

products



MADE IN ITALY

ABOUT US

Founded in **1967**, the MEMOLI Company has been manufacturing manual and motorized bending machines ever since, for more than **50 years**. The Company started as a small craft-men workshop, which then developed its technologies and products to suit them to nowadays requirements.



MECHANICAL DESIGN

Each Memoli machine is a unique and **customized** product, specifically designed to fulfill every single Customer's needs and resulted from the multiple possible combinations of models, sizes and equipment.

Our commitment is constantly oriented at Customer satisfaction, because we believe in a long-lasting relationship with our dealers and our direct user Clients.



PRODUCTION

Made in Italy products are a guarantee: high quality and security standards mark Memoli machinery as a product of excellence, thanks to the long time expertise gained through decades in manufacturing machines capable of becoming really favorable solutions for the market requirements.

We also offer a consulting service through our internal technical department, which is always available to study and find out the best possible solution: our goal is actually our Customer's complete satisfaction.



Eurekamatic

Universal machine for bending pipes and metal bars

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ETM

Tube bending machine

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Universal machine for bending pipes and metal bars

One machine only for **5 different operations**: circle-curve bending, angle-bending, tube bending with two options to bend with or without mandrel, scroll-bending and twisting.

Machined from solid cast iron block and designed to work cold iron, it is extremely easy to use because it is run and aided by an **incorporated software**, which allows total precision and efficiency of the curving system. The display shows the desired angle of curvature and constantly informs the operator about the position and **movements of the curving axis**.

The **software** allows the storage of 45 different angles of curvature. It is very easy and fast to change toolings. The machine can work both in manual and in **semi-automatic** mode, thus reducing working times and error possibility. It is also possible to have the clamping vice either pneumatic or hydraulic, besides some more customized options depending on the Customer's specific needs.

Eurekamatic has been for many years so far one of the most requested and used machines by **blacksmiths** for their applications on tubes, profiles and square tubings, in order to carry out railings, handrails, tables, chairs, doors, windows, gratings and many more.



Technical specifications

| | |
|----------------|--------------------|
| Motor power | KW 4 |
| Rotation speed | 7 - 14 g/1' |
| Gears | In oil |
| Weight | 280 kg |
| Size | 850 x 620 x 980 h. |

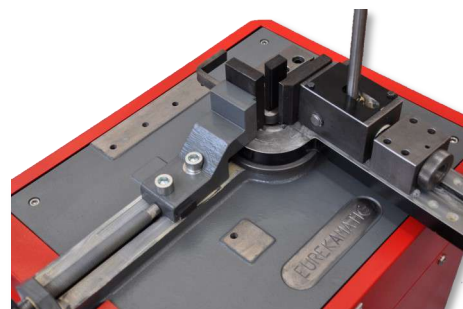


Control panel

- ✓ User-friendly
- ✓ Digital screen
- ✓ Tactile keyboard
- ✓ RAM
- ✓ Safety-mode

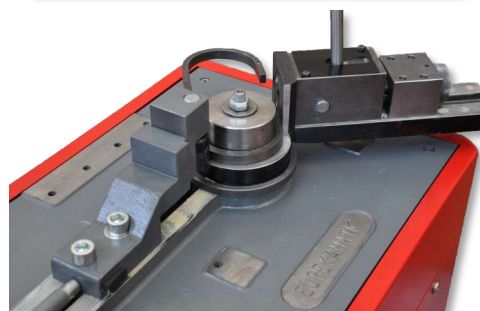
Eurekamatic AB-PF

Angle bender



Eurekamatic AB-CF

Circle-curve bender



Eurekamatic AB-CTA

Tube&Pipe bender with/without mandrel



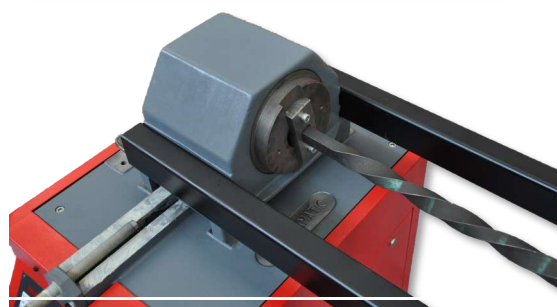
Eurekamatic CS

Scroll-spiral bender



Eurekamatic D

Twister



Maximum capacities (mm)

