QUALITY
BORE REPAIR
SOLUTIONS

Professional bore welders, boring bars and accessories

BORE REPAIR Systems, Inc.
THE BEST OR NOTHING

Value - Experience - Service - Support
www.borerepair.com - 603-835-2409 int'l - 800-650-1005 USA/CAN
Introducing our elegantly simple, ultra reliable bore welders and boring bars for top quality bore repairs on all types of machinery.

- **The BOA-408i Bore welder**

- **The BOA-M1 Bore welder**

  Bore welder and boring bar are integrated with our center mount system. This gives unparalleled ease of setup and use on all makes, models and types of equipment.

- **The EV Boring bar**

The professional’s choice...worldwide.

**Value**  -  **Experience**  -  **Service**  -  **Support**

[Website Link] - 603-835-2409 Int'l - 800-650-1005 USA/CAN
Bore Repair Systems, Inc. equipment is designed by users, for users. This is why our systems are the only portable bore repair systems that are built with the TOP 10 most valuable features in the industry.

TOP 10 LIST OF MOST VALUABLE FEATURES FOR EASY BORE REPAIR

#1 - Pass-thru drive design on both bore welder and boring bar - you will not have to re-mount the boring bar or welder drive when working on widely spaced bores on heavy equipment

#2 - Telescoping and reversible welding gun - no clumsy welding gun extensions are required when welding multiple inline bores

#3 - Center-mount bore welder to boring bar interface - simply attach your bore welder directly on centerline of boring bar with no centering or realignment needed

#4 - Mechanical axial feed can never get out of calibration - no chance of weld penetration problems with a BOA

#5 - Unique standard adjustable welding gun has the largest diameter range range in the industry - no need for multiple welding guns

#6 - Welding gun nozzles are electrically isolated and will not "arc out" when making contact with bore wall

#7 - Standard welding guns utilize inexpensive and easy to change thread-on welding tips and nozzles

#8 - Dual tool ports on boring bars - enables easy, accurate bore diameter measurements and tool adjustments, without having to remove bar or cutter

#9 - Mechanical feed system on all boring bar drives - fixed or variable feed rates run in direct conjunction with bar rotation providing smoothest possible surface finishes

#10 - Infinitely adjustable rotation speeds on boring bar drives enable use of wide variety of cutters including carbide, high speed steel and snap-ring cutters

CUSTOMER COMMENTS:

> Rick from Smitty's writes:
"We absolutely love our Bore Repair System. We've been doing lots of ID's and OD's and it just works great!"

> MJ McCarrroll writes:
"I would not trade my BOA bore welder for anything, it is that good."

> Turner Diesel writes:
"I am amazed at how great our BOA bore welder works, it's been a real asset to our business."

> Gary from Clark's Repair writes:
"Man I love my Bore Repair System, it just works great."

> Dan A. writes:
(After 5 years of ownership) "I use my BOA bore welder all the time and am considering adding a second machine soon...It has been an excellent addition to my business and always works for me and does a great job."

> Joe L. writes:
"I purchased one of your BRS3 welding/boring systems from you and just wanted to let you know that it is everything you said it was, I am very pleased with it, and thank you."

> Peter M. writes:
"The BRS3 boring and welding system I purchased from you works great. You have a very good product."

All of us at Bore Repair Systems, Inc. look forward to working with you and helping you with all your bore repair needs.

Value - Experience - Service - Support

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Setup of Bore Repair System

1. Center boring bar using centering kit & attach supports

2. Insert boring bar drive and motor

3. Machine the bore to clean and prepare for welding

4. Insert BOA bore welder into support using interface kit

5. Attach BOA bore welder to your MIG feeder and apply weld

6. Slide boring bar back through supports and machine bore to size

Time is money and our integrated BRS systems saves you both. Cut welding time by 80% and machining time by 50% by using reliable, affordable Bore Repair Systems' integrated bore welder and boring bar systems.

The professional's choice...worldwide.

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www.borerepair.com - 603-835-2409 Intl - 800-650-1005 USA/CAN
Standard Boring Bar Setup

- Drive Motor 115 or 240 volt
- Dual-port chrome plated Boring Bar
- Drive Gearbox
- Spider Support #K94.51 (standard)
- (2) Universal Support #K94.30 (standard)
- (2) Adjustable Sub-Plate #K94.21 (optional)
Inverted Boring Bar Setup

Inverting support moves it closer to bore to be machined providing more rigid support and better machining.

