

BW3000 AUTO BORE WELDER

01 | 2016
BW3

Advanced Automated Step Welding System for Bore, Flange, and Valve Repair.



HIGH QUALITY AND PRECISION

Offset head provides torch adjustment without changing the angle of the torch, always providing optimal torch angle, a key parameter for successful borewelding.

Centralized control box gives the operator the ability to make changes to ALL welding parameters while closely monitoring the weld process. Quickly adjust "step" size, rotation speed, rotation direction, wire feed rate, and arc voltage; all from this one location. Arc interrupt, contactor control, gas purge and extended utilization of Auto-Skip function are also performed from the control.

Consistent and uniform weld reduces cutting tool wear, reducing cutting time by up to 50%. Infinitely adjustable step allows bead placement from 0.40 - 0.220 inches (1.0 - 5.6 mm).

Wire Feeder choices of shop style or enclosed feeders lets you select the best feeder for the application. The push pull system and wire

straightener options allow welding with exotic metals or smaller cast wires.

FLEXIBLE AND VERSATILE

Auto skip feature is perfect for skipping keyways or any square area that needs to be skipped.

Pie mode allows the operator to weld up localized oblong worn sections of bores quickly, saving time and weld material.

Carriage return allows operators to weld uphill or downhill only when in out of position (horizontal) orientation. This one way welding gives operators the ability to weld in a single direction, making control of the process much easier.

Reversible rotation gives the operator the ability to weld in either rotation direction. By reversing direction, the operator can weld up quality bores pass after pass more uniform and evenly.

BB5000 interface kit with spherical connection clamp collar allows quick alignment and attachment of the BW3000, shortening time

between welding and boring, allowing the operator to complete jobs faster.

Adjustable mounting base allows mounting of the BW3000 to fit any workpiece when not using a boring bar. The non-magnetic mounting base makes welding in job shops, shop jobs or machine shops simple and easy.

INDUSTRY CHANGING SAFETY AND OPERATOR RISK REDUCTION

Remote feed-control system allows operators to safely control the equipment from one centrally located control while keeping operators out of harm's way, reducing hazards such as burns and dangerous fume inhalation.

Emergency-Stop for immediate shutdown.

Auto-Stop allows the operator to automatically shutdown the machine at the end of the bore.

SPECIFICATIONS, APPLICATIONS

	US	Metric
Welding Process	MIG (GMAW)	
Axial Travel	6 or 12 inches (longer stroke options available upon request)	152.4 or 304.8 mm
Step Range	0.040 - 0.220 inches	1.0 - 5.6 mm
Wire Diameter Range	0.023 - 0.045 inches	0.58 - 1.14 mm
Amperage Rating	175A Continuous	
Base Package Extension Reach	39 inches	990.6 mm
Torch Welding Diameter Ranges		
ID Bores #00 through #13 & #24	0.88 - 54 inches	22.4 - 1371.6 mm
OD Torches, max dia.	14, 28 or 56 inches	355.6, 711.2 or 1422.4 mm
Face Torch	1.0 - 20.0 inches	25.4 - 508.0 mm
Torch Extensions	3, 6, 12 and 18 inches	76.2, 152.4, 304.8 and 457.2 mm
Unsupported Torch Reach	60 inches	1524.0 mm
Control Box Voltages	120 VAC 50/60Hz or 230 VAC 50/60 Hz	
Wire feeder		
4-roll drive system accepts standard spools	30 lb spools	13.6 kg spools
Power Supply Requirements:	Recommended 300 Amp Rating CV power source with remote voltage control capability (power supply not included in BW3000 AutoBoreWelder Package)	

Weights and Dimensions

Weights and Dimensions vary for each package. Final weights will be determined at the time of your order;

Standard BW3000 is shipped in 3 boxes:
(Weights and Dimensions are approximate)

Box #1 8 x 16 x 19 Inches
 (203 x 407 x 483 mm)

