# NARGESA®













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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 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	100-04-01-001
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 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	100-04-04-001
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 HPa 1400 r.p.m.
Tension	3 phased 230/400 V o 1 phased 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
Three-phased tension	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
Three-phased tension	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	1,85KW / 2,5 HP
Three-phased tension	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



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 Whitwort 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



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 Whitwort 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 former MC650

The Pipe and Section Bending Machine Nargesa MC650 is ideal for making flanges, greenhouses, rails, large structures for the construction and all kinds of circular shapes in various profiles and pipes in small and large sizes.

Reference	100-08-08-001
Engine power	3 Kw / 4 HP
Hydraulic motor power	0,75 Kw / 1 HP
Three-phased tension	230/400 V 3-phased
Rollers Speed	5 r.p.m.
Axis diameter	Lower 65 mm / Higher 80 mm
Useful length of axis	130 mm
Dimensions	990x1310x1300 mm
Weight	1262 Kg





## Accessories for Profile formers MC650

## ► Set of treated steel rollers



Set of 3 sets of treated steel rollers for steel round pipe or stainless steel, thickness bigger than 2 mm. When pipe sizes are smaller, two sizes are included in the same roller.

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

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

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



## Accessories for Profile formers MC650

## ► Set of Sustarín rollers



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-RIWT0006	2" 1/2 = 76,1 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 Whitwort inches pipe	
140-08-08-RIWT0001	(1/2" + 1"1/4") = (12,7 + 31,75 mm)	9,65 Kg
140-08-08-RIWT0002	(1" + 3/4") = (25,4 + 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.

140-MED08-00001
From 55 to 11.250 mm or from 2" to 443"
$\Delta R = (0.01*R)mm$
$\Delta L = 0.02$ mm
3V CR2032 Lithium battery
250x60x40 mm
125x57x20 mm
225x54x20 mm
325x59x20 mm
1,3 Kg



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



## Non-Mandrel Pipe Benders

## ▶ Non-mandrel pipe bender CC60

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

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





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



Rollers made of treated Steel. Units suitable for bending all types of round pipes 12 to 60 millimeters. The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener *Check with the manufacturer for other dimensions* 

REF.	Diam. Ext.	Radius	Min. thickness	Max. thickness	Weight
Set diameter 12mm Ra	dius 60				
140-17-01-10012	12mm	60mm	1mm	5mm	3,26Kg
Set diameter 15mm Ra	dius 60				
140-17-01-10001	15mm	4D=60mm	1mm	5mm	3,18Kg
Set diameter 18mm Ra	dius 60				
140-17-01-10010	18mm	60mm	1mm	5mm	3,11Kg
Set diameter 20mm Ra	dius 60				
140-17-01-10002	20mm	3D=60mm	1mm	5mm	3,22Kg
Set diameter 22mm Ra	dius 66				
140-17-01-10014	22mm	3D=66mm	1mm	5mm	4,10Kg
Set diameter 25mm Ra	dius 75				
140-17-01-10003	25mm	3D=75mm	1,2mm	5mm	5,55Kg
Set diameter 28mm Ra	dius 84				
140-17-01-10011	28mm	3D=84mm	1,2mm	5mm	7,28Kg
Set diameter 30mm Ra	dius 90				
140-17-01-10004	30mm	3D=90mm	1,2mm	5mm	8,29Kg
Set diameter 32mm Ra	dius 96				
140-17-01-10013	32mm	3D=96mm	1,5mm	5mm	10,16Kg
Set diameter 35mm Ra	dius 105				
140-17-01-10005	35mm	3D=105mm	1,5mm	5mm	12,14Kg
Set diameter 40mm Ra	dius 120				
140-17-01-10006	40mm	3D=120mm	1,5mm	5mm	17,11Kg
Set diameter 50mm Ra	dius 150				
140-17-01-10007	50mm	3D=150mm	2mm	5mm	31,41Kg
Set diameter 60mm Ra	dius 180				
140-17-01-10008	60mm	3D=180mm	2mm	2,5mm	40,88Kg

## ► 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

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



## ▶ 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

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

## ► 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

REF.	Diam. Ext.	Diam. Ext.	Radius	SCH10	SCH40	SCH80	SCH160	Weight	
Set diameter 60,30	Set diameter 60,30mm Radius 180,9mm Diameter 2" Schedule								
140-17-01-20007	2"	60,30mm	3D=180,9mm	2,77mm	3,91mm	_	_	45,75Kg	

<sup>\*</sup> 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 · 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* 

REF.	Diam. Ext.	Diam. Ext.	Radius	Min. thickness	Max. thickness	Weight
Set diameter 12,7mr	n Radius 60mm I	Diameter 1/2" inc	ches			
140-17-01-30011	1/2"	12,7mm	60mm	1mm	4mm	3,37Kg
Set diameter 15,88m	nm Radius 60mm	Diameter 5/8" in	nches			
140-17-01-30001	5/8"	15,88mm	60mm	1mm	4mm	3,61Kg
Set diameter 19,05m	ım Radius 60mm	Diameter 3/4" in	nches			
140-17-01-30002	3/4"	19,05mm	60mm	1mm	4mm	2,79Kg
Set diameter 22,22m	ım Radius 66mm	Diameter 7/8" in	nches			
140-17-01-10014	7/8"	22,22mm	66mm	1mm	5mm	4,10Kg
Set diameter 25,40m	ım Radius 76,20r	nm Diameter 1"	inches			
140-17-01-30003	1"	25,4mm	3D=76,2mm	1,2mm	5mm	5,72Kg
Set diameter 31,75m	nm Radius 95,25r	mm Diameter 1"	1/4 inches			
140-17-01-30004	1" 1/4	31,75mm	3D=95,25mm	1,5mm	6mm	10,21Kg
Set diameter 38,10m	ım Radius 114,30	)mm Diameter 1	' 1/2 inches			
140-17-01-30005	1" 1/2	38,10mm	3D=114,3mm	1,5mm	7mm	15,69Kg
Set diameter 44,45m	ım Radius 133,35	5mm Diameter 1'	" 3/4 inches			
140-17-01-30010	1" 3/4	44,45mm	3D=133,35mm	2mm	5mm	21,86Kg
Set diameter 50,8mr	n Radius 152,4m	m Diameter 2" ir	nches			
140-17-01-30006	2"	50,80mm	3D=152,4mm	2mm	5mm	32,24Kg
Set diameter 57,15m	ım Radius 171,45	5mm Diameter 2'	" 1/4 inches			
125-17-01-30007	2" 1/4	57,15mm	3D=171,45mm	2mm	2,5mm	36,13K

## ► 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

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

<sup>\*</sup> 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



REF: 140-17-01-00002

The CC60 Supporting Roller Kit is used to bend:

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

Weight: 9,85Kg

## ▶ Accessories for 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* 

REF.	Section	Radius	Min. thickness	Max. thickness	Weight
Square Tube Die Set 20	0mm Radius 100m	m			
140-17-01-10101	20x20mm	5D=100mm	1,5mm	4mm	11,1Kg
Square Tube Die Set 2	5mm Radius 115m	m			
140-17-01-10102	25x25mm	115mm	2mm	4mm	14,75Kg
Square Tube Die Set 30	0mm Radius 135m	m			
140-17-01-10103	30x30mm	135mm	2mm	4mm	22Kg
Square Tube Die Set 40	0mm Radius 165m	m			
140-17-01-10104	40x40mm	165mm	2mm	5mm	34,15Kg

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



Rollers made of treated Steel. Units suitable for bending all types of square pipes 3/4" to 1" 1/2 inches. The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener *Check with the manufacturer for other dimensions* 

REF.	Section	Section	Radius	Radius	Min. Thick.	Max. Thick.	Weight	
Square Tube Die Set ¾" (19,05mm) Radius 4" (101,6mm)								
140-17-01-30101	3/4"x3/4"	19,05x19,05mm	4"	101,6mm	1,5mm	4mm	11,5Kg	
Square Tube Die Set	1" (25,4mm) Rad	lius 4,5" (114,3mm)						
140-17-01-30102	1"x1"	25,4x25,4mm	4" 1/2	114,3mm	2mm	4mm	14,6Kg	
Square Tube Die Set	1" 1/4 (31,75mm	) Radius 5,5" (139,7n	nm)					
140-17-01-30103	1" 1/4x1"1/4	31,75x31,75mm	5" 1/2	139,7mm	2mm	4mm	23,3Kg	
Square Tube Die Set 1" 1/2 (38,1mm) Radius 6,5" (165,1mm)								
140-17-01-30104	1" 1/2x1"1/2	38,1x38,1mm	6" 1/2	165,1mm	2mm	5mm	34,6Kg	



## ► Nargesa BEND8 aerosol lubricant



The CC60 pipe bender comes with a 400 ml bottle of BEND8 lubricant. This is a high-additive and low-viscosity aerosol oil. Contains PTFE. Does not contain silicone.

