	D
Broach dimensions	9/16 x 13 7/8 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	8.900lbs
Required shims/ Nr of passes	4 shims / 5 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	6 inches
Weight	1,00 Kg. Approx.

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Broaching time **4:00 min.** 

Keyway broaches 5/8 inch	REF: 125-09-01-BRP-00017
Tolerance	JS9 (0,6260 · 0,6270)
Model	E
Broach dimensions	3/4 x 15 1/2 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	9.600lbs
Required shims/ Nr of passes	4 shims / 5 passes
Thickness	0,0625 inches
	2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16,
Rushing diameter	2 3/4, 2 13/16, 2 7/8, 2 15/16, 3, 3 1/16, 3 1/8, 3 3/16,
Bushing diameter	3 1/4, 3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 9/16, 3 5/8,
	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 **5:00 min.** 



Broaching time 6:00 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
	2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16,
Duching diameter	2 3/4, 2 13/16, 2 7/8, 2 15/16, 3, 3 1/16, 3 1/8, 3 3/16,
Bushing diameter	3 1/4, 3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 9/16, 3 5/8,
	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.

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
	3 1/16, 3 1/8, 3 3/16, 3 1/4, 3 5/16, 3 3/8, 3 7/16,
	3 1/2, 3 9/16, 3 5/8, 3 11/16, 3 3/4, 3 13/16, 3 7/8,
Bushing diameter	3 15/16, 4, 4 1/16, 4 1/8, 4 3/16, 4 1/4, 4 5/16,
	4 3/8, 4 7/16, 4 1/2, 7 9/16, 4 5/8, 4 11/16, 4 3/4, 4
	13/16, 4 7/8, 4 15/16 and 5 inches
Bushing length	6 inches
Weight	3,500 Kg. Approx.





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
	3 1/16, 3 1/8, 3 3/16, 3 1/4, 3 5/16, 3 3/8, 3 7/16,
	3 1/2, 3 9/16, 3 5/8, 3 11/16, 3 3/4, 3 13/16,
Bushing diameter	3 7/8, 3 15/16, 4, 4 1/16, 4 1/8, 4 3/16, 4 1/4,
	4 5/16, 4 3/8, 4 7/16, 4 1/2, 7 9/16, 4 5/8, 4 11/16,
	4 3/4, 4 13/16, 4 7/8, 4 15/16 and 5 inches
Bushing length	6 inches
Weight	3,500 Kg. Approx.



🕅 Broaching time 8:00 min.

# 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	А	10 mm	32 mm	79	2 - 3 mm
125-09-01-CBR-00004	В	12 mm	46 mm	J9	4 - 5C mm
125-09-01-CBR-00005	В	14 mm	46 mm	J9	4 - 5C mm
125-09-01-CBR-00006	В	16 mm	46 mm	J9	4 - 5C mm
125-09-01-CBR-00007	В	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	С	22 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00012	С	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	79	16 - 18 mm
125-09-01-CBR-00027	E	65 mm	154 mm	79	16 - 18 mm
125-09-01-CBR-00028	F	70 mm	154 mm	79	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 inactivi-ty 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.

 $\cdot$  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





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.

#### 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;ameter 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



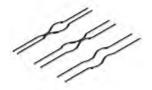
Max. width	Thickness	Outer sizes	Weight
50mm	6mm	90mm	9,3Kg

#### **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



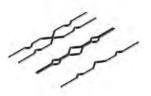
Max. width	Thickness	Die length	Weight
20mm	4, 5, 6, 8mm	650mm	19,5Kg

#### **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

#### 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 cosult the manufacturer.



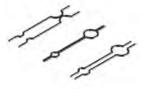
Flat bar size	Die length	Weight	
12mm	1165mm	50Kg	

#### 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.



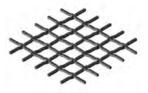
Flat bar size	Die length	Weight
6, 8, 10, 12mm	760mm	32,5Kg

#### 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 to 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

#### Tool to shape pipe ends PP200CNC



#### 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 accoprding to the customer needs.

For special forms consult the manufacturer.

Weight: 110 Kg aprox.



