



PRO-C

STUD WELDING UNITS FOR CAPACITOR DISCHARGE STUD WELDING



STUD WELDING TECHNOLOGY BY



STUD WELDING

INTEGRATED WELDING
PARAMETER MONITORING
(OPTIONAL: WELDING
PARAMETER MEMORY)

CHARGING VOLTAGE
CONTINUOUSLY ADJUSTABLE

COMPACT
AND ROBUST
CONSTRUCTION

EASY OPERATION BY
ROBUST ROTATING
PRESSURE SWITCH

ALL FUNCTIONS AND
PARAMETERS ARE SHOWN
ON A BIG DISPLAY

CAPACITANCE
SWITCHABLE FOR
OPTIMAL ADAPTATION TO
DIFFERENT WELDING TASKS

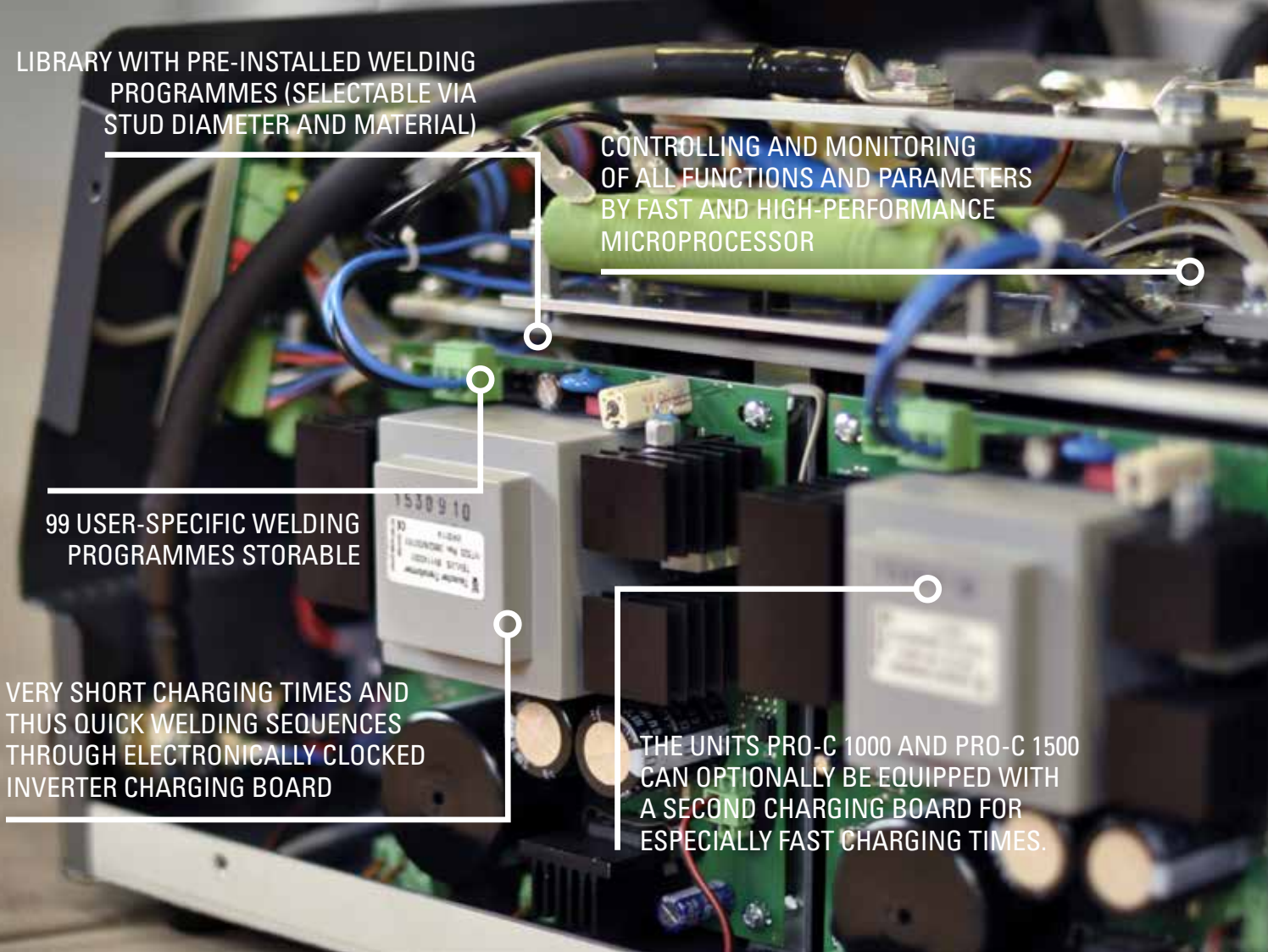
