

BOLTE



PRO-D

STUD WELDING UNITS FOR DRAWN ARC AND SHORT CYCLE STUD WELDING



STUD WELDING TECHNOLOGY BY



STUD WELDING

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

EASY OPERATION BY ROBUST ROTATING PRESSURE SWITCH

WELDING CURRENT AND TIME CONTINUOUSLY ADJUSTABLE

59 USER-SPECIFIC WELDING PROGRAMMES STORABLE

INTEGRATED WELDING PARAMETER MONITORING (OPTIONAL: WELDING PARAMETER MEMORY)

ALL FUNCTIONS AND PARAMETERS ARE SHOWN ON A BIG DISPLAY

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

CONSTANT CURRENT REGULATION

WELDING PROGRAMME STORAGE FOR EACH GUN CONNECTION

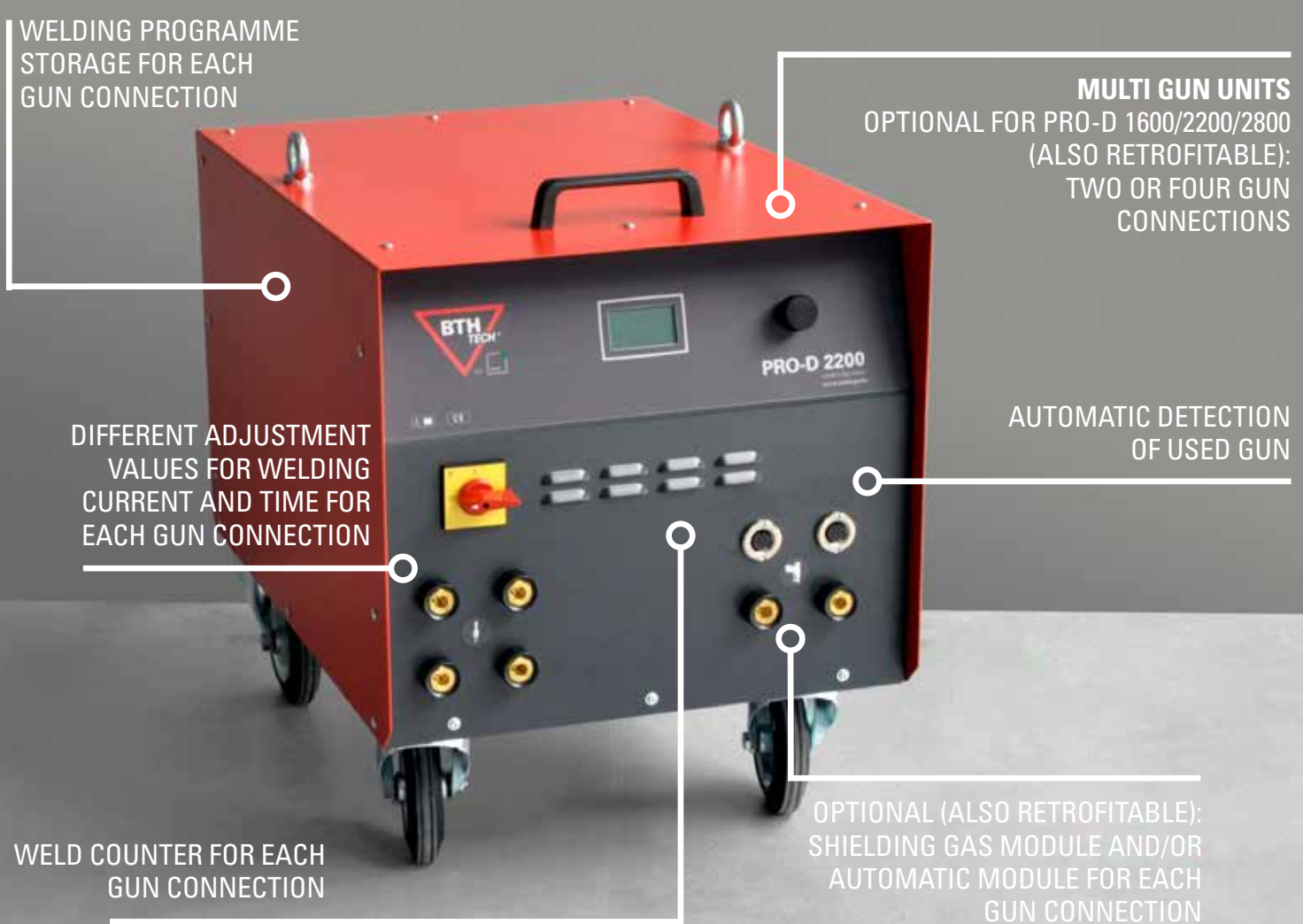
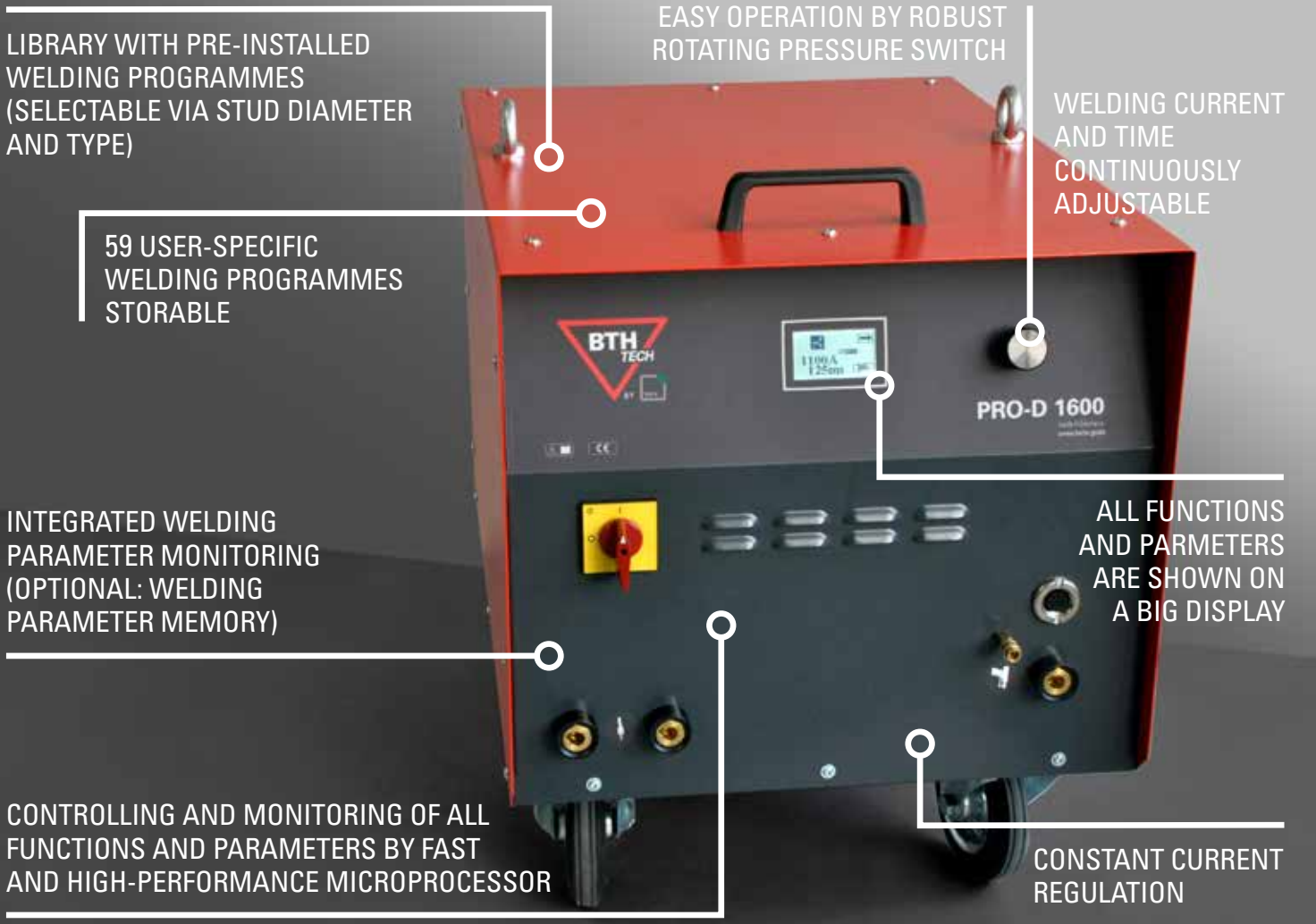
MULTI GUN UNITS
OPTIONAL FOR PRO-D 1600/2200/2800 (ALSO RETROFITABLE):
TWO OR FOUR GUN CONNECTIONS