Dual-port chrome plated Boring Bar

Clamping Screw with Captive Nut; reversible for best access to socket head

Drive Motor 115 or 240 volt

Drive Gearbox

Clamp Bar

(2) Universal Support #K94.30 (inverted)

(2) Adjustable Sub-Plate #K94.21 (optional)

(3) Side Adjustment Screw

(4) Leveling Screw
**Bore Welder Center Support**

- **Tool-less, knurled Clamp Nut for telescoping Welding Gun**
- **Center Support Extender (long shown); Use short (not shown) to reach remote bores**
- **Bore being welded**
- **Boring Bar bearings remain in during welding**
- **Quick Connect Welding Gun**
- **Telescoping Tube - retract to weld Bore #2**
- **Plug-in Center Support w/calibrated dial fine tuning**
- **BOA-408i BoreWelder**

**Typical Repair Sequence**
1. Align Boring Bar using cones for centering
2. Attach Bearing Supports
3. "Skin cut" bores to clean and make round
4. Remove Boring Bar leaving Supports in-place
5. Plug-in BoreWelder to Universal Support
6. Build up bores using BoreWelder
7. Remove BoreWelder
8. Reinstall Boring Bar
9. Machine bores to desired size
BarDrill Setup

Drive Motor 115 or 240 volt

Pilot Hole Drill w/ #3 Morse Taper

Manual Feed Wheel

Automatic Feed Rate Control

Drive Gearbox

Dual-port chrome plated Boring Bar w/number 3 Morse Taper for inserting Drills or Drill Chucks

Dual Support #K94.32; Typical uses: BarDrill as shown - Blind holes - Extra bar support

Adjustable Sub-Plate #K94.21
Universal Support Kits K94.30 & K94.32
Mount Configurations

**K94.30 Standard Support Setup**
- Outer Mounting Surface
- Reversible Clamp Bolt
- Hold-Down
- Universal Offset Body
- Captive Clamp Nut
- Clamping Surface
- Inner Mounting Surface
- (4) Leveling Screw

**TYPICAL USES/FEATURES**
- Standard Single Support
  - Most outboard locations where bore is near mounting surface
  - Mount drive on either Outer or Inner Mounting Surface
  - Supports Spherical Bearing

Inverted Single Support
- Use when bore is inboard from mounting surface
- Mount drive on either Outer or Inner Mounting Surface
- Supports Spherical Bearing

Double Support
- Use when extra bar stiffness is needed, such as blind holes or bores located far from support
- Can be used as a drill press with special Morse Taper Bar
- Mount drive or bearing at either clamping location

Reversible Clamp and Joining Bolts
- Allows access to bolt head from either side
- Clamp Nut captive on either side so second wrench not needed

**K94.32 Dual Support Setup**
- (3) Joining Bolt
- Spherical Bearing
- (3) Captive Joining Nut
- Anchor Point (normally weld or use #K94.21 adjustable support)
- (4) Leveling Screw

- Hold Down Stud
Spider Support K94.51
Mount Configurations

Attachment Radius
2.9" (73mm)

Clamp Surface for Spherical Plain Bearing or Drive Gearbox

Clamp Lock Bolt allows very rigid support

Tack Weld surface

Level Lock Nut

Leg - Pivot as needed

Cone Nut Receiver Bevel

Leveling Screw

Max. attachment radius
5.4" (137mm)

Cone Nut

Attachment radius
4.0" (102mm)

Max. attachment radius
6.5" (165mm)
The BOA-408i automatic bore welding system is designed for users who demand durability, ease of setup and precision without unnecessary complication.

Coupled with one of Bore Repair Systems' boring bars and new Center Support System, it will provide you with a means of repairing worn bores on all types of equipment in the fastest, most efficient way possible. Awarded numerous design patents, owners of our BOA systems quickly realize they made the right decision when choosing Bore Repair Systems' products. The BOA systems are the simplest to set up, the simplest to use and offer the highest levels of precision all at very reasonable prices.

The BOA-408i is conveniently offered in 5 packages, ranging from the basic BOA-408i S1 for internal bore buildup to the fully loaded BOA-408i S5 which features all the upgrades available including long stroke, auto-skip, face welding, outside diameter welding and even a BOA-M1 compact bore weld drive head and gun assembly.

