

## APPLICATIONS

For clamping, rotation and tilting of pipes with round profiles in manual or automatic welding, mainly in the field of pipe construction (prefabrication and assembly on site) as well as in the manufacture of plant.

Apart from being extremely economical (single handed operation, no interruptions due to repeated turning of the pipe to be welded), this machine also offers improvements in quality – there are no interruptions in the joint and a continually precise horizontal position of the pipe is maintained.

## DESCRIPTION

The electric control as well as the tilting drive are located in the frame. Tilting is carried out manually (U 150 and U 500) or motorized (U 1000, optional U 500) the tilting angle is approx. 135°. The tilting section consists of drive and roller box, holding column, clamping arm and pressure roller. This machine is also available as a non tilting version (designation: U 150H, U 500H, U 1000H). In general, drives and electric controls of the U-series are protected in the frame or in a control panel.

## ELECTRIC CONTROL

Rotary speed and direction are set at the front of the machine which is switched on and off by a remote foot switch.

Further options of electric control:

- a) Separate foot operated control unit (see illustration U 500, photo on this page). Switching on and off and changing the direction of rotation takes place by a foot switch, the rotary speed is adjusted by a foot control roller.
- b) Switching on and off as well as changing the direction of rotation is carried out from the welder's helmet or shield. The rotary speed is set at the machine.
- c) Turning direction and turning speed are set on a remote hand pendant.



# U RANGE

PIPE ROTATORS WITH CLAMPING ROLLER SYSTEM

# U 150 / U 150 H

PIPE ROTATOR WITH CLAMPING ROLLER SYSTEM

## TECHNICAL DATA U 150

Rotary speed: infinitely variable 0 - 120 cm/min. Pipe range with clamped pipe: 20 - 200 mm incl. component flange. Pipe range with unclamped pipe: 20 - approx. 300 mm (after take out the holding column). Max. tilting moment in relation to axis of tilt: 1500 cmkg. Max. load (horizontal): 300kg on each rotator and roller support frame. Max. load (vertical): 150 kg. Torque at drive roller: 500 cmkg. Power requirement: approx. 500 VA, 230 V, 1ph. (other voltage possible).



## ACCESSORIES

- No 151 base trolley, wheels can be steered and locked in position
- No 152 roller support frame to support longer pipes, height adjustable.
- No 152a set of rubber coated rollers for idler frames.
- No. 154 faceplate 300 i.d. to convert the rotator into a welding turntable.
- No. 155 Holding attachment for torch (with or without double slide), to be fixed to the pipe rotator. Designed for oxyacetylene cutting and bevelling of pipes as well as for automatic welding of round joints.
- No. 156 holding and clamping attachment to weld together pipe bends and pipes with elbows (only in connection with No 154.) For pipe bends up to 100 mm.
- No. 157 set of clamps, 100, 125, 150, 200 mm diameter for precise axial location during oxyacetylene cutting.
- No. 157a The same set of clamps in stainless steel.
- No. 158 set of rubber coated rollers, for stainless steel, non ferrous and plastic pipes.
- No. 158a set of rubber coated rollers for lobster backs.
- No. 159 set of rollers, usable for stainless steel pipes and stainless steel flanges. (material of rollers: stainless steel).

*- We reserve the right to alter specifications without prior notice -*



# U 500 / U 500 H

PIPE ROTATOR WITH CLAMPING ROLLER SYSTEM

## TECHNICAL DATA U 500

Rotary speed: infinitely 0 – 100 cm/min. Pipe range with clamped pipe: 20 – 400 mm incl. component flange. Pipe range with unclamped pipe: 25 – 1000 mm (after take out the holding column.) Max. tilting moment in relation to axis of tilt: 7500 cmkg. Max. load (horizontal): 1000 kg on each rotator and roller support frame. Max. load (vertical): 500 kg. Torque at drive roller: 2000 cmkg. Power requirement: 750 VA, 230 V, 1 ph. (other voltage possible).



