



ARC 1550

Stud Welding Unit for ARC stud welding according to current standards

Technical Data

Gas/Automation	Series/Option
Welding range	M3 to M20 RD, dia. 2 to 19 mm
Welding material	Mild steel, stainless steel
Welding rate	3 to 35 studs/min (depending on application and stud dia.)
Welding current	1,550 A
Current adjustment range	500 to 1,550 A (500 A - 800 A - 1,000 A - 1,200 A - 1,550 A)
Welding time	5 to 1,500 msec (stepless)
Primary power	400 V, 3 phases, 50/60 Hz, 63 AT(alternative input voltages available)
Primary plug	63 A (at 400 V mains)
Connected load	40 KVA (at 400 V mains)
Power source	Transformer/Rectifier
Primary cable	5 m, 6 mm ² (max. cable length 30 m, 6 mm ² at 400 V)
Max. welding cable extension	20 m, 95 mm ²
Cooling type	F (temperature controlled cooling fan)
Protection class	IP 23
Operational and storage conditions	According to current standards
Dimension L x W x H	460 x 400 x 730 mm (without handle)
Weight	133 kg
Order No.	93-10-1552 (Gas) 93-10-1554 (Gas/Automation)

General Information

Application

Especially suitable for thicker sheets of about 2 mm or higher

Process variants

- Short cycle drawn arc welding
- Drawn arc welding



Equipment

- Welding with ceramic ferrule (series)
- Welding with shielding gas (series)
- Automation (optional)

Advantages

Features

- Microcontroller for precise process times, optimal functional reliability and maximum operating convenience
- Function monitoring automatic function test following power-up; monitoring of all internal system functions
- Display of error codes on digital display
- Lift test for gap welding guns and stud welding heads
- Power regulation constant power input for reproducible, good welding results; compensation of differences in arc voltage (e.g. drop formation); compensation of changes in resistance due to transformer warming; compensation of fluctuations in mains voltage; recording of welding energy used for reference weld, subsequent welds are then automatically regulated

Structure

- Extremely easy to operate
- Compact
- **Mobile** most mobile stud welding unit of its class thanks to large rubber wheels (trolley design); stairs, ridges and cables are no longer obstacles; easy transport due to integrated crane hook
- Robust metal housing withstands rough treatment in shop and on site

Safety

- With integrated mains filter (protection against voltage peaks)
- Optimal for construction sites with large mains voltage fluctuations use even with critical voltage supply (- 10% + 10%)
- EMC test
- High-voltage test with log
- Retriggering lock-out prevents welding on a welding element that has already been set
- Thermal monitoring of transformer automatic shutdown in case of overheating
- **Temperature-regulated ventilator** reduces noise and dust in the stud welding unit (greater system reliability)
- Consistent separation of transformer and control unit protects electronic components against dust and thermal loading
- Control unit galvanically separated from welding lines high degree of functional safety
- Cooling-air tunnel channelling of cooling air to the transformer protects electronic components against dirt and dust
- Optimal protection against external interferences
- Protection class IP 23
- Also permits operation outdoors

Welding

- **Display** infinitely adjustable power setting; easy monitoring of all functions via LED displays; display of welding and gas-preflow time (optional: pneumatic feed time for automation); control and monitoring of all system functions; extremely easy operation via keyboard; flashing display indicates power-mode operation
- **Powerful** built-in power reserves
- Trouble-free changing of welding voltage polarity possible by reconnecting welding current and ground cables
- Welding current setting adjustable to 500 A, 800 A, 1,000 A, 1,200 A, or 1,550 A

Suitable stud welding guns/ -heads

- A 12, A 16, A22, AI 06
- PAH-1 (only suitable for automatic version)
- KAH 412, KAH 412 LA (only suitable for automatic version)

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