

# SECTION BENDING MACHINES

# **MC650**





#### HOW IT WORKS VIDEO Video on how the machine works



#### GET A QUOTE

Please complete the following form. We'll contact you in less than 24 hours. *Business days* 

#### SOME OF OUR CUSTOMERS

Our customer's endorsement is our best business card





NISSA









Some of the certificates that support our processes and benefit our customers



R&D&I MANAGEMENT

UNE 166002







# TECHNICAL FEATURES



The Nargesa MC650 pipe and profile bender is ideal for manufacturing clamps, greenhouses, large construction structures, railings and all types of circular figures in different small and large profiles and pipes.

> Especially designed for mass production through the Control which records the position of the rollers in each bend to repeat the same operations afterwards. No longitudinal positioning control.

> Maximum bend capacity on a round pipe: 4" inches or 101.6 mm.

> Three-drag roller, ideal and essential for bending round pipes and different profiles without damaging the surface.

> Safe transmission between tempered planetary pinions by induction.

- > Tempered and rectified F-154 steel axles.
- > Electrohydraulic drive system.
- > Diameter of the lower axles: 65 mm.
- > Diameter of the upper axle: 80 mm.
- >Net length of the axles: 130 mm.
- > Outer roller diameter: 202 mm.

> Bend regulation independent of the lower rollers which allows much smaller bends in diameter and takes better advantage of the material than pyramidal bending machines.

> Electronically-controlled asymmetric roller position.

- > ESA S625 panel comes with the machine.
- > Main motor: 3 KW/4 CV.
- > Hydraulic motor unit: 0.75 KW/1 CV.
- > 3-phase voltage: 230/400 V.
- > Adjustable roller speed: from 3 to 8 RPM.

\* All our products are made at our facilities in Spain. The hydraulic and electronic components are completely standard and from the best leading European brands with technical assistance services throughout the world: Rexroth, Bosch, Roquet, Schneider Electric, LG, Telemecanique, Pizzato...



# WHAT YOU SHOULD DO BEFORE PURCHASING A PIPE AND PROFILE BENDER



#### 4.0 Technology

The advantages of having this technology in a machine are endless, so we're only going to mention the most relevant. Whenever a customer agrees, the manufacturer may remotely connect to their machine to do any software updates completely free of cost and detect any anomalies in the machine without needing to travel to the machine site. Customers are notified when preventive maintenance must be done on the machine along with many other advantageous features.



#### All-new EcoMode

We are well aware of the importance of saving energy nowadays. This is why our new machinery features an **EcoMode** which automatically disconnects the electric parts consuming the most energy if it detects any period of inactivity. Just press the movement button to restart production.

We believe this feature is of vital importance to our customers for their savings as well as for the sustainability of the planet. After all, we're a company that's highly committed to the environment.



#### Robustness

The weight of the machine in comparison to other brands provides an idea of how it's built. Some models can double the others in weight. These are not DIY machines; they're pipe benders that can work 24 hours a day. Made of steel sheet, which is tempered in areas subject to wear, and activated with a pinion planetary gear system. We do not use chains or other weak devices that could affect how the machine operates in the future.



#### Vertical and horizontal position

It is important to note that when purchasing a bending machine, you need to be able to position it horizontally as well as vertically. If the piece to be manufactured has diameters less than 1500 mm, working in a vertical position is recommended. On the contrary, when the bend diameters are increased above this level, work should be done in a horizontal position. Due to the proper support, this prevents the weight of the piece from affecting the end results. Bending is also done in a horizontal position to overcome clearance issues at the customer's facilities. The MC650 bending machine can be operated in both positions (vertical and horizontal) which proves its great versatility.



# An electronically-controlled asymmetric roller position.

Asymmetric bending machines offer certain advantages over pyramidal bending machines. The lower axles rise and drop in a kidney-shaped movement. This means the distances between centers are variable which saves materials and, as a result, provides for optimal use of the profile or pipe which can be bent almost to the end. Another advantage is that bends can be made with much smaller radiuses than with pyramidal bending machines as the rollers can be practically moved together.



#### **3 power rollers**

The 3-roller drag system makes the work easier, mainly when bending round or square pipes. This prevents possible marks on the material which is a significant improvement over 2-power axle bending machines which feature lower layer-cut rollers for good traction. All bending work is done faster with a 3-power axle bender.