| Material | AB-PF | AB-CF | AB-CTA | CS | D |
|---------------------------|----------|---------|----------|---------|---------|
| FE37 solid round | Ø 25 | Ø 25 | - | Ø 12 | - |
| FE37 solid square | 22 | 22 | - | 12 | 25 |
| FE37 flat | 100 x 10 | 50 x 15 | - | 30 x 12 | 40 x 10 |
| FE37 pipe without mandrel | - | - | Ø 40 x 2 | - | - |
| FE37 pipe with mandrel | - | - | Ø 30 x 2 | - | - |

All data may be subject to change without notice.

ETM



Tube bending machine

The ETM series is equipped with state of the art technologies meant to bend with or without mandrel tubes and profiles, and capable of bending both in right and left direction. It allows to bend tubes with a range diameter **from 8 mm up to 168 mm** and it can make curves **over 180°** with top finish quality for a minimum bending radius of 3 x the tube diameter. Every ETM machine is manufactured from single welded steel block and the toolings are machined from solid steel.

The system of **counter formers** is specifically designed to reduce mechanical effort and to make the bending operation faster than other brands machines of the same category, thus granting a very good finishing even when bending very thin wall thicknesses.

Thanks to its **new software** technology called “Digital Bend Programming Touch Screen”, this machine is extremely easy to use: this software in fact was specifically studied for our machines and enables to select up to **99 programs** each of them with a 5-stop sequence in the bending operation and to automatically adjust the material springiness (*springback*). Moreover, it allows to save and store one’s projects as repeatable programs.

ETM 60



ETM 80



Technical specifications

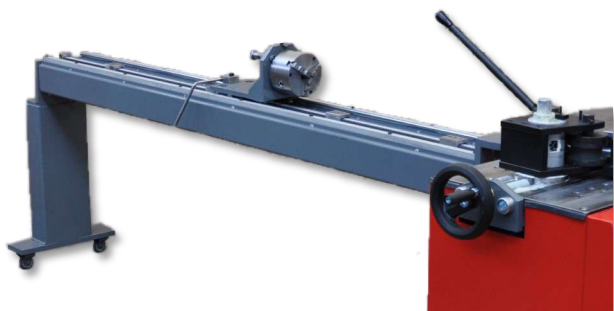
| | ETM 60 | ETM 80 | ETM 90 | ETM 120 | ETM 150 |
|-----------------|-----------------|-------------------|-------------------|--------------------|--------------------|
| Motor power | KW 2 | KW 2,2 | KW 2,5 | KW 3,5 | KW 5,5 |
| Rotation speed | 5 g/1' * | 3,5 g/1' * | 3 g/1' * | 1 g/1' * | 0-5 g/1' |
| Gears | In oil | In oil | In oil | In oil | In oil |
| Weight | 210 kg | 560 kg | 800 kg | 1050 kg | 2500 kg |
| Dimensions (mm) | 600 x 500 x 950 | 810 x 1100 x 1200 | 870 x 1250 x 1300 | 1200 x 1300 x 1300 | 1700 x 1400 x 1600 |

* possibility of variable speed.