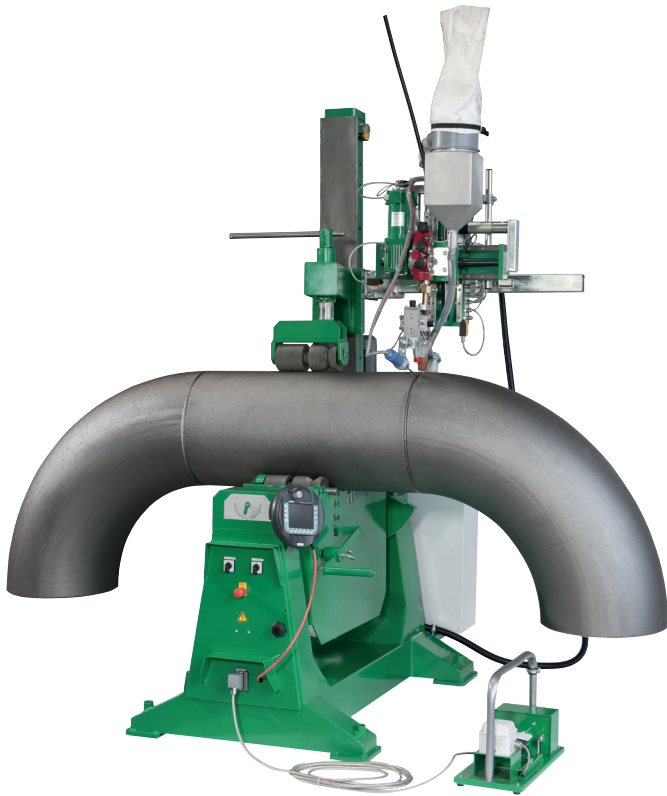
## ACCESSORIES

- No. 502 roller support frame to support longer pipes, height adjustable.
- No. 502a set of rubber coated rollers for idler roller.
- No. 504 faxeplate 500 i.d. to convert the machine into a welding turntable.
- No. 505 holding attachment for a torch (with or without double slide), to be fixed on the pipe rotator. Designed for oxyacetylene cutting and bevelling of pipes as well as for automatic welding of round mjoints.
- No. 506 clamping attachment to weld together pipe bends and pipes with elbows (Only in connection with No. 504.) Clamping range 80 - 200 mm.
- No. 507 set of clamps, 100, 125, 150, 200, 250, 300, 400 mm diameter.  
For precise axial location during oxyacetylene cutting.
- No. 507a The same set of clamps in stainless steel.
- No. 508 set of rubber coated rollers. For stainless steel, non ferrous and plastic pipes.
- No. 508a set of rubber coated rollers for lobster backs.
- No. 509 set of rollers, usable for stainless steel pipes and stainless steel flanges (material of rollers: stainless steel).

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# U 1000 / U 1000 H

PIPE ROTATOR WITH CLAMPING ROLLER SYSTEM



U1000 with single wire subarc welding head

## TECHNICAL DATA U 1000

Rotary speed: infinitely variable 0 - 70 cm/min. Pipe range with clamped pipe: 25 - 800 mm incl. component flange. Pipe range with unclamped pipe: 30 - 2000 mm (after take out the holding column.) Max. tilting moment in relation to tilting axis 35 000 cmkg. Max. load (horizontal pipe): 2 000 kg. Max. load (vertical pipe): 1 000 kg. Torque at drive rollers: 10 000 cmkg. Power requirement. 2500 VA, 400 V, 3 ph. (other voltage possible).

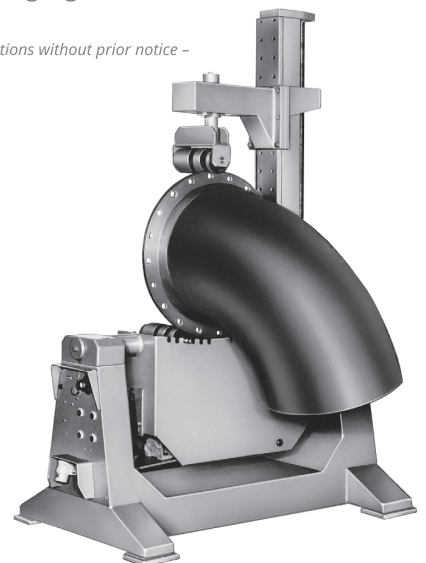
## ELECTRONIC CONTROL

Tilting up - down is operated by a reversing switch at the front of the machine. The direction of rotation and rotation speed are set by a remote hand pendant. Optional, a foot control unit is available (see description and photo U 500)

