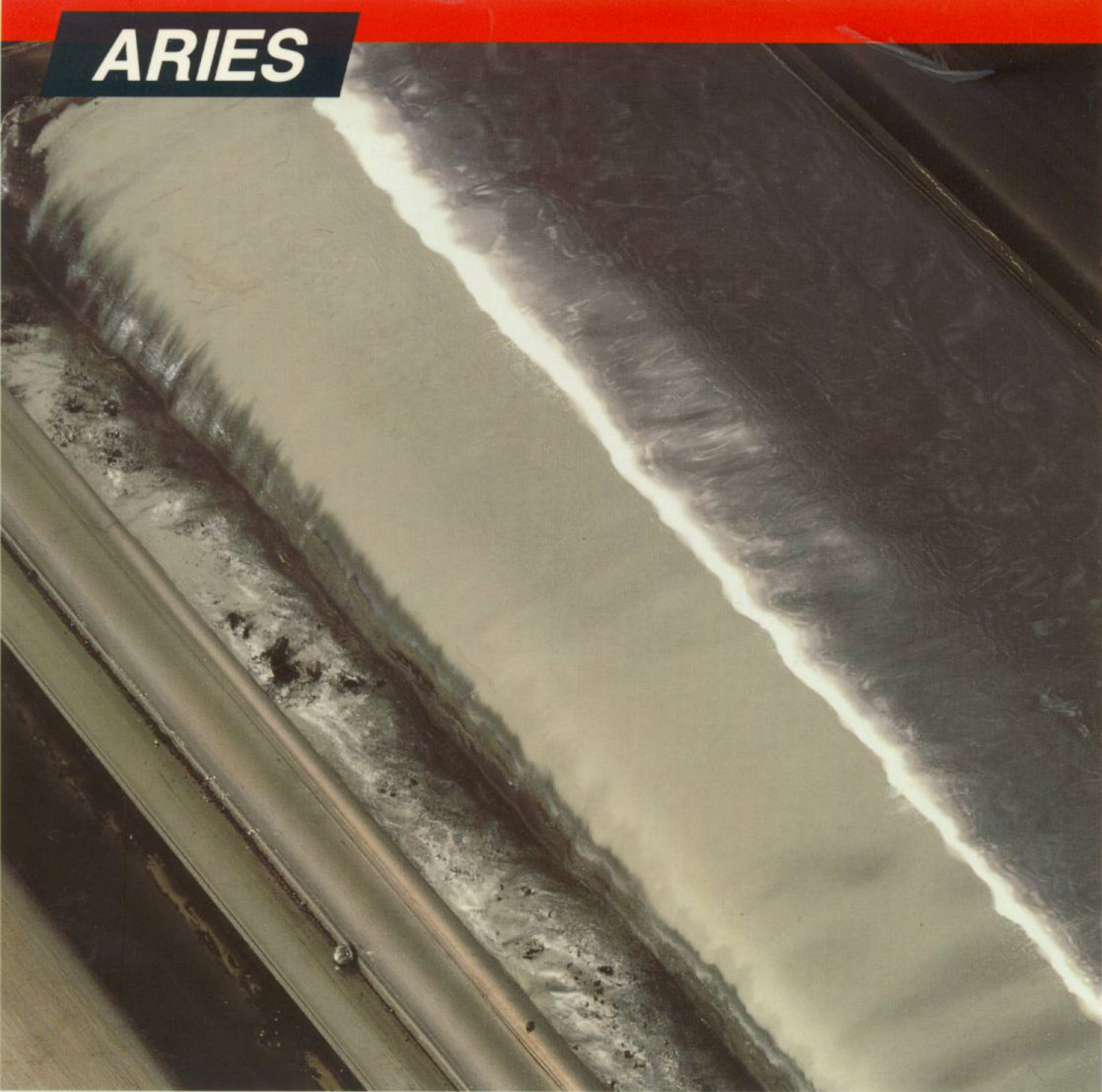


ARIES



Wave soldering machine



Manufacturing for Progress

IEMME ITALIA

$5\text{KW} + 5\text{KW} = 5\text{KW}$

new energy saving system



The preheater and solder pot have a power of 5 Kw each. "An Intelligent control circuit" allows to switch the power on the right priority, ensuring a total absorption of 5 Kw.

