NARGESA®

SECTION BENDING MACHINES

MC550

4.0 Technology

NEW

50 years
manufacturing industrial machinery

SECTION BENDING MACHINES

Nargesa two and three-power roller pipe and profile benders are ideal for manufacturing all types of spiral staircases, spiraled pipes, pipe clamps, greenhouses, railings, tables, chairs, doors and even windows.

+info

GET A QUOTE

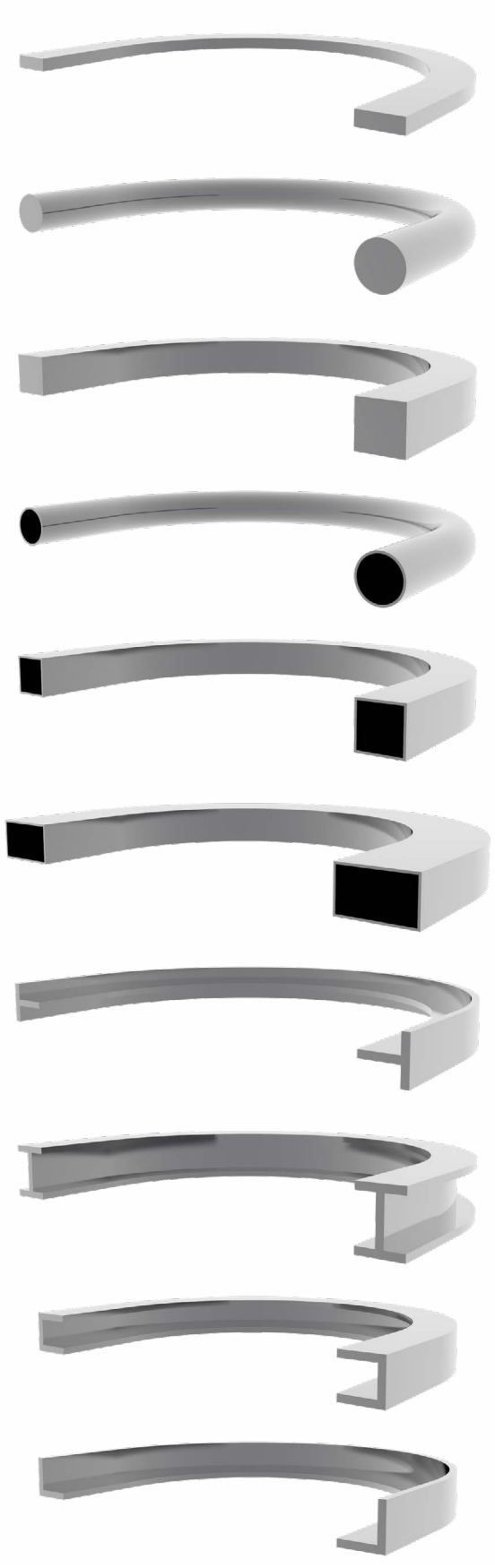
Please complete the following form. We'll contact you in less than 24 hours.
Business days

REQUEST ADJUSTED QUOTATION

SOME OF OUR CUSTOMERS

Talgo · AIRBUS · NISSAN · TOYOTA · American Chopper · Gestamp · Schneider Electric · Red Beard's Garage · equinor

TECHNICAL FEATURES



The Nargesa MC550 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: 3" inches or 80 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 axles: 50 mm.

>Net length of the axles: 90 mm.

> Outer roller diameter: 170 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: 1,5 KW/2 CV.

> Hydraulic motor unit: 0.75 KW/1 CV.