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

REF.	Description	Quantity	Weight
060-SPR-00003	400 ml bottle	400ml	0,390 Kg
060-SPR-00004	Box of 12 400 ml bottles	12x400ml	4,830 Kg

#### ► 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

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



## Non-Mandrel Pipe Benders

## ▶ Non-mandrel pipe bender CC90

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

Reference	100-17-02-001
Engine power	2,2 Kw / 3 CV
Three-phased 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 or
steel pipe	3" 1/2 Whitworth or 3" Gas x 6mm.
Maximum angle of curvature	180°
Dimensions	700x1300x1360 mm
Weight	860 Kg





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



Rollers made of treated Steel. Units suitable for bending all types of round pipes 12 to 80 millimeters. The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener *Check with the manufacturer for other dimensions* 

REF.	Diam. Ext.	Radius	Min. thickness	Max. thickness	Weight
Set diameter 12mm Ra	adius 60				
140-17-01-10012	12mm	60mm	1mm	5mm	3,26Kg
Set diameter 15mm Ra	adius 60				
140-17-01-10001	15mm	4D=60mm	1mm	5mm	3,18Kg
Set diameter 18mm Ra	adius 60				
140-17-01-10010	18mm	60mm	1mm	5mm	3,11Kg
Set diameter 20mm Ra	adius 60				
140-17-01-10002	20mm	3D=60mm	1mm	5mm	3,22Kg
Set diameter 22mm Ra	adius 66				
140-17-01-10014	22mm	3D=66mm	1mm	5mm	4,10Kg
Set diameter 25mm Ra	adius 75				
140-17-01-10003	25mm	3D=75mm	1,2mm	5mm	5,55Kg
Set diameter 28mm Ra	adius 84				
140-17-01-10011	28mm	3D=84mm	1,2mm	5mm	7,28Kg
Set diameter 30mm Ra	adius 90				
140-17-01-10004	30mm	3D=90mm	1,2mm	5mm	8,29Kg
Set diameter 32mm Ra	adius 96				
140-17-01-10013	32mm	3D=96mm	1,5mm	5mm	10,16Kg
Set diameter 35mm Ra	adius 105				
140-17-01-10005	35mm	3D=105mm	1,5mm	5mm	12,14Kg
Set diameter 40mm Ra	adius 120				
140-17-01-10006	40mm	3D=120mm	1,5mm	5mm	17,11Kg
Set diameter 50mm Ra	adius 150				
140-17-01-10007	50mm	3D=150mm	2mm	5mm	31,41Kg
Set diameter 60mm Ra	adius 180				
140-17-01-10008	60mm	3D=180mm	2mm	2,5mm	40,88Kg
Set diameter 70mm Ra	adius 210				
140-17-02-10001	70mm	3D=210mm	3,6mm	6mm	72,40Kg
Set diameter 80mm Ra	adius 240				
140-17-02-10002	80mm	3D=240mm	4mm	5mm	88,17Kg



## ▶ 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

REF.	Diam. Ext.	Radius	Min. thickness	Max. thickness	Weight
Set diameter 90mm Ra	adius 270				
140-17-02-10003	90mm	3D=270mm	4mm	5mm	114,36Kg

<sup>\*</sup> 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

REF.	Diam. Ext.	Diam. Ext.	Radius	SCH10	SCH40	SCH80	SCH160	Weight
Set diameter 17,10	Set diameter 17,10mm Radius 60mm Diameter 3/8" Schedule							
140-17-01-20001	3/8"	17,1mm	60mm	1,65mm	2,31mm	3,20mm	_	4,22Kg
Set diameter 21,30	mm Radius 6	3,9mm Diame	eter 1/2" Schedu	le				
140-17-01-20002	1/2"	21,3mm	3D=63,9 mm	2,11mm	2,77mm	3,73mm	4,78mm	3,56Kg
Set diameter 26,70	mm Radius 8	0,1mm Diame	eter 3/4" Schedu	le				
140-17-01-20003	3/4"	26,7mm	3D=80,1mm	2,11mm	2,87mm	3,91mm	5,56mm	6,74Kg
Set diameter 33,70	Set diameter 33,70mm Radius 101,1mm Diameter 1" Schedule							
140-17-01-20004	1"	33,7mm	3D=101,1mm	2,77mm	3,38mm	4,55mm	6,35mm	11,18Kg
Set diameter 42,40	mm Radius 1	27,2mm Dian	neter 1" 1/4 Sche	dule				
140-17-01-20005	1" 1/4	42,4mm	3D=127,2mm	2,77mm	3,56mm	4,85mm	6,35mm	18,86Kg
Set diameter 48,30	mm Radius 1	44,9mm Dian	neter 1" 1/2 Sche	dule				
140-17-01-20006	1" 1/2	48,3mm	3D=144,9mm	2,77mm	3,68mm	5,08mm	_	27,05Kg
Set diameter 60,30	mm Radius 1	80,9mm Dian	neter 2" Schedul	е				
140-17-02-20001	2"	60,30mm	3D=180,9mm	2,77mm	3,91mm	5,54mm	_	45,75Kg
Set diameter 73mm	n Radius 219	mm Diameter	2" 1/2 Schedule					
140-17-02-20002	2" 1/2	73,0mm	3D=219mm	3,05mm	5,16mm	7,01mm	_	72,00Kg

#### ► 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

REF.	Diam. Ext.	Diam. Ext.	Radius	SCH10	SCH40	SCH80	SCH160	Weight
Set diameter 88,9n	nm Radius 260	6,7mm Diame	ter 3" Schedule					
140-17-02-30003	3"	88,9mm	3D=266,7mm	3,05mm	5,49mm	_	_	110,80Kg

<sup>\*</sup> 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 · 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* 

REF.	Diam. Ext.	Diam. Ext.	Radius	Min. thickness	Max. thickness	Weight
Set diameter 12,7mr	n Radius 60mr	n Diameter 1/2'	' inches			
140-17-01-30011	1/2"	12,7mm	60mm	1mm	4mm	3,37Kg
Set diameter 15,88m	nm Radius 60m	m Diameter 5/8	3" inches			
140-17-01-30001	5/8"	15,88mm	60mm	1mm	4mm	3,61Kg
Set diameter 19,05m	nm Radius 60m	m Diameter 3/4	4" inches			
140-17-01-30002	3/4"	19,05mm	60mm	1mm	4mm	2,79Kg
Set diameter 22,22m	nm Radius 66m	m Diameter 7/8	3" inches			
140-17-01-10014	7/8"	22,22mm	66mm	1mm	5mm	4,10Kg
Set diameter 25,40m	nm Radius 76,2	0mm Diameter	1" inches			
140-17-01-30003	1"	25,4mm	3D=76,2mm	1,2mm	5mm	5,72Kg
Set diameter 31,75m	nm Radius 95,2	5mm Diameter	1" 1/4 inches			
140-17-01-30004	1" 1/4	31,75mm	3D=95,25mm	1,5mm	6mm	10,21Kg
Set diameter 38,10m	nm Radius 114	30mm Diamete	er 1" 1/2 inches			
140-17-01-30005	1" 1/2	38,10mm	3D=114,3mm	1,5mm	7mm	15,69Kg
Set diameter 44,45m	nm Radius 133	35mm Diamete	er 1" 3/4 inches			
140-17-01-30010	1" 3/4	44,45mm	3D=133,35mm	2mm	5mm	21,86Kg
Set diameter 50,8mr	n Radius 152,4	mm Diameter 2	2" inches			
140-17-01-30006	2"	50,80mm	3D=152,4mm	2mm	5mm	32,24Kg
Set diameter 57,15m	nm Radius 171	45mm Diamete	er 2" 1/4 inches			
140-17-01-30007	2" 1/4	57,15mm	3D=171,45mm	2mm	5mm	36,13Kg
Set diameter 63,5mr	n Radius 190,5	mm Diameter 2	2" 1/2 inches			
140-17-02-30001	2" 1/2	63,50mm	3D=190,5mm	3mm	8,64mm	40,50Kg
Set diameter 76,2mr	n Radius 228,6	mm Diameter 3	3" inches			
140-17-02-30002	3"	76,20mm	3D=228,6mm	3mm	7,21mm	80,68Kg

## ► 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

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



## ► Supporting Roller Kit CC90



**REF:** 140-17-02-00002

The CC90 Supporting Roller Kit is used to bend:

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

Weight: 24,573 kg

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



## ► 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* 

REF.	Section	Radius	Min. thickness	Max. thickness	Weight
Square Tube Die Set 2	0mm Radius 100m	m			
140-17-01-10101	20x20mm	5D=100mm	1,5mm	4mm	11,1Kg
Square Tube Die Set 2	5mm Radius 115m	m			
140-17-01-10102	25x25mm	115mm	2mm	4mm	14,75Kg
Square Tube Die Set 3	0mm Radius 135m	m			
140-17-01-10103	30x30mm	135mm	2mm	4mm	22Kg
Square Tube Die Set 4	0mm Radius 165m	m			
140-17-01-10104	40x40mm	165mm	2mm	5mm	34,15Kg
Square Tube Die Set 5	0mm Radio 180mn	n			
140-17-02-10101	50x50mm	180mm	2,5mm	5mm	45,7Kg

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



Rollers made of treated Steel. Units suitable for bending all types of square pipes 3/4" to 2" inches. The following is supplied with the unit: A main roller, a counter-shape, a clamp with a fastener *Check with the manufacturer for other dimensions* 

REF.	Section	Section	Radius	Radius	Min. Thick.	Max. Thick.	Weight	
Square Tube Die Se	t ¾" (19,05mm) F	Radius 4" (101,6mm)						
140-17-01-30101	3/4"x3/4"	19,05x19,05mm	4"	101,6mm	1,5mm	4mm	11,5Kg	
Square Tube Die Se	t 1" (25,4mm) Ra	dius 4,5" (114,3mm)						
140-17-01-30102	1"x1"	25,4x25,4mm	4" 1/2	114,3mm	2mm	4mm	14,6Kg	
Square Tube Die Se	Square Tube Die Set 1" 1/4 (31,75mm) Radius 5,5" (139,7mm)							
140-17-01-30103	1" 1/4x1"1/4	31,75x31,75mm	5" 1/2	139,7mm	2mm	4mm	23,3Kg	
Square Tube Die Se	t 1" 1/2 (38,1mm	) Radius 6,5" (165,1n	nm)					
140-17-01-30104	1" 1/2x1"1/2	38,1x38,1mm	6" 1/2	165,1mm	2mm	5mm	34,6Kg	
Square Tube Die Se	t 1" 3/4 (44,45mn	n) Radius 6,75" (171,	45mm)					
140-17-02-30101	1" 3/4x1"3/4	44,45x44,45mm	6" 3/4	171,45mm	2,5mm	5mm	39Kg	
Square Tube Die Se	t 2" (50,8mm) Ra	dius 7" (177,8mm)						
140-17-02-30102	2"x2"	50,8x50,8mm	7"	177,8mm	2,5mm	5mm	44Kg	



## ► Nargesa BEND8 aerosol lubricant



The CC90 pipe bender comes with a 400 ml bottle of BEND8 lubricant. This is a high-additive and low-viscosity aerosol oil. Contains PTFE. Does not contain silicone.