ETM 90



ETM 150



Positioner



Length and rotation measuring system with digital display

Maximum capacities (mm)

| Material | ETM 60 | ETM 80 | ETM 90 | ETM 120 | ETM 150 |
|---------------|--------|--------|---------|---------|-----------|
| FE37 | 60 x 4 | 76 x 6 | 90 x 6 | 114 x 8 | 168 x 7 |
| Aluminium | 60 x 8 | 76 x 8 | 90 x 10 | 140 x 7 | 168 x 10 |
| INOX AISI 308 | 60 x 3 | 76 x 4 | 90 x 4 | 114 x 6 | 168 x 5,5 |
| Solid round | 45 | 55 | 65 | 85 | 110 |
| Square pipe | 50 x 3 | 60 x 4 | 80 x 4 | 110 x 5 | 140 x 6 |

All data may be subject to change without notice.

ETM with mandrel



Tube bending machine with fix mandrel

The ETM range of **fixed mandrel** bending machines is perfect for the machining of tubes of small wall thickness without deformation of the bent tube: a compact, high performance and cheap solution.

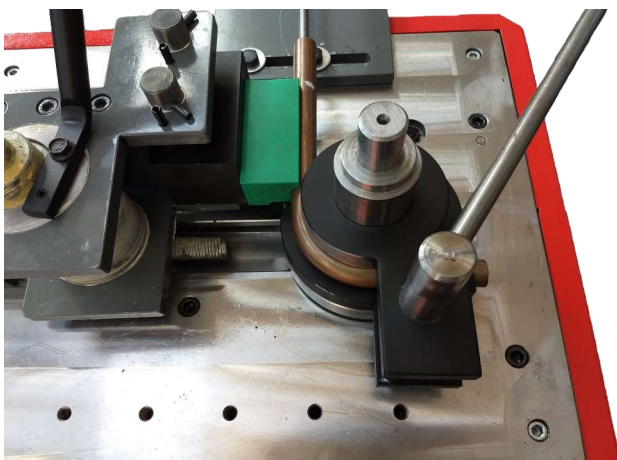
Our fixed mandrel ETM tube benders allow the machining of tubes up to **90 mm diameter** and are able to bend with high-level finish quality, with a minimum bending radius of **2.5 x the tube diameter**.

General features:

- ✓ Carbon steel frame
- ✓ C45 molds, machined from solid – with (optional) hardening process
- ✓ Fixed mandrel position
- ✓ Eccentric clamp die
- ✓ Eccentric pressure die
- ✓ Compact machine
- ✓ Variable bending speed
- ✓ Positioning device for tube length and rotation, incl. 3-jaw spindle
- ✓ Useful tube length 1.5; 2.5; 4.5; 6 m
- ✓ Length and rotation measuring system with digital display



Fix mandrel



Eccentric clamp, top view



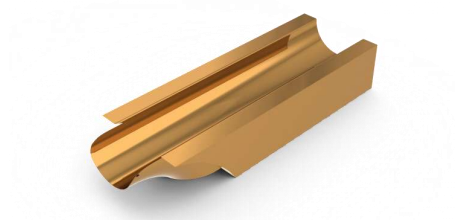
Eccentric clamp, front view

ETM 60

Tube bender with fix mandrel



Positioner



Wiper die

Maximum capacities (mm)

| Material | ETM 60 | ETM 80 | ETM 90 |
|---------------|--------|--------|--------|
| FE | 50 x 3 | 60 x 3 | 80 x 3 |
| Inox AISI 304 | 50 x 2 | 60 x 2 | 76 x 4 |
| Aluminum | 60 x 2 | 76 x 3 | 90 x 3 |
| Square pipe | 40 x 3 | 60 x 3 | 70 x 3 |

All data may be subject to change without notice.

ETM-H



Hybrid semi-automatic Tube bending machine

The ETM-H range of **semi-automatic hybrid** tube bender is ideal for the machining of thin tubes without deformation of the processed tube: a compact, high-performance and economical solution.

In semi-automatic bending machines of the ETM-H series, the bending function is performed automatically, while the feeding and rotation of the tube between the curves must be performed manually.

Simplicity, sturdiness and precision are the key features of this particularly cost-effective line.