The BOA-408i bore welder system is also offered in complete, turnkey kit form with integrated boring bar system. See our BRS2-BRS7 integrated bore welding and machining systems.

Already own a boring bar system but need to automate your bore welding process? The BOA-408i is for you too. Any BOA-408i system is available with boring bar interface kits to fit any brand boring bar system that you may now own.

Bore Repair Systems, Inc. offers many convenient purchase plans including rent-to-own and lease finance options. Contact us today at 603-835-2409 or visit our website at www.borerepair.com.
The BOA-550HD automatic bore welding system is designed for users who demand durability, ease of setup and precision without unnecessary complication.

The patented BOA-550HD bore welder features a unique variable feed mechanical drive system that gives users the option of varying the distance between weld beads. Due to the design features of the feed system, and the fact that it does not require a second motor for axial feed, the machine is very simple to operate and does not require feed recalibrations. This also means that you do not have to worry about bead to bead spacing and possible lack of weld bead fusion to the base metal.

The BOA-550HD is designed to weld at amperages as high as 300, and a feed rate of up to 6.4mm (.25”). This allows varying high weld deposition rates and minimal cycle time. Also, the 410mm (16”) stroke allows long duration welds without stopping.

The BOA-550HD is user friendly, simple to operate, extremely durable and is designed to be easily setup and operated.

Weighing just 14Kgs (30 Lbs) the BOA-550HD drive is easily and safely setup and handled by one person. Bores, faces and outside diameters up to 1.8m (72”) can be welded with the BOA-550HD.

Bore Repair Systems, Inc. offers many convenient purchase plans including rent-to-own and lease finance options. Contact us today at 603-835-2409 or visit our website at www.borerepair.com.
The BOA-M1 basic bore welding system is Bore Repair Systems’ most compact and affordable bore welder. The welder drive and spindle assembly will fit nearly anywhere at just under 280mm (11.0”) long.

The BOA-M1 basic package is extremely versatile. With standard components, it can reach bores nearly 610mm (24”) away from its’ mount location, or bores over 1.2m (48”) apart from one another when mounted between bores.

The BOA-M1 design is elegantly simple and extremely durable, very easy to set up and operate. It utilizes the same gun and conduit system as the BOA-408i so parts are interchangeable.

While the BOA-M1 bore welding system is a popular choice with our existing BOA-408i and BOA-550HD customers who are interested in a second bore welder that can fit in tight, restricted access bore repair jobs, it is also very popular with our new customers who are just starting out who need a bore welder that will give top quality professional results at the lowest possible entry price.

The BOA-M1 comes complete with a hand feed wheel and rotation speed timer with chart. This ensures smooth, even weld bead application every time. The BOA-M1 can also be easily driven automatically with a basic hand drill and our optional trigger lock kit.

Please call us today at 603-835-2409 or visit our website at www.borerepair.com Several purchase and leasing options are available.
MICRO GUN (for 308i) - A138
MICRO GUN (for 408i & M1) - A336
Diameter range: .8 to 2" (20 to 51mm)

STANDARD GUN (for 308i) - A113
STANDARD GUN (for 408i & M1) - A313
SHORT GUN (for 408i & M1) - A328
Standard Guns Diameter range: 1.25 to 8" (32 to 203mm)
Short Gun Diameter Range: 1.25 to 4" (32 to 101mm)
Short Gun 3" (76mm) shorter than standard for use in tight locations.

FEATURES OF ALL OF OUR GUNS:
- Quick install on BOA-308i, 408i, 450HD, M1 & L34 Bore Welders
- High electrical & thermal conductivity to help maintain an efficient and safe operating temperature
- Lightweight aluminum construction
- Weld in any position
- Covered by several USA Patents
- Electrical isolation of nozzles and use of standard tips for all bores larger than 1.2" (30mm)

HI-AMP GUN (for 308i)
A135
HI-AMP GUN (for 408i, M1 & L34)
A344
Minimum Diameter - 4" (101mm)

HAND-HELD GUN
(for 408i & M1)
A333
Easily connects to Bore Welder conduit, eliminating the need to carry an extra gun and conduit.