## ACCESSORIES

- No. 1002 roller support frame to support longer pipes, height adjustable.
- No. 1002a set of rubber coated rollers for idler.
- No. 1004 face plate 700 x 700 mm to convert the machine into a welding turntable.
- No. 1005 holding attachment for a torch (with or without double slide), to be fixed on the pipe rotator. Designed for oxyacetylene cutting and bevelling of pipes as well as for automatic welding of round joints.
- No. 1007 set of clamps 100, 125, 150, 200, 250, 300, 400, 450, 500, 600, 700, 800 mm diameter. For precise axial location during oxyacetylene cutting.
- No. 1007a the same set of clamps in stainless steel.
- No. 1008 set of rubber coated rollers. For stainless steel, non ferrous and plastic pipes.
- No. 1008a set of rubber coated rollers for lobster backs.
- No. 1009 set of rollers, usable for stainless steel pipes and stainless steel flanges. (material of rollers: stainless steel).
- No. 1010 grinding accessory for grinding of weld bevels (only in connection with accessory No. 1007). Includes jig, adjustable to multiple angles, support and angle grinder.

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# CLAMPING AND TURNING OF LOBSTER BACKS FOR WELDING

For centralised clamping and rotating of lobster backs, a specially rubberised set of rollers has been developed for each of the 3 different size machines U 150, U 500 and U 1000. These rubberised rollers have larger diameters than those already included in the range (numbers 158, 508, 1008). They may be adjusted axially and can be halved for especially small segments.

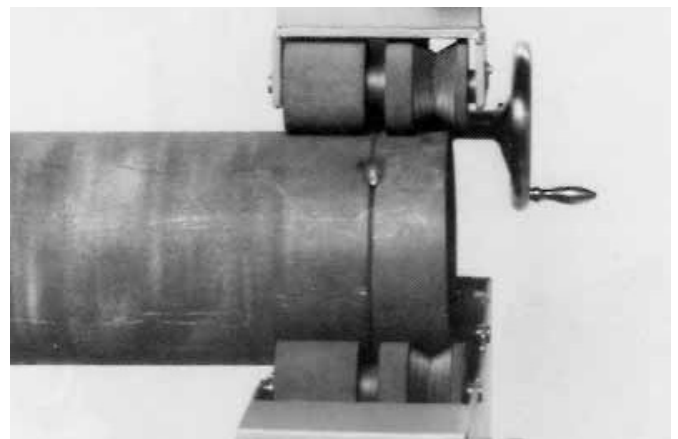
This accessory has, in addition to the sets of rollers, an extension to the clamping roller housing to accept the large roller diameter. Machines which have already been delivered will also accept this accessory.



Clamping and rotating of lobster back during circumferential welding using rubberised roller set No. 508 a on a model U 500 H version B machine with separate foot operated control unit.



Clamping and rotating of a shallow bend lobster back.



Clamping and rotating assembly for the U-series used as an external alignment device.

# PIPE ROTATORS WITH CLAMPING ROLLER SYSTEM

This System can be applied for clamping and rotation of pipes with round profiles, especially in welding.

These machines have essential advantages over traditional devices:

