

# BG44 BOILER GUN

The **BG44 Boiler Gun** is a combination of power, versatility and ease of use in a compact package. Designed to perform on-site machining on boiler tubes and 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 high-velocity (HV) and low-velocity tools (LV), covers a wide range of applications.

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

## VERSATILITY

**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.

**Both fixed and sliding tool holders available** allowing you to use the right tooling for each application.

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

**Crank feed option** allows for a fast and consistent feed for shop use and fabrication.

**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.

**Lightweight aluminum alloy components** for easy handling.

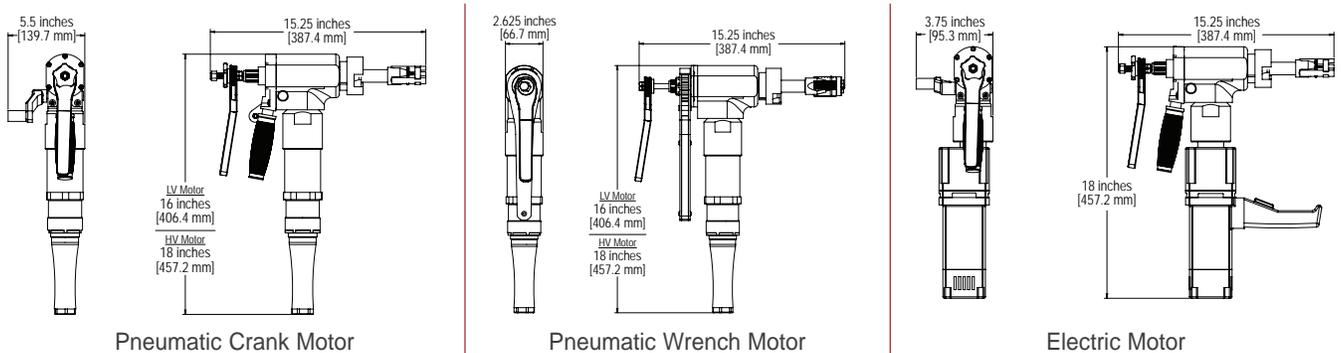
**Crank handle or wrench-style feeds available** allowing you to maximize space, speed, and consistency.

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

# BG44 BOILER GUN

	INCH	METRIC
<b>Machine Performance Ranges</b>		
Working range inside diameter to outside diameter	.875 ID – 5 OD	22.2 ID – 127.0 OD
Radial tool clearance	1.312	33.3
Head width	2.625	66.7
Travel	2.25	57.1
<b>Rotational Drive System</b>		
Pneumatic motor	1.3 Hp	1.0 kW
Recommended air pressure	90 PSI	6.2 Bar
Recommended volume	38 CFM	1.1 m <sup>3</sup> /min.
Speed LV	0 - 55 RPM	0 - 55 RPM
Speed HV	0 - 110 RPM	0 - 110 RPM
Electric motor	1.5 Hp, 110V / 9.6A or 220V / 5.0A	1.1 kW, 110V / 9.6A or 220V / 5.0A
Speed	0 - 98 RPM	0 - 98 RPM
<b>Measures</b>		
<b>Machine weight</b>		
Pneumatic	21 lbs	10 kg
Electric	25 lbs	11 kg
<b>Shipping weight</b>		
Pneumatic	54 lbs	24 kg
Electric	56 lbs	25 kg
<b>Dimensions</b>		
Length (L x W x H)	Refer to dimensional drawing below	
Crate dimensions (L x W x H)	23 x 19 x 7	584.2 x 482.6 x 177.8

## DIMENSIONAL DRAWING



## 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

# BG44 BOILER GUN

To order your **BG44 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, feed option, hose with oiler, filter & swivel, tool kit, operator manual and storage case.