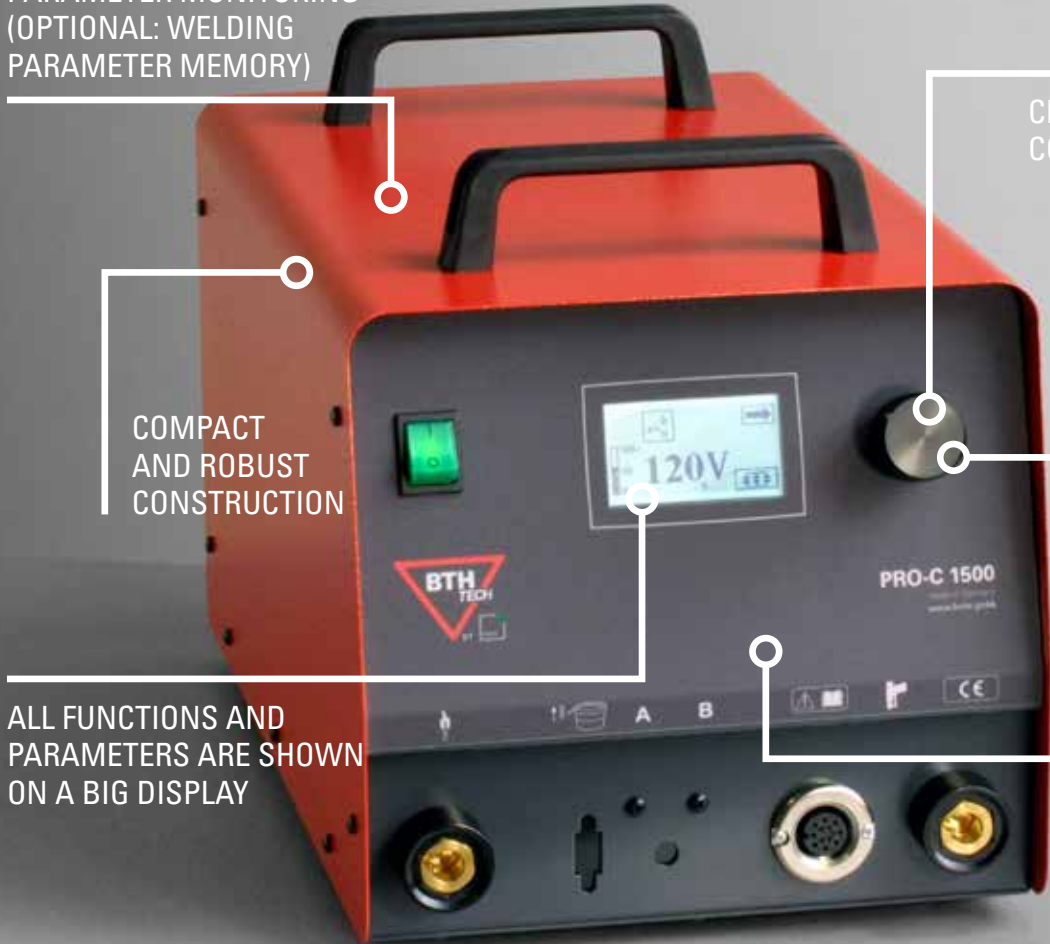
LIBRARY WITH PRE-INSTALLED WELDING
PROGRAMMES (SELECTABLE VIA
STUD DIAMETER AND MATERIAL)

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

99 USER-SPECIFIC WELDING
PROGRAMMES STORABLE

VERY SHORT CHARGING TIMES AND
THUS QUICK WELDING SEQUENCES
THROUGH ELECTRONICALLY CLOCKED
INVERTER CHARGING BOARD

THE UNITS PRO-C 1000 AND PRO-C 1500
CAN OPTIONALLY BE EQUIPPED WITH
A SECOND CHARGING BOARD FOR
ESPECIALLY FAST CHARGING TIMES.