#### **Diameter reduction tools for PP200CNC**

#### **PP200CNC reduction cone**



#### 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



#### 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.

### 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

#### **Diameter expansion tools PP200CNC**

#### Clamp Holder to Expand Tube PP200CNC



#### Refference: 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**



#### Refference: 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

### 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.

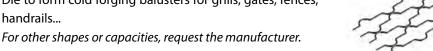


Maximum capacity	Weight
H 150 mm	72 Kg

### Baluster forming die 20



**Reference: 140-16-01-00020** Die to form cold forging balusters for grills, gates, fences, handrails...



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		E	5	F	5
5	3	F	3	~	
-	~	5	5		
	1				

Square sizes	Circumference size	Weight
12x12mm	90mm	11 Kg

#### Punching die



	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

#### 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



### 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



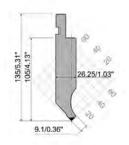
#### Reference: 140-16-01-00029

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.

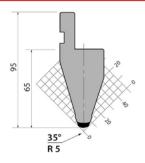
#### Punch Promecam PS.135.85.R08



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



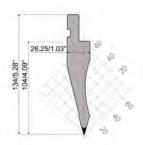
#### Punch Promecam P.95.35.R5



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

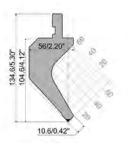


#### Punch Promecam PS.134.30.R08



**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 diferent 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.

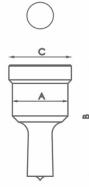


Folding die M95-80-100 PP200CNC REF: 140-16-01-00035 Folding length: 161mm Thickness: From 8 to 15mm Weight: 9Kg



### Punches and dies

### Standard round punches

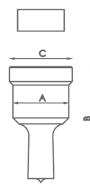


Туре	Available sizes in mm Ø		Α	В	С
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8/8'5	9mm	28 mm	58 mm	31,5 mm
	up to 28mm from 0'5 in 0'5mm	า			
N40	40 29/30/31/32/33/34/35/36/37/38/39/40mm		40 mm	64 mm	43,5 mm
N50	41/42/43mm		50 mm	58 mm	54 mm

### Standard square punches

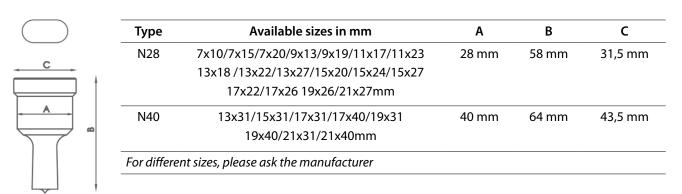


### Standard rectangular punches



Туре	Available sizes in mm	Α	В	С
N28	7x10/7x15/9x13/9x19/11x17/11x23	28 mm	58 mm	31,5 mm
	13x19/15x21mm			
N40	13x25/15x27/17x25/19x30/20x34mm	40 mm	64 mm	43,5 mm

### Standard oval punches



#### Standard round dies

A	Туре	Available sizes in mm Ø	А	В
	N46	3/3,5/4/4,5/5/5,5/6/6,5/7/7,5/8/8,5	46 mm	28,5 mm
<sup>1</sup>		9mm up to 28mm from 0,5 in 0,5mm		
	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
( )	For different	sizes, please ask the manufacturer		

### Standard square dies



Туре	Available sizes in mm	А	В
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

# Standard rectangular dies

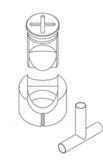


Туре	Available sizes in mm	Α	В
N46	7x10/7x15/9x13/9x19/11x17/11x23/ 13x19/13x25/ 15x21mm	46 mm	28,5 mm
N60	15x27/17x25/19x30/20x34mm	60 mm	32 mm

### **Oval dies**

	Туре	Available sizes in mm	Α	В
	N46	7x10/7x15/7x20/9x13/9x19/11x17/11x23/	46 mm	28,5 mm
		13x18/13x22/13x27/15x20/15x24/15x27/		
		17x22/17x26/19x26/21x27mm		
	N60	13x31/15x31/17x31/17x40/19x31	60 mm	32 mm
$\left( \bigcirc \right)$		19x40/21x31/21x40mm		
	For different size	s, please ask the manufacturer		

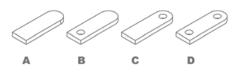
# Tube notching tooling



Reference	Available sizes in mm	Available sizes in mm Required fittin	
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

### Flat bar round end tooling R1

Reference	Model	Width size	<b>Required fitting</b>
MOR1-35A	А	From 20 to 35mm	TAP28 / TAP40
MOR1-35B	В	From 20 to 35mm	TAP28 / TAP40
MOR1-35C	С	From 20 to 35mm	TAP28 / TAP40
MOR1-35D	D	From 20 to 35mm	TAP28 / TAP40
MOR1-50A	А	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50C	С	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 REFFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness) In models B, C and D specify diemeter of the hole. The ear shaped legth is always adjustable. Production capacity: 450 to 600 parts per hour.