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

REF.	Description	Quantity	Weight
060-SPR-00003	400 ml bottle	400ml	0,390 Kg
060-SPR-00004	Box of 12 400 ml bottles	12x400ml	4,830 Kg

## ► 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

REF.	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, etc...

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 o 1 1/4"x3/8"
Máx. continued scrolling length	960 mm
Dimensions	2270x635x1115 mm
Weight	260 Kg







## Accessories for MT150A

## ► Flat bent rings



#### 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, 110 mm	Roun or square 16 mm	10 Kg

## ▶ Belly top railing die



#### Reference: 140-01-01-00002

Steel Die to make the Belly Top Railing , used in balco-

nies and windows.



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

#### ▶ Flat bar bent die



#### Reference: 140-01-01-00003

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

external radius.



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

## ► Edge scrolls



### 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 MT150A

## ▶ Baskets tooling



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, etc...

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 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 adjusta-

ble radius to different degrees.



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

## ▶ Belly top railing



## Reference: 140-01-03-00003

Steel die to make Belly top railing commonly used in

balconies and windows.



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

#### ▶ Oval scrolls die





#### Reference: 140-01-03-00004

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



Outer diemeter	Max. Capacity	Weight
240x190 mm	Round or square de 16 mm	11 Kg



## Accessories for MT500A

## ► Flat bent rings



#### 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, 110 mm	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, etc...

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



#### Wrowght iron machine NF70

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

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





## Accessories for End Forging Machine NF70

## ► Set of special rollers



Reference: 140-12-02-00001

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

## ► Set of trilobular rollers



Reference: 140-12-02-00003

Set of trilobular rollers to emboss decoration in

the middle of a baluster.



Units per set	Maximum capacity	Maximum capacity	Weight
2	Round and square 20mm	Rectangular 50x10mm	4,2 Kg

## ▶ Set of triple middle marking rollers



Reference: 140-12-02-00004

Set of excentric rollers to emboss the middle of balusters. Triple design, flat, striped and discontiuous

in the same roller.



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

### ► Set of fishtail roller



Reference: 140-12-02-00005

Two-grooved roller, one for big diameters and

the other one for smaller diameters.



Units per set	Maximum capacity	Maximum capacity	Weight
1	Round and square 20mm	Rectangular 50x10mm	7,7 Kg



## 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 tension	230 / 400 V
Power consumption	22/12 A
Nominal working speed	20 r.p.m. to 50 Hz
Max. on square pipe	60 mm or 2" 1/2
Max. on square bar	20 mm or 3/4"
Max. on handrail or flat bar	60x10 mm or 2"x3/8
Dimensions	780x1230x1400 mm
Weight	746 Kg





#### ► Embossing roller 01



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

### ► Embossing roller 02



Reference: 140-11-01-00002.40

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

Guide 140-11-01-00401 or 140-11-01-00402 is required *Ask the manufacturer about different dimensions* 

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

#### ▶ Embossing roller 03



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

#### ► Embossing roller 04



Reference: 140-11-01-00004.40

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



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



#### ► Embossing roller 05



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

#### ► Embossing roller 06



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

#### ► Embossing roller 07



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

#### ► Embossing roller 08



Reference: 140-11-01-00008.40

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



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



#### ► Embossing roller 09



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

#### ► Embossing roller 10



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* 

2/2/2 -2-3/3/2
3 3 3

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

#### ► Embossing roller 11



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

#### ► Embossing roller 12



Reference: 140-11-01-00012.40

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

*Connects for
3. 2. 600 x 603 x 603
5)3

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



#### ► Embossing roller 13



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

#### ► Embossing roller 14



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* 

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

#### ► Embossing roller 15



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

#### ▶ Embossing roller 16



Reference: 140-11-01-00016.40

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

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



#### ► Embossing roller 17



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

#### ► Embossing roller 18



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* 

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

#### ▶ Embossing roller 19



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

#### ▶ Embossing roller 20



Reference: 140-11-01-00020.40

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

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



#### ► Embossing roller 21



Reference: 140-11-01-00021.50

Roller to emboss a 50 mm or 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

#### ► Embossing roller 22



Reference: 140-11-01-00022.40

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* 

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60,00

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

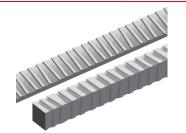
#### ▶ Embossing roller 23



Reference: 140-11-01-00023

Roller to emboss handrail up to 60 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

#### ▶ Embossing roller 24



Reference: 140-11-01-00024.40

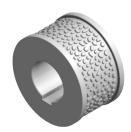
Roller to emboss a 40 mm or 1"-1/2 inches handrail



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



#### ► Embossing roller 25



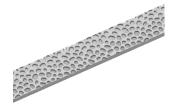
Reference: 140-11-01-00025

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



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

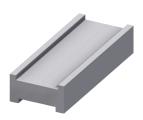
#### ► Entrance guide for 60 mm handrail



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

Weight: 4,3 Kg

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



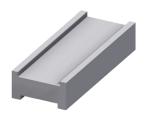
Ref: 140-11-01-00401

Inlet guide for 40 and 50 mm handrail

Weight: 4 Kg



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



Ref: 140-11-01-00402

Inlet guide for 1" 1/2 and 2" inches handrail.

Weight: 4 Kg

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



Ref: 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



Ref: 140-11-01-00404

Inlet guide for 1" and 1" 1/4 inches handrail.

Weight: 4,3 Kg

#### ► Rollerstand



Ref: 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



#### ► Embossing roller 201



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 6 to 10mm	6,5 Kg

#### ► Embossing roller 202



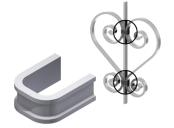
Reference: 140-11-01-00202

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

For clamp forming

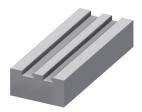
Guide 140-11-01-00200 is required

Ask the manufacturer about different dimensions



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

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



Reference: 140-11-01-00200

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

handrail

Weight: 4,6 Kg



#### ▶ Set of embossing rollers 26



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



Set per machine	Material thickness	Weight
1	<del></del>	11,4 Kg

#### ► Entrance guide for edge square bar



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 embossing rollers 302



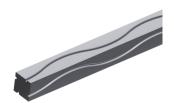
Reference: 140-11-01-00302

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



Set per machine	Material thickness	Weight
1	_	12,6 Kg

#### Set of embossing rollers 301



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



Set per machine	Material thickness	Weight
1	<del></del>	12,6 Kg



#### ▶ Set of embossing rollers 303



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	<del></del>	12,9 Kg

#### ▶ Set of embossing rollers 304



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	<del></del>	12,9 Kg

#### ► Entrance guide for square bar



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



Ref: 140-11-01-00500

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

following pipes:

**Square pipes:** 25mm or 1", 30mm or 1" 1/4, 35 and 40mm **Rectangular pipes:** 25x20mm or 1"x3/4", 30x20mm or 1"1/4x3/4", 30x25mm, 35x20mm, 35x25mm, 40x20mm,

40x25mm, 40x30mm, 40x35mm

Guide 140-11-01-00501 or 140-11-01-00502 is required *Ask the manufacturer about different dimensions* 



Set per machine	Material minimum thickness suggested by manufaturer	Weight
1	3 mm	12 Kg

#### ▶ Inlet guide for 25 mm or 1" and 30 mm or 1" 1/4 Pipe



Ref: 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



Ref: 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



Ref: 140-11-01-00503

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

following pipes:

Square pipes: 50mm or 60mm

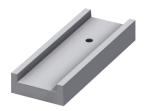
**Rectangular pipes:** 50x20mm, 50x25mm, 50x30mm, 50x35mm, 50x40mm, 50x45mm, 60x20mm, 60x25mm, 60x30mm, 60x35mm, 60x40mm, 60x45mm, 60x50mm or

60x55mm

Guide 140-11-01-00505 or 140-11-01-00506 is required *Ask the manufacturer about different dimensions* 

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

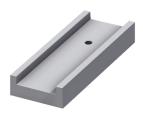
#### ▶ Inlet guide for 50 mm pipe



**Ref: 140-11-01-00505**Inlet guide for 50 mm pipe

Weight: 2,4 Kg

#### ▶ Inlet guide for 60 mm pipe



Ref: 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



Ref: 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



Ref: 140-11-01-00508

Inlet guide for 1" 1/2 inches pipe

Weight: 2,6 Kg

#### ▶ Inlet guide for 2" inches pipe

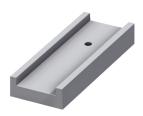


Ref: 140-11-01-00509

Inlet guide for 2" inches pipe

Weight: 2,4 Kg

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



Ref: 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.