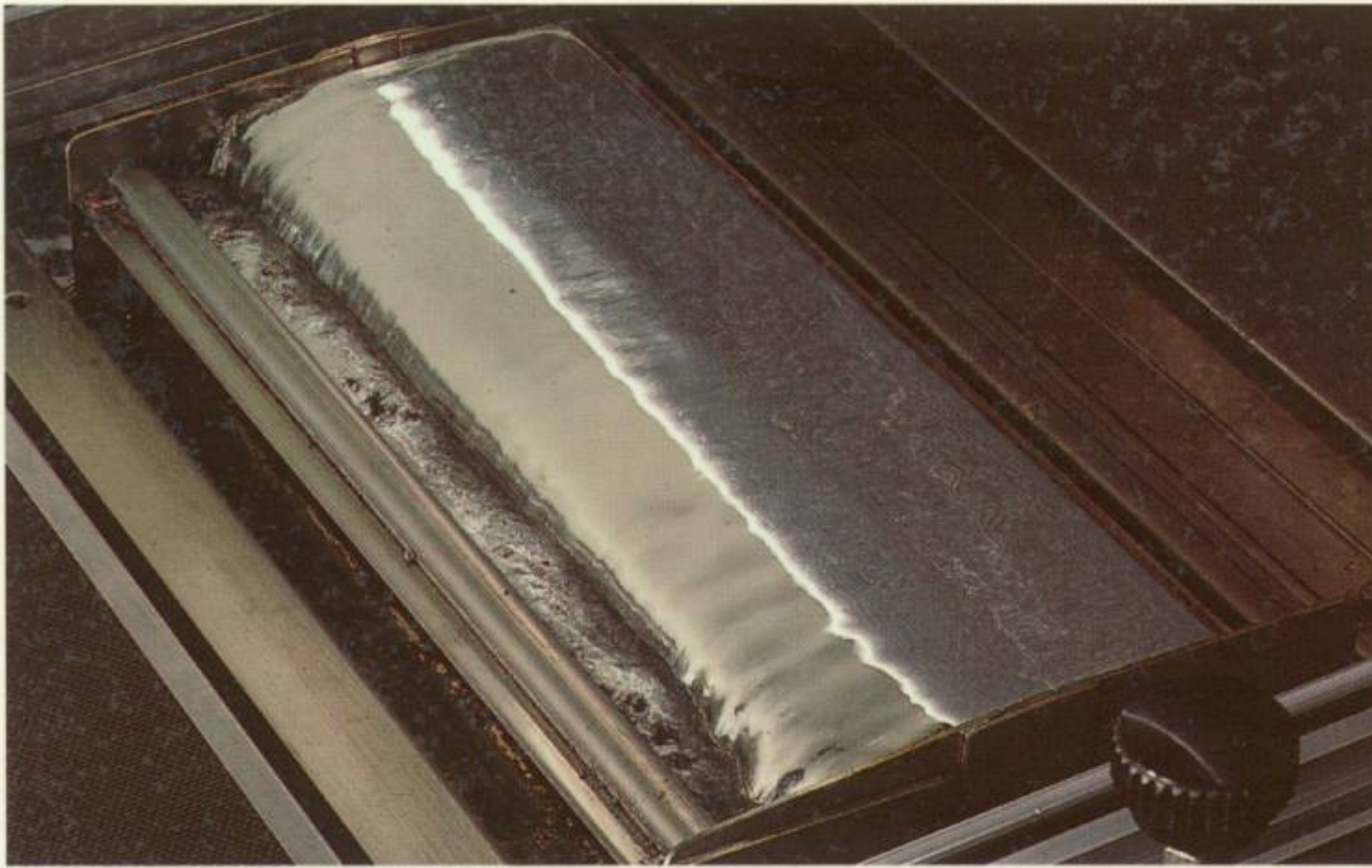
Specifications

Overall dimensions	l. 1730 mm (5 ft 8 inches), w. 880 mm (2 ft 10 inches) h. 660 mm (2 ft 2 inches)
Weight	300 kg (662 lb) max weight, without solder alloy
Main supply	220 V, 1 phase, 50/60 Hz; 220V, 3 phase, 50/60 Hz; 380V/415V 3 phase, 50/60 Hz
Power consumption	5 KVA total, max.
Conveyor	Carrier Conveyor: for PCBs of max, size 304x406 mm (12x16 inches) Carriers for PCBs longer than 406 mm (16 inches) are available on request. Variable speed: from 0 to 2 m/min (0 to 6 1/2 feet/min) Incline: 3°, 4° or 5°
Flux unit	Flux bath capacity: 5 litres (1,1 gal.) Two air membrane pumps built-in.
Pre-Heater unit	IR at 4,5 micrometres wavelength average. Power requirement: 5 kw. Temperature adjustable.