OD GUN (for 308i)
A114
OD GUN (for 408i & M1)
A317
Diameter range: 1 to 12" (25 to 305mm)
Custom sizes available

LARGE DIAMETER GUN (for 308i)
A115
LARGE DIAMETER GUN (for 408i & M1)
A310
Diameter range: 8 to 15" (200 to 380mm)
Diameter range with extenders: to 48" (1220mm)

BORE REPAIR SYSTEMS, INC.
web: borerepair.com
(800)650-1005 & (603)835-2409
FACE GUN - K13.10

**FEATURES:**
- Lightweight
- Adjusts easily to the desired welding position
- Weld either inward or outward
- Weld faces up to 24" diameter
- Quick install on 308i, 408i & M1
- High electrical and thermal conductivity to maintain a low operating temperature
- Covered by USA Patent No. 6,486,438 et al

BEAM GUN - K13.11

**FEATURES:**
- Aluminum tube construction makes the torch extremely rigid and durable yet lightweight
- Can weld both ID's and OD's (48" maximum)
- Quick install on 308i, 408i & M1
- High electrical and thermal conductivity to maintain a low operating temperature

GUN DIAMETER EXTENSIONS

**K13.12**

**FEATURES:**
- Comes with 2 extensions
- Each extension adds 5" (127mm) to the maximum diameter capability of the gun
- Gun liner removal not required
- Use with Large Diameter Gun

GUN REACH EXTENSIONS

**A309 [6" (152mm)]**
**A335 [10" (254mm)]**

**FEATURES:**
- Liners contained in extensions
- Can be used with all guns on 408i and M1 machines
- Quick connection and angular orientation with captive nuts
- Constructed with light, highly conductive aluminum with brass fittings

BORE REPAIR SYSTEMS, INC.
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(800)650-1005 & (603)835-2409
BORE WELDER SUPPORT OPTIONS

FULLY ADJUSTABLE BASES
"T" BASE (for 408i) - K11.11
"A" BASE (for M1) - K31.21
Allows full adjustment to bore:
- Leveling
- Centering
Also repeatable angular positioning

UNIVERSAL HEX MOUNT
for BOA-M1 - K31.10
- Compact and easy to use
- Can be aligned directly from boring bars

QUICK CONNECT CENTER SUPPORT KIT
for BOA-408I - K11.21 | for BOA-M1 - K31.11
- Set-up quickly with no guesswork
- Centers directly from boring bar bearing mounts
- Adjustments made directly using off-set dial

BORE REPAIR SYSTEMS, INC.
web: borerepair.com
(800)650-1005 & (603)835-2409
BORE MEASURING KIT
K92.10

Assembled Measuring Tool
Bore Being Measured
Cutter
Boring Bar

Features:
- Kit Diameter Range - 1.7 to 14 inches (42 to 355mm)
- Additional spacers available for larger diameters
- Works in 3/8 and 1/2 inch, and 10, 12, 16mm tool holes
- Durable large diameter plungers
- Stainless steel construction
- No tools needed for most boses
- Comes in durable case with special nesting and adapters for two tooling sizes

Easy to Use:
1. Insert measuring tool through a tool hole in the boring bar
2. Extend the tool into the bore
3. Snap open the measuring tool
4. Retract the bar
5. Measure the tool length

MULTI-FUNCTION TOOL ADJUSTER

Pull Tool Configuration

Features:
- Accurate tool depth adjustment
- Allows tool removal and replacement to the same cutting depth
- Allows either pull or push adjustment for both dual and single tool hole bars
- Clamp to tool or Support from either side
- Machined “V” provides accurate alignment for single tool hole bars

Available for the following tooling sizes:
1. 1/4” square > K93.10 (Body Only #A903)
2. 3/8” square > K93.11 (Body Only #A904)
3. 1/2” square > K93.12 (Body Only #A905)
4. 13mm square > K93.13 (Body Only #A906)
5. 12mm square > K93.14 (Body Only #A907)
6. 15mm round > K93.15 (Body Only #A908)
7. 3/8” & 1/2” sq > K93.16

All kits include a Tool Adjuster Body, a Barrel Micrometer, a Multi-Function Tool Adjuster Support, and a Carrying Case and Tools

TIGHT BORE MEASURING KIT
K92.20

Gauge Plunger
Gauge Adapter
Cutter
Gauge Body

Features:
- Measure bore diameters equal to bar size, to bar size plus 5 inches (12mm)
- Durable large diameter plungers
- No tools needed
- Kits for all bar and tool sizes available

Complete View
View w/Bar Not Shown
Bore Being Measured

CARBIDE TOOLING KIT

Features:
- Special low-profile design works with Bore Repair K92 tool adjuster
- Available in 3/8” and 1/2” square
- A variety of carbide grades are available allowing various materials to be machined