These bending machines are particularly used for the production of medium-small sized batches, for adaptation and maintenance work or as mobile bending machines on site.

When machining tubes with multiple curves, the **manual positioner** will greatly facilitate the work, as this device allows the exact fixing of the length of the tube and the rotation position between the curves.

As standard supply, this electric bending machine is equipped with a hydraulic mandrel extractor, hydraulic clamp die and pressure die, thus ensuring an excellent quality bend finish.

Our ETM-H semi-automatic hybrid bending machines can bend tubes with a diameter up to **80 mm diameter** with maximum quality of finishing, with a minimum bending radius of **1.5 x the tube diameter**.

ETM-H 60



General features

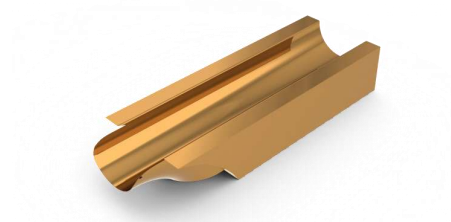
- ✓ Carbon steel frame
- ✓ Separate control pulpit
- ✓ Adjustable pressure dies
- ✓ Programmable advance mandrel extraction for optimized bending quality
- ✓ Interchangeable shaft for small bending radii
- ✓ Variable bending speed
- ✓ Positioner for tube length and rotation, incl. 3-jaw spindle (optional)
- ✓ Useful tube length 1.5; 2.5; 4.5; 6 m.
- ✓ Compact machine
- ✓ Counter pressure die with automatic return
- ✓ Mandrel lubrication system (optional)
- ✓ Length and rotation measuring system with digital display



Length and rotation measuring system with digital display



Mandrel



Wiper die

Maximum capacities (mm)

| Material | ETM-H 60 | ETM-H 80 | ETM-H 89 |
|---------------|----------|----------|----------|
| FE | 50 x 2,5 | 76 x 2 | 82,2 x 3 |
| Inox AISI 304 | 50 x 1,5 | 63,5 x 2 | 76 x 3 |
| Aluminum | 60 x 4 | 76 x 4 | 90 x 3 |
| Square pipe | 40 x 3 | 55 x 3 | 65 x 4 |

All data may be subject to change without notice.

ACH

CNC Tube bending machine



Memoli would like to present their new series of **3-axis CNC bending machines** for the linear bending of tubes up to 65 mm diameter. The bending machines of the ACH series are fully automatic bending machines with CNC 3 axes: **bending** (Y axis), **advancement** (X axis) and **rotation** (Z axis).

This hybrid tube bending machine has been developed for the accurate bending of tubes and profiles. The main axes are **electrically** controlled, while the auxiliary axes are **hydraulically** controlled.

The extremely small bending head is made of steel with a chain-driven transmission to ensure more space in the sub-bending head; in this way, the machine can bend in a single cycle even tubes with the most complex geometries. The setup times are extremely short and ensure great flexibility.

The ACH series of CNC mandrel bending machines is developed and **produced entirely in Italy**, in close collaboration with the main tube bending Companies.



Some more functions

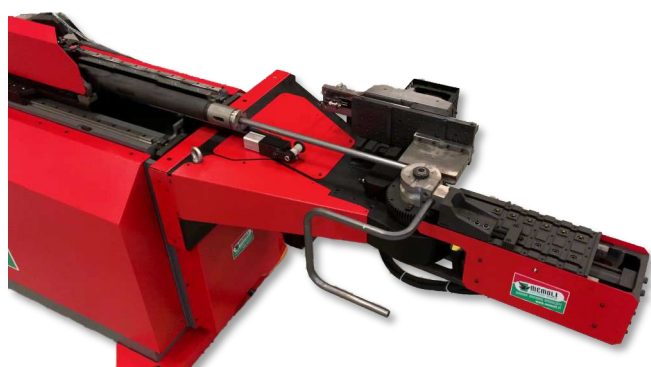
- ✓ Primary axes handling with **brushless CNC motors**.
- ✓ Toggle lock closure.
- ✓ Programmable advance mandrel extraction.
- ✓ Bending with **variable radius**.
- ✓ **Rear booster**.
- ✓ Preparation for punching accessory - Up/Down mold opening.
- ✓ Compact and **exposed bending head** for maximum bending space.