Soldering unit	Solder bath capacity: 170 kg (370 lb) of eutectic alloy. Power consumption: 4.7 kw. Standard Unit: - with single, mono-directional, dry wave OR SMT Unit (factory fitted option): - with patented dry 'O-Wave' [®] Temperature and wave height adjustable.
Control unit	The console includes: - main power switch - emergency-stop button - PID controller for solder bath temperature with digital display - PID controller for pre-heater temperature with digital display - conveyor speed closed loop control with digital display - solder pumps speed control - 'O-Wave' [®] grid speed control
Extraction requirements	Extraction duct 150 mm (5.9 inches) diameter. External blower requirement: 400 mm ³ /h (235 cu ft./min).
Packing information	Pallet + Cardboard. Dimensions: l. 1830 mm (6 ft 1/4 inches), w. 980 mm (3 ft 2/3 inches), h. 840 mm (2 ft 9 1/8 inches) Weight: 50 kg (110 lb)

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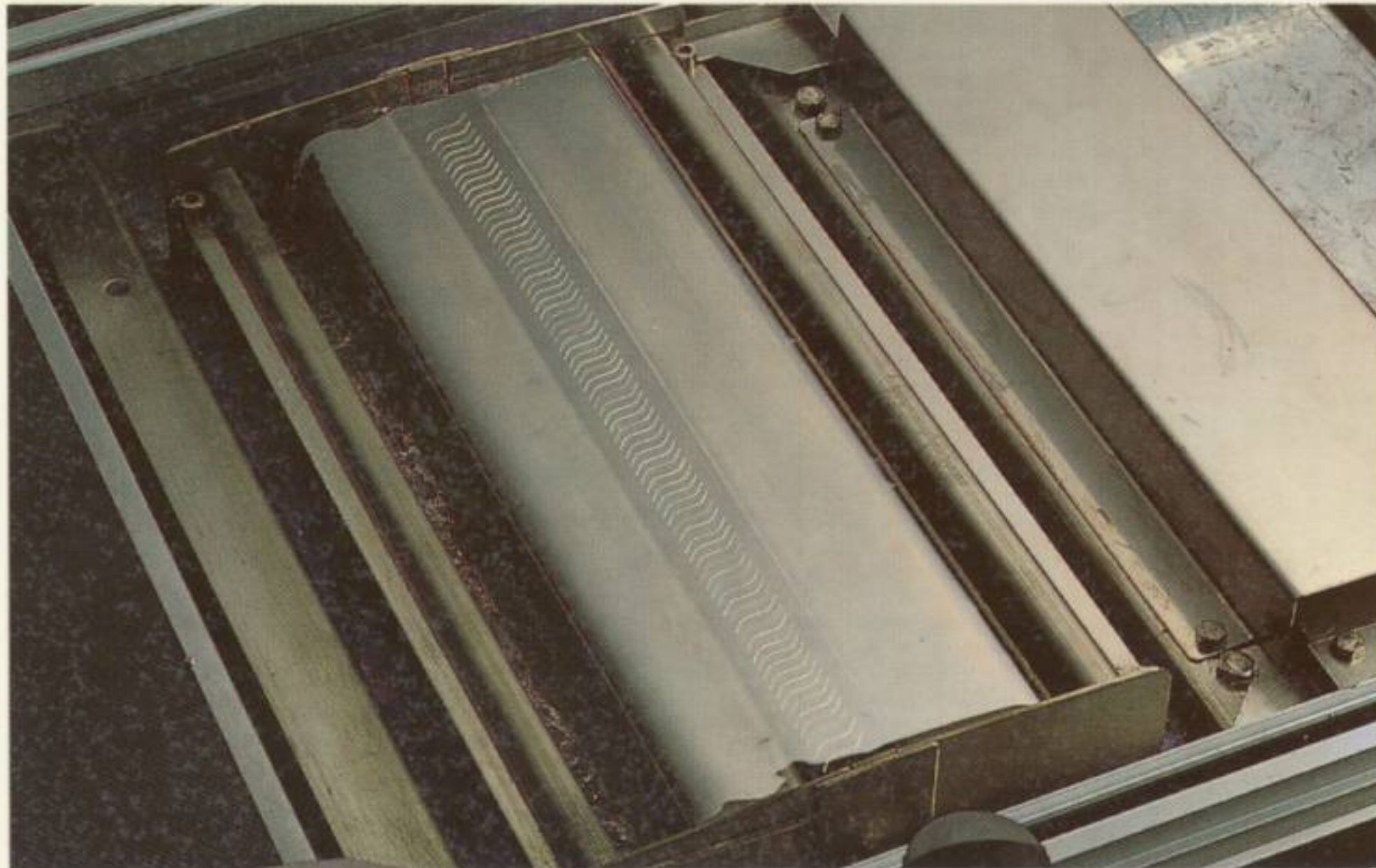


