

BG38 BOILER GUN™

PIPE RANGE: 0.625" ID - 3" OD (12.7 ID - 63.5 OD mm)

08 | 2017
BG38

The **BG38 BOILER GUN™** is a combination of power, versatility, and ease of use in a compact and lightweight package. Designed to perform on-site machining on boiler tubes or other pipe applications with speed and accuracy, delivering the optimal speed and torque combination to make short work of your tube prep projects.



POWERFUL PERFORMANCE

Powerful drive motors make quick work of light-wall tubing and provide the torque needed for heavy-wall alloy tubes.

Multiple RPM ranges available with extra high-velocity (Plus), high-velocity (HV), low-velocity (LV), covers a wide range of applications.

Heavy duty gearset increases machine longevity and provides the torque and speed required to perform a wide variety of end prep work.

Heavy duty tapered roller bearings for very rigid and smooth operation.

VERSITILE

Pneumatic, Electric, and Cordless motor options allow for machine use in any environment or facility.

Narrow head width enables use in tight spaces such as boiler water walls.

Two different locking systems available - Collet or Wedge, giving you the best clamping capability for any application.

Enhanced wedge design with an integrated wedge system and captured retaining springs allows quick change of wedge extensions and prevents loss of spring

'Speed Wheel' allows wedge expansion using a star-wheel, which is faster in confined spaces.

Anchor Grip™ collet system provides superior gripping for applications such as stub removal, light wall tubing that cannot be deformed, and tubing that cannot be contaminated with falling debris.

Patented Multi-Prep® Tool Holder combines multiple machining operations into a single operation.

Corrosion resistant finish applied to all external components prevents machine weathering and extends the life of the components.

EASY TO USE

Finer feed screws make it easier to advance the feed, putting less burden on the operator and the machine.

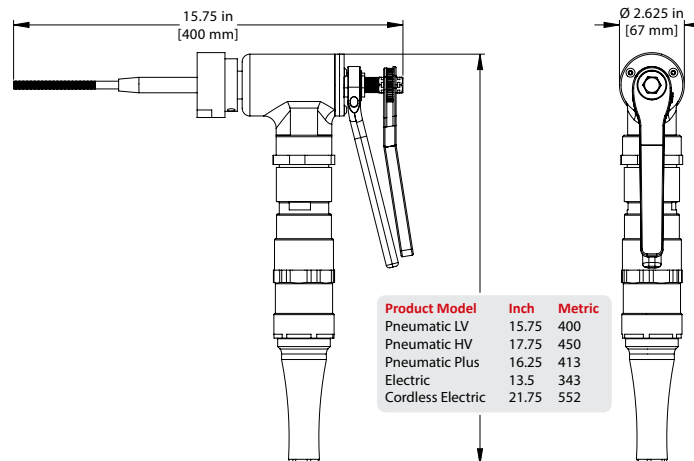
Drop Swivel Air Fittings extend the life of the machine by reducing hose kinks and damage.

Air Lock option dramatically saves time on high-volume jobs by locking and unlocking the tool instantly with the flip of a valve.

Heavy-duty storage case with foam inserts protects the machine from damage on-site or in transit.

	INCH	METRIC
Machine Performance Ranges		
Working range inside diameter to outside diameter	0.625 ID-3.000 OD	15.8-76.2
Radial tool clearance	1.312	33.3
Head width	2.625	66.6
Travel	2.125	53.9
Rotational Drive System		
Pneumatic motor	1.3 Hp	0.97 kW
Recommended air pressure	90 PSI	6.2 Bar
Recommended volume	38 CFM	1.1 m ³ /min.
Speed LV	90 RPM	90 RPM
Speed HV	140 RPM	140 RPM
Speed PLUS	200 RPM	200 RPM
Electric motor	1 Hp, 110V / 6.7A or 220V / 3.4A	0.75 kW, 110V / 6.7A or 220V / 3.4A
Speed	0 - 270 RPM	0 - 270 RPM
Cordless electric (rechargeable Lithium Ion)	5.2 amp/hr	18720 coulomb
Speed	0 - 105 RPM	0 - 105 RPM
Measures		
Machine weight		
Pneumatic LV / HV	17 lbs	7.7 kg
Pneumatic PLUS	13 lbs	5.9 kg
Electric	14 lbs	6.3 kg
Cordless Electric	17 lbs	7.7 kg
Shipping weight		
Pneumatic LV / HV	43 lbs	19.5 kg
Pneumatic PLUS	39 lbs	17.7 kg
Electric	40 lbs	18.1 kg
Electric cordless	43 lbs	19.5 kg
Dimensions		
Length (L x W x H)	Refer to dimensional drawing below	
Crate dimensions (L x W x H)	22 x 17.5 x 5.5	559 x 445 x 140

