

✓ improved process monitoring

✓ simplified production control by monitoring of all welding parameters and subsequent visual inspection

✓ comfortable, exact and fast adjusting of stud welding gun resp. automatic welding head

✓ optimised process cycle

■ GENERATION
2022

BOLTE



PRO-S

INVERTER STUD WELDING UNIT FOR DRAWN ARC AND SHORT CYCLE STUD WELDING
SINGLE-PHASE POWER SUPPLY (230 V OR 115 V)



STUD WELDING TECHNOLOGY BY



STUD WELDING

MODERN INVERTER TECHNOLOGY ENSURES VERY PRECISE CONTROL AND HIGH REPRODUCIBILITY OF THE WELDING PROCESS

EASY OPERATION BY ROBUST ROTATING PRESSURE SWITCH

VERY HIGH ARC STABILITY! ALSO IN CASES OF SHORT WELDING TIMES AND LOW WELDING CURRENTS

WELDING CURRENT AND TIME CONTINUOUSLY ADJUSTABLE

SINGLE-PHASE POWER SUPPLY (230 V OR 115 V)

ALL FUNCTIONS AND PARAMETERS ARE SHOWN ON A BIG DISPLAY

IDEALLY SUITED FOR MOBILE USE - CONSIDERABLY LOWER WEIGHT THAN CONVENTIONAL STUD WELDING UNITS

ROBUST CONSTRUCTION FOR THE USE IN HARSH ENVIRONMENTS

UNAFFECTED BY FLUCTUATIONS IN THE MAINS VOLTAGE



CONTROLLING AND MONITORING OF ALL FUNCTIONS AND PARAMETERS BY FAST AND HIGH-PERFORMANCE MICROPROCESSOR

POWERFUL

HIGH EFFICIENCY!
LOW POWER CONSUMPTION!

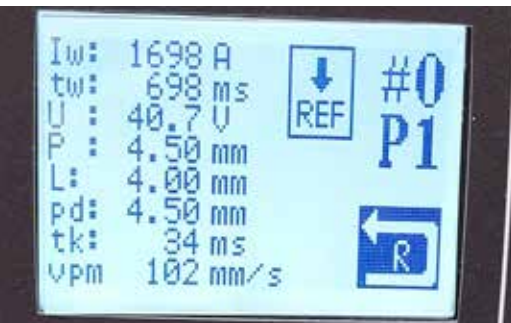
INTEGRATED WELDING PARAMETER MONITORING (OPTIONAL: WELDING PARAMETER MEMORY)

FAST WELDING SEQUENCES

59 USER-SPECIFIC WELDING PROGRAMMES STORABLE

LIBRARY WITH PRE-INSTALLED WELDING PROGRAMMES (SELECTABLE VIA STUD DIAMETER AND TYPE)

HIGHLIGHTS AND SPECIAL EQUIPMENT



WELDING PARAMETER MONITORING AND DOCUMENTATION

The welding parameter monitoring, integrated as standard in all series PRO-S stud welding units, enables a quality control of the finished welds. The units can detect each discrepancy from the ideally permitted values. So the welding supervisor and the operator can immediately recognise deficits in the welding operation like insufficient balancing of blowout effects, tilt of the welding gun etc. Consequently, the production control can be reduced to monitoring and recording of all welds by the unit and a subsequent visual inspection.

Features:

- » recording of welding current, welding time and voltage for each weld
- » recording of stud protrusion before the weld as well as stud travel (lift, immersion depth, immersion speed and short-circuit time) during the weld (only when a welding gun resp. an automatic welding head with travel measuring system is used)
- » comparison of the recorded welding parameters (actual values) to the parameters of a reference weld (set values) (tolerances adjustable)

- » in case of variances to the reference weld a warning is displayed or the unit is locked for further welds until the release by the operator (functionality can be switched off)
- » storage of the last ten welding parameter sets
- » optional (also retrofitable): welding parameter memory for the storage of 24500 welding parameter sets (storage with date and time) with USB-interface for data transmission (welding parameter sets) to a PC

COMFORTABLE, EXACT AND FAST ADJUSTING OF STUD WELDING GUN RESP. AUTOMATIC WELDING HEAD

- » The values for stud protrusion and lift that are adjusted on the gun resp. the welding head can be shown in the display of the unit. Thus, the gun resp. the welding head can be adjusted

very comfortable, exact and fast. (only when a welding gun resp. an automatic welding head with travel measuring system is used)



AUTOMATIC STUD FEEDING

- » An automatic module enables the connection of the automatic stud feeder VBZ and an automatic welding gun.



ADAPTER BOX PRO-SPLIT

- » available as accessory
- » enables the operation of up to four stud welding guns with different adjustment values for welding current and time on one unit
- » automatic detection of used gun
- » weld counter for each gun connection
- » with up to four shielding gas modules



SHIELDING GAS MODULE FOR STUD WELDING WITH SHIELDING GAS

- » optionally available
- » enables stud welding with shielding gas for weld pool backing
- » shielding gas pre- and post-flow time continuously adjustable



SINGLE-PHASE POWER SUPPLY

- » power connection 230 V or 115 V
- » unaffected by fluctuations in the mains voltage

TECHNICAL DATA AND CHARACTERISTICS

	PRO-S 600	PRO-S 600
Welding range (Ø mm)		
Stud welding with ceramic ferrule	3-6	
Stud welding with shielding gas	3-6	
Short cycle stud welding with or without shielding gas	2-6	
Welding current (A)	100-400	
Welding time (mS)	1-115	
Welding parameter monitoring		
Welding parameter monitoring	x	
Welding parameter memory with USB-interface for data transmission to a PC	o	
Utilisable with adapter box PRO-SPLIT	x	
Operation		
Microprocessor control	x	
Welding programme library	x	
Welding programme storage	x	
Device lock with PIN code	x	
Authorization concept (device lock, basic settings, menu structure)	x	
Weld counter (resettable)	x	
Lift test	x	
Repeat cycle lock	x	
Electronic function control	x	
Self diagnosis system	x	
Automatic function test	x	
Shielding gas module	o	
Automatic stud feeding	o	
Error diagnosis systems		
Excess temperature	x	
Damage on welding/control cable	x	
Damage on solenoid	x	
Interfaces		
CAN-BUS		o
USB		o
Thermic controlled ventilator		x
Robust, powder-coated metal housing		x
Dimensions		
Width (mm)		195
Height (mm)		260
Length (mm)		400
Weight (kg)		13
Electric connection		
Mains supply (V) at 50/60 Hz		230 (115)
Mains fuse external		≥ 10 AT
Protection		IP 23
Control cable socket for welding guns		7-pin
Suitable welding guns		
PHM-10		x
PHM-12		x
GD 12sc		x
GD 12		x
PHA-500		o
PHA-500-6		o

x – Standard, o – Option



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