DIFFERENT ADJUSTMENT VALUES FOR WELDING CURRENT AND TIME FOR EACH GUN CONNECTION

AUTOMATIC DETECTION OF USED GUN

WELD COUNTER FOR EACH GUN CONNECTION

OPTIONAL (ALSO RETROFITABLE):
SHIELDING GAS MODULE AND/OR
AUTOMATIC MODULE FOR EACH
GUN CONNECTION



HIGHLIGHTS AND SPECIAL EQUIPMENT



WELDING PARAMETER MONITORING AND DOCUMENTATION

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

Features:

- » recording of welding current, welding time and arc voltage 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 retrofittable): 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



AUTOMATIC STUD FEEDING

- » An automatic module enables the connection of the automatic stud feeder VBZ and an automatic welding gun.
- » For multi gun units each gun connection can be equipped with an automatic module.



ADAPTER BOX PRO-SPLIT

- » available as accessory for all series PRO-D units
- » 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 for all series PRO-D units
- » enables stud welding with shielding gas for weld pool backing
- » shielding gas pre- and post-flow time continuously adjustable
- » For multi gun units each gun connection can be equipped with a shielding gas module.



TECHNICAL DATA AND CHARACTERISTICS

	PRO-D 1600	PRO-D 2200	PRO-D 2800
Welding method			
Drawn arc (ceramic ferrule) [suitable for weld through deck]	x	x [x]	x [x]
Short cycle	x	x	x
Drawn arc (shielding gas)	o	o	o
Max. welding diameter (mm)			
Drawn arc (ceramic ferrule)	16	22	25
Short cycle	10	10	10
Drawn arc (shielding gas)	12	12	12
Welding current (A)	200-1400	200-2100	200-2600
Welding time (mS)	10-3000	10-3000	10-3000
Constant current regulation	x	x	x
Welding parameter monitoring			
Welding parameter monitoring	x	x	x
Welding parameter memory <small>with USB-interface for data transmission to a PC</small>	o	o	o
Gun connections			
1 gun connection	x	x	x
2 gun connections	o	o	o
4 gun connections	o	o	o
Utilisable with adapter box PRO-SPLIT	x	x	x
Operation			
Microprocessor control	x	x	x
Welding programme library	x	x	x
Welding programme storage	x	x	x
Device lock with PIN code	x	x	x
Authorization concept <small>(device lock, basic settings, menu structure)</small>	x	x	x
Weld counter (resettable)	x	x	x
Lift test	x	x	x
Repeat cycle lock	x	x	x
Electronic function control	x	x	x
Self diagnosis system	x	x	x
Automatic function test	x	x	x
Switch to basic version <small>(reduced range of functions for particularly easy operation)</small>	x	x	x
Shielding gas module	o	o	o
Automatic stud feeding	o	o	o

	PRO-D 1600	PRO-D 2200	PRO-D 2800
Error diagnosis systems			
Excess temperature	x		
Phase failure	x		
Damage on welding/control cable	x		
Damage on solenoid	x		
Interfaces			
CAN-BUS	o	o	o
USB	o	o	o
Ventilator in continuous operation	x	x	x
Lifting eyes	x	x	x
2 swivel castors, 2 fixed castors	x	x	x
Robust, powder-coated metal housing	x	x	x
Dimensions			
Width (mm)	555	555	610
Height (mm)	680	680	680
Length (mm)	790	790	900
Weight (kg)	169	245	316
Electric connection			
Mains supply (V) at 50/60 Hz	230/ 400/ 415/ 460	230/ 400/ 415/ 460	230/ 400/ 415/ 460
	35 AT	63 AT	125 AT
Mains fuse external	32 A	63 A	125 A
Mains plug CEE	IP 23	IP 23	IP 23
Protection			
Control cable socket for welding guns	12-pin	12-pin	12-pin
Suitable welding guns			
PHM-10	o	o	o
PHM-12	o	o	o
PHM-160	o	o	o
PHM-161	x	o	o
GD 16	x	o	o
GD 19	o	o	o
GD 22	o	x	o
GD 25	o	o	x
PHA-500	o	o	o
PHA-500-6	o	o	o



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