> Electrical voltage: 230V single phase

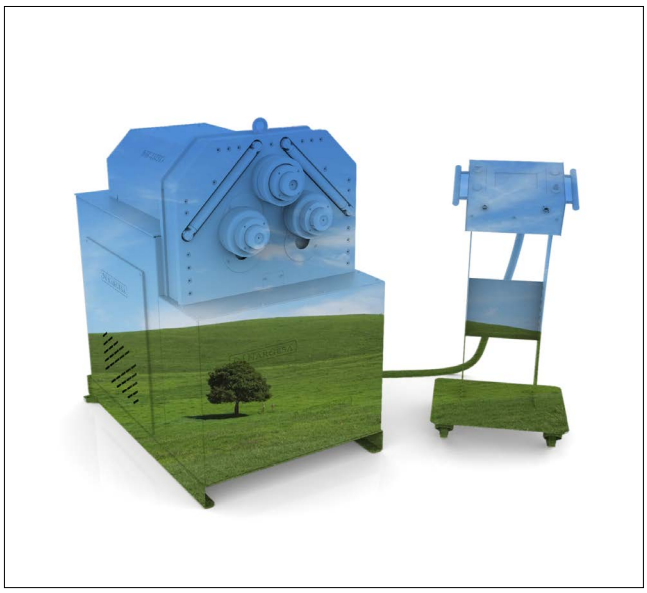
> Adjustable roller speed: from 3 to 7 RPM.

** 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

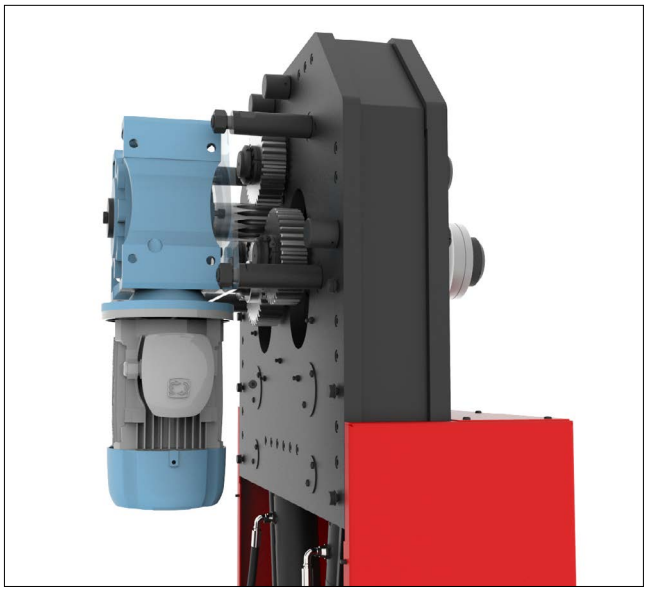
The advantages of having this technology in a machine are endless, so we're only going to mention the most relevant. Whenever a customer agrees, the manufacturer may remotely connect to their machine to do any software updates completely free of cost and detect any anomalies in the machine without needing 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.

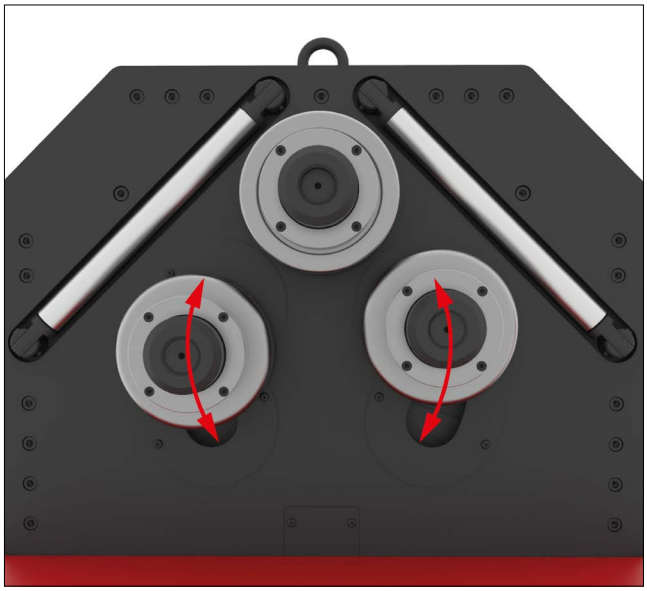


Robustness

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.