The foam-fluxing unit has a 5 litre tank, a porous stone, a nozzle and two air-membrane pumps with a control valve. An input for compressed air is available standard. The system is suitable to work with rosin-based, water-soluble and low content fluxes.

After the fluxing unit an air-blade removes excessive foam from the PCBs and accelerate the solvent's evaporation.

A long life, maintenance-free IR unit, working at 4,5 micrometres wave length, provides an uniform preheating of the PCBs. The upper hot surface is protected by a special high quality glass which offers a directional heat distribution.

The cover of the unit provides a tunnel effect which ensures a smooth increase of the PCB's temperature.



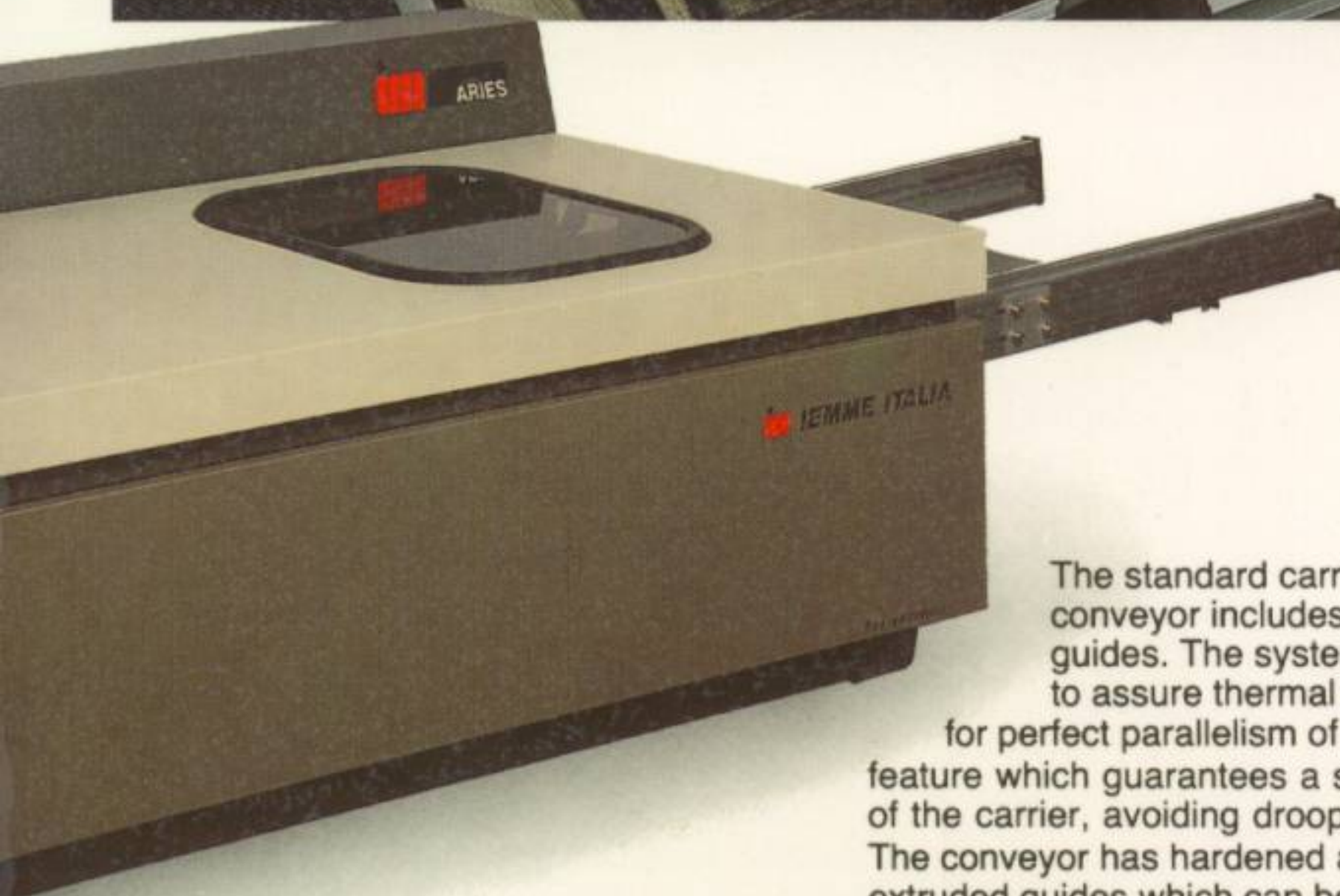
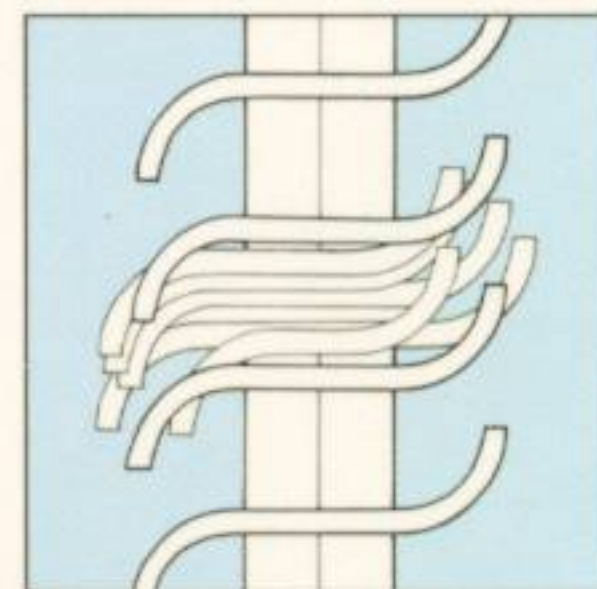
The solder pot is manufactured from high-quality stainless steel with internal heaters, specially made for low-watt consumption/high efficiency. Two soldering units are available:

- with standard mono-directional wave
- with patented 'O-Wave', designed to provide optimum SMD soldering results.

The solder pot has a single low speed pump, driven by a dc motor with close loop control.

The system has been designed to accept the optional O-Wave, so called for the orbital movement of a grid placed into the nozzle.

The action of the O-Wave eliminates all shadow areas around the components on the PCBs whilst pushing away the trapped gas and allowing a perfect soldering of even complex SMD assemblies. When not required, The O-Wave can be switched off, reverting the wave to the standard one.