3/8” Tool - K91.10 | 1/2” Tool - K91.11

Carbide Bit, Holder and Tool
(Kit includes 2 Bits, Holder and Tool)

PRE-SHARPENED HIGH-SPEED STEEL BITS

Features:
- Wide cutting edge allows both 1D and spot facing for easy face touch-up
- Design of the grind offers easy sharpening using a standard bench grinder
- Special grind for longer edge life and cleaner cut

3/8” Square Bit - #9088 | 1/2” Square Bit - #9087

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BOURING BAR SUPPORT KIT (K94.20)*

**KIT INCLUDES:**
(2) 9910 Drive Support & Spherical Support Adjuster Plate Assemblies
(1) 9194 Alignment Sleeve

**Set-Up Steps:**
1. Tack weld or clamp the Adjuster Plate Assemblies adjacent to the bores to be repaired. The plates should be approximately perpendicular to the bore axis, and with the clamping bolt 5" from the bore centerline.
2. Attach the Drive Support as shown, and the Spherical Support (not shown) to the Adjuster Plate.
3. Adjust as necessary using the “jack” bolts to achieve the desired bore alignment.
4. Insert the Alignment Sleeve into the Drive Support as shown.
5. Slide the Boring Bar through the Alignment Sleeve and the Spherical Support.
6. Tighten the Strap Clamp.

**Features:**
- Low profile
- Easy alignment to other bores
- Allows precision alignment
- Great for alignment to out-of-round bores

**FOR THE FOLLOWING BAR SIZES:**
- 1 1/4" Bars K94.10
- 1 3/4" Bars K94.11
- 2" Bars K94.12
- 2 1/4" Bars K94.13
- 2 1/4" Bars K94.14

**ID GROOVE CUTTER**

- Cutter fits in 1/2" tool holes in boring bars
- High speed steel cutting bits
- Cuts grooves in bores from 2.5" to 6" (64 to 152mm)
- Very compact - can be used in confined spaces

**FOR THE FOLLOWING BAR SIZES:**
- 1 1/2" Bars K96.10
- 1 3/4" Bars K96.11
- 2" Bars K96.12
- 2 1/4" Bars K96.13

(800)650-1005 & (603)835-2409
The Bore Repair Systems, Inc. BRS2, BRS3 and BRS4 bore repair packages have been our most popular selling packages. The bore welder and boring bar feature the popular, mount anywhere pass-through drive systems. On bores where there may be restricted access, or bores that are spaced far apart, the pass-through drive design gives you the flexibility to mount where it makes the most sense, such as between the bores. On jobs such as payloader lift arm bores, the BOA-408i can be center-mounted and can weld out either end of the machine with one simple operation, without ever losing system center...this is unique to the BOA-408i design. On blind bores, our systems do not require special cumbersome remote mounting kits or various length bars because with our pass-through design the excess bar simply comes out of the back end of the machine. The BRS packages share one mount for boring and welding which allows fast setup and rapid transitions from boring to the welding process.

**MODEL: BRS2**  
**Bore welding & machining package— for 1.8” to 10.0” dia repairs**

*Package (shown above) Includes:*

- Bore welding head, 110v or 220v drive with variable feed direction and RPM
- Extendable, reversible welding shaft with 90” total extended reach from bore to bore (expandable)
- 10’ 150amp welding conduit with universal end (hi-amp upgrades are available)
- Aluminum diamond-plate custom storage cases
- Spare nozzle, tip and diffuser assortment
- Arc-resistant heatsink style adjustable welding head which can weld bores from 1.25” to 11.0” dia
- Micro welding head for welding bores down to .8” dia
- Setup manuals & dvd
- Remote weld trigger for partial bore welding or skipping over no-weld areas
- Fully 360 degree adjustable mounting system enabling control placement where it is most convenient

**MODEL: BRS3**  
**Bore welding & machining package—for 1.4” to 10.0” dia repairs**

*Package Includes all items above plus:*

- 72” long x 1.25” dia bar with dual 3/8” tool ports + tooling
- Centering cone & bushing kit for 1.75” to 1.25” conversion

**MODEL: BRS4**  
**Bore welding & machining package—for 1.0” to 10.0” dia repairs**

*Package Includes all items above plus:*

- 48” long x .875” dia bar with 1/4” tool ports + tooling
- Centering cone & bushing kit for 1.75” to .875” conversion