Memoli interface-software 3D bending

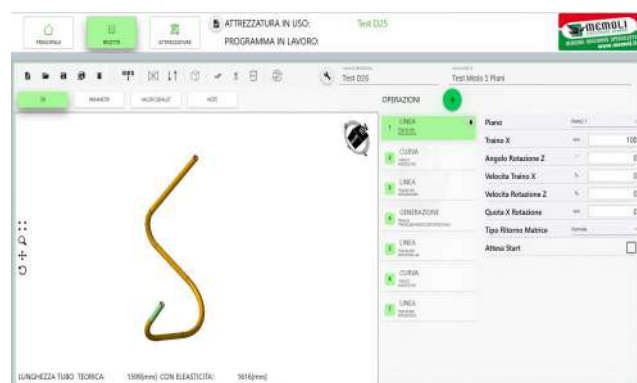
All of ACH mandrel bending machines are equipped with **MEMOLI interface – 3D bending software**, designed for tube bending applications. Extremely easy and intuitive, it allows you to program directly through the adjustment of **LRA** (length - rotation - angle). MEMOLI software is also compatible with a wide variety of **CAD** software programmes.

Thanks to the latest generation technologies it is possible to access main features as:

- ✓ Automatic **springback** compensation.
- ✓ **Memorization** of tools configuration and geometry.
- ✓ 3D Tube Development Graphics.
- ✓ Axis movement **simultaneously**.
- ✓ Calculation of tube length.
- ✓ **Continuous** monitoring of the machine.
- ✓ Software for **anti-collision** testing.



ACH 45



MEMOLI interface Software 3D bending

Maximum capacities (mm)

| Material | ACH 45 | ACH 65 |
|--------------------------------------|--------|--------|
| Steel with mandrel | 45 x 2 | 65 x 2 |
| Steel bending with interpolation | 40 x 3 | 60 x 3 |
| Aluminium | 60 x 2 | 80 x 3 |
| Aluminium bending with interpolation | 50 x 2 | 65 x 3 |

All data may be subject to change without notice.



CNC angle roll bending machine

The BA machines are benders with computerized numeric control (CNC) which work either in **manual** or **automatic** mode and allow the direct insertion of the bending radius and of the data to obtain multiple forms and different developments.

Electronic control consisting of a central 64-bit PLC system for controlling the movement of the A1 – A2 – A3 axes and a computer – 64 bit – 1.4 GHz – 1 GB RAM, complete with 16 GB SD card. LCD-VGA-HDMI-15" color active matrix monitor, for the interface with the operator, both assembled on an independent console. Side ports for female USB and LAN RJ45 connections. Retractable control keyboard and control mouse.

Multi language BPR bending program "**PROBENDING 2@ system**" facilitated with acquisition of the type of material and the section of the profile, possibility of filing the work performed with predefined and parameterized bending with memorization of the program combined with the selected material. Acquisition and transfer of DXF files.

Allows the execution of variable radius bends, with interpolated axes system.

Possibility of direct connection with an external personal computer via RJ-45 (LAN) with diagnostics and automatic setup of the machine. USB connection for transferring and copying of bending programs. Remote connection for remote assistance and preparation for **INDUSTRY 4.0**.