#### Side hardeners

The side hardeners on the MC650 model can correct profile bends in up to 6 different planes: forward, backward, upward, downward, in a left rotation and in a right rotation over the same axis. Likewise, the hardeners can be adjusted to force the profile to create a spiral. It also features a rotary device that's essential to being able to bend the angle or establish the radius resulting from the mechanically-formed piece.



# Rotation speed and programmable axle adjustment

In most cases, the production speed can be increased when the profile to be bent is small and the machine is programmed to do so. When the profile used is larger, you can also reduce the operating speed to adjust it appropriately for a proper bend. Likewise, the bend adjustment speed can be programmed on the first piece or only piece, facilitating and streamlining the most complex bending work. Unlike other brands, the Nargesa MC650 comes standard with this speed variator for roller rotation and position adjustment. Times are changing very quickly and technology too. The most common dilemma is not buying a bending machine to do a single job but rather **finding the right operator to work with it.** 

That's why at Nargesa months ago we began designing and programming controls that are very easy to use and incredibly intuitive.



The result is that, unlike others, the bending process is so easy that no professional bender is required to do quick and precise bending. Plus, productivity has increased and the same work and even very similar bends can be easily repeated in the future.

For this purpose, it has a complete profile library and extensive editable database with pre-defined radiuses.

If that were not enough, it has a useful tool that allows you to graphically position the rollers on screen as one of the other many advantages offered by the all-new MC650 bending machine control and management touchscreen.

Many months have gone into testing, programming and fine-tuning to achieve the perfect "assistant" for present and future generations of operators.



#### Visual roller position indication

The bending machine has a visual roller position indicator for each axle, which graphically shows which rollers have been installed, their direction and arrangement for a certain piece. The ultimate objective is to achieve exceptional production repetitiveness to save time and reduce errors with programming as the arrangement of the bending machine rollers can be known even months after their creation.



#### **Profile library**

The bending machine has an extensive library with all the profiles our machine can bend. Likewise, the dimensions and thicknesses can be defined in order to know what type of material was used to do the work upon later production.



#### A list of pre-defined radiuses

With the idea in mind of maximum savings for our customers, a sample bar based on the work to be done can be created. By bending said bar, an unequivocal ratio between the real roller position and radius achieved is entered into the bending machine database. This allows operators to know beforehand where the rollers must be positioned in order to make known radiuses or extrapolate the data to create new radiuses based on positions already known. Moreover, any radius will soon be possible without trial and error if new values can be entered as the work is done. In other words, this saves time and very valuable material.



# ESA S625 CONTROL CHARACTERISTICS

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

You can add the type and dimensions of the pipe or profile, the material and position of the rollers to the program so all of this is saved for the following series. These are some of the most relevant features of this control system. > Stores up to 10,000 programs.

> An endless number of different bends on the same piece can be programmed.

> Dimensions may be programmed in inches or millimeters.

> A library of available rollers with the possibility of programming new ones.

- > A library with different profiles, pipes and materials.
- > Can be programmed in more than 20 different languages.
- > Automatic or manual rotation speed adjustment from 3 to 7 rpm.
- > Manual or automatic operation.
- > 4.0 Technology
- > Joystick to activate the rotation and positioning movements.
- > On-screen alarm diagnostics.
- > Preventive maintenance warning.
- > Can be remotely connected by the manufacturer without having to travel to the machine site.
- > 7" color touchscreen with 800 x 480 resolution.
- > 128 MB silicon disk.
- > 2 analog inputs, 12 bit resolution.
- > 16 digital inputs (24 Vdc).

> 16 digital outputs (24 Vcc, 0.7 A max.) Protected against overloads and short circuits.

- > 1 RS232 serial port.
- > 1 CAN port with 9 D-Sub F connector contacts.
- > 24 Vdc power source
- > 1 USB port.

# **BENDING CAPACITY**

The dimensions shown in the following table are provided for guidance only; they are directly related to the hardness and quality of the pipe or profile.









