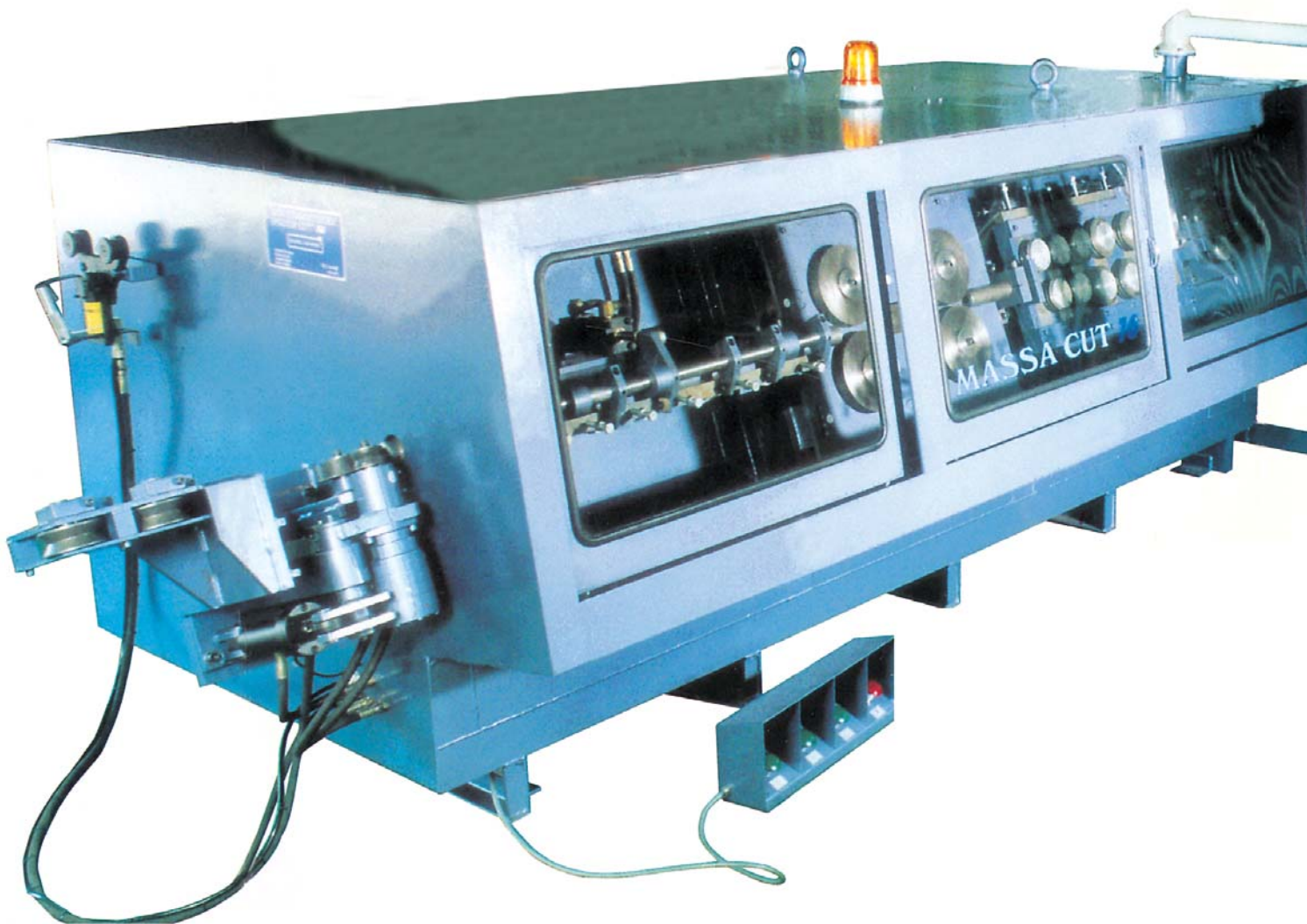


 **Uni-Straightener**

MASSACUT 16

Uni-Straightener

Straight steel bar - automatically



Uni-Straightener

The world-renowned hydraulic components in the MASSACUT 16 are all readily available. Its control system utilises Allan Bradley plug-in PLC and is fully interchangeable. All machined components are manufactured to ISO 9001 specifications.