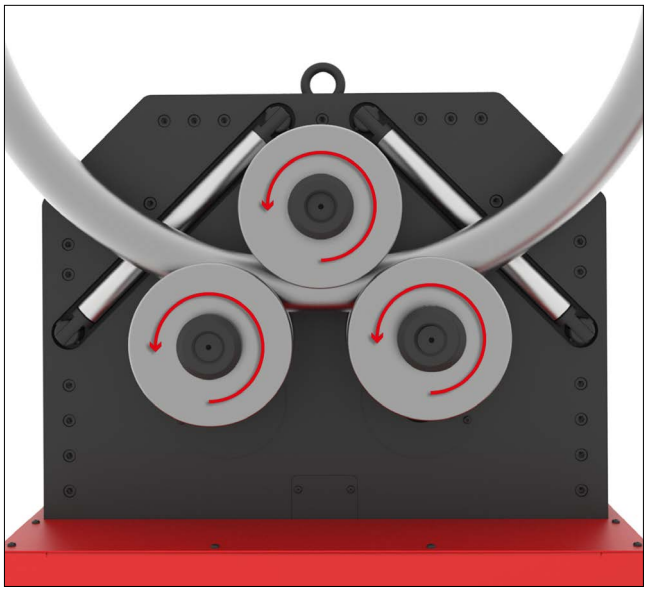
Vertical and horizontal position

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 MC550 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.

Easy transportation of the machine to the workplace

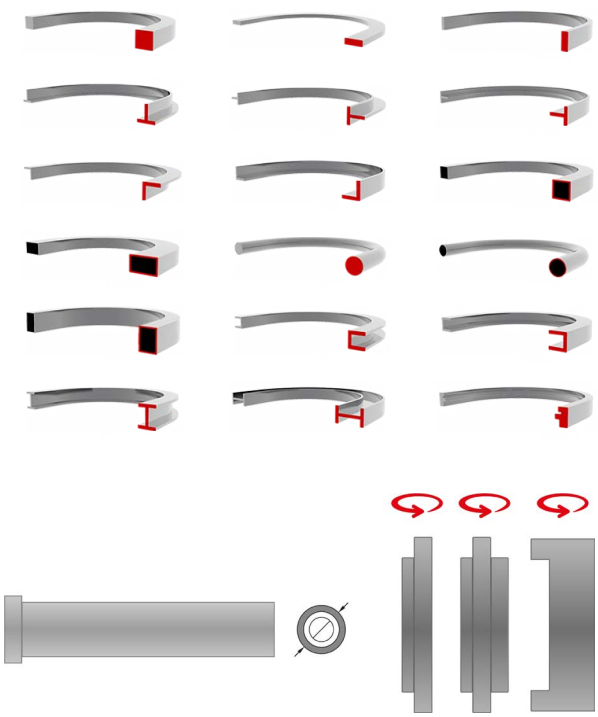
There are several times when it is required to bend a complex piece such as a stair railing with multiple radii, so taking the machine to the customer's location and use it there, saves a lot of time. The construction of the chassis of all Nargesa bending machines incorporates a hole to be able to transport the machine comfortably with a pallet truck and an upper lifting hook for its movement with a crane.

The single-phase electrical connection, common to all construction sites, also eases this change of workplace for the machine, without needing to manufacture templates and travel from the workshop to the construction site.

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 MC550 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.

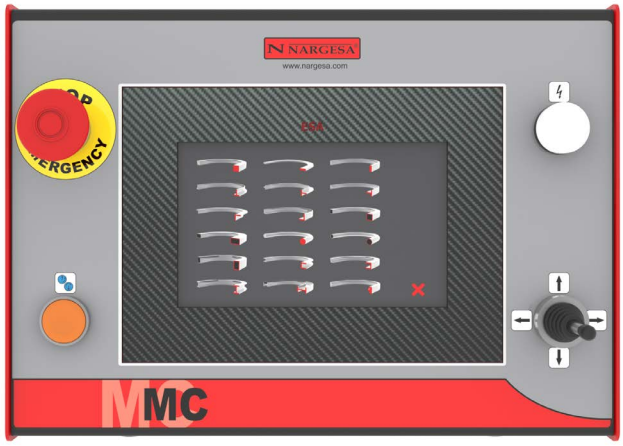
For this purpose, it has a complete profile library and extensive editable database with pre-defined radiuses.