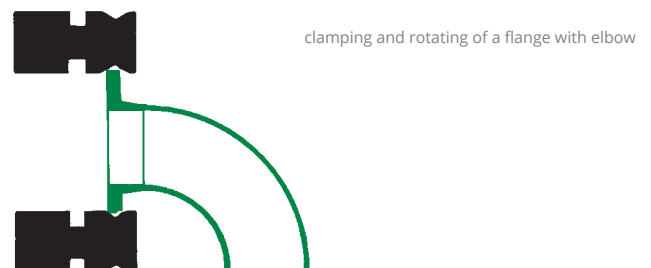
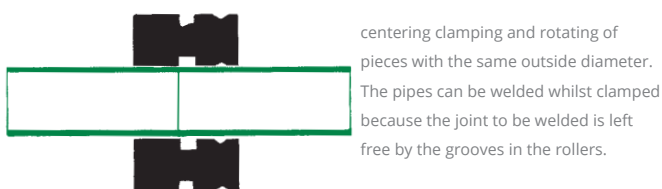
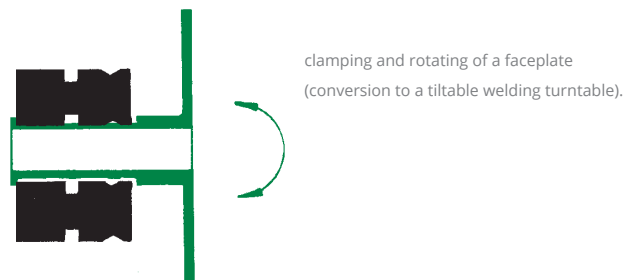
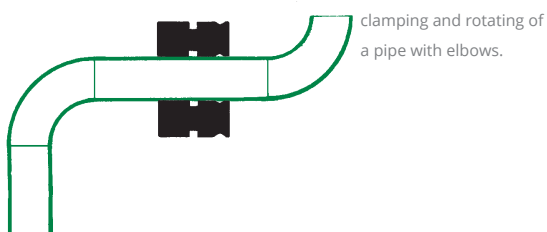
- They can be used for pipes with elbows, tee pieces or other offset loads.
- A wide range of pipes can be clamped. The infinitely variable rotary speed is not affected by the size of a pipe because of its separate drive unit.
- Quick precise centering and clamping without chuck, clamping shoe, etc.
- Flexible pipe handling – pipe can be clamped at its centre of gravity. Tilting moments and supports are irrelevant in most cases.
- It is possible to center two pipes with the same outside diameter.
- Various combinations are possible – e.g. clamping and driving of a main spindle.

Standard Models

MODEL	SIZE OF PIPE mm / inches	max. LOAD	ROTARY SPEED
U 150	20 - 200 / 1 - 8	300 kg	0 - 120 cm/min
U 150 H	20 - 200 / 1 - 8	300 kg	0 - 120 cm/min
U 500	20 - 400 / 1 - 16	1000 kg	0 - 100 cm/min
U 500 H	20 - 400 / 1 - 16	1000 kg	0 - 100 cm/min
U 1000	50 - 800 / 2 - 32	2000 kg	0 - 70 cm/min
U 1000 H	50 - 800 / 2 - 32	2000 kg	0 - 70 cm/min