DIMENSIONAL DRAWING



All dimensions should be considered reference. Contact your H&S Tool Representative for precision dimensions. Specifications are subject to change without notice. Actual results for test data may vary depending on setup, machining conditions and machine maintenance. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

TOOL CONFIGURATION

To order your **BG38 BOILER GUN™**, simply select from the options below.

To configure your machine, please follow these steps.

1. Select base model
2. Select mounting system
3. Select tool holder
4. Select optional tool holder bits

1. Base model

Pneumatic motor units include: pneumatic motor, wrench feed, hose with oiler, filter & swivel, tool kit, operator manual and storage case.

Pneumatic LV, 90 RPM motor	HS-BG38LV-R
Pneumatic HV, 140 RPM motor	HS-BG38HV-R
Pneumatic PLUS, 200 RPM motor	HS-BG38PL-R

Electric motor units include: electric motor, wrench feed, tool kit, operator manual and storage case.

110V Electric, 0 - 270 RPM motor	HS-BG22E110-R
220V Electric, 0 - 270 RPM motor	HS-BG38E220-R
110 V Cordless Electric, 0 - 105 RPM - (battery powered)	HS-BG38C110-R
220V Cordless Electric, 0 - 105 RPM - (battery powered)	HS-BG38C220-R

2. Mounting system

Includes center shafts, draw rod, and wedges or collets for full range

Wedge set, 0.625 - 3 in - (15.9 - 63.5 mm)	HS-BG38WSET
Collet set, 0.625 - 3 in - (15.9 - 63.5 mm)	HS-BG38CSET

3. Tool holder

Sliding tool holders	
Full set 2.625 & 3 in (66.7 & 76.2 mm) - w/2-flute; 3 in (76.2 mm) w/3-flute	HS-BG38THS
2.625 in (66.7 mm) w/2-flute	HS-B002534
2.625 in (66.7 mm) w/3-flute	HS-B002565
3 in (76.2 mm) w/2-flute	HS-B002536
Fixed tool holders	
2.625 in (66.7 mm)	HS-B002521

4. Tool holder bits (optional)

Sliding Tool Holder Bits	
S-37 Blade, 1/2 inch (12.7 mm) - wide 37° bevel	HS-BLS37
S-37 Wide Blade, 3/4 inch (19.1 mm) - wide 37° bevel	HS-BLS37W
SF Blade, 1/2 inch (12.7 mm) - wide facing/0° bevel	HS-BLSF
SF Wide Blade, 3/4 inch (19.1 mm) - wide facing/0° bevel	HS-BLSFW
SI-10 Blade, 1/2 inch (12.7 mm) - wide 10° ID counter bore	HS-BLSI
SI-10 Wide Blade, 3/4 inch (19.1 mm) - wide 10° ID counter bore	HS-BLSIW
Fixed Tool Holder Bits	
D-Blade, left offset 37° bevel	HS-BLD



C-Blade, right offset 37° bevel	HS-BLC
FL-Blade, left offset facing/0° bevel	HS-BLFL
FR-Blade, right offset facing/0° bevel	HS-BLFR
I-Blade, standard 10° ID counter bore	HS-BLI
HR-Blade, small ID 10° ID counter bore	HS-BLHR



Sliding tool holder



Fixed tool holder

The **BG38 BOILER GUN'S** enhanced wedge design comes with an integrated wedge system and captured retaining springs which allows for quick change of wedge extensions and prevents loss of spring.



Everything you need comes complete in a custom designed shipping container.