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 MC550 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 MC550 pipe benders are controlled with a very intuitive and easy-to-use 7" color touchscreen with the latest 4.0 technology. **You only need to do the first piece and save each step so that the control will repeat the same operations on the other pieces in the same series automatically without longitudinal positioning control.**

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



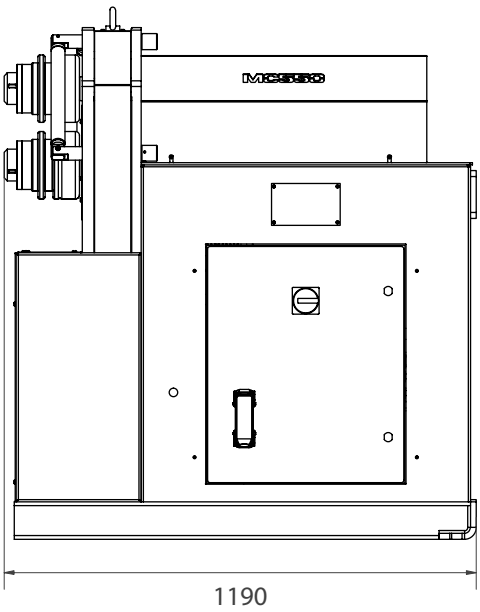

	MC150B		MC200		MC400		MC200H	
Profile	Dim.	Min. radius	Dim.	Min. radius	Dim.	Min. radius	Dim.	Min. radius
	50x10	300	50x10	300	50x10	250	60x10	200
	60x20	200	80x20	150	80x20	150	80x20	150
	25x25	200	30x30	200	30x30	150	30x30	150
	50x50x3	700	50x50x3	600	50x50x3	600	50x50x3	450
	40	200	40	200	40	150	40	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
	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* 70x2* 40x2*	500 500 200

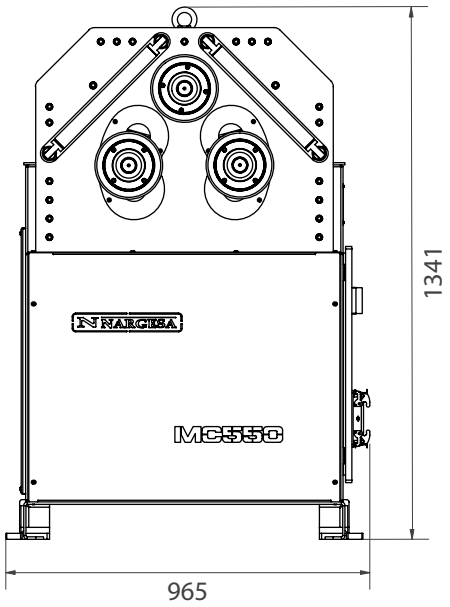
* *Optional rollers*

	MC550 · MC550NC · MC550CNC		MC650 · MC650NC · MC650CNC	
Profile	Dimensions	Min. radius	Dimensions	Min. radius
	60x15 60x8 50x15 50x10 40x8 30x5 25x5	400 200 350 175 150 110 105	100x15 80x20 60x15 50x15 20x10	1250 450 300 155 140
	100x20 80x20 80x15	250 200 180	120x20 100x25 80x20	250 350 200
	40x40 30x30 25x25 20x20 15x15	400 180 175 150 150	45x45 40x40 25x25 20x20	300 280 200 150
	60x60x3 50x50x3 35x35x3	800 600 200	70x70x4 60x60x3 40x40x3	750 750 300
	70x30x3 60x30x3 50x30x3	800 600 450		
	60x60x7 50x50x6 40x40x5	300 250 200	80* 70 60 40	500 400 200 150
	60x60x7 50x50x6 40x40x5	500 400 300	80* 60 40	500 400 150
	60x60x7 50x50x6 40x40x5	350 300 250	60x8 40x6	450 250
	40x20x5 60x30x6 80x45x6	160 200 400	120* 100* 80	600 600 350
	80x45x6 60x30x6 40x20x5	500 250 200	120* 100* 80	700 700 400
			70 40	600 250
	40 35 30 20	300 250 200 130	50 40 25	300 200 175
			101,6x3,5* (=4"x3) 100x3* 88,9x4* (=3"SCH) 35x2* 20x1,5*	500 500 700 120 115

* *Optional rollers*

OUTSIDE DIMENSIONS





PACKAGING CHARACTERISTICS

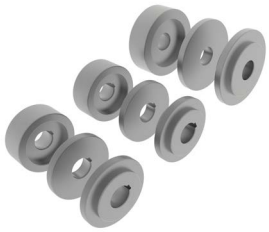
- Tariff Code: 84622990
- A lower pallet bench to easily transport the machine to the worksite or storage.
- The machine is shipped fully assembled.
- An iron pallet and 3-layer cardboard box suitable for maritime transport.
- Optional: NIMF15 wooden container.