### Flat bar round end tooling R2



A B	From 20 to 35mm From 20 to 35mm	TAP28 / TAP40 TAP28 / TAP40
В	From 20 to 35mm	TAP28 / TAP40
C	From 20 to 35mm	TAP28 / TAP40
А	From 40 to 50mm	TAP50 / TAP60 with ATAP
В	From 40 to 50mm	TAP50 / TAP60 with ATAP
С	From 40 to 50mm	TAP50 / TAP60 with ATAP
	B C	

For different sizes, please ask the manufacturer.

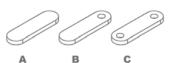
When placing order it must be specified the REFFERENCE, MODEL,

R (radius), W (flat bar width), T (flkat 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.

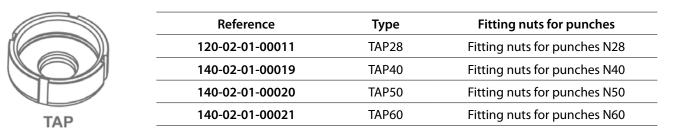


### Corner rounding tooling

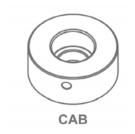


Reference	Available sizes in mm	Required fitting	
MRE28	Radius from 3 to 15mm	TAP 28	CAB 46
MRE40	Radius from 16 to 26mm	TAP 40	CAB 60
MRE50	Radius from 26,5 to 32mm	TAP 50	CAB 78

### Fitting nuts for punches



### Fitting for dies



Reference	Туре	Fitting for dies
120-02-01-00012	N46	Fitting for dies N46
140-02-01-00024	N60	Fitting for dies N60
140-02-01-00025	N78	Fitting for dies N78

# Hydraulic iron worker

### Hydraulic iron worker MX340G

The Hydraulic Punching Machine MX340G Nargesa main feature is its verstility. It can make several functions as punching operations in metal sheet, flat bar, pipe, angle, U-T-UPN-IPN profiles, folding, cutting, tuve 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



# Fitting nuts for punches MX340



Туре	Fitting nuts for punches
TAP28	Fitting nuts for punches N28 Standard
TAP40	Fitting nuts for punches N40
TAP50	Fitting nuts for punches N50
TAP60	Fitting nuts for punches N60
ATAP	Fitting part for TAP60
	TAP28 TAP40 TAP50 TAP60

ATAP

### Fitting parts for dies MX340

	Reference	Туре	Fitting for dies
$\geq$	120-02-01-00012	N46	Fitting for dies N46 Standard
AB	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
24	140-02-01-00038	N125	Base holder for dies N125
s			

### Standard round punches MX340

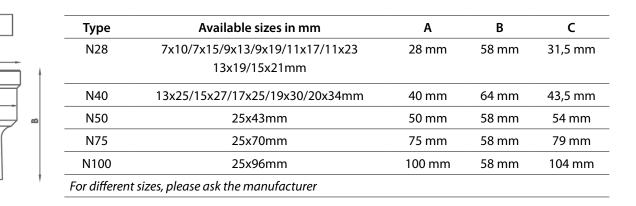
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C	
A	-

Туре	Available sizes in mm Ø	Α	В	С
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8	28 mm	58 mm	31,5 mm
	8'5 /9mm up to 28mm from 0'5 in 0'5mm			
N40	29/30/31/32/33/34/35	40 mm	64 mm	43,5 mn
	36/37/38/39/40mm			
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	100 mm	58 mm	104 mm
	90/92/94/96/98/100mm			

	Туре	Available sizes in mm	А	В	С
	N28	4/5/6/7/8/9/10/11/12/13/14/15	28 mm	58 mm	31,5 mm
C		16/17/18/19/20mm			
	N40	21/22/24/26/28mm	40 mm	64 mm	43,5 mm
A	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 square punches MX340

### Standard rectangular punches MX340



### Standard oval punches MX340

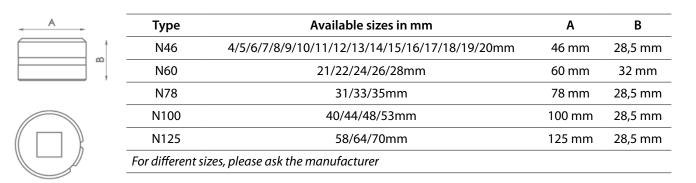
\_\_\_\_\_A

Туре	Available sizes in mm	Α	В	С
N28	7x10/7x15/7x20/9x13/9x19/11x17	28 mm	58 mm	31,5 mm
	11x23/13x18/13x22/13x27/15x20/15x24			
	15x27/17x22/17x26/19x26/21x27mm			
N40	13x31/15x31/17x31/17x40/19x31	40 mm	64 mm	43,5 mm
	19x40/21x31/21x40mm			
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
	t sizes, please ask the manufacturer		50 11111	1