HV Pneumatic 110 RPM motor - w/drive crank feed	HS-BG44HVCR
HV Pneumatic 110 RPM motor - w/drive wrench feed	HS-BG44HVWR
LV Pneumatic 55 RPM motor - w/drive crank feed	HS-BG44LVCR
LV Pneumatic 55 RPM motor - w/drive wrench feed	HS-BG44LVWR

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

<b>Electric motor with drive crank feed</b>	
110V Electric 0 - 98 RPM motor	HS-BG44ELCR110-R
220V Electric 0 - 98 RPM motor	HS-BG44ELCR220-R
<b>Electric motor with drive wrench feed</b>	
110V Electric 0 - 98 RPM motor	HS-BG44ELWR110-R
220V Electric 0 - 98 RPM motor	HS-BG44ELWR220-R

## 2. Mounting system

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

Wedge sets, .875 - 4.835 in - (22.2 - 122.8 mm)	HS-BG44WSET
Collet set, .875 - 4.75 in - (22.2 - 120.7 mm)	HS-BG44CSET

## 3. Tool holder

Sliding tool holders

Full set 2.625, 3 w/2 flute, 4 w/4 flute, & - 5 in (66.7, 76.2, 101.6, & 127 mm)	HS-BGSLTHSET
2.625 in (66.7 mm)	HS-100186
3 in (76.2 mm) w/2 flute	HS-RPMB003578
3 in (76.2 mm) w/3 flute	HS-RPMB003573
4 in (101.6 mm) w/3 flute	HS-RPMB003581
4 in (101.6 mm) w/4 flute	HS-RPMB003584
5 in (127 mm) w/4 flute	HS-RPMB003583

Fixed tool holders

Full set 3 - 5 in (66.7 - 127 mm)	HS-BGFITHSET
3 in (76.2 mm)	HS-RPMB003570
4 in (101.6 mm)	HS-RPMB003580
5 in (127 mm)	HS-RPMB003586

## 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
<b>Fixed Tool Holder Bits</b>	
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

The **BG44 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.



Sliding tool holder



Fixed tool holder

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

<b>Electric motor with drive crank feed</b>	
110V Electric 0 - 98 RPM motor	HS-BG44ELCR110-R
220V Electric 0 - 98 RPM motor	HS-BG44ELCR220-R
<b>Electric motor with drive wrench feed</b>	
110V Electric 0 - 98 RPM motor	HS-BG44ELWR110-R
220V Electric 0 - 98 RPM motor	HS-BG44ELWR220-R

## 2. Mounting system

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

Wedge sets, .875 - 4.835 in - (22.2 - 122.8 mm)	HS-BG44WSET
Collet set, .875 - 4.75 in - (22.2 - 120.7 mm)	HS-BG44CSET

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Sliding tool holders

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Fixed tool holders

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Sliding Tool Holder Bits

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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
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<b>Fixed Tool Holder Bits</b>	
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

The **BG44 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.



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Sliding tool holder



Fixed tool holder

## 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

2.750 in (70 mm)
2.875 in (73 mm)
3.000 in (76.2 mm)

HS-MBM2.750R
HS-MBM2.875R
HS-MBM3.000R

## Membrane Multi-Prep head, round inserts

*(removes membrane and bevels tube end at 37°)*

1.250 in (31.8 mm)	HS-MBM/MP1.250
1.375 in (34.9 mm)	HS-MBM/MP1.375R
1.500 in (38.1 mm)	HS-MBM/MP1.500R
1.625 in (41.3 mm)	HS-MBM/MP1.625R
1.750 in (44.5 mm)	HS-MBM/MP1.750R
1.875 in (47.6 mm)	HS-MBM/MP1.875R
2.000 in (50.8 mm)	HS-MBM/MP2.000R
2.125 in (54 mm)	HS-MBM/MP2.125R
2.250 in (57.2 mm)	HS-MBM/MP2.250R
2.375 in (60.3 mm)	HS-MBM/MP2.375R
2.500 in (63.5 mm)	HS-MBM/MP2.500R
2.625 in (66.7 mm)	HS-MBM/MP2.625R
2.750 in (70 mm)	HS-MBM/MP2.750R
2.875 in (73 mm)	HS-MBM/MP2.875R
3.000 in (76.2 mm)	HS-MBM/MP3.00R