Weight: 21 Lbs (9.53 kg)

Box #2 9 x 18 x 21
 (229 x 457 x 533 mm)

Weight: 27 Lbs (12.25 kg)

Box #3 20 x 30 x 13 Inches
 (508 x 762 x 330 mm)

Weight: 106 Lbs (48 kg)

APPLICATIONS

The BW3000 is widely used by these industries:

Mining & Heavy Construction
Power Generation
Pulp & Paper
Shipbuilding

Typical Applications:

- Bores, pivot points, buckets and hitches
- Valve and pump repairs
- Gears and gear boxes
- Motor housings and shafts
- Electric motor repair
- Loader bucket & hitch repair
- Nozzles on pressure vessels and heat exchangers
- Compressors and turbines
- Shaft OD repair
- Mud pumps
- Hydraulic cylinder eyes
- Presses
- Castings and injection molds
- Continuous miners and drag lines
- Rotary crushers
- Jaw crusher pitman arms
- Whole tree chippers
- Rudder Bore
- Stern Tube
- Diveter Vane



All dimensions should be considered reference. Contact your Climax Representative for precision dimensions. Specifications are subject to change without notice.

TOOL CONFIGURATIONS

Configure your BW3000 in 5 easy steps.

To configure your BW3000 Boring Machine:

- 1 Select Base Package
- 2 Select Control Box
- 3 Select Wire Feeder
- 4 Select Control Cable
- 5 Select Mounting Option

To configure the boring machine you require, simply select the option you need in each step, then contact your Climax representative.

- 1 **Base Package** - Includes support rod, gas hose, positive weld cable, clamp collar, extensions 3, 6, 12 and 18 inch (76.2, 152.4, 204.8 and 457.2 mm) tool kit, consumables starter kit, weld head, 5 foot (1.5 m) conduit, torches #00 to #5, .88 to 13 inches (22.4 to 330.2 mm), 8 foot (2.4 m) control cable

Machine Stroke, 6 inches (152.4 mm)
Machine Stroke, 12 inches (304.8 mm)

85680
85681

- 2 **Control Box**

120V Controller
230V Controller

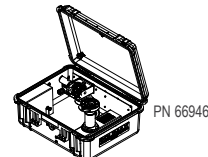
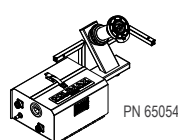
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70463

- 3 **Wire Feeder, Push/Pull Ready**

Wire Feeder, Shop Style, 24 VAC
- Accepts wire straightener option
Wire Feeder, Enclosed, 24 VAC
- Does not accept wire straightener option

65054

66946



- 4 **Power Supply Cables**

(Additional cables available on request)
Miller 14 PIN Control Cable 25 foot (7.6 m)
Lincoln Control Cable 25 foot (7.6 m)

53249

53991

- 5 **Mounting Options**

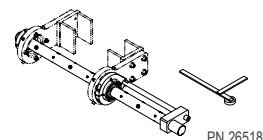
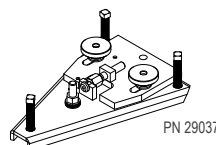
Adjustable Base (includes 5 inch (127 mm) radial mount)
Adapter Kit to BB3000 1-1/4 inch (31.8 mm) Bar
Adapter Kit to BB4500 1-3/4 inch (44.5 mm) Bar
Adapter Kit to BB5000 2-1/4 inch (57.2 mm) Bar

29037

26795

43731

26518



ACCESSORIES, WELD RANGE INFORMATION

Mounting Options

Tool Alignment for BB3000 1-1/4 inch (31.8 mm) Bar	26656
Tool Alignment for BB4500 1-3/4 inch (44.5 mm) Bar	36062
Tool Alignment for BB5000 2-1/4 inch (57.2 mm) Bar	26487
Radial Mount 5 inch (127.0 mm), Radius Standard Spacer	28208
Radial Mount 10 inch (254.0 mm), Radius Spacer	35006
Mounting Rod Extender	30831