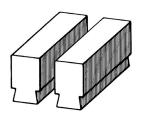
Reference	100-14-03-001
Engine power	5.5 KW / 7,5 HP
Nominal dropping weight	60Kg
Strokes per minute	220
Strokes max. Displacement	230 mm
Max. round working capacity	70 mm
Max. square working capacity	60x60 mm
Dimensions	900x1600x1600mm
Weight	1190 Kg







#### Reference 140-14-01-00001



**Dimensions** 

120x60 mm

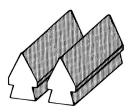
#### Reference 140-14-01-00003



**Dimensions** 

Ø 200 mm

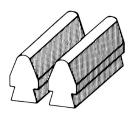
#### **Reference** 140-14-01-00005



**Dimensions** 

120x60 mm

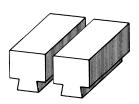
### Reference 140-14-01-00007



**Dimensions** 

120x60 mm

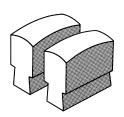
#### Reference 140-14-01-00002



**Dimensions** 

160x80 mm

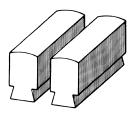
#### Reference 140-14-01-00004



**Dimensions** 

100x60 mm

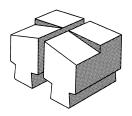
#### Reference 140-14-01-00006



**Dimensions** 

120x60 mm

#### Reference 140-14-01-00008

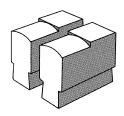


**Dimensions** 

130x100 mm



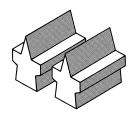
#### **Reference** 140-14-01-00009



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120x60 mm

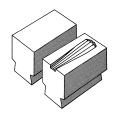
#### Reference 140-14-01-00011



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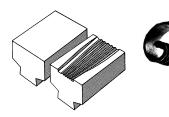
#### **Reference** 140-14-01-00013





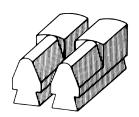
Dimensions	Capacity
120x60 mm	☑ 12 / Ø12 mm

#### Reference 140-14-01-00015



Dimensions	Capacity
130x80 mm	40x8 / 40x6 mm

#### Reference 140-14-01-00010

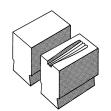




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120x60 mm

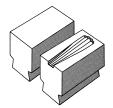
#### **Reference** 140-14-01-00012





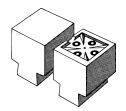
Dimensions	Capacity
100x60 mm	12x6 mm

#### Reference 140-14-01-00014





Dimensions	Capacity
120x80 mm	20x6 / 25x8 mm

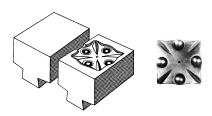




Dimensions	Capacity
80x80 mm	60x60 mm

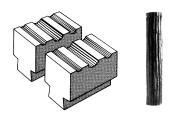


#### Reference 140-14-01-00017



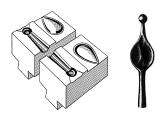
Dimensions	Capacity
100x100 mm	80x80 mm

#### Reference 140-14-01-00019



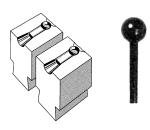
Dimensions	
130x80 mm	

#### Reference 140-14-01-00021



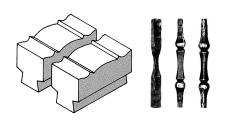
Dimensions	Capacity
120x70 mm	Ø14 mm

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



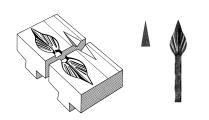
Dimensions	Capacity
70x60 mm	Ø16 mm

#### Reference 140-14-01-00018



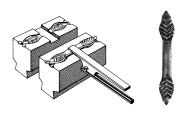
Dimensions
160x80 mm

#### Reference 140-14-01-00020

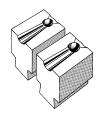


 Dimensions	Capacity
120x100 mm	12x12 mm

#### Reference 140-14-01-00022



Dimensions
135x60 mm

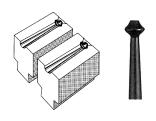




Dimensions	Capacity
70x60 mm	☑16 mm / Ø16 mm

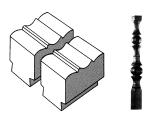


#### **Reference** 140-14-01-00025



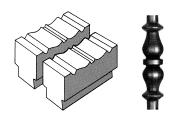
Dimensions	Capacity
70x60 mm	☑ 12 mm / Ø12 mm

#### Reference 140-14-01-00027



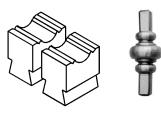
Dimensions
100x60 mm

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



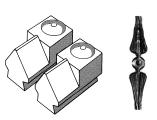
Dimensions	Capacity
160x80 mm	Ø40 mm

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



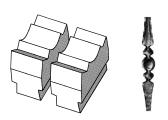
Dimensions	Capacity
100x60 mm	Ø40 mm

#### Reference 140-14-01-00026



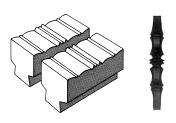
Dimensions	
120x60 mm	

#### Reference 140-14-01-00028

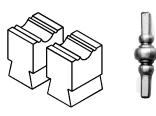


Dimensions
130x60 mm

#### **Reference** 140-14-01-00030



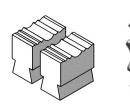
Dimensions	Capacity
160x80 mm	<b>⊠</b> 30 mm



Dimensions	Capacity
100x60 mm	Ø30 mm

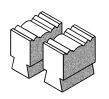


#### Reference 140-14-01-00033



Dimensions	Capacity
160x80 mm	<b></b>

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





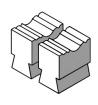
Dimensions	Capacity
180x80 mm	<b>☑</b> 30 mm

#### Reference 140-14-01-00037



Dimensions	
120x60 mm	

#### Reference 140-14-01-00034





Dimensions	Capacity
150x60 mm	Ø40 mm





Dimensions	Capacity
100x60 mm	



# Hydraulic press for locks

### ► 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 y 2mm
Lock entrance	Ajustable de 18 a 37mm
Dimensions	1500x570x1470mm
Weight	200 Kg





# Accessories for Hydraulic press for locks PI85

▶ 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	



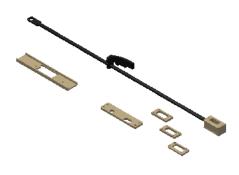
# Accessories for Hydraulic Press for locks PI85

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



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 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 straigthen and unbolting oxidated parts, set baerings...

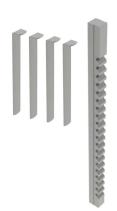
Reference	100-09-01-001
Motor power	2,2 KW / 3 CV
3-phased tensión	230 / 400 V
Hydraulic power	10 Tm
Working speed	24 mm/s
Return speed	54 mm/s
Pump Flow	7,5 L
Shank displacement	600 mm
Goosneck	300 mm
Maximum diameter of the piece	600 mm*
Bench dimensions	420x420 mm
Dimensions	750x1240x2400 mm
Weight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





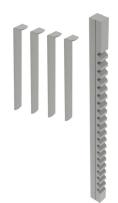
<sup>\*</sup> For different sizes, please ask the manufacturer





Broaching	time
5:00 min.	

Keyway broaches 25mm	REF: 125-09-01-BR-00017
Tolerance	JS9 (-0,027 +0,013)
Model	F
Broach dimensions	25,40 x 514,35mm
Standard keys	25 x 14mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	12.300lbs / 5.579,18Kg
Required shims/ Nr of passes	4 shims / 5 passes
Thickness	1,422mm
Bushing diameter	75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm
Bushing length	152,4mm
Weight	3,5 Kg. Approx.



Broaching time 5:00 min.

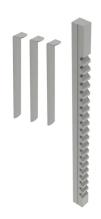
Keyway broaches 24mm	REF: 125-09-01-BR-00016
Tolerance	JS9 (-0,025 +0,015)
Model	F
Broach dimensions	25,40 x 514,35mm
Standard keys	24 x 14mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	10.600lbs / 4.808,07Kg
Required shims/ Nr of passes	5 shims / 6 passes
Thickness	1,587mm
Bushing diameter	75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm
Bushing length	152,4mm
Weight	3,5 Kg. Approx.



Broaching	time
5:00 min.	

Keyway broaches 22mm	REF: 125-09-01-BR-00015
Tolerance	JS9 (-0,027 +0,014)
Model	F
Broach dimensions	25,40 x 514,35mm
Standard keys	22 x 14mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	9.400lbs / 4.263,76Kg
Required shims/ Nr of passes	4 shims / 5 passes
Thickness	1,422mm
Bushing diameter	75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm
Bushing length	152,4mm
Weight	3,5 Kg. Approx.







Keyway broaches 20mm	REF: 125-09-01-BR-00014
Tolerance	JS9 (-0,026 +0,015)
Model	F
Broach dimensions	25,40 x 514,35mm
Standard keys	20 x 12mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	8.800lbs / 3.991,61Kg
Required shims/ Nr of passes	3 shims / 4 passes
Thickness	1,587mm
Bushing diameter	75, 80, 85, 90, 95, 100, 105, 110, 115 and 120mm
Bushing length	152,4mm
Weight	3,5 Kg. Approx.



Broaching time 3:40 min.

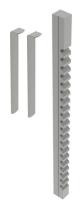
Brochas de 18mm	REF: 125-09-01-BR-00013
Tolerance	JS9 (-0,022 +0,013)
Model	E
Broach dimensions	19,05 x 393,7mm
Standard keys	18 x 11mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	10.600lbs / 4.808,07Kg
Required shims/ Nr of passes	3 shims / 4 passes
Thickness	1,422mm
Bushing diameter	52, 54, 55, 56, 58, 60, 62, 63, 64, 65, 66, 68, 70 and 72mm
Bushing length	127 and 152,4mm
Weight	1,5 Kg. Approx.



Broaching time 3:40 min.

Brochas de 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 and 72mm
Bushing length	127 and152,4mm
Weight	1,5 Kg. Approx.





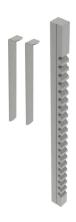


Keyway broaches 14mm	REF: 125-09-01-BR-00011
Tolerance	JS9 (-0,023 +0,013)
Model	D
Broach dimensions	14,28 x 352,42mm
Standard keys	14 x 9mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	11.100lbs / 5.034,87Kg
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	1,587mm
Bushing diameter	32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54 and 56mm
Bushing length	101,6 and 127mm
Weight	1 Kg. Approx.



Broaching time 2:30 min.

Keyway broaches 12mm	REF: 125-09-01-BR-00010
Tolerance	JS9 (-0,022 +0,014)
Model	D
Broach dimensions	14,28 x 352,42mm
Standard keys	12 x 8mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	8.400lbs / 3.810,17Kg
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	1,422mm
Bushing diameter	32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54 and 56mm
Bushing length	101,6 and 127mm
Weight	1 Kg. Approx.



d	Broaching	time
	2:30 min.	

Keyway broaches 10mm	REF: 125-09-01-BR-00009
Tolerance	JS9 (-0,018 +0,012)
Model	D
Broach dimensions	14,28 x 352,42mm
Standard keys	10 x 8mm
Min./Max. Cutting length	25,4mm / 152,4mm
Required pressure	6.500lbs / 2.948,35Kg
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	1,422mm
Bushing diameter	32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54 and 56mm
Bushing length	101,6 and 127mm
Weight	1 Kg. Approx.