	МС	150B	МС	200	МС	400	MC2	200H
Profile	Dim.	Min. radius	Dim.	Min. radius	Dim.	Min. radius	Dim.	Min. radius
	50x10	300	50x10	300	50x10	250	60x10	200
	60x20	200	80x20	150	80x20	150	80x20	150
	25x25	200	30x30	200	30x30	150	30x30	150
	50x50x3 40x40x3	700 350	50x50x3 40x40x3	600 300	50x50x3 40x40x3	600 300	50x50x3 40x40x3	450 300
4	40	200	40	200	40	150	40	200
	40	250	40	250	40	200	40	250
	40	300	40	300	40	250	40	250
	50	200	60	300	60	225	60	225
	50	250	60	300	60	225	60	225
	40	500	40	420	40	200	40	300
	25	180	30	150	30	150	30	150
0 0	50,8x3* =2″x3* 40x2*	600 600 300	63,5x3* =2"1/2x3* 40x2*	500 500 250	63,5x3* =2″1/2x3* 40x2*	450 450 200	63,5x3* =2″1/2x3* 40x2*	450 450 200
* Optional rollers								





	MC550 · N	IC550CNC	MC650 · MC650CNC		
Profile	Dimensions	Min. radius	Dimensions	Min. radius	
	60x15	400			
	60x8	200	100x15	1250	
	50x15	350	80x20	450	
	50x10	175	60x15	300	
	40x8	150	50x15	155	
	30x5	110	20x10	140	
	25x5	105			
	100x20	250	120x20	250	
	80x20	200	100x25	350	
• •	80x15	180	80x20	200	
	35x35	400	45x45	300	
	30x30	200	40x40	280	
	25x25	175	25x25	200	
	20x20	150	20x20	150	
	15x15	150	20/20 -	150	
	60x60x3	800	70x70x4	750	
	50x50x3	600	60x60x3	750	
	35x35x3	200	40x40x3	300	
	70x30x3	500	80x40x3	500	
	60x30x3	400	60x30x3	300	
	50x30x3	250	50x30x3	250	
	<i>(0, (0, 7</i> )	200	80*	500	
	60x60x7	300	70	400	
	50x50x6	250	60	200	
	40x40x5	200	40	150	
	60x60x7	500	80*	500	
	50x50x6	400	60	400	
$\mathbf{P}$	40x40x5	300	40	150	
	60x60x7	350			
	50x50x6	300	60x8	450	
	40x40x5	250	40x6	250	
	40x20x5	160	120*	600	
	60x30x6	200	100*	600	
	80x45x6	400	80	350	
	80x45x6	600	120*	700	
	60x30x6	250	100*	700	
	40x20x5	200	80	400	
			70x7	600	
	50x5	550	60x5	400	
	40x5	400	50x5	300	
			40x4	250	
	50x5*	750	50x5*	750	
	40x4*	500	40x4*	500	
	40	300			
	35	250	50	300	
$\bullet  \bullet  \bullet$	30	200	40	200	
	20	130	25	175	
			101,6x3,5* (=4″x3)	500	
	76,2x3* (3″x3)	500	100x3*	500	
	40x2	180	88,9x4* (=3"SCH)	700	
	20x2	100	35x2*	120	
			20x1,5*	115	

\* Optional rollers

• Consult with manufacturer

## OUTSIDE DIMENSIONS





## PACKAGING CHARACTERISTICS

- Tariff Code: 84622990
- A lower pallet bench to easily transport the machine to the worksite or storage.
- The machine is shipped fully assembled.
- An wooden pallet and 3-layer cardboard box suitable for maritime transport.
- Optional: NIMF15 wooden container.

MC650				
Width	1380 mm			
Length	1070 mm			
Height	2090 mm			
Volume	3,08 m <sup>3</sup>			
Nett weight	1290 Kg.			
Gross Weight	1321 Kg.			

## STANDARD ACCESSORIES SUPPLIED WITH THE MACHINE

#### Standard rollers MC650



It's equipped with 9 standard pieces, by means of which the user can work all kinds of profiles. Square,

rectangular pipe, solid round and square bars. U Profile, T profile, angle, flat bar, edged flat bar...

nd flat bar...

Adjustable rollers. The user may combine the set up position and it will allow bending the different profiles, adapting the sizes.

Steel rollers F155 treated and rectified.