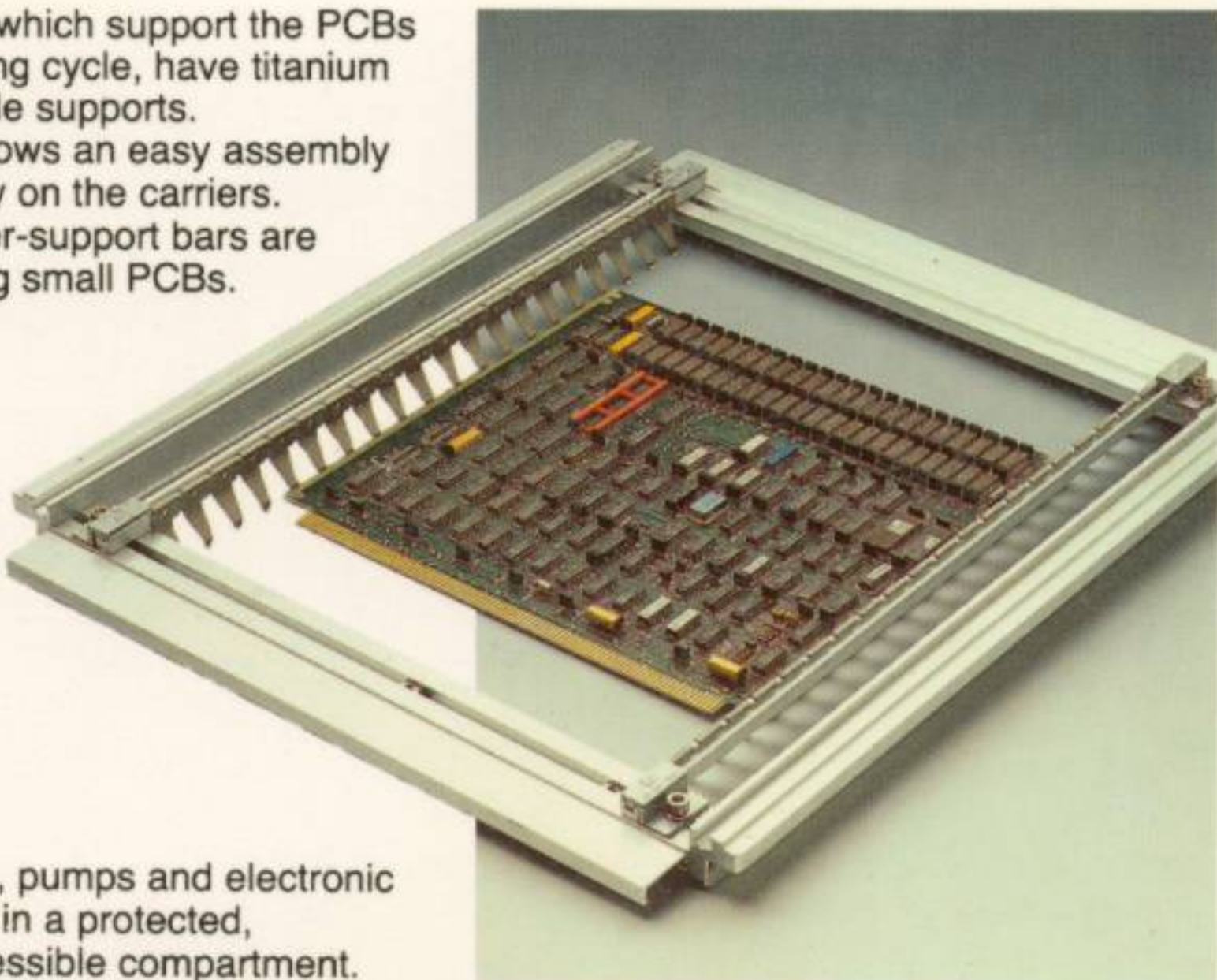


The standard carrier conveyor includes inlet and outlet guides. The system is designed to assure thermal compensation for perfect parallelism of the guides, a feature which guarantees a smooth running of the carrier, avoiding drooping or twisting. The conveyor has hardened aluminium extruded guides which can be fixed in three positions at 3°, 4° and 5° incline, to achieve optimal solder wave contact for different PCB component configurations.