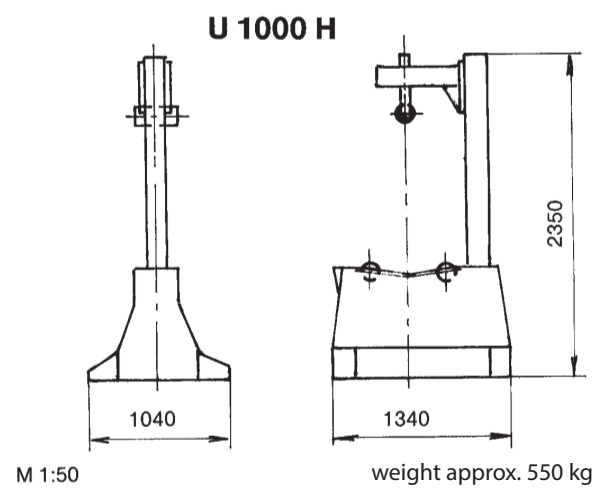
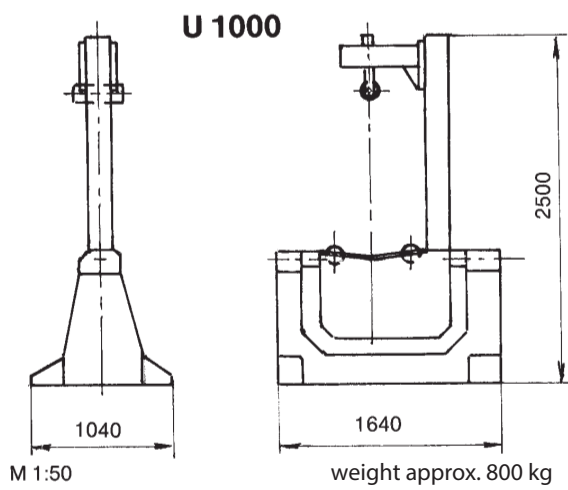
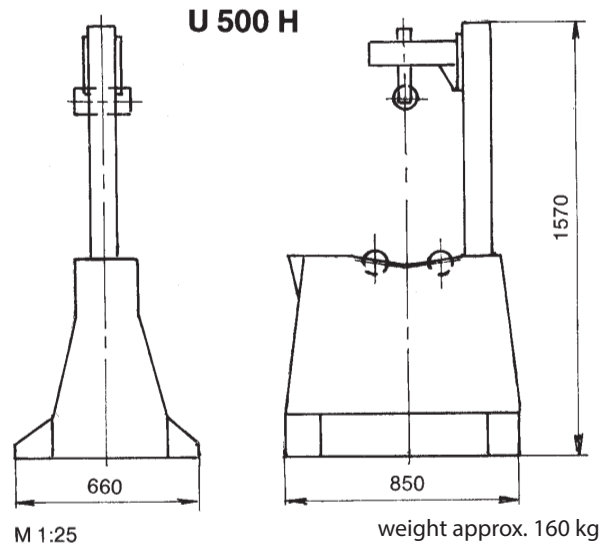
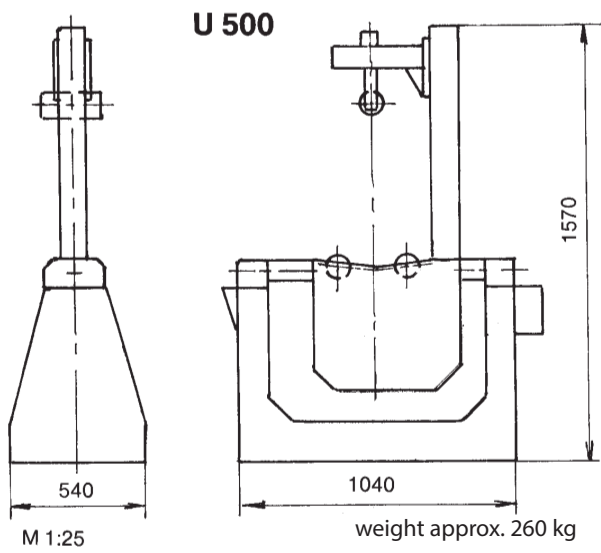
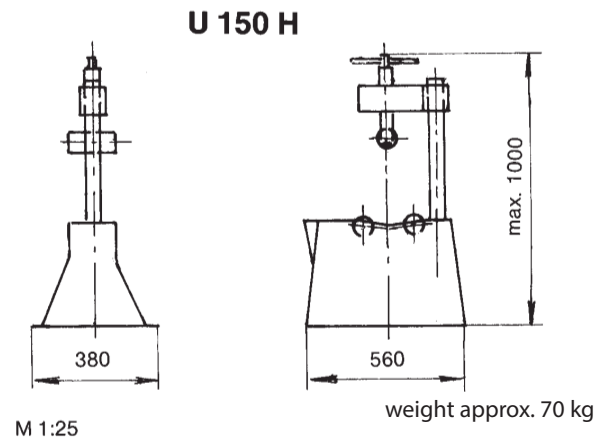
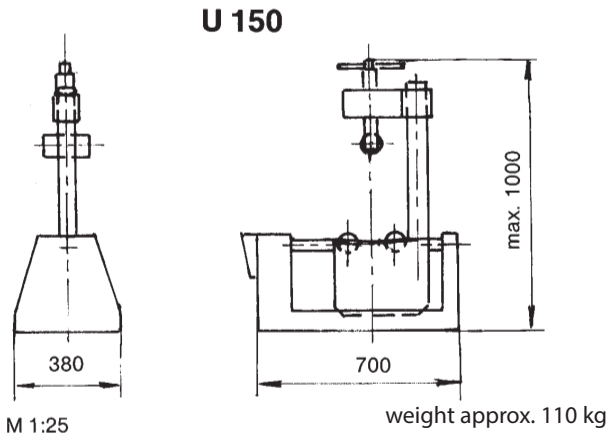
The U...H models have no tilting mechanism, but apart from that they correspond exactly to the U models.

Some examples for application



## DESCRIPTON

Description and technical data are the same as the ones for the U models. The accessories of the U...H models are exactly like the U model accessories. Intermediate sizes and heavier models are available on request.





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