Assembling of the rollers



## ACCESORIOS OPCIONALES

# The ALL-NEW CNC bending kit is the ideal accessory designed and manufactured to get the most out of Nargesa MC650 pipe and profile benders

This kit can be installed whenever the customer wants; in other words, some time after having purchased the bending machine.

Its incredible smart predictive system, which is being offered for the first time ever in the world's tube and profile bending industry, guarantees any desired radius right away. Unbeatable ease of programming for operators, speed and reliability for unique pieces and large series. The CNC bending kit minimizes material waste, increases productivity and speeds up the creation of complex pieces. It offers exceptional repetitiveness, a simple, intuitive and powerful interface with CNC ESA S625 control, absolute connectivity for industry 4.0, safety, durability and maximum efficiency.

> The interpolated axle control and independent speed management guarantee excellent results and soft transitions, which leads to greater and better productivity with perfect mass-produced pieces and exceptional repetitiveness.



#### Advantages of the CNC Bending Kit Nargesa

> Absolute positioning control: With a high-resolution 4096 impulse encoder, quadrature decoder, A+B channels, 5 Vdc, DB9 connector.

> Smart predictive system: Developed exclusively by Nargesa and built into a CNC ESA S625 control, it helps obtain the desired radius right away which minimizes material waste and speeds up the process of creating complex pieces.

> Easy to program: Anyone with minimal knowledge can bend highly complex pieces.

> Repetitiveness: Guarantees the creation of identical pieces with minimal tolerances.

> Varied bending speed: The speed can be adjusted irrespective of the bending operation or material to be bent.

> Perfect pieces with soft transitions: Thanks to the interpolated axle control with independent speed adjustment during bending.

> Clear and intuitive user interface: Developed to simplify the process of creating and editing pieces for the most accessible user experience on the market for all operators, irrespective of their prior experience.

> Connectivity and industry 4.0: Standard in our product to offer customers the best after-sale experience in the market, a remote connection to Nargesa's technical service via the Internet enables professional advising, real-time software updates and immediate assistance.

> Easy to install and connect: All machines are prepared for easy installation.

> Durability and reliability: Combined with an elegant design featuring a built-in high-resolution encoder inside the perpendicularly adjustable measuring axle, and a gas spring guided by linear sliding bearings with a lock knob and rotating, bendable control handle.

> Plug and play: Makes the installation of the new CNC bending kit on the MC550 and MC650 tube and profile bending machine the easiest procedure for quick start-up without any tedious configuration work.



> CNC bending software: Gets radiuses right away, axle interpolation, bend direction configuration, soft transitions, step-by-step, digital mode.

> Photocell: 300 mm long-range direct reflection, PNP NO output, M12 connector.

> Gas spring: 200 newton release speed, lock knob, guided by linear sliding bearings, rotating and bendable handle.

> Maximum speed: Up to 90 mm/s with the MC650, up to 70 mm/s with the MC550.

- > Completely automatic bending: Control button with an indicator light.
- > Material savings: Up to 90% less material waste.

> Ready to bend, ready to produce: Our more than 50 years of experience manufacturing industrial machinery and our deep knowledge of the processes involved with creating pieces have allowed us to develop the best CNC bending software available today on the market with a great quality/price ratio. Designed expressly to facilitate the creation of complex geometries, it combines processing power and simple handling with step-by-step, digital modes to move from a conceptual idea to a perfectly finished piece in just a few minutes.

> Total connectivity for an unbeatable experience: At Nargesa, we believe satisfied customers make for our best marketing strategy. That's why we're committed to offering the best machines on the market at an excellent quality-price ratio, and also go one more step beyond that by providing excellent after-sale service including professional advising, software updates and immediate assistance over the Internet with total connectivity to implement a real industry 4.0.

For all of these reasons, the all-new CNC bending kit is an essential product that not only complements the Nargesa MC550 and MC650 pipe and profile bending machine, but also revolutionizes the experience of manufacturing pieces with versatility and ease-of-use found nowhere else. We're on the forefront of the CNC bending industry.

*All our products are manufactured in our facilities in Spain.* Hydraulic and electrical components are completely standard from the best European leading trademarks, with technical suppeort all over the world: *Rexroth, Bosch, Roquet, Schneider Electric, LG, Telemecanique, Pizzato...* 

#### High precision digital radius gauge



#### REF: 140-MED08-00001

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.