5 x 5mm

1,193mm

63,5mm

## Accessories for the Broaching machine BM25



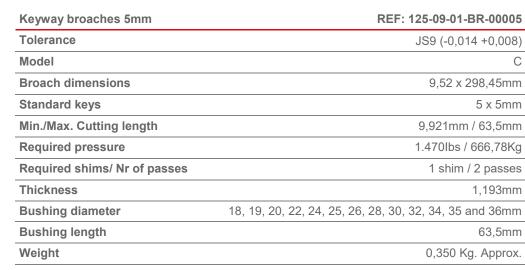
Broaching time 2:30 min.

Keyway broaches 8mm	REF: 125-09-01-BR-00008
Tolerance	JS9 (-0,017 +0,013)
Model	С
Broach dimensions	9,52 x 298,45mm
Standard keys	8 x 7mm
Min./Max. Cutting length	9,921mm / 63,5mm
Required pressure	3.680lbs / 1.669,22Kg
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	1,27mm
Bushing diameter	18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35 and 36mm
Bushing length	63,5mm
Weight	0,350 Kg. Approx.



Keyway broaches 6mm	REF: 125-09-01-BR-00006
Tolerance	JS9 (-0,016 +0,009)
Model	С
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
1:20 min	





Broaching time 1:20 min.





Broaching time 1:00 min.

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



Tiempo de brochado 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.



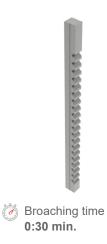
Tiempo de brochado 0:45 min.

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 and 15mm
Bushing length	28,575mm
Weight	0,020 Kg. Approx.



REF: 125-09-01-BRP-00019

## Accessories for the Broaching machine BM25

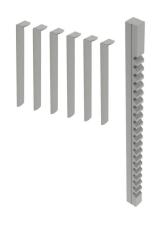


Keyway broaches 2mm	REF: 125-09-01-BR-00001
Tolerance	JS9 (-0,014 +0,009)
Model	А
Broach dimensions	3,175 x 127mm
Standard keys	2 x 2mm
Min./Max. Cutting length	5,159mm / 28,575mm
Required pressure	720lbs / 326,58Kg
Required shims/ Nr of passes	0 shims / 1 pass
Bushing diameter	6, 8, 10, 12 and 15mm
Bushing length	28,575mm
Weight	0,020 Kg. Approx.



Keyway broaches 1 inch	REF: 125-09-01-BRP-00020
Tolerance	JS9 (1,0015 · 1,0025)
Model	F
Broach dimensions	1 x 20 1/4 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	11.100lbs
Required shims/ Nr of passes	7 shims / 8 passes
Thickness	0,0625 inches
Bushing diameter	3 1/16, 3 1/8, 3 3/16, 3 1/4, 3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 9/16, 3 5/8, 3 11/16, 3 3/4, 3 13/16, 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.





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

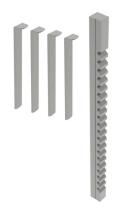
Broaching time 6:00 min.

Keyway broaches 7/8 inch





Broaching	time
5:00 min.	



Broaching time 4:00 min.



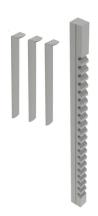
Broaching time 3:40 min.

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 pulgada / 6 inches
Required pressure	11.900lbs
Required shims/ Nr of passes	5 shims / 6 passes
Thickness	0,0625 inches
Bushing diameter	2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16, 3, 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, 3 15/16 and 4 inches
Bushing length	6 inches
Weight	1,500 Kg. Approx.

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
Bushing diameter	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, 3, 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, 3 15/16 and 4 inches
Bushing length	6 inches
Weight	1,500 Kg. Approx.

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.





(d)	Broaching	time
	3:00 min.	



Broaching time 3:00 min.



Broaching time 2:30 min.

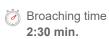
Keyway broaches 1/2 inch	REF: 125-09-01-BRP-00015
Tolerance	JS9 (0,5006 · 0,5016)
Model	D
Broach dimensions	9/16 x 13 7/8 inches
Min./Max. Cutting length	1 inch / 6 pulgadas
Required pressure	9.800lbs
Required shims/ Nr of passes	3 shims / 4 passes
Thickness	0,0625 inches
Bushing diameter	1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches
Bushing length	4 inches
Weight	1,00 Kg. Approx.

Keyway broaches 7/16 inch	REF: 125-09-01-BRP-00014
Tolerance	JS9 (0,4380 · 0,4390)
Model	D
Broach dimensions	9/16 x 13 7/8 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	9.400lbs
Required shims/ Nr of passes	3 shims / 4 passes
Thickness	0,0560 inches
Bushing diameter	1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches
Bushing length	4 inches
Weight	1,00 Kg. Approx.

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 5/16 inch	REF: 125-09-01-BRP-00012
Tolerance	JS9 (0,3127 · 0,3137)
Model	D
Broach dimensions	9/16 x 13 7/8 inches
Min./Max. Cutting length	1 inch / 6 inches
Required pressure	8.000lbs
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	0,0560 inches
Bushing diameter	1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16, 2 5/8, 2 11/16, 2 3/4, 2 13/16, 2 7/8, 2 15/16 and 3 inches
Bushing length	4 inches
Weight	1,00 Kg. Approx.



Broaching time 2:30 min.

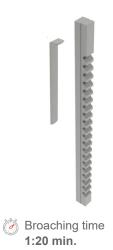
Keyway broaches 3/8 inch	REF: 125-09-01-BRP-00011
Tolerance	JS9 (0,3755 · 0,3765)
Model	С
Broach dimensions	3/8 x 11 3/4 inches
Min./Max. Cutting length	25/64 inch / 2 1/2 inches
Required pressure	4.340lbs
Required shims/ Nr of passes	2 shims / 3 passes
Thickness	0,0625 inches
Bushing diameter	3/4, 13/16, 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.	

Keyway broaches 5/16 inch	REF: 125-09-01-BRP-00010
Tolerance	JS9 (0,3127 · 0,3137)
Model	С
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 1/4 inch	REF: 125-09-01-BRP-00009
Tolerance	JS9 (0,2502 · 0,2512)
Model	С
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 3/16 inch	REF: 125-09-01-BRP-00008
Tolerance	JS9 (0,1877 · 0,1887)
Model	С
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.



°T	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 inch
Bushing length	1 11/16 inches
Weight	0,100 Kg. Approx.



REF: 125-09-01-BRP-00005

JS9 (0,1252 · 0,1262)

3/16 x 6 3/4 inches

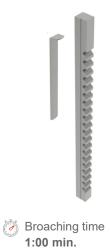
В

# Accessories for the Broaching machine BM25



Broaching time 1:00 min.

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.



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.

Keyway broaches 1/8 inch

**Broach dimensions** 

**Tolerance** 

Model



Keyway broaches 3/32 inch	REF: 125-09-01-BRP-00004
Tolerance	JS9 (0,0938 · 0,0948)
Model	В
Broach dimensions	3/16 x 6 3/4 inches
Min./Max. Cutting length	19/64 inch / 1 11/16 inches
Required pressure	930lbs
Required shims/ Nr of passes	0 shims / 1 pass
Bushing diameter	1/2, 9/16, 5/8, 11/16, 3/4, 13/16 and 7/8 inch
Bushing length	1 11/16 inches
Weight	0,100 Kg. Approx.

Broaching	time
0:40 min.	





Keyway broaches 1/8 inch	REF: 125-09-01-BRP-00003
Tolerance	JS9 (0,1252 · 0,1262)
Model	Α
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 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 inch
Bushing length	1 1/8 inches
Weight	0,020 Kg. Approx.



1	Broaching	time
	0:30 min.	

Keyway broaches 1/16 inch	REF: 125-09-01-BRP-00001
Tolerance	JS9 (0,0625 · 0,0635)
Model	A
Broach dimensions	1/8 x 5 inches
Min./Max. Cutting length	13/64 inch / 1 1/8 inches
Required pressure	390lbs
Required shims/ Nr of passes	0 shims / 1 pass
Bushing diameter	1/4, 5/16, 3/8, 7/16 and 1/2 inch
Bushing length	1 1/8 inches
Weight	0,020 Kg. Approx.



# Accessories for the Broaching machine BM25

# ▶ 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	J9	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	С	18 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00009	С	19 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00010	С	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	С	25 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00014	С	28 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00015	С	30 mm	65 mm	J9	5 - 6 - 8 mm
125-09-01-CBR-00016	D	32 mm	102 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00017	D	35 mm	102 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00018	D	38 mm	102 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00020	D	40 mm	102 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00021	D	42 mm	102 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00022	D	45 mm	127 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00023	D	48 mm	127 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00024	D	50 mm	127 mm	J9	10 - 12 - 14 mm
125-09-01-CBR-00025	E	55 mm	127 mm	J9	16 - 18 mm
125-09-01-CBR-00026	E	60 mm	154 mm	J9	16 - 18 mm
125-09-01-CBR-00027	E	65 mm	154 mm	J9	16 - 18 mm
125-09-01-CBR-00028	F	70 mm	154 mm	J9	20 - 22 - 24 - 25 mn
125-09-01-CBR-00029	F	75 mm	154 mm	J9	20 - 22 - 24 - 25 mn
125-09-01-CBR-00030	F	80 mm	154 mm	J9	20 - 22 - 24 - 25 mn
125-09-01-CBR-00031	F	85 mm	154 mm	J9	20 - 22 - 24 - 25 mn
125-09-01-CBR-00032	F	90 mm	154 mm	J9	20 - 22 - 24 - 25 mn
125-09-01-CBR-00033	F	95 mm	154 mm		20 - 22 - 24 - 25 mn



## 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...

- **NEW Control Panel**: Very intuitive and easy to handle, with the latest 4.0 technology and a more comfortable and accurate regulation
- · The new ECO mode of our latest products saves energy and contributes to the conservation of the environment.

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

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

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

Reference	100-16-01-001
Engine power	2,2 KW / 3 HP a 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









▶ 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, etc... For other shapes or capacities, request the manufacturer.