### Standard round dies MX340

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

### Standard square dies MX340



### Standard rectangular dies MX340





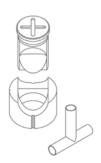
Туре	Available sizes in mm	Α	В
N46	7x10/7x15/9x13/9x19/11x17/11x23	46 mm	28,5 mm
	13x19/13x25/15x21mm		
N60	15x27/17x25/19x30/20x34mm	60 mm	32 mm
N78	25x43mm	78 mm	28,5 mm
N100	25x70mm	100 mm	28,5 mm
N125	25x96mm	125 mm	28,5 mm
or different size	s, please ask the manufacturer		

### Oval dies MX340

А

Туре	Available sizes in mm	Α	В
N46	7x10/7x15/7x20/9x13/9x19/11x17/11x23	46 mm	28,5 mm
	13x18/13x22/13x2715x20/15x24/15x27		
	17x22/17x26/19x26/21x27mm		
N60	13x31/15x31/17x31/17x40/19x31	60 mm	32 mm
	19x40/21x31/21x40mm		
N78	25x45/25x50mm	78 mm	28,5 mm
N100	27x63/27x75mm	100 mm	28,5 mm
N125	30x87/30x100mm	125 mm	28,5 mm

# Tube notching tooling MX340



Reference	Available sizes in mm	n 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	

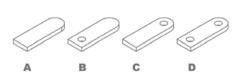
# Corner rounding tooling MX340



Reference	Available sizes in mm	Required	d 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			

#### Flat bar round end tooling R1 MX340

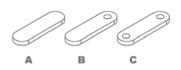
Reference	Model	Width size	Required fitting
MOR1-35A	А	From 20 to 35mm	TAP28 / TAP40
MOR1-35B	В	From 20 to 35mm	TAP28 / TAP40
MOR1-35C	С	From 20 to 35mm	TAP28 / TAP40
MOR1-35D	D	From 20 to 35mm	TAP28 / TAP40
MOR1-50A	А	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50C	С	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 REFFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness) In models B, C and D specify diemeter 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	<b>Required fitting</b>
MOR2-35A	А	From 20 to 35mm	TAP28 / TAP40
MOR2-35B	В	From 20 to 35mm	TAP28 / TAP40
MOR2-35C	С	From 20 to 35mm	TAP28 / TAP40
MOR2-50A	А	From 40 to 50mm	TAP50 / TAP60 con ATAP
MOR2-50B	В	From 40 to 50mm	TAP50 / TAP60 con ATAP
MOR2-50C	С	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.

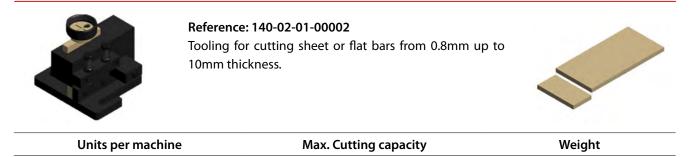
Capacidad de producción: 450 a 600 piezas la hora.

### Angle cutting tooling. MX340

	<b>Reference: 140-02-01-00001</b> Angle cutting tooling, from 90° up t	to 45°.	
Units per machine	Max. Capacity for straight cut	Max. Cutting capacity for miter	Weight

# Units per machineMax. Capacity for straight cutMax. Cutting capacity for miterWeight160x60mm50x50mm32 Kg

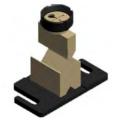
### Flat bar cutting tooling. MX340



100x10mm

#### Folding tooling 170mm. MX340

1



#### 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.



28 Kg

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

### 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



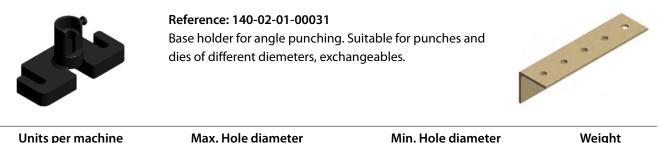
#### Reference: 140-02-01-00010

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



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

#### Round bar cutting tooling. MX340

	<b>Reference: 140-02-01-00035</b> Tooling for cutting round barfrom 3n	nm up to 35mm.	
Units per machine	Max. Cutting diameter	Min. Cutting diameter	Weight