Attachments

Air Lok for wrench feed	HS-AL
Air Lok for crank feed	HS-AL
Carbide triangular insert bevel head	HS-INS38N
Carbide round insert bevel head	HS-INSR
Mechanical depth stop for Wrench feed	HS-BLGAU
Mechanical depth stop for Crank feed	HS-BLGAU

Standard collet system

Centershaft collet	HS-B002540L
Collet rod, 3/8 in (9.5 mm)	HS-B002550L
Collet, 5/8 in (15.9 mm)	HS-BC58
Collet, 3/4 in (19.1 mm)	HS-BC34
Collet, 7/8 in (22.2 mm)	HS-BC78
Collet, 1 in (25.4 mm)	HS-BC1
Collet, 1-1/8 in (28.6 mm)	HS-BC1-18
Collet, 1-1/4 in (31.8 mm)	HS-BC1-14
Collet, 1-3/8 in (34.9 mm)	HS-BC1-38
Collet, 1-1/2 in (38.1 mm)	HS-BC1-12
Collet, 1-5/8 in (41.3 mm)	HS-BC1-58
Collet, 1-3/4 in (44.5 mm)	HS-BC1-34
Collet, 1-7/8 in (47.6 mm)	HS-BC1-78
Collet, 2 in (50.8 mm)	HS-BC2
Collet, 2-1/8 in (54 mm)	HS-BC2-18
Collet, 2-1/4 in (57.2 mm)	HS-BC2-14
Collet, 2-3/8 in (60.3 mm)	HS-BC2-38
Collet, 2-1/2 in (63.5 mm)	HS-BC2-12
Collet, 2-5/8 in (66.7 mm)	HS-BC2-58
Collet, 2-3/4 in (69.9 mm)	HS-BC2-34
Collet, 2-7/8 in (73 mm)	HS-BC2-78

Standard wedge mounting system

Centershaft wedge, 0.625 inch (15.9 mm)	HS-100215
Wedge guide & rod, 0.625 inch (15.9 mm)	HS-100213
Wedge guide & rod, 1.2 inch (30.5 mm)	HS-100214
Speed Wheel	HS-100211

Centershaft		Wedge Set	ID Range		Wedge Guide		PN	
Inch	MM		Inch	MM	Inch	MM		
0.625	15.9	B-01	0.625 - 0.810	15.9 - 20.6	0.625	15.9	HS-100216	
		B-02	0.750 - 0.935	19.1 - 23.7			HS-100217	
		B-03	0.875 - 1.060	22.2 - 26.9			HS-100218	
		B-04	1.000 - 1.185	25.4 - 30.1			HS-100219	
		B-05	1.125 - 1.310	28.5 - 33.2			HS-100220	
	1.200	30.5	B-06	1.250 - 1.435	31.7 - 36.4	1.200	30.5	HS-100221
			B-07	1.375 - 1.560	34.9 - 39.6			HS-100222
			B-08	1.500 - 1.685	38.1 - 42.7			HS-100223
			B-09	1.625 - 1.810	41.2 - 45.9			HS-100224
			B-10	1.750 - 1.935	44.4 - 49.1			HS-100225
Centershaft		Wedge Extension	ID Range		Wedge Guide		PN	
Inch	MM		Requires B-04	Inch	MM	Inch		MM
0.625	15.9	B-11 + B-04	1.875 - 2.060	47.6 - 52.3	1.200	30.5	HS-100226	
		B-12 + B-04	2.000 - 2.185	50.8 - 55.5			HS-100227	
		B-13 + B-04	2.125 - 2.310	53.9 - 58.6			HS-100228	
		B-14 + B-04	2.250 - 2.435	57.1 - 61.8			HS-100229	
		B-15 + B-04	2.375 - 2.560	60.3 - 65.0			HS-100230	
		B-16 + B-04	2.500 - 2.685	63.5 - 68.2			HS-100231	
		B-17 + B-04	2.625 - 2.810	66.6 - 71.3			HS-100232	
		B-18 + B-04	2.750 - 2.935	69.8 - 74.5			HS-100233	
		B-19 + B-04	2.875 - 3.060	73.0 - 77.7			HS-100234	

Bevel head

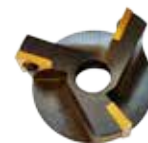
Carbide insert bevel head, 1.5° x 37°	HS-1.50X37
Carbide insert, 3/8 in (9.5 mm)	HS-INS3/8N
- use with above bevel head, 1.5° x 37°	
Carbide insert bevel head, 2° x 37°	HS-B2.00X37
Carbide insert, 1/2 in (12.7 mm)	HS-INS1/2N
- use with above bevel head, 2° x 37°	
Carbide insert bevel head, 2.5° x 37°	HS-B2.50X37OEP
Carbide insert, 1/2 in (12.7 mm)	HS-INS1/2N
- use with above bevel head, 2.5° x 37°	