HIGHLIGHTS AND SPECIAL EQUIPMENT



WELDING PARAMETER MONITORING AND DOCUMENTATION

The welding parameter monitoring, integrated as standard in all series PRO-C stud welding units, enables a quality control of the finished welds.

Features:

- » recording of welding current and welding time for each weld
- » recording of stud travel (lift, piston runtime and immersion depth) for each 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



ELECTRONICALLY CLOCKED INVERTER CHARGING BOARDS

- » ensure very short charging times and thus quick welding sequences
- » ensure energy-efficient charging of capacitors
- » The units PRO-C 1000 and PRO-C 1500 can optionally be equipped with a

second charging board for especially fast charging times. Thus, extremely quick welding sequences (e.g. for automatic applications) can be achieved.



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 for all series PRO-C units
- » enables the operation of up to four stud welding guns with different adjustment values for charging voltage and capacitance on one unit
- » automatic detection of used gun
- » weld counter for each gun connection



TECHNICAL DATA AND CHARACTERISTICS

	PRO-C 750	PRO-C 900	PRO-C 1000	PRO-C 1500
Max. welding diameter (mm)	8	10	10	10
Capacitance (µF) [switchable]	66000	90000	88000 [44000]	132000 [88000/44000]
Charging voltage (V)	60 - 200	60 - 200	60 - 200	60 - 200
Welding time (mS)	1 - 3	1 - 3	1 - 3	1 - 3
Welding parameter monitoring				
Welding parameter monitoring	x	x	x	x
Welding parameter memory with USB-interface for data transmission to a PC	o	o	o	o
Electronically clocked inverter charging boards				
1 charging board	x	x	x	x
2 charging boards			o	o
Utilisable with adapter box PRO-SPLIT	x	x	x	x
Operation				
Microprocessor control	x	x	x	x
Welding programme library	x	x	x	x
Capacitance switchable	x	x	x	x
Welding programme storage	x	x	x	x
Device lock with PIN code	x	x	x	x
Authorization concept (device lock, basic settings, menu structure)	x	x	x	x
Weld counter (resettable)	x	x	x	x
Lift test	x	x	x	x
Repeat cycle lock	x	x	x	x
Electronic function control	x	x	x	x
Self diagnosis system	x	x	x	x
Automatic function test	x	x	x	x
Automatic stud feeding			o	o
Error diagnosis systems				
Excess temperature	x	x	x	x
Damage on welding/control cable	x	x	x	x
Damage on solenoid	x	x	x	x
Interfaces				
CAN-BUS	o	o	o	o
USB	o	o	o	o
Thermic controlled ventilator		x	x	x
Robust, powder-coated metal housing	x	x	x	x



	PRO-C 750	PRO-C 900	PRO-C 1000	PRO-C 1500
Dimensions				
Width (mm)	195	195	275	275
Height (mm)	260	260	260	260
Length (mm)	400	400	400	400
Weight (kg)	11	13,5	19	20
Electric connection				
Mains supply (V) at 50/60 Hz	230 (115)	230 (115)	230 (115)	230 (115)
Mains fuse external	≥ 10 AT	≥ 10 AT	≥ 10 AT	≥ 10 AT
Protection	IP 21	IP 21	IP 21	IP 21
Control cable socket for welding guns	7-pin	7-pin	12-pin	12-pin
Suitable welding guns				
PKM-1B	x	x	x	x
PHM-1A	x	x	x	x
PIM-1B	o	o		
PKA-500			o	o
PHA-500			o	o

x – Standard, o – Option





Bolte GmbH

Flurstraße 25
D-58285 Gevelsberg

Tel.: +49 (0)2332 55106-0
Fax: +49 (0)2332 55106-11

Ohmstraße 3
D-85221 Dachau

Tel.: +49 (0)8131 5159-0
Fax: +49 (0)8131 5159-11

E-Mail: info@bolte.gmbh



www.bolte.gmbh