### Locks punch and die MX340

1



**Reference: 140-02-01-00036** Set for making the lock hole in metal sheet. Necessary complements: CAB60 and TAP40

35mm



15 Kg

3mm

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 diemeter	Hole diameter	Weight
2	50mm	10mm	Exchangeable	23 Kg

# Hydraulic iron worker

### Hydraulic iron worker MX700

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

100-02-02-003
5,5 KW / 7,5 HP
400 V
70 Tn
9 mm/s
14 mm/s
160 mm
350 mm
600x350 mm
1130x1370x2060 mm
2000 Kg



# Fitting nuts for punches MX700

	Reference	Туре	Fitting nuts for punches
S	120-02-02-00312	TAP28	Fitting nuts for punches N28 Standard
	140-02-02-00011	TAP40	Fitting nuts for punches N40
TAP	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
ATAP	125-02-02-00042	ATAP	Fitting part for TAP100

# Fitting parts for dies MX700

Reference	Туре	Fitting for dies
120-02-02-00313	N46	Fitting for dies N46 Standard
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

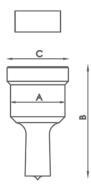
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Туре	Available sizes in mm Ø	Α	В	С
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8	28 mm	58 mm	31,5 mn
	8'5 /9mm up to 28mm from 0'5 in 0'5mm			
N40	29/30/31/32/33/34/35	40 mm	64 mm	43,5 mn
	36/37/38/39/40mm			
N50	41/42/43/44/45/46/47/48/49/50mm	50 mm	58 mm	54 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	100 mm	58 mm	104 mm
	90/92/94/96/98/100mm			

	Туре	Available sizes in mm	А	В	С
	N28	4/5/6/7/8/9/10/11/12/13/14/15	28 mm	58 mm	31,5 mm
С		16/17/18/19/20mm			
	N40	21/22/24/26/28mm	40 mm	64 mm	43,5 mm
<u>A</u>	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 s	izes, please ask the manufacturer			

### Standard square punches MX700

### Standard rectangular punches MX700



Туре	Available sizes in mm	Α	В	С
N28	7x10/7x15/9x13/9x19/11x17/11x23	28 mm	58 mm	31,5 mm
	13x19/15x21mm			
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			

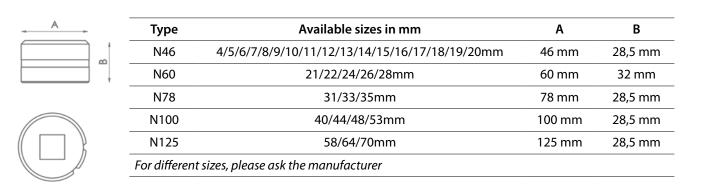
### Standard oval punches MX700

	Туре	Available sizes in mm	Α	В	C
-	N28	7x10/7x15/7x20/9x13/9x19/11x17	28 mm	58 mm	31,5 mm
		11x23/13x18/13x22/13x27/15x20/15x24			
		15x27/17x22/17x26/19x26/21x27mm			
-	N40	13x31/15x31/17x31/17x40/19x31	40 mm	64 mm	43,5 mm
		19x40/21x31/21x40mm			
-	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 differen	t sizes, please ask the manufacturer			

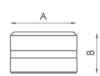
#### Standard round dies MX700

Туре	Available sizes in mm	Α	В
N46	3/3,5/4/4,5/5/5,5/6/6,5/7/7,5/8/8,5	46 mm	28,5 mm
	9mm up to 28mm from 0,5 in 0,5mm		
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

#### Standard square dies MX700



#### Standard rectangular dies MX700



Туре	Available sizes in mm	А	В
N46	7x10/7x15/9x13/9x19/11x17/11x23	46 mm	28,5 mm
	13x19/13x25/15x21mm		
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

## Oval dies MX700

A	Туре	Available sizes in mm	Α	В
+	N46	7x10/7x15/7x20/9x13/9x19/11x17/11x23	46 mm	28,5 mm
<u> </u>		13x18/13x22/13x2715x20/15x24/15x27		
		17x22/17x26/19x26/21x27mm		
	N60	13x31/15x31/17x31/17x40/19x31	60 mm	32 mm
		19x40/21x31/21x40mm		
$\bigcirc$	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 si	izes, please ask the manufacturer		