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est	

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

## ▶ Ring forming



Reference: 140-16-01-00003

Die to form rings or English banister railing, used as ornamental piece in forging railings, gates, fences, etc... for bars bonding. For other sizes and applications consult the manufacturer



Max. width	Thickness	Outer sizes	Weight
50 mm	6 mm	90 mm	9.3 Kg



## ▶ Baluster forming die 04



Reference: 140-16-01-00004

Die to form cold forging balusters for grills, gates, fences, handrails, etc... For other shapes or capacities, request the manufacturer.



Square sizes	Die length	Weight
5, 6, 8, 10,12, 14, 16, 18 mm	600 mm	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.



Maximum bar capacity	Maximum pipe capacity	Minimum diameter	Maximum diameter	Weight
40 mm or 1 1/2"	80x80 mm or 3"	300 mm	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, etc... For other shapes or capacities, request the manufacturer.

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

### ▶ Baluster forming die 09



Reference: 140-16-01-00009

Die to form cold forging balusters for grills, gates, fences, handrails, etc... For other shapes or capacities, request the manufacturer.

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1

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



## ▶ 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.



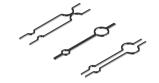
Flat bar size	Die length	Weight
12 mm	1165 mm	50 Kg

### ▶ Baluster forming die 11



#### Reference: 140-16-01-00011

Die to form cold forging balusters for grills, gates, fences, handrails, etc... For other shapes or capacities, request the manufacturer.



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

### ► 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	18 Kg

## ▶ Flat bar cutting tooling 100x10 mm. PP200



#### 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
100 mm	10 mm	23 Kg



## ▶ 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

#### PP200 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.



## PP200 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:

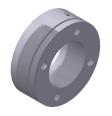


ØA max.	ØB min.	C max.	Reference	Description
16mm	10mm	76mm	140-16-01-RE16-10	Tube Reducer Clamp 16-10 Length Max. 76mm
19mm	13mm	76mm	140-16-01-RE19-13	Tube Reducer Clamp 19-13 Length Max. 76mm
22mm	16mm	76mm	140-16-01-RE22-16	Tube Reducer Clamp 22-16 Length Max. 76mm
25mm	19mm	76mm	140-16-01-RE25-19	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-RE31-25	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 PP200CNC



#### 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 120 mm	72 Kg

#### ▶ Baluster forming die 20



#### Reference: 140-16-01-00020

Die to form cold forging balusters for grills, gates, fences, handrails, etc... For other shapes or capacities, request the manufacturer.



Square sizes	Circumference size	Weight
12x12 mm	90 mm	11 Kg

#### ▶ Punching die



### Reference: 140-16-01-00022

Punch-holder die, compatible with our Nargesa brand

punches.

Gooseneck: 54 mm

Free distance of tooling: 95 mm



	Round	Square	Rectangular	Oval	Weight
Max. Punching capacity	43 mm	35 mm	20x34 mm	21x40 mm	52 Kg

## ▶ Promecam punch holder PP200CNC



#### 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
150 mm	14 Kg



## ► 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



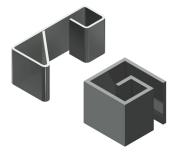
Folding Punch D40 80° REF: 140-16-01-00026 Max. Folding length: 60mm Punch degrees: 80°

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
25x5 mm	9 Kg



## ► Forming die adaptor



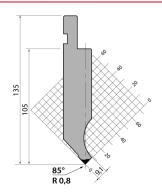
#### Reference: 140-16-01-00029

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

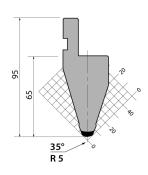


Reference: 140-16-01-00030 Folding length: 161 mm

Weight: 3,2 Kg



### ▶ Punch Promecam P.95.35.R5

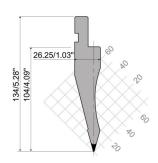


Reference: 140-16-01-00031 Folding length: 161 mm

Weight: 2,3 Kg



#### ▶ Punch Promecam PS.134.30.R08



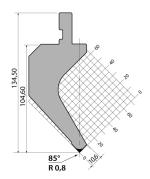
Reference: 140-16-01-00032
Folding length: 161 mm

Weight: 2,7 Kg





#### ▶ Punch Promecam PK.135.85.R08



Reference: 140-16-01-00038 Folding length: 161 mm

Weight: 4,4 Kg



#### ▶ Dies to fold thick metal sheet PP200CNC

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.

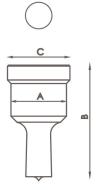






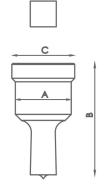
## ▶ Punches and dies

# ► Standard round punches



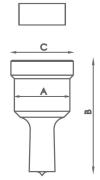
Туре	Available sizes in mm Ø	Α	В	C
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8/8'5 9mm up to 28mm from 0'5 in 0'5mm	28 mm	58 mm	31,5 mm
N40	29/30/31/32/33/34/35/36/37/38/39/40mm	40 mm	64 mm	43,5 mm
N50	41/42/43mm	50 mm	58 mm	54 mm

# ► Standard square punches



Туре	Available sizes in mm Ø	Α	В	С	
N28	4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm	28 mm	58 mm	31,5 mm	
N40	21/22/24/26/28mm	40 mm	64 mm	43,5 mm	
N50	31/33/35mm	50 mm	58 mm	54 mm	
For different sizes, please ask the manufacturer					

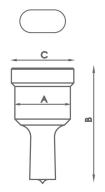
# ► Standard rectangular punches



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

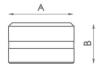


# ▶ Standard oval punches



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

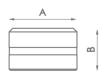
## ► Standard round dies





Гуре	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 9mm hasta 28mm from 0,5 in 0,5mm	46 mm	28,5 mn
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 mn

# ▶ Standard square dies

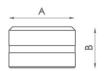




Туре	Available sizes in mm	Α	В
N46	4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm	46 mm	28,5 mm
N60	21/22/24/26/28mm	60 mm	32 mm
N78	31/33/35mm	78 mm	28,5 mm



# ▶ Standard rectangular dies

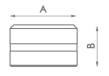


уре	Available sizes in mm	Α	В
N46	7x10/7x15/9x13/9x19/11x17/11x23/13x19/13x25/ 15x21mm	46 mm	28,5 mm
N60	15x27/17x25/19x30/20x34mm	60 mm	32 mm



For different sizes, please ask the manufacturers.

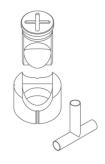
## ► Oval dies



Type	Available sizes in mm	Α	В
N46	7x10/7x15/7x20/9x13/9x19/11x17/11x23/13x18/13x22/13x27 15x20/15x24/15x27/17x22/17x26/19x26/21x27mm	46 mm	28,5 mm
N60	13x31/15x31/17x31/17x40/19x31/19x40/21x31/21x40mm	60 mm	32 mm
For differe	ent sizes please ask the manufacturer		



# ► Tube notching tooling



Refference	Available sizes in mm	Require	d fitting
MAN28	Tube from 16 to 28mm	TAP 28	CAB 46
MAN40	Tube from 28,5 to 40mm	TAP 40	CAB 60
MAN50	Tube from 40,5 to 50mm	TAP 50	CAB 78
For different sizes please ask the manufacturer			



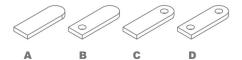
## ▶ Flat bar round end tooling R1







Refference	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.

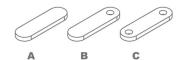
## ▶ Flat bar round end tooling R2







Refference	Model	Width size	Required fitting
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 with ATAP
MOR2-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR2-50C	С	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 (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







Refference	Available sizes in mm	Require	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				

# ► Fitting nuts for punches



Refference	Туре	Fitting nuts for punches
120-02-01-00011	TAP28	Fitting nuts for punches N28
140-02-01-00019	TAP40	Fitting nuts for punches N40
140-02-01-00020	TAP50	Fitting nuts for punches N50
140-02-01-00021	TAP60	Fitting nuts for punches N60

# ► Fitting for dies



CAB

Refference	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





Refference	Туре	Fitting nuts for punches
120-02-01-00011	TAP28	Fitting nuts for punches N28 Standard
140-02-01-00019	TAP40	Fitting nuts for punches N40
140-02-01-00020	TAP50	Fitting nuts for punches N50
140-02-01-00021	TAP60	Fitting nuts for punches N60
125-02-01-00002	ATAP	Fitting part for TAP60

# ▶ Fitting parts for dies MX340

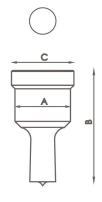




PORTABASES

Refference	Туре	Fitting for dies
120-02-01-00012	N46	Fitting for dies N46 Standard
140-02-01-00024	N60	Fitting for dies N60
140-02-01-00025	N78	Fitting for dies N78
140-02-01-00037	N100	Base holder for dies N100
140-02-01-00038	N125	Base holder for dies N125

# ▶ Standard round punches MX340

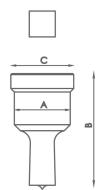


Туре	Available sizes in mm Ø	Α	В	С
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8/8'5 9mm up to 28mm from 0'5 in 0'5mm	28 mm	58 mm	31,5 mm
N40	29/30/31/32/33/34/35/36/37/38/39/40mm	40 mm	64 mm	43,5 mm
N50	41/42/43/44/45/46/47/48/49/50mm	50 mm	58 mm	54 mm
N60	52/54/56/58/60mm	60 mm	58 mm	64 mm
N75	62/64/66/68/70/72/74mm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

For different sizes, please ask the manufacturer.

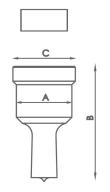


# ▶ Standard square punches MX340



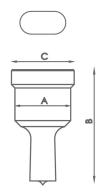
Туре	Available sizes in mm Ø	Α	В	С
N28	4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm	28 mm	58 mm	31,5 mm
N40	21/22/24/26/28mm	40 mm	64 mm	43,5 mm
N50	31/33/35mm	50 mm	58 mm	54 mm
N75	40/44/48/53mm	75 mm	58 mm	79 mm
N100	58/64/70mm	100 mm	58 mm	104 mm
For differe	ent sizes, please ask the manufacturer.			