This Digital arc meter allows the direct and immediate reading of the values of the inner or outer radius in a wide range of bends.

> **Comfort:** No need to prepare and cut a template to know the radius of a bend, it is not necessary to remove the part from the machine to measure it either. The digital radius gauge makes the job quicker and easier.

> Easy to use: Its use is simple and the measurement process is very fast. We only have to place the digital radius gauge on the internal or external part of the curve and it will automatically show the value.

> Multi-material: This tool is suitable for any kind of solid and consistent materials like steel, wood or plastic shapes.

> High precision: Its error tolerance over the radius is 0,01mm. Precision will depend on the surface quality of the material to measure.

> Application scope: This digital radius gauge is supplied with three different high precision arc meters. The use of either one or other arch meter offers a measurement range swinging from 55 to 11.250 millimeters and from 2" to 443" inches.

> LCD digital screen: Comfortable reading of all data and low power consumption.

> Practical: It is small and light, we can easily use it for different measurements. It is comfortable, reliable and long lasting.

> Storage: We deliver it inside a stainless briefcase, with an inner foam protection to keep it safe and protect the arc meter when it is not in use. It is comfortable to carry and shock-resistant.

> Two units of measure: We can select either millimeters or inches just by pressing a button.

> Perfect for wide radii: Unlike other manufacturers, the High Precision Arc Meter Nargesa can measure radii up to 12m with maximum precision. For bigger radii, please consult the manufacturer.

> Ideal for smaller radii: The great touch sensor length allows its use even when the inner radius to measure is very tiny.

#### **TECHNICAL SPECIFICATIONS**

- > Measurement scope: From 55 to 11.250 millimeters or from 2" to 443" Inches.
- > Error tolerance over the touch sensor:  $\Delta L = 0.02$ mm
- > Error tolerance over the radius:  $\Delta R = (0.01 \text{ * R}) \text{ mm}$
- > Power supply: 3V CR2032 Lithium battery
- > Working temperature: 0±40°C
- > Storage and transport temperature: -20°C 60°C
- > Relative humidity: =80%



#### 100 Measurement arc

The 100mm High precision arc meter is supplied along with the High precision digital radius indicator.

This tool is attached to the arc meter to measure internal or external radii, amongst the following ranges:

Minimum radius: 55mm or 2" Maximum radius: 625mm or 25"

#### 200 Measurement arc

The 200mm High precision arc meter is supplied along with the High precision digital radius indicator.

This tool is attached to the arc meter to measure internal or external radii, amongst the following ranges:

Minimum radius: 125mm or 5" Maximum radius: 2.500mm or 99"

#### 300 Measurement arc

The 300mm High precision arc meter is supplied along with the High precision digital radius indicator.

This tool is attached to the arc meter to measure internal or external radii, amongst the following ranges:

Minimum radius: 475mm or 18" Maximum radius: 11.250mm or 443"

#### **OPTIONAL · 400 Measurement arc**



This tool is attached to the arc meter to measure internal or external radii, amongst the following ranges:

Minimum radius: 1.150mm or 45" Maximum radius: 20.000mm or 787"



#### Treated steel rollers · MC650



Rollers made of Steel F155 and treated to 62 Rc. Suitable for bending all kind of round steel or stainless steel pipes.

Always clean up the rollers well before using stainless steel not to get the pipe contaminated. When the tube measurements are small, two measurements are added on the same roller.