Wire Feed Accessories

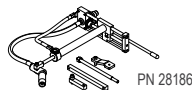
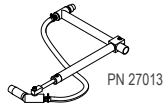
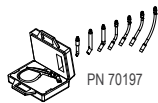
Top Mount Feeder	64288
Wire Straightener	35357
- Compatible only with shop style wire feeder	

Torches (#6 - #12 Torches Require Counterbalance)

#6 Torch, 12 - 15 inch (304.8 - 381.0 mm) Dia.	30345
#7 Torch, 14 - 17 inch (355.6 - 431.8 mm) Dia.	31792
#8 Torch, 16 - 19 inch (406.4 - 482.6 mm) Dia.	30346
#9 Torch, 18 - 21 inch (457.2 - 533.4 mm) Dia.	30710
#10 Torch, 20 - 23 inch (508.0 - 584.2 mm) Dia.	30711
#11 Torch, 22 - 25 inch (558.8 - 635.0 mm) Dia.	30712
#12 Torch, 24 - 27 inch (609.6 - 685.8 mm) Dia.	30713

Torch Systems and Accessories

Torch Kit, #00 - #5, 0.88 - 13 inch (22.4 - 330.2 mm) Dia.	69896
Torch & Bearing Clearance Kit, #00 to #5 - 0.88 - 27 inch (22.4 - 685.8 mm) Dia.	70197
Torch Kit #13 - #24, 26 - 54 inch (660.4 - 1371.6 mm) Dia. - Includes slow rotation belt and pulley	70196
Torch Bearing Clearance Kit - 12 - 27 inch (304.8 - 685.8 mm) Dia.	63916
Trammel OD Torch Package - up to 14 inch (355.6 mm) Dia.	27013
Trammel Torch 28 inch (711.2 mm) - Maximum OD Capability	38506
Extended Trammel Torch Dia. to 56 OD	53004
Face Torch 8 inch (203.2 mm)	28186



Compact Face Torch 6 inch (152.4 mm) Swing	48013
Conical Seat Torch	28020
Torch Counterbalance	30756
Torch Extension 3 inch (76.2 mm)	29038
Torch Extension 6 inch (152.4 mm)	29039
Torch Extension 12 inch (304.8 mm)	29040
Torch Extension 18 inch (457.2 mm)	29065
Torch Extension Support Kit	33256

Extended Length Power Supply Cables

Miller 14 Pin, 50 foot (15.2 m)	58564
Lincoln 14 Pin, 50 foot (15.2 m)	53988

Extended Length Control Cable

Control Cable 15 foot (4.6 m)	58615
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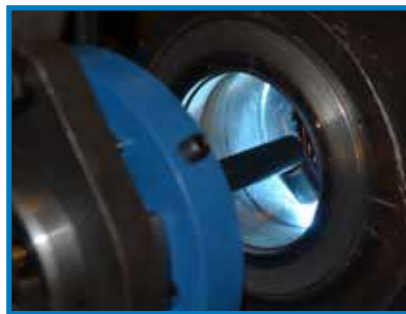
Wire Feed Conduits

Wire Feed Conduit 8 foot (2.4 m)	69890
Wire Feed Conduit 10 foot (3.0 m)	34043
Wire Feed Conduit 15 foot (4.6 m)	45256

Additional Consumables

Welding Tip #00, SPEZ Feed 0.045 inch (1.2 mm)	69554
Welding Tip #00, 0.035 inch (0.9 mm) *	69521
Welding Tip #00, 0.035 inch (0.9 mm) - Chromium/Zirconium	69891
Welding Tip #0, SPEZ Feed 0.045 inch (1.2 mm)	69555
Welding Tip #0, Standard 0.035 inch (0.9 mm) *	69520
Welding Tip #0, Standard 0.035 inch (0.9 mm) - Chromium/Zirconium	70204
Welding Tip, 0.035 inch (0.9 mm) *	69865
Welding Tip, 0.045 inch (1.2 mm)	70149
Diffusers *	69778
Nozzle #00, Braze On *	36530
Nozzle #0, Braze On *	36531
Nozzle, Screw On	69886

* INCLUDED IN BASE PACKAGE



CLIMAX Training Facilities

CLIMAX has been teaching the fundamentals and fine points of portable machine tool operation for practically as long as we've been inventing and building the tools.