Technical specifications

| | BA 35 | BA 50 | BA 55 |
|-------------------------|----------------------|----------------------|----------------------|
| Pump motor | KW 3 | KW 4 | KW 4 |
| Drive motor | KW 1,1 | KW 2,2 | KW 2,2 |
| Variable rotation speed | g/1' 1-30 | g/1' 1-24 | g/1' 1-20 |
| Shafts diameter | 35 mm | 50 mm | 55 mm |
| Rolls diameter | On demand | On demand | 180—97 |
| Weight | 520 kg | 765 kg | 850 kg |
| Machine dimensions | 740 x 1020 x 1110 h. | 850 x 1130 x 1260 h. | 890 x 1150 x 1260 h. |
| Console dimensions | 590 x 710 x 1200 h. | 590 x 710 x 1200 h. | 590 x 710 x 1200 h. |







All data may be subject to change without notice.

General features

- ✓ Ramps of acceleration and deceleration, stop and inversion of the cycle,
- ✓ Self-learning program and mirror cycle.
- ✓ Progress reading encoder with pneumatic movement contact
- ✓ Cycle start limit switch
- ✓ Connection for digital archimeter.
- ✓ Electronic control of the speed settings of moving of the bending roll (up to 20 mm/sec) and of the profile displacement (up to 20 RPM) in manual or automatic cycle.



Maximum capacities (mm)

| | BA 35 | BA 50 | BA 55 |
|---|----------------------------|----------------------------|----------------------------|
| Section | Dimensions | Dimensions | Dimensions |
|  | 20 x 5 50 x 10 | 70 x 12 | 80 x 15 |
|  | 30 | 40 | 45 |
|  | 40 x 2 | 50 x 4 | 60 x 3 |
|  | 25 x 15 x 2 50 x 30 x 2 | 70 x 40 x 3 | 70 x 40 x 4 |
|  | 48,3 x 2,9 | 80 x 2 | 80 x 2 |
|  | 30 x 15 x 2 50 x 30 x 2 | 30 x 15 x 2 80 x 40 x 2 | 30 x 15 x 2 80 x 40 x 2 |

All data may be subject to change without notice.

Custom machines

Turn key

One of our strength points is the realization of special machines meant to bend and curve any metal material.

They are designed and manufactured **on specific custom needs**, combining the best technical solution with the budget possibility of our Customers, aiming at granting top high production rates and optimizing the costs. These machines are manufactured and assembled with top quality mechanical and electronic parts in order to grant them a higher level of reliability.

Our design project service is always at our Customers' complete availability for the analysis and feasibility of their projects for cost estimate, lay-out and final realization of the required suitable machine.

We are specialized in producing **CNC spring cold coiling machine** for the production of spring, for wire up to $\varnothing 80$ mm.

The machine is used for the production of compression springs with left or right winding, with constant or variable pitch controlled by CNC control.

Press



Special ETM



Augers machine

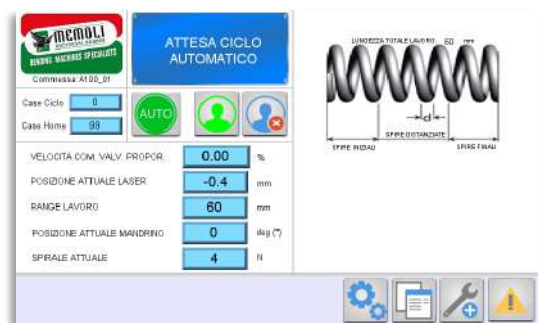


Cold spring machine

Spring internal \varnothing 80 mm, round \varnothing 60 mm



HLN 2800 Augers machine



MEMOLI CNC Spring Software



Notes

Handwriting practice lines consisting of multiple sets of three horizontal dotted lines.