## Diameter Clean-Up head, round inserts

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

1.250 in (31.8 mm)	HS-MBDC1.250R
1.375 in (34.9 mm)	HS-MBDC1.375R
1.500 in (38.1 mm)	HS-MBDC1.500R
1.625 in (41.3 mm)	HS-MBDC1.625R
1.750 in (44.5 mm)	HS-MBDC1.750R
1.875 in (47.6 mm)	HS-MBDC1.875R
2.000 in (50.8 mm)	HS-MBDC2.000R
2.125 in (54 mm)	HS-MBDC2.125R
2.250 in (57.2 mm)	HS-MBDC2.250R
2.375 in (60.3 mm)	HS-MBDC2.375R
2.500 in (63.5 mm)	HS-MBDC2.500R
2.625 in (66.7 mm)	HS-MBDC2.625R
2.750 in (70 mm)	HS-MBDC2.750R
2.875 in (73 mm)	HS-MBDC2.875R
3.000 in (76.2 mm)	HS-MBDC3.000R

## Diameter Clean-Up Multi-Prep head, round inserts

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

1.250 in (31.8 mm)	HS-MBDC/MP1.250
1.375 in (34.9 mm)	HS-MBDC/MP1.375R
1.500 in (38.1 mm)	HS-MBDC/MP1.500R
1.625 in (41.3 mm)	HS-MBDC/MP1.625R
1.750 in (44.5 mm)	HS-MBDC/MP1.750R
1.875 in (47.6 mm)	HS-MBDC/MP1.875R
2.000 in (50.8 mm)	HS-MBDC/MP2.000R
2.125 in (54 mm)	HS-MBDC/MP2.125R
2.250 in (57.2 mm)	HS-MBDC/MP2.250R
2.375 in (60.3 mm)	HS-MBDC/MP2.375R
2.500 in (63.5 mm)	HS-MBDC/MP2.500R
2.625 in (66.7 mm)	HS-MBDC/MP2.625R
2.750 in (70 mm)	HS-MBDC/MP2.750R
2.875 in (73 mm)	HS-MBDC/MP2.875R
3.000 in (76.2 mm)	HS-MBDC/MP3.00R

## Membrane head, round inserts

*(removes membrane only, does not bevel)*

1.250 in (31.8 mm)	HS-MBM1.250R
1.375 in (34.9 mm)	HS-MBM1.375R
1.500 in (38.1 mm)	HS-MBM1.500R
1.625 in (41.3 mm)	HS-MBM1.625R
1.750 in (44.5 mm)	HS-MBM1.750R
1.875 in (47.6 mm)	HS-MBM1.875R
2.000 in (50.8 mm)	HS-MBM2.000R
2.125 in (54 mm)	HS-MBM2.125R
2.250 in (57.2 mm)	HS-MBM2.250R
2.375 in (60.3 mm)	HS-MBM2.375R
2.500 in (63.5 mm)	HS-MBM2.500R
2.625 in (66.7 mm)	HS-MBM2.625R

## 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



## A Fast Three-Step Process

Ready to bevel in 7 minutes or less!

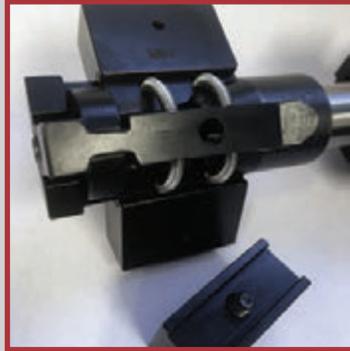
# 1

### WEDGE SYSTEM

Install the three wedge extensions  
*or*

### COLLET SYSTEM

Slide a locking rod through the center shaft, thread the required collet set onto the locking rod and install a cotter pin in the locking rod end. Install the locking rod wrench and secure with the retaining ring.



# 2

Mount the machine to the work piece. Be aware of the position of locking system in the work piece; allow approximately 1/2" (12.7 mm) 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 either the hand crank or the feed wrench.