Wedge extensions



Collet set



Bevel head with inserts

Sliding tool holder carbide insert holders

S-37 Insert Holder, 37° bevel	HS-INSH
SF Insert Holder, facing/0° bevel	HS-INSHSF
Carbide insert	HS-INSJ

Membrane Multi-Prep head, round inserts

(removes membrane and bevels tube end at 37°)

1.000 in (25.4 mm)	HS-BM/MP1.00R
1.125 in (28.8 mm)	HS-BM/MP1.125R
1.250 in (31.8 mm)	HS-BM/MP1.250R
1.375 in (34.9 mm)	HS-BM/MP1.375R
1.500 in (38.1 mm)	HS-BM/MP1.500R
1.625 in (41.3 mm)	HS-BM/MP1.625R
1.750 in (44.5 mm)	HS-BM/MP1.750R
1.875 in (47.6 mm)	HS-BM/MP1.875R
2.000 in (50.8 mm)	HS-BM/MP2.000R
2.500 in (63.5 mm)	HS-BM/MP2.500R

Membrane head, round inserts

(removes membrane only, does not bevel)

0.875 in (22.2 mm)	HS-BM.875R
1.000 in (25.4 mm)	HS-BM1.000R
1.125 in (28.8 mm)	HS-BM1.125R
1.250 in (31.8 mm)	HS-BM1.250R
1.375 in (34.9 mm)	HS-BM1.375R
1.500 in (38.1 mm)	HS-BM1.500R
1.625 in (41.3 mm)	HS-BM1.625R
1.750 in (44.5 mm)	HS-BM1.750R
1.875 in (47.6 mm)	HS-BM1.875R
2.000 in (50.8 mm)	HS-BM2.000R
2.500 in (63.5 mm)	HS-BM2.500R

Diameter Clean-Up Multi-Prep head, round inserts

(lightly machines the OD of the tube and bevels tube end at 37°)

1.000 in (25.4 mm)	HS-BDC/MP1.00R
1.125 in (28.8 mm)	HS-BDC/MP1.125R
1.250 in (31.8 mm)	HS-BDC/MP1.250R
1.375 in (34.9 mm)	HS-BDC/MP1.375R
1.500 in (38.1 mm)	HS-BDC/MP1.500R
1.625 in (41.3 mm)	HS-BDC/MP1.625R
1.750 in (44.5 mm)	HS-BDC/MP1.750R
1.875 in (47.6 mm)	HS-BDC/MP1.875R
2.000 in (50.8 mm)	HS-BDC/MP2.00R
2.500 in (63.5 mm)	HS-BDC/MP2.500R

Diameter Clean-Up head, round inserts

(lightly machines the OD of the tube only, does not bevel)

0.875 in (22.2 mm)	HS-BDC.875R
1.000 in (25.4 mm)	HS-BDC1.00R
1.125 in (28.8 mm)	HS-BDC1.125R
1.250 in (31.8 mm)	HS-BDC1.250R
1.375 in (34.9 mm)	HS-BDC1.375R
1.500 in (38.1 mm)	HS-BDC1.500R
1.625 in (41.3 mm)	HS-BDC1.625R
1.750 in (44.5 mm)	HS-BDC1.750R
1.875 in (47.6 mm)	HS-BDC1.875R
2.000 in (50.8 mm)	HS-BDC2.00R
2.500 in (63.5 mm)	HS-BDC2.500R

Multi-Prep®

The patented Multi-Prep tool holder has proven to be effective in improving productivity and quality. It combines multiple machining operations into a single operation. With the Multi-Prep you can accurately clean the tube OD and remove membrane from panel tubes, while performing an outside bevel on the tube end.



H&S APPLICATIONS

The Boiler Guns are used by these industries

- Power Generation
- Fossil-Fuel Power Stations
- Gas Turbine Power Plants
- Pulp and Paper Plants
- Chemical Processing Plants
- Oil Refineries
- Ship Yards
- Water and Wastewater Treatment

Typical Applications

- Boiler tube repair
- Stud removal
- Pipe lines
- Seal weld removal

A Fast Three-Step Process

Ready to bevel in 7 minutes or less!

1

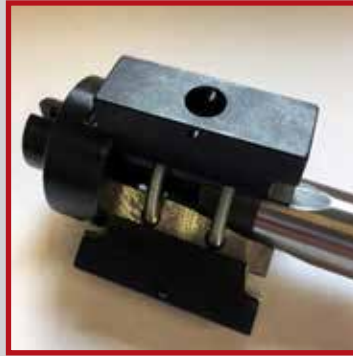
WEDGE SYSTEM

Thread the base wedge set onto the locking rod and install extensions as required. Install the locking rod wrench and nut on the locking rod.

or

COLLET SYSTEM

Slide the locking rod through the center shaft. Thread the required collet set onto the locking rod and install the cotter pin in the end of the locking rod end.