MC550

Width	1380 mm
Length	1070 mm
Height	2090 mm
Volume	3,08 m^3
Nett weight	870 Kg.
Gross Weight	912 Kg.

STANDARD ACCESSORIES SUPPLIED WITH THE MACHINE

Standard rollers MC550

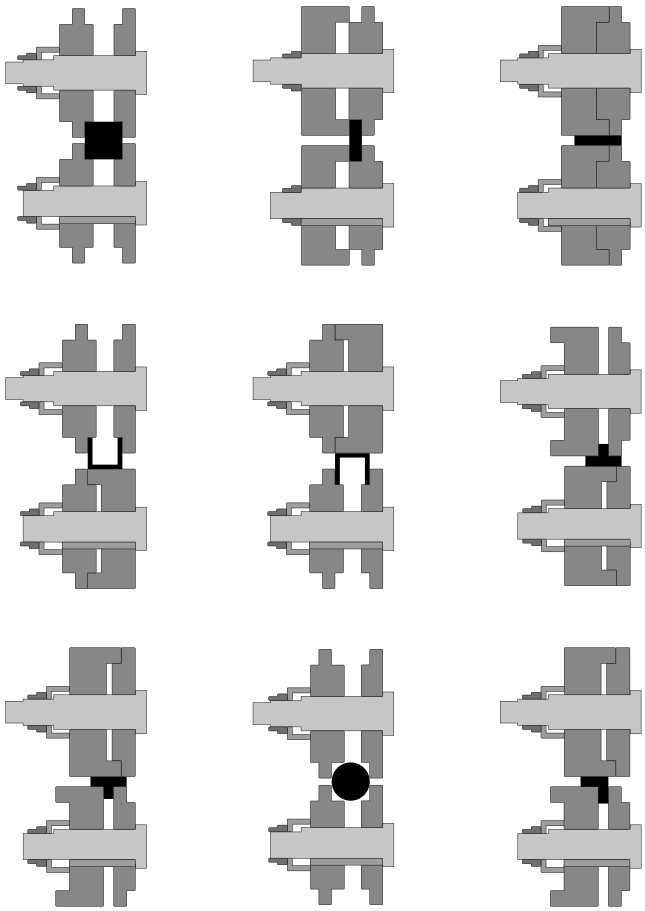


It's equipped with 9 standard pieces, by means of which the user can work all kinds of profiles.
Square,
rectangular pipe, solid round and square bars.
U Profile, T profile, angle, flat bar, edged flat bar...

Adjustable rollers, by washers with the size of profile or pipe which allows us to make bending to different pipe or profile sizes.

Steel rollers F155 treated and rectified.

Assembling of the rollers PDF



OPTIONAL ACCESSORIES

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: $\Delta L = 0.02mm$
> Error tolerance over the radius: $\Delta R = (0.01*R)mm$
> Power supply: 3V CR2032 Lithium battery
> Working temperature: 0±40ºC
> Storage and transport temperature: -20ºC – 60ºC
> Relative humidity: =80%

Arc meters supplied with the High precision digital radius gauge

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”

Treated steel rollers · MC550

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

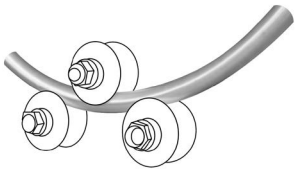
Always clean up the rollers well before using stainless steel not to get the pipe contaminated.
When the tube measurements are small, two measurements are added on the same roller.

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

Sustarin Rollers · MC550

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.



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

OUR RANGE OF BENDING MACHINES

+info

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.

+info

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.

+info

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.

+info

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.

+info

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.

+info

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.

OUR RANGE OF MACHINERY

+info IRON WORKERS

+info SECTION BENDING MACHINES

+info NON-MANDREL PIPE BENDER

+info HORIZONTAL PRESS BRAKES

+info TWISTING/SCROLL BENDING MACHINES

+info HYDRAULIC PRESS BRAKES

+info HYDRAULIC SHEAR MACHINES

+info GAS FORGES

+info IRON EMBOSSING MACHINES

+info END WROUGHT IRON MACHINES

+info BROACHING MACHINES

+info POWER HAMMERS

+info PRESSES FOR LOCKS

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

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