# ▶ Standard rectangular punches MX340



Туре	Available sizes in mm Ø	Α	В	С
N28	7x10/7x15/9x13/9x19/11x17/11x23 13x19/15x21mm	28 mm	58 mm	31,5 mm
N40	13x25/15x27/17x25/19x30/20x34mm	40 mm	64 mm	43,5 mm
N50	25x43mm	50 mm	58 mm	54 mm
N75	25x70mm	75 mm	58 mm	79 mm
N100	25x96mm	100 mm	58 mm	104 mm
For different	sizes please ask the manufacturer			

## ▶ Standard oval punches MX340



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



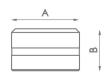
# ▶ Standard round dies MX340





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 9mm up to 28mm from 0,5 in 0,5mm	46 mm	28,5 mm
N60	29/30/31/32/33/34/35/36/37/38/39/40mm	60 mm	32 mm
N78	41/42/43/44/45/46/47/48/49/50mm	78 mm	28,5 mm
N100	52/54/56/58/60/62/64/66/68/70/72/74mm	100 mm	28,5 mm
N125	76/78/80/82/84/86/88/90/92/94/96/98/100mm	125 mm	28,5 mm

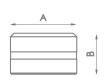
# ▶ Standard square dies MX340





Гуре	Available sizes in mm	Α	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
N100	40/44/48/53mm	100 mm	28,5 mm
N125	58/64/70mm	125 mm	28,5 mm

# ▶ Standard rectangular dies MX340

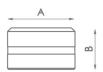




Туре	Available sizes in mm	Α	В
N46	7x10/7x15/9x13/9x19/11x17/11x23/13x19/13x25/ 15x21mm	46 mm	28,5 mm
N60	15x27/17x25/19x30/20x34mm	60 mm	32 mm
N78	25x43mm	78 mm	28,5 mm
N100	25x70mm	100 mm	28,5 mm
N125	25x96mm	125 mm	28,5 mm



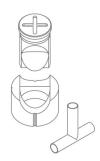
## ▶ Oval dies MX340







# ► Tube notching tooling MX340



TAP 28	CAB 46
TAP 40	CAR 60
	CAD 00
TAP 50	CAB 78
TAP 60	
-	TAP 60

## ► Corner rounding tooling MX340



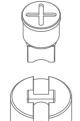




Refference	Available sizes in mm	Require	d fitting
MRE28	Radius from 3 to 15mm	TAP 28	CAB 46
MRE40	Radius from 16 to 26mm	TAP 40	CAB 60
MRE50	Radius from 26,5 to 32mm	TAP 50	CAB 78

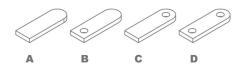


## ▶ Flat bar round end tooling R1





Refference	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  $% \left( 1\right) =\left( 1\right) \left( 1\right) =\left( 1\right) \left( 1\right$ 

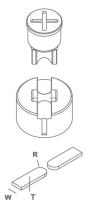
R (radius), W (flat bar width), T (flat bar thickness)

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

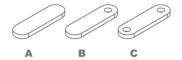
The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

## ► Flat bar round end tooling R2



Refference	Model	Width size	Required fitting
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 with ATAP
MOR2-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR2-50C	С	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 (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.



## ► Angle cutting tooling. MX340



Reference: 140-02-01-00001

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



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

## ► Flat bar cutting tooling. MX340



Reference: 140-02-01-00002

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

10mm thickness.



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

## ► Folding tooling 170mm. MX340



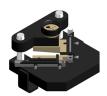
Reference: 140-02-01-00004

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



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

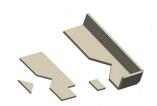
# ► Stripping tooling to 90° adjustable 100x100 MX340



Reference: 140-02-01-00005

Stripping tooling for angle etc. Adjustable up to

100x100mm to 90° fijos.



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



## ► Arrow tooling for metal sheet MX340



#### Reference: 140-02-01-00006

Tooling for punching metal sheet in arrow shapes for

fences



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

#### ► Arrow tooling for pipes MX340



#### Reference: 140-02-01-00007

Tooling to flatten and cut arrow shaped pipes end.

Suitable for different diameters.



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

## ▶ Ventilation grip tooling. MX340



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

Tooling to make ventilation grips in metal sheet.

Adjustable amount of punchings. They are to made one

by one.



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

## ► Angle & U profile punching tooling MX340



### Reference: 140-02-01-00031

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



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



## ▶ Round bar cutting tooling. MX340



Reference: 140-02-01-00035

Tooling for cutting round barfrom 3mm up to 35mm.



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

## ▶ Locks punch and die MX340



Reference: 140-02-01-00036

Set for making the lock hole in metal sheet.

Necessary complements: CAB60 and TAP40



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

## ► Flattening tooling MX340



Reference: 140-02-01-00039

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



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

## ▶ Fence post end tooling MX340



Reference: 140-02-01-00040

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



Parts per tooling	Max. Pipe diameter	Min. Pipe diemeter	Hole diameter	Weight
2	50mm	10mm	Intercambiable	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.

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





## ▶ Fitting nuts for punches MX700



TAP



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

# ▶ Fitting parts for dies MX700



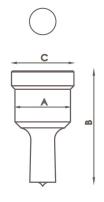
CAB



**CAB N125** 

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

# ▶ Standard round punches MX700

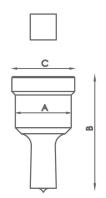


Туре	Available sizes in mm Ø	Α	В	С
N28	3/3'5/4/4'5/5/5'5/6/6'5/7/7'5/8/8'5 9mm up to 28mm from 0'5 in 0'5mm	28 mm	58 mm	31,5 mm
N40	29/30/31/32/33/34/35/36/37/38/39/40mm	40 mm	64 mm	43,5 mm
N50	41/42/43/44/45/46/47/48/49/50mm	50 mm	58 mm	54 mm
N60	52/54/56/58/60mm	60 mm	58 mm	64 mm
N75	62/64/66/68/70/72/74mm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

For different sizes, please ask the manufacturer.

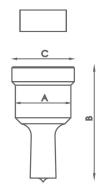


# ▶ Standard square punches MX700



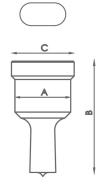
Туре	Available sizes in mm Ø	Α	В	С
N28	4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20mm	28 mm	58 mm	31,5 mm
N40	21/22/24/26/28mm	40 mm	64 mm	43,5 mm
N50	31/33/35mm	50 mm	58 mm	54 mm
N75	40/44/48/53mm	75 mm	58 mm	79 mm
N100	58/64/70mm	100 mm	58 mm	104 mm

# ▶ Standard rectangular punches MX700



Туре	Available sizes in mm Ø	Α	В	С
N28	7x10/7x15/9x13/9x19/11x17/11x23 13x19/15x21mm	28 mm	58 mm	31,5 mm
N40	13x25/15x27/17x25/19x30/20x34mm	40 mm	64 mm	43,5 mm
N50	25x43mm	50 mm	58 mm	54 mm
N75	25x70mm	75 mm	58 mm	79 mm
N100	25x96mm	100 mm	58 mm	104 mm
For different	sizes, please ask the manufacturer.			

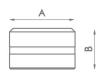
# ▶ Standard oval punches MX700



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



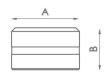
# ▶ Standard round dies MX700





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 9mm up to 28mm from 0,5 in 0,5mm	46 mm	28,5 mm
N60	29/30/31/32/33/34/35/36/37/38/39/40mm	60 mm	32 mm
N78	41/42/43/44/45/46/47/48/49/50mm	78 mm	28,5 mm
N100	52/54/56/58/60/62/64/66/68/70/72/74mm	100 mm	28,5 mm
N125	76/78/80/82/84/86/88/90/92/94/96/98/100mm	125 mm	28,5 mm

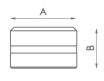
# ▶ Standard square dies MX700





Туре	Available sizes in mm	Α	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
N100	40/44/48/53mm	100 mm	28,5 mm
N125	58/64/70mm	125 mm	28,5 mm

# ▶ Standard rectangular dies MX700

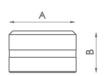




Гуре	Available sizes in mm	Α	В
N46	7x10/7x15/9x13/9x19/11x17/11x23/13x19/13x25/ 15x21mm	46 mm	28,5 mm
N60	15x27/17x25/19x30/20x34mm	60 mm	32 mm
N78	25x43mm	78 mm	28,5 mm
N100	25x70mm	100 mm	28,5 mm
N125	25x96mm	125 mm	28,5 mm

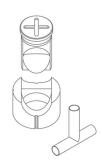


## ▶ Oval dies MX700



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

# ► Tube notching tooling MX700



Refference	Available sizes in mm	Require	ed 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	CAB 85
For different sizes, please ask the manufacturers.			

# ► Corner rounding tooling MX700







Refference	Available sizes in mm	Require	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 manufacturers.				



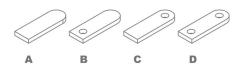
## ▶ Flat bar round end tooling R1







Refference	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.

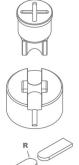
When placing order it must be specified the REFFERENCE, MODEL,

R (radius), W (flat bar width), T (flat bar thickness)

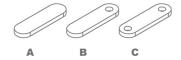
In models B, C and D specify diemeter of the hole. The ear shaped legth is always adjustable.

Production capacity: 450 to 600 parts per hour.

## ► Flat bar round end tooling R2



Refference	Model	Width size	Required fitting
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 with ATAP
MOR2-50B	В	From 40 to 50mm	TAP50 / TAP60 with ATAP
MOR2-50C	С	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 (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	Punching size	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

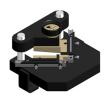
sheet.

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, etc...Adjustable

up to 150x150mm to 90° fixed.



Units per machine	Max. Cutting capacity	Weight
1	150x150x8	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.