2

Mount the machine on the work piece. Be aware of the position of locking system in the work piece; allow approximately 1/2" (12.7mm) of material for machining. Tighten the locking system by turning the locking rod wrench.



3

Install the blades in the tool holder 180° apart. Position the blades for cutting by turning the feed wrench.



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Whether it's a regularly scheduled course at one of our seven Global Training Centers or a custom curriculum conducted with your team, at your facility, your technicians will benefit from courses developed by the most experienced and respected professionals in the business.

Regularly scheduled courses in basic and advanced tool operation are available. A vast majority of every program is devoted to hands-on activities, skills development, and OEM Certification covering the following subject matters: operator safety, tool component review, setup and mounting, standard and advanced operational techniques, overview of cutting tools and recommended usage, and maintenance procedures.



Training is available at the following seven Global Training Centers:

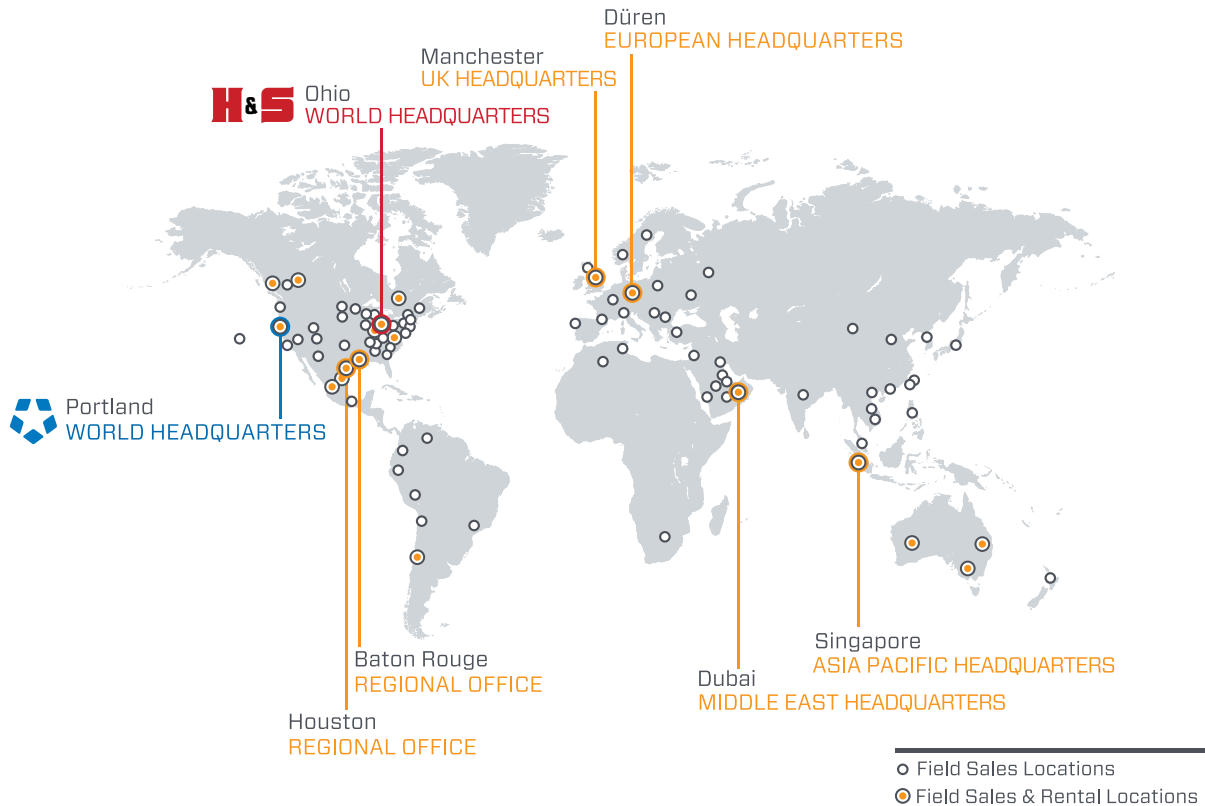
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