Tube size in mm						
Reference	Dimensions	Weight				
140-08-08-RHT0001	(25 + 30)	45,30 Kg.				
140-08-08-RHT0002	(20 + 35)	44,80 Kg.				
140-08-08-RHT0003	40	45,30 Kg.				
140-08-08-RHT0004	50	40,80 Kg.				
140-08-08-RHT0005	60	35,70 Kg.				
140-08-08-RHT0006	70	64,70 Kg.				
140-08-08-RHT0007	80	57,40 Kg.				
140-08-08-RHT0008	90	49,50 Kg.				
140-08-08-RHT0009	100	41,00 Kg.				
	For Schedule pipe					
140-08-08-RHISOT0001	(3/8" + 1/2") = (17,2 + 21,3 mm)	49,50 Kg.				
140-08-08-RHISOT0002	(1" + 3/4") = (33,7 + 26,9 mm)	43,75 Kg.				
140-08-08-RHISOT0003	1″ 1/4 = 42,4 mm	44,40 Kg.				
140-08-08-RHISOT0004	1″ 1/2 = 48,3 mm	41,60 Kg.				
140-08-08-RHISOT0005	2″ = 60,3 mm	35,50 Kg.				
140-08-08-RHISOT0006	2″ 1/2 = 73 mm	62,60 Kg.				
140-08-08-RHWT0007	3″ = 88,9 mm	50,35 Kg.				
140-08-08-RHWT0008	3″ 1/2 = 101,6 mm	39,50 Kg.				
For inches pipe						
140-08-08-RHWT0001	(1/2"+1"1/4) = (12,70 + 31,75 mm)	47,25 Kg.				
140-08-08-RHWT0002	(1"+3/4") = (25,40 + 19,05 mm)	48,00 Kg.				
140-08-08-RHWT0003	1″1/2 = 38,1 mm	45,90 Kg.				
140-08-08-RHWT0004	2″ = 50,8 mm	40,70 Kg.				
140-08-08-RHWT0005	2″1/2 = 63,5 mm	33,70 Kg.				
140-08-08-RHWT0006	3″ = 76,2 mm	60,20 Kg.				
140-08-08-RHWT0007	3″ 1/2 = 88,9 mm	50,35 Kg.				
140-08-08-RHWT0008	4" = 101.6 mm	39.50 Ka.				



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

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

Reference	Dimensions	Weight	
140-08-08-RHT0010	Adjustable from 100 a 120 mm	52,72 Kg.	

#### Sustarin Rollers · MC650



Rollers made of Sustarin to bend round stainless steel pipes, aluminium and delicate materials with thickness not bigger than 2.5mm.

Sustarin rollers do not damage nor get the pipe contaminated. When the tube measurements are small, two measurements are added on the same roller.



Tube size in mm					
Reference	Dimensions	Weight			
140-08-08-RI0001	(25 + 30)	9,35 Kg.			
140-08-08-RI0002	(20 + 35)	9,25 Kg.			
140-08-08-RI0003	40	9,30 Kg.			
140-08-08-RI0004	50	8,50 Kg.			
140-08-08-RI0005	60	7,60 Kg.			
140-08-08-RI0006	70	6,50 Kg.			
140-08-08-RI0007	80	11,80 Kg.			
140-08-08-RI0008	90	10,35 Kg.			
140-08-08-RI0009	100	8,80 Kg.			
	For Schedule pipe				
140-08-08-RIISOT0001	(3/8" + 1/2") = (17,2 + 21,3 mm)	10,10 Kg.			
140-08-08-RIISOT0002	(1" + 3/4") = (33,7 + 26,9 mm)	9,00 Kg.			
140-08-08-RIISOT0003	1″ 1/4 = 42,4 mm	9,15 Kg.			
140-08-08-RIISOT0004	1″ 1/2 = 48,3 mm	8,65 Kg.			
140-08-08-RIISOT0005	2″ = 60,3 mm	7,55 Kg.			
140-08-08-RIISOT0006	2″ 1/2 = 73 mm	14,20 Kg.			
140-08-08-RIWT0007	3" = 88,9 mm	10,50 Kg.			
140-08-08-RIWT0008	3″ 1/2 = 101,6 mm	8,50 Kg.			
For inches pipe					
140-08-08-RIWT0001	(1/2"+1"1/4) = (12,70 + 31,75 mm)	9,65 Kg.			
140-08-08-RIWT0002	(1"+3/4") = (25,40 + 19,05 mm)	9,80 Kg.			
140-08-08-RIWT0003	1″1/2 = 38,1 mm	9,40 Kg.			
140-08-08-RIWT0004	2″ = 50,8 mm	8,45 Kg.			
140-08-08-RIWT0005	2″1/2 = 63,5 mm	7,25 Kg.			
140-08-08-RIWT0006	3″ = 76,2 mm	12,30 Kg.			
140-08-08-RIWT0007	3″ 1/2 = 88,9 mm	10,50 Kg.			
140-08-08-RIWT0008	4″= 101,6 mm	8,50 Kg.			