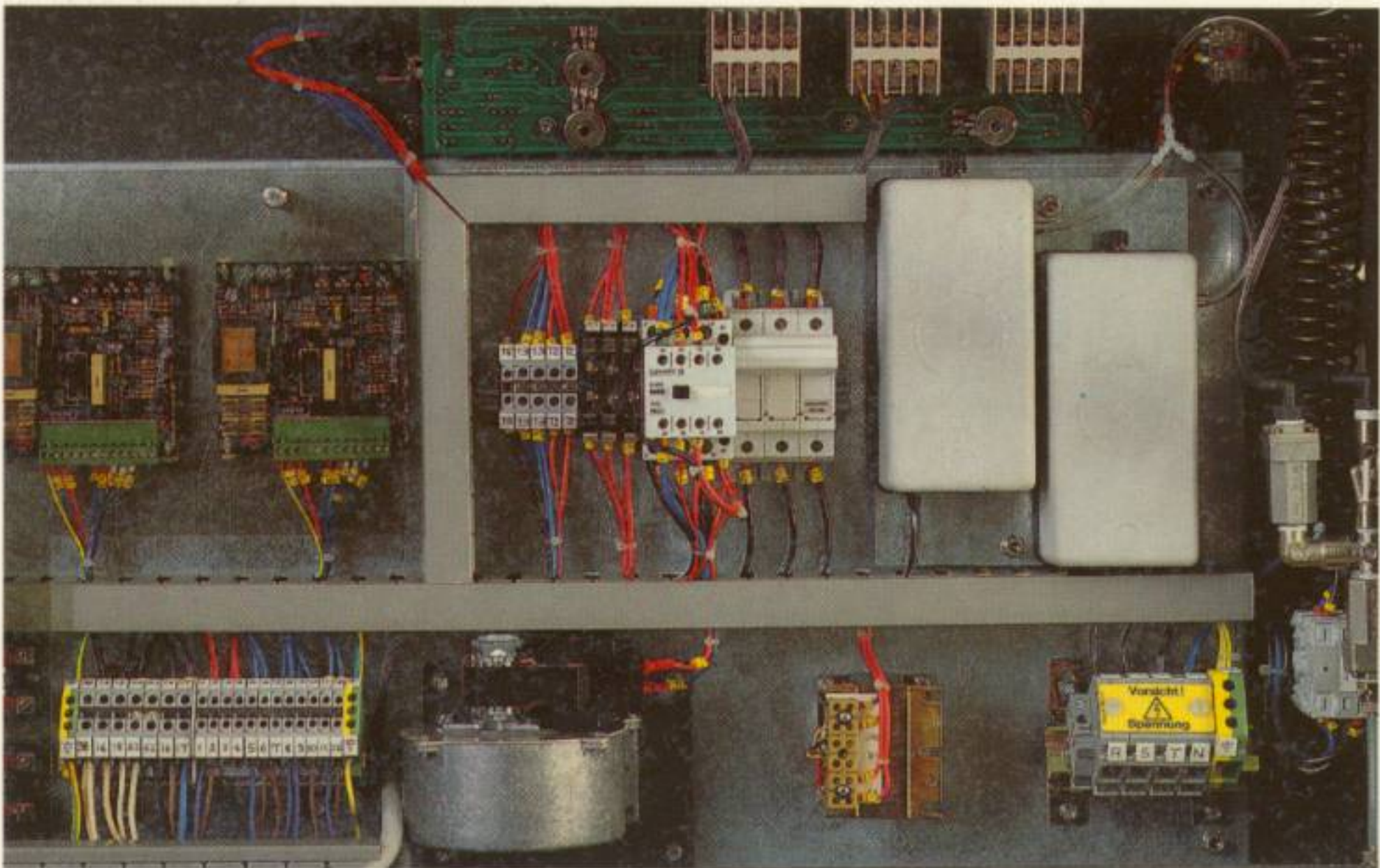
The Aries is a compact, economical, simple benchtop wave soldering machine designed to process printed circuit boards with conventional leaded components and surface mounted devices (SMD). The 'O-Wave'® option offers the best soldering results, eliminating skips, icicles, bridges or solder build-up. The Aries is completely enclosed, offers total accessibility and operates on a bench or on its own stand (option). It can solder boards up to 304 mm (12 in) wide and 406 mm (16 in) long, with components up to 80 mm (3 1/4 in) high.

Perfect soldering, simplicity, easy operation, minimum maintenance, long life and durable value are the basic criteria we had in mind when designing Aries, which is also the result of our unique long experience in the manufacturing of small and medium size wave soldering machines. The independent units: conveyor, foam fluxer, pre-heater, solder pot and controls, are in a compact and solid enclosure.

The Aries carriers, which support the PCBs through the soldering cycle, have titanium fingers on adjustable supports. The small depth allows an easy assembly of the PCBs directly on the carriers. Optional extra finger-support bars are available for holding small PCBs.



All motors, controls, pumps and electronic circuitry are placed in a protected, separated and accessible compartment.



A simple operator panel monitors and controls all the important soldering parameters:

- conveyor speed
- pre-heater temperature
- solder bath temperature

The following controls are standard:

- air flow for the fluxing unit
- air blade switch
- main wave height
- SMT wave height
- main switch
- emergency switch