## Tube notching tooling MX700

		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, plea	ise ask the manufacturer		
	MAN40 MAN50 MAN60	MAN40Tube from 28,5 to 40mmMAN50Tube from 40,5 to 50mm	MAN40Tube from 28,5 to 40mmTAP 40MAN50Tube from 40,5 to 50mmTAP 50MAN60Tube from 50,5 to 60mmTAP 60

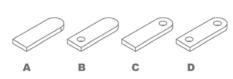
## Corner rounding tooling MX



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, plea	ase ask the manufacturer		

## Flat bar round end tooling R1 MX700

Reference	Model	Width size	Required fitting
MOR1-35A	А	From 20 to 35mm	TAP28 / TAP40
MOR1-35B	В	From 20 to 35mm	TAP28 / TAP40
MOR1-35C	С	From 20 to 35mm	TAP28 / TAP40
MOR1-35D	D	From 20 to 35mm	TAP28 / TAP40
MOR1-50A	А	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR1-50C	С	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 REFFERENCE, MODEL, R (radius), W (flat bar width), T (flat bar thickness) In models B, C and D specify diemeter 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

в

С

Reference	Model	Width size	<b>Required fitting</b>
MOR2-35A	А	From 20 to 35mm	TAP28 / TAP40
MOR2-35B	В	From 20 to 35mm	TAP28 / TAP40
MOR2-35C	С	From 20 to 35mm	TAP28 / TAP40
MOR2-50A	А	From 40 to 50mm	TAP50 / TAP60 con ATAP
MOR2-50B	В	From 40 to 50mm	TAP50 / TAP60 con ATAP
MOR2-50C	С	From 40 to 50mm	TAP50 / TAP60 con ATAP

For different sizes, please ask the manufacturer.

When placing order it must be specified the REFFERENCE, MODEL, R (radius),

W (flat bar width), T (flkat 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.

#### Ventilation grip tooling MX700



#### Reference: 140-02-02-00031

Tooling to make ventiolation 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



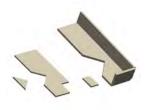
Pieces per set	Max. Thickness	Weight
2	6mm	1 Kg

#### 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

#### 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

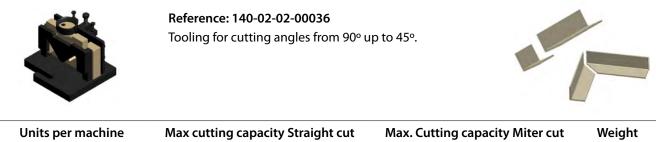


**Reference: 140-02-02-00034** Tooling for folding sheet and flat bar up to 170mm. 88° punch. Dies with V for 56mm and V for 26m.



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

#### Angle cutting tooling. MX700



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

#### Round bar cutting tooling MX700

<b>Reference: 140-02-02-00038</b> 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



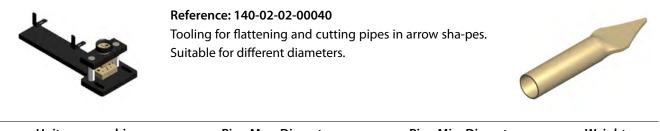
Reference: 140-02-02-00039

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



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

## Flattening tooling MX700



#### Reference: 140-02-02-00042

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.



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: stailess steel	4 mm (700N/mm2)
N° of hammers	10 units
Cutting length	2030 mm
Neck	190 mm
Gauge displacement	700 mm
Strokes per minute	10 strokes
Position accuracy and repeatibility	+/- 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

### Hydrauilic 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: stailess steel	4 mm (700N/mm2)
N° of hammers	15 units
Cutting length	3055 mm
Neck	173 mm
Gauge displacement	700 mm
Strokes per minute	12 strokes
Position accuracy and repeatibility	+/- 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 wothout any kind of distortion.

<b>5-09-001</b> V / 7,5 HP 30 / 400 V 40 Tn 8,3 mm/s
80 / 400 V 40 Tn
40 Tn
3 3 mm/s
5,5 1111/5
20 mm/s
00 mm/s
200 mm
1250 mm
1500 mm
600 mm
270 mm
2210 mm
2101111





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 wothout 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

#### **R** axis

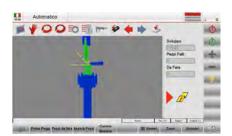
The R Axis is not supplied as standard with the machine; the client may include it when purchasing the machine or add it later. This Axis has a Canopen communication system that enables it to be installed in a rapid and simple manner to the machine. The operator needs only to connect it to the motor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



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



Reference

140-05-OP-00002

#### 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.

/	
1	
/	

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

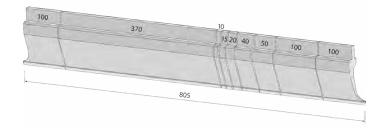
\* In case of choosing this option the machine will be delivered with the ESA 640 CNC,