## OUR RANGE OF BENDING MACHINES

### MC150B

- > Two drive rollers.
- > Diameter of axes: 40 mm.
- > Useful axes length: 74 mm.
- > Center distance between lower axes: 230 mm.
- > Maximum capacity for bending round pipe: 2" inches or 50 mm.

## MC200

- > Diameter of axes: 40 mm.
- > Useful axes length: 74 mm.
- > Center distance between lower axes: 286 mm.
- > Maximum capacity for bending round pipe: 2" 1/2 inches or 63.5 mm.

## MC400

- > Three drive rollers.
- > Diameter of axes: 40 mm.
- > Useful axes length: 80 mm.
- > Maximum capacity for bending round pipe: 2" 1/2 inches or 63.5 mm.
- > Independent bending regulation of the lower rollers.

## MC200H

- > Two drive rollers.
- > Diameter of axes: 40 mm.
- > Useful axes length: 74 mm.
- > Center distance between lower axes: 286 mm
- > Maximum capacity for bending round pipe: 2" 1/2 inches or 70 mm.

## MC550

- > Three drive rollers.
- > Diameter of axes: 50 mm.
- > Useful axes length: 90 mm.
- > Max. capacity for bending round pipe: 3" inches (76,2 mm) or 80mm
- > Independent bending regulation of the lower rollers.

## MC650

- > Three drive rollers.
- > Diameter of axes: Lower 65 mm / Upper 80 mm.
- > Useful axes length:130 mm.
- > Maximum capacity for bending round pipe: 4" inches or 101,6 mm.
- > Independent bending regulation of the lower rollers.

## **CNC PIPE BENDERS**



### MC550CNC

- > Three drive rollers.
- > Diameter of axes: 50 mm.
- > Useful axes length: 90 mm.
- > Max. capacity for bending round pipe: 3" inches (76,2 mm) or 80mm
- > Independent bending regulation of the lower rollers.
- > A smart predictive system to obtain the desired radius right away.
- > Speed control and axle interpolation for perfect results and fluid transitions between segments.

> A high-resolution encoder with 4096 pulses and quadrature encoder for optimal position control at all times.



## MC650CNC

- > Three drive rollers.
- > Diameter of axes: Lower 65 mm / Upper 80 mm.
- > Useful axes length: 130 mm.
- > Maximum capacity for bending round pipe: 4" inches or 101,6 mm.
- > Independent bending regulation of the lower rollers.
- > A smart predictive system to obtain the desired radius right away.
- > Speed control and axle interpolation for perfect results and fluid transitions between segments.

> A high-resolution encoder with 4096 pulses and quadrature encoder for optimal position control at all times.

## OUR RANGE OF MACHINERY



**IRON WORKERS** 



SECTION BENDING MACHINES



TWISTING/SCROLL BENDING MACHINES



GAS FORGES



**BROACHING MACHINES** 



**CNC PIPE BENDERS** 



HYDRAULIC PRESS BRAKES



IRON EMBOSSING MACHINES



POWER HAMMERS



NON-MANDREL PIPE BENDER



HORIZONTAL PRESS BRAKES



HYDRAULIC SHEAR MACHINES



END WROUGHT IRON MACHINES



BLACKSMITH FORGING PRESS

## WARRANTY

Nargesa machines have 3 years warranty provided that the customer registers it in our website. Otherwise it would be only one year warranty. This one encloses any manufacturing default all along these 3 years for components. Any misuse is excluded from this condition. Labor, back and forth shipping and any eventual repair, are not included in this warranty.

Partner companies



## SHIPMENT EVERYWHERE

Nargesa will arrange transport up to final destination, whenever the customers asks for so. There is also the possibility for the customer to arrange the shipment himself with his own agency.

## TECHNICAL ASSISTANCE

All our customers have access to technical support quickly and efficiently.

90% of incidences are solved out on the phone, mail, Skype or videoconferencing in less than 24hours. In case of needing presencial technical assistance, we may as well send a technician to the customer's facilities.

Follow us on

#### PRADA NARGESA, S.L.

Ctra. De Garrigàs a Sant Miquel s/n 17476 Palau de Santa Eulalia (Girona) Spain Tel. +34 972 568 085

www.nargesa.com

nargesa@nargesa.com