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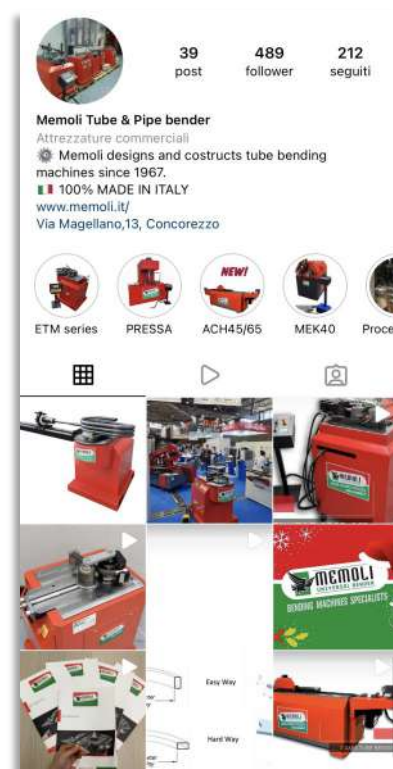
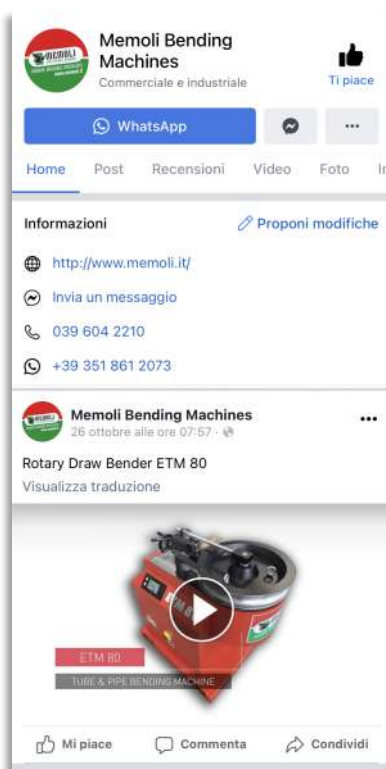
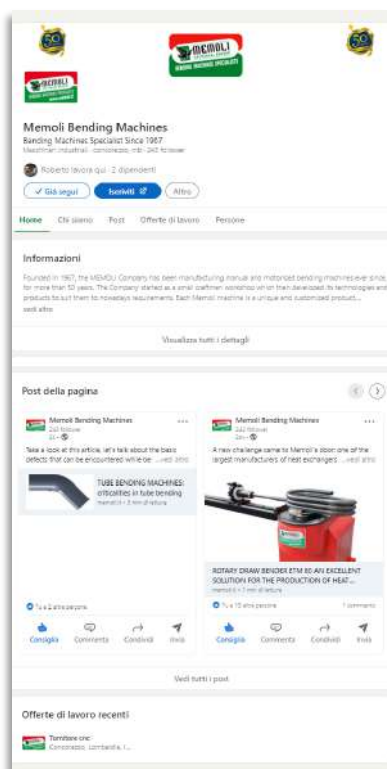
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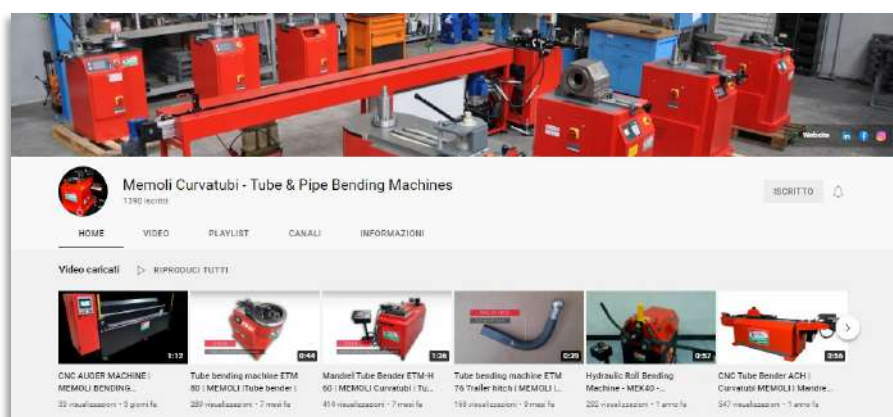
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