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

#### **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/mm2	29.1 - 36.9 HRC	54 - 60 HRC
• C45	560 - 710 N/mm2	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

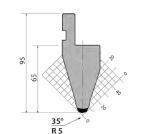
**800 mm segmented** 100, 10, 15, 20, 40, 50, 165, 300, 100 mm

#### • PU.85.35.R08

35° R 0,8

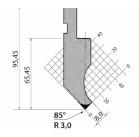
115

• P.95.35.R5



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

#### • PK.95.85.R3

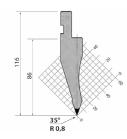


Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

Length 835 mm.

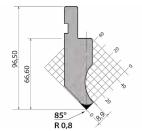
415 mm. 795 mm. Seg. 805 mm. Seg.

#### • P.116.35.R08



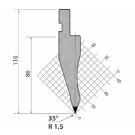
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	





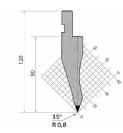
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • P.116.35.R15



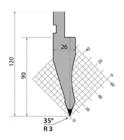
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • P.120.35.R08

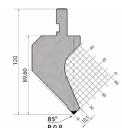


Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### • P.120.35.R3



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



35° R 1,5

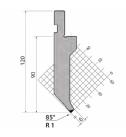
• PK.120.85.R08

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

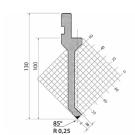
Length 835 mm.

415 mm. 795 mm. Seg. 805 mm. Seg.

#### • P.120.85.R1



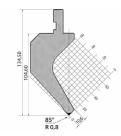
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.
795 mm. Seg.



• P.130.85.R025

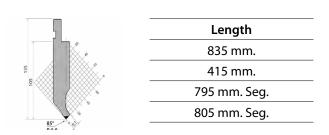
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## • PK.135.85.R08



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

#### • PS.135.85.R08



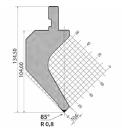
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#### • P.120.35.

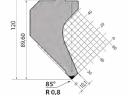
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Length	_
835 mm.	
415 mm.	
795 mm. Seg.	
	_

## • P.135.85.R08



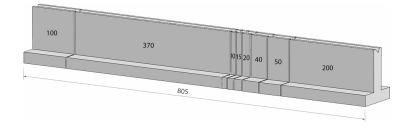
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.



#### 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/mm2	29.1 - 36.9 HRC	54 - 60 HRC
• C45	560 - 710 N/mm2	12 - 15.5 HRC	54 - 60 HRC



805 mm segmented

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

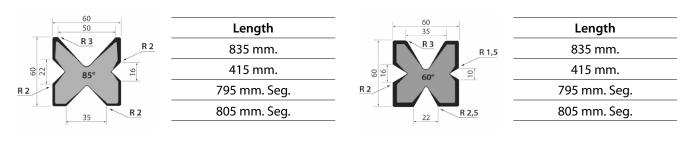
#### 795 mm segmented

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

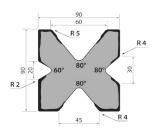
**495 mm segmented** 170, 100, 50, 45, 40, 35, 30, 25 mm

#### • M.460.R

#### • M.460.60

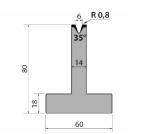


#### • M.490



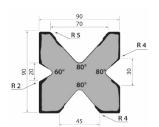
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### • T80.06.35



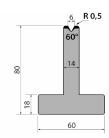
	Length
-	835 mm.
-	415 mm.
	795 mm. Seg.
	805 mm. Seg.

#### • M.490.70



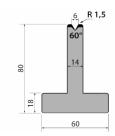
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.06.60



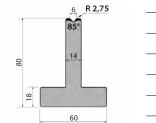
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	





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

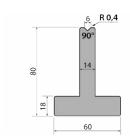
## • T80.06.85



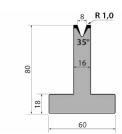
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.08.35



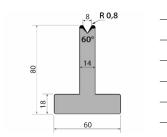


Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.
900 mm.



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.	
	-

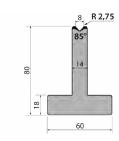
\_

# 8 R 1,5 60° 14

• TR80.08.60

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

#### • T80.08.85



• T80.10.35

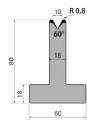
Length 835 mm. 415 mm. 795 mm. Seg. 805 mm. Seg.