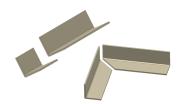
Units per machine	Max. Folding Length	Max. Folding Thickness	Weight
1	170mm	8 to 12mm	13 Kg

#### ► Angle cutting tooling. MX700



### Reference: 140-02-02-00036

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



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

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



#### Reference: 140-02-02-00037

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



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



## ▶ Round bar cutting tooling MX700



Reference: 140-02-02-00038

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



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

## ► Fence post end tooling MX700



Reference: 140-02-02-00039

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



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

# ► Arrow tooling for pipes MX700



Reference: 140-02-02-00040

Tooling for flattening and cutting pipes in arrow shapes. Suitable for different diameters.



Units per machine	Max. Pipe Diameter	Min. Pipoe 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.

^^
2,2,7

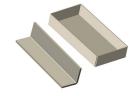
Pieces per tooling	Bar or flat bar max. thickness	Weight
1	15mm	15 Kg

# ► 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 permits 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/mm <sup>2</sup> )
Cutting capacity: stailess steel	4 mm (700N/mm <sup>2</sup> )
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



#### ► Hydrauilic shears C3006CNC

NEW vertical cut shears C3006CNC Nargesa, from the latest generation, are made with stabilized and welded steel which permits 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/mm <sup>2</sup> )
Cutting capacity: stailess steel	4 mm (700N/mm <sup>2</sup> )
N° of hammers	15 units
Cutting length	3030 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







#### 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

#### ▶ 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.

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





#### ► 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
Back gauge engine power	0,75 KW / 1 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







#### R axis

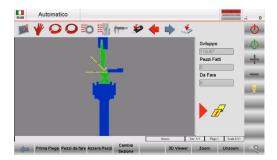
The R Axis is not supplied as standard with the machine; the client may include it when purchasing the machine or add it later. This Axis has a Canopen communication system that enables it to be installed in a rapid and simple manner to the machine. The operator needs only to connect it to the motor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



Reference	140-05-OP-00001
High speed measurement search	130 mm/seg
Servo motor	1 Nm a 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.



40-05-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.



Reference	140-05-OP-00004
High search speed of size	400 mm/seg
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
Mechanical precision	0,05 mm

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

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

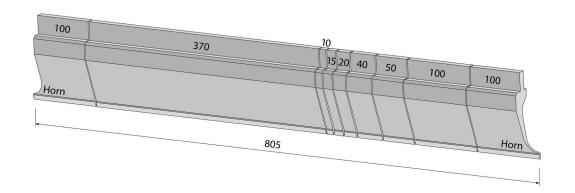


#### ► Punches

All accessories for Nargesa Pres Brakes are manufactured according to international standards. Therefore, guaranteeing high resilience and tensile strength.

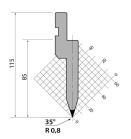
For different sizes, please ask the manufacturer.

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



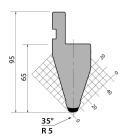
805 mm segmented

# PU.85.35.R08



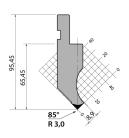
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## P.95.35.R5



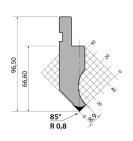
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### PK.95.85.R3



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

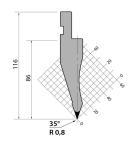
#### P.97.85.R08



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

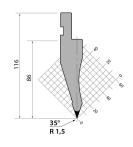


## P.116.35.R08



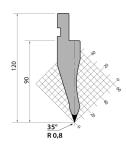
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## P.116.35.R15



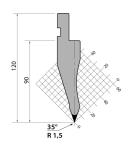
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# P.120.35.R08



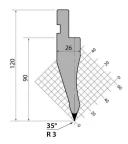
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# P.120.35.R15



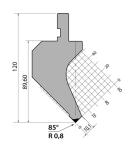
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# P.120.35.R3



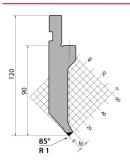
Leng	th
835 m	nm.
415 m	nm.
795 m	nm. Seg.
805 m	nm. Seg.

# PK.120.85.R08



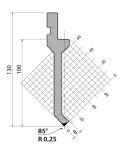
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## P.120.85.R1



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

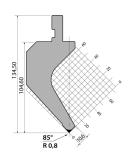
## P.130.85.R025



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

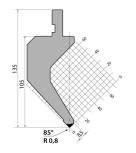


# PK.135.85.R08



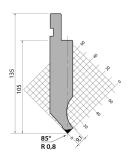
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# P.135.85.R08



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

# PS.135.85.R08



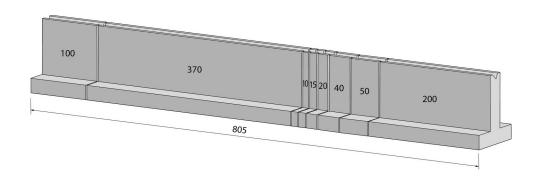
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.



#### ▶ Dies

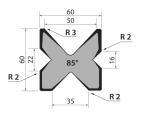
For different sizes, please ask the manufacturer.

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



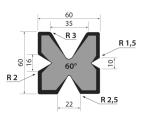
805 mm segmented

# M.460.R



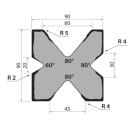
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Sea	

# M.460.60



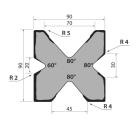
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# M.490



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

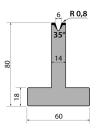
# M.490.70



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

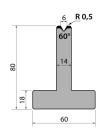


## T80.06.35



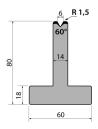
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## T80.06.60



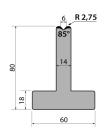
1 41.	
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# TR80.06.60



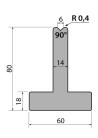
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# T80.06.85



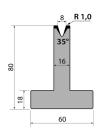
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# T80.06.90



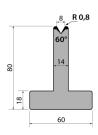
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.
900 mm.

# T80.08.35



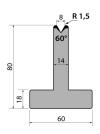
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

### T80.08.60



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

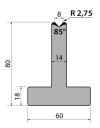
### TR80.08.60



L	ength
83	35 mm.
4	15 mm.
79	95 mm. Seg.
80	05 mm. Seg.

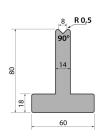


## T80.08.85



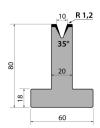
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg

## T80.08.90



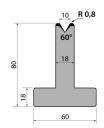
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	
900 mm.	

## T80.10.35



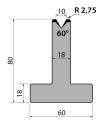
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# T80.10.60



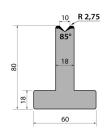
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### TR80.10.60



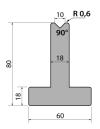
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## T80.10.85



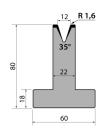
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

### T80.10.90



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

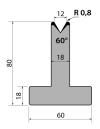
### T80.12.35



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

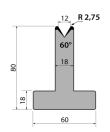


# T80.12.60



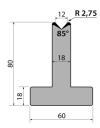
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg

# TR80.12.60



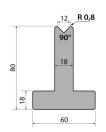
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### T80.12.85



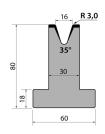
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## T80.12.90



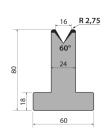
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### T80.16.35



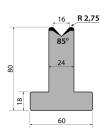
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

### T80.16.60



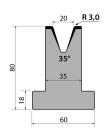
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## T80.16.85



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

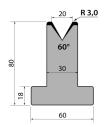
# T80.20.35



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

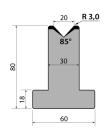


## T80.20.60



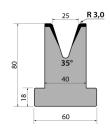
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

## T80.20.85



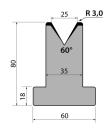
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

#### T80.25.35



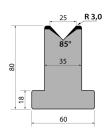
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# T80.25.60



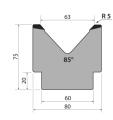
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

#### T80.25.85



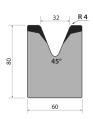
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

### M75.85.63

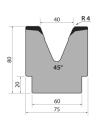


Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

### M80.45.32



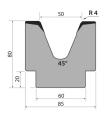
### M80.45.40



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

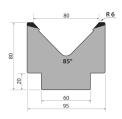


# M80.45.50



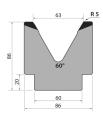
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

## M80.85.80



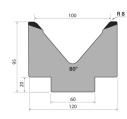
Length
835 mm.
415 mm.
795 mm. Seg.
805 mm. Seg.

# M86.60.63



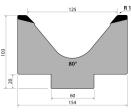
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# M95.80.100



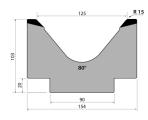
Length	
835 mm.	
415 mm.	
795 mm. Seg.	
805 mm. Seg.	

# MK103.80.125



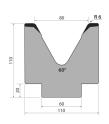
15	Length
	835 mm.
	415 mm.
	795 mm. Seg.
	805 mm. Seg.

# M103.80.125



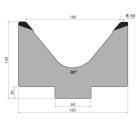
Length	
835 mm.	
415 mm.	
795 mm.	Seg.
805 mm.	Seg.

# M110.60.80



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

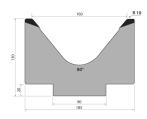
# MK130.80.160



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



## M130.80.160



١.	10	~	4h	
Lе	п	u	un	

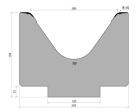
835 mm.

415 mm.

795 mm. Seg.

805 mm. Seg.

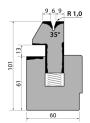
## M195.70.200



#### Length

415 mm.

# S101.35.06

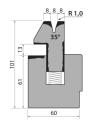


#### Length

835 mm.

415 mm.

# S101.35.08

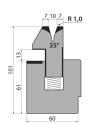


#### Length

835 mm.

415 mm.

# S101.35.10

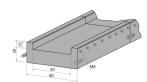


#### Length

835 mm.

415 mm.

# Dies holder C1050/RS



#### 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

\* Recommended for Nargesa Press Brakes

Weight: 20 Kg

## ▶ 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 viscosity level improver.

Container: 20L
Weight: 20 Kg









#### PRADA NARGESA, S.L.