The high production MASSACUT 16 combines the separate functions of straightening and cutting into a single machine. The material to be processed is taken off coil into the machine, which straightens the wire and cuts it to the required length. Capacity range: 16mm



450 MPa high tensile steel or 20mm 450 MPa high tensile steel (on special order), in which case maximum speed is reduced to 170 meters per minute.

Machine specifications

- Capacity 6mm, 8mm, 10mm and 12mm 450 MPa high tensile steel at feed speeds of ± 220 meters per minute. 14mm and 16mm HT steel 450Mpa at feed speeds of ± 110 meters per minute. Average feed speeds through capacity range 180 meters per minute
- Accuracy level 2mm
- 2-off wire straightening assemblies on two planes of vertical and horizontal, both with hydraulically powered opening and closing
- Hydraulically powered pre-feeder and roller box entry guide station
- Factory pre-set wire gauges, total of 6
- Completely equipped to straighten cold-drawn or hot-rolled rebar through capacity range
- 2-off coil payoff stations with controlled de-coiling
- 4-off coil cradles to enable pre-loading
- Proportional hydraulics controlling feed speed automatically
- 12 meter (length optional) automatic straight cut steel collection bench, with automatic bar discharge and collection station for three levels of storage, equipped to carry 6 tons

Electrical parameters

- Main supply: 380/415 V 50/60 Hz 100 amp
- Shaft encoder: 1000 pulses/revolutions quadrature
- Maximum speed: 220 meters per minute
- Maximum cut length: 12 meters (optional)
- Count frequency: 500 (kHz)
- Control: Allan Bradley PLC
- Operator controls: overhead panel with MMI + control switches + remote pus-button stations
- Control voltages: 220V + 24 DC
- Motor protection: MCB + over-current protection for motor
- Electric motor: 45kW, 4 pole TEFC motor

Weight: 9 tons

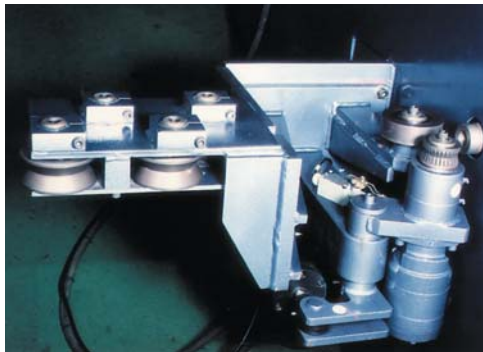
Dimensions

- Main machine: 5,3m x 2,2m
- De-coiler: 3,2m x 1,7m
- Collection bench: 12,4m x 1,8m

Uni-Straightener

Pre-feed

Wire is fed automatically into the machine by means of a pressurised hydraulic clamping device with positive hydraulic feed roller-drive assembly.



Drive mechanism

There are four drive rolls, each independently driven by hydraulic motor. There is guaranteed non-slip drive throughout the feed operation, with automatic speed control via proportional hydraulics. Drive rolls feature automatic hydraulic opening and closing. Smooth V-grooves on the drive rolls minimise damage to material being fed.



Control

Computer technology provides fully automatic control of all machine functions (an RS 422 serial port for downloaded production data is optional) delivering the following user benefits:

- Programming while the machine is in production
- Batch production of up to 50 separate jobs can be programmed. These can be run in programme sequence, or the jobs can be rearranged
- Fault-finding ability with colour graphical representations for trouble-shooting problem areas
- Controls the bundling station consisting of storage

rack and run-out with ejection flap and tree magazines. The cut wire is stored in a bundling magazine, and the correct number of wires for each bundle is transferred to the next magazine, provided that magazine is empty. Here they are strapped into a bundle, then transported to magazine 3 by operator control.

- User-friendly colour panel view



Shear mechanism

The heavy-duty alligator shear has a high speed cutting action, and features eight cutting edges on each blade.



De-coiler

The two high-speed rotary de-coiling stations, each with electronically controlled hydraulic braking, offer snag-free payoff from the coils at all times. Each de-coiling station can carry three tons.

