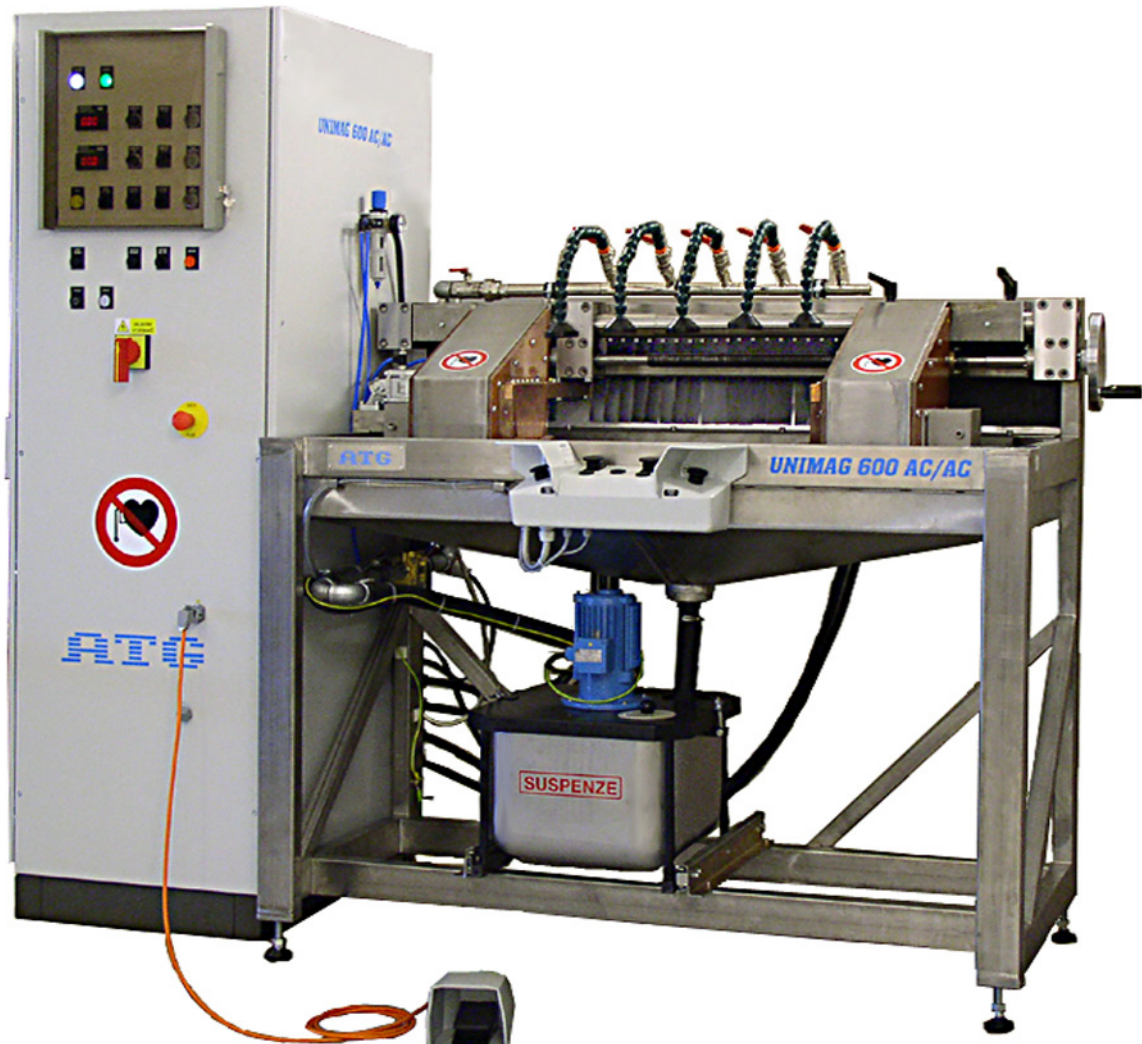


## HORIZONTAL BENCH FOR MAGNETIC PARTICLES INSPECTION

**UNIMAG 600 AC/AC**
**UNIMAG 900 AC/AC**


Horizontal magnetic particle inspection crack detector **UNIMAG 600 AC/AC** is designed for detection of surface defects in ferro-magnetic materials. This testbench allows application of different magnetizing techniques:

- Circular magnetization due to AC current flow through the tested part
- Circular magnetisation of hollow parts due to AC current flow through the central conductor
- Longitudinal flux flow magnetizing
- Transformer magnetization - electric current induction on a hollow part surface by means of a central laminated Cu/Fe twincore bar
- Combined magnetization - simultaneous longitudinal and circular magnetization

The use of a laminated twincore bar allows combined magnetization of longitudinal flux flow and current flow. It is advantageous especially for testing of ring shaped parts. The PLC based control system assures preset of testing parameters - like current control, timing of magnetization, spraying time etc.. In the case of a higher differences between measured and preset values (oxidized contacts etc.) the magnetisation is automatically interrupted.

### Description of basic unit:

- rigid frame from welded stainless steel profiles
- max. length of inspected part 600 mm (or max. 900 mm in the case of *UNIMAG 900 version*)
- mass of inspected part up to 100 kg
- pneumatic short-stroke clamping, clamping force 935 N at a pressure of 3 bars
- stainless steel operation tank
- pneumatic supply system for clamping if inspected parts (nominal 5 bar requested) - prepared for connection to existing pressure air source (compressor, pressure bottle),
- pressure air source is not included to the basic delivery
- manual suspension flow rate control valve with hand-held suspension spraying
- suspension time control and magnetisation time control
- electropneumatic valve for suspension controlled by timer
- stainless steel suspension reservoir (volume 40 l) with pump and suspension circulation system
- manual/automatic decaying demagnetisation AC on the bench
- manual suspension volume control valve
- flat easily exchangeable contacts
- twin push-button system - the operator must press both buttons to clamping/start the magnetisation

### Options:

- lockable control panel cover to protect unauthorised change of inspection parameters
- external foot switch (industrial design)
- spraying heads / showers – *cat. no. 4807-12-05*
- on request adjustable stainless steel / plastic nozzles for suspension spraying
- moveable UV lamp holder
- inspection cabin for fluorescent MPI - *cat. no. 4807-01-05*
- electric fan for inspection cabin – *cat. no. 4807-01-23*

<i>Parameter</i>	<i>Unit</i>	<i>Series UNIMAG AC/AC</i>		
Catalogue No.	n	4807-12-00	4807-13-00	4807-XX-10
Clamping length	mm	600	900	*600/900
Circular magnetization AC	A	2 200	2 400	3 400
Longitudinal magnetization AC	Az	10 000	15 000	17 500
Max. weight of testpiece	kg	100	100	100
Power consumption	kVA	32	40	60
Power consumption	mm	10		
Power supply	V / Hz	3 + PE 400 V - 50 Hz		

\*UNIMAG 600/900 HP have higher power and duty cycle 50%.