#### 

• T80.08.90

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

#### • T80.10.60



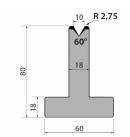
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

0 **R** 1,2 35° 20 € 60

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



#### • TR80.10.60



10 R 0,6

90°

18

60

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

Length

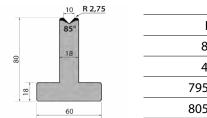
835 mm.

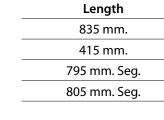
415 mm.

795 mm. Seg.

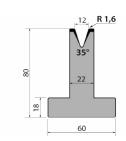
805 mm. Seg.

## • T80.10.85





## • T80.12.35



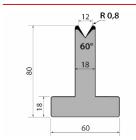
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.12.60

• T80.10.90

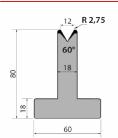
80

18



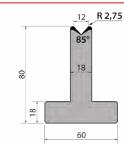
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • TR80.12.60



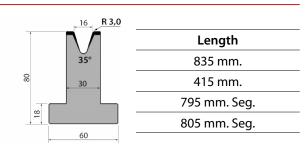
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.12.85

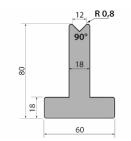


## Length 835 mm. 415 mm. 795 mm. Seg. 805 mm. Seg.

#### • T80.16.35

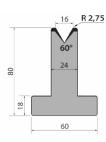


## • T80.12.90



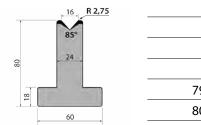
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.16.60



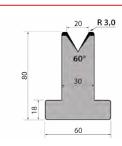
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.16.85



## Length 835 mm. 415 mm. 795 mm. Seg. 805 mm. Seg.

#### • T80.20.60

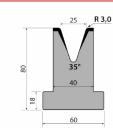


Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## 20 R 3,0 85° 30 60

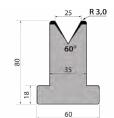
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.25.35



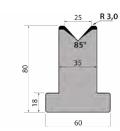
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# • T80.25.60



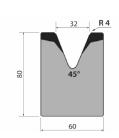
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • T80.25.85



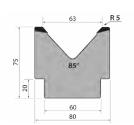
## Length 835 mm. 415 mm. 795 mm. Seg. 805 mm. Seg.

#### • M80.45.32



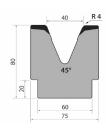
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## • M75.85.63



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

#### • M80.45.40



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

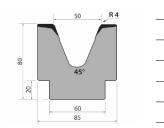
• T80.20.35

20 R 3,0

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

### • T80.20.85

#### • M80.45.50



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

#### • M86.60.63

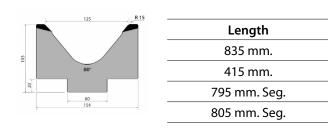
	Length		Length
	835 mm.		835 mm.
60°	415 mm.		415 mm.
	795 mm. Seg.		795 mm. Seg.
60	805 mm. Seg.	60	805 mm. Seg.

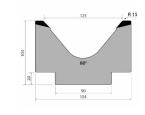
#### MK103.80.125

• M110.60.80

110

20





• M103.80.125

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

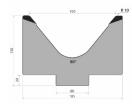
Length 835 mm.

415 mm.

795 mm. Seg.

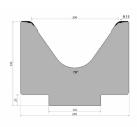
805 mm. Seg.

#### MK130.80.160

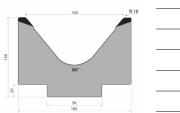


Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### • M195.70.200



Length
415 mm.



60 110

• M130.80.160

R 6

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

Length 835 mm.

415 mm. 795 mm. Seg.

805 mm. Seg.

• IVIK I 30

80

20

• M80.85.80

85°

60 95

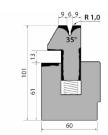
• M95.80.100

R 6



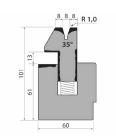


### • S101.35.06



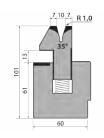
Length
835 mm.
415 mm.

#### • S101.35.08

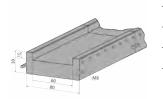


 Length	
835 mm.	
415 mm.	

## • S101.35.10



Leng	jth
835 n	nm.
415 n	nm.



Length	
1050 mm.	
520 mm.	

## Consumables

## Hydraulic Oil SIL POWER HV46



#### 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



#### 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 vis-cosity level improver Container: 20L Weight: 20 Kg

PRICE: 138,00 €



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