We offer training facilities in the United States - the Global Learning Center, situated in our corporate headquarters near Portland, Oregon and our Houston, Texas Training Facility. Both facilities offer training for machine tool operators on safety and machine setup and operation. Trainees also receive technical tips and tools to improve operational efficiencies, with the vast majority of every program devoted to hands-on activities and skill development.



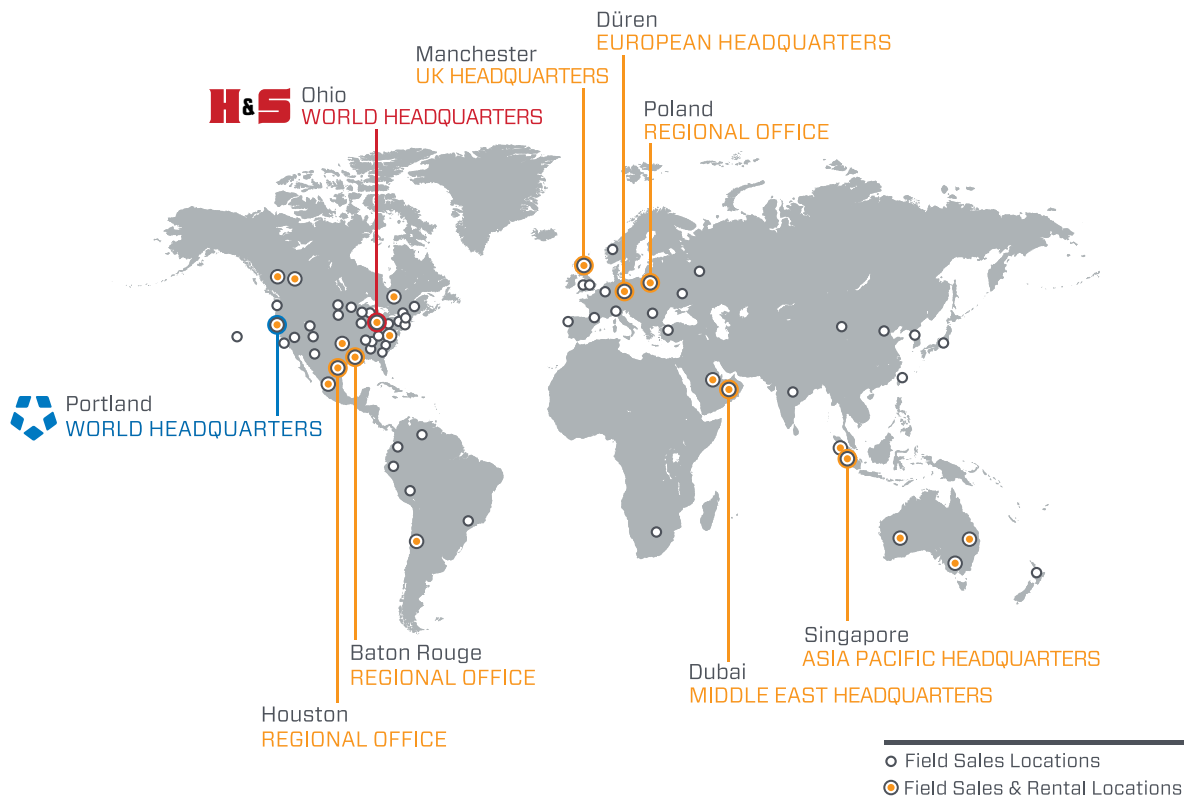
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