ADD: Accessory kit #KBCC to maximize the versatility of these packages. It contains all of the popular BRS options.
The Bore Repair Systems, Inc. BRS5 Boring bar & welder package is a popular midsize bore repair system. The bore welder and boring bar feature the popular, mount anywhere pass-through drive systems. On bores where there may be restricted access, or bores that are spaced far apart, the pass-through drive design gives you the flexibility to mount where it makes the most sense, such as between the bores. On jobs such as payloader lift arm bores, the BOA-408i can be center-mounted and can weld out either end of the machine with one simple operation, without ever losing system center...this is unique to the BOA-408i design. On blind bores, our systems do not require special cumbersome remote mounting kits or various length bars because with our pass-through design the excess bar simply comes out of the back end of the machine. The BRS packages share one mount for boring and welding which allows fast setup and rapid transitions from boring to the welding process.

**MODEL: BRS5** Bore welding & machining package— for 24-305mm (1-12”) diameter bore repair

*Package (shown above) Includes:*

- Bore welding head, 110v or 220v drive with variable feed rotation speed, reversible rotation & feed direction
- Extendable, reversible welding shaft with 90” total extended reach from bore to bore (expandable)
- 10’ 150amp welding conduit with universal end (hi-amp upgrades are available)
- Aluminum diamond-plate custom storage cases
- Spare nozzle, tip and diffuser assortment
- Arc-resistant heatsink style adjustable welding head which can weld bores from 1.25” to 11.0” dia
- Micro welding head for welding bores down to .8” dia
- Setup manuals & dvd
- Remote weld trigger for partial bore welding or skipping over no-weld areas
- Fully 360 degree adjustable mounting system enabling control placement where it is most convenient
- 72” long x 1.25” dia bar with dual 3/8” tool ports + tooling
- 48” long x .875” dia bar with 1/4” tool ports + tooling
- Boring bar drive, 110v or 220v drive with variable feed direction (electric drive hydraulic pump)
- 72” long x 1.75” dia. Bar with dual 1/2” tool ports—enabling easy bore measurements w/out tool removal
- Centering kit (solid steel cones) with unique one-person centering cone spanner tightening system
- Two auxiliary spherical self-aligning bar support bearings and one primary bar/machine support (adjustable)
- Sharpened 1/2” square high-speed tool (carbide optional)
- Bore welder to boring bar interface package enables bore welder to mount directly to boring bar bearings or support
- Setup sleeve for easy machine support setup
- Tool kit
- Boring bar tool extender for sturdy tool holding when machining larger bores
- Corrosion-resistant materials used throughout both boring and welding system for years of shop and field reliability
- Centering cone & bushing kit for 1.75” to 1.25” conversion
- Centering cone & bushing kit for 1.75” to .875” conversion

ADD: Accessory kit #KBCC to maximize the versatility of these packages. It contains all of the popular BRS options.
The Bore Repair Systems, Inc. BRS6 bore repair packages are selected by customers who have large diameters to repair, generally from 2.5” up to as large as 24”. The bore welder and boring bar feature the popular, mount anywhere pass-through drive systems. On bores where there may be restricted access, or bores that are spaced far apart, the pass-through drive design gives you the flexibility to mount where it makes the most sense, such as between the bores. On jobs such as payloader lift arm bores, the BOA-408i can be center-mounted and can weld out either end of the machine with one simple operation, without ever losing system center...this is unique to the BOA-408i design. On blind bores, our systems do not require special cumbersome remote mounting kits or various length bars because with our pass-through design the excess bar simply comes out of the back end of the machine. The BRS packages share one mount for boring and welding which allows fast setup and rapid transitions from boring to the welding process.

**MODEL: BRS6**  
Bore welding / machining package— for 2.5” to 18.0” dia repairs  
Package (shown above) Includes:

- Bore welding head, 110v or 220v drive with variable feed direction and RPM
- Extendable, reversible welding shaft with 90” total extended reach from bore to bore (expandable)
- 10’ 150amp welding conduit with universal end (hi-amp upgrades are available)
- Aluminum diamond-plate custom storage cases
- Spare nozzle, tip and diffuser assortment
- Arc-resistant heatsink style adjustable welding heads & extensions which can weld bores from 1.25” to 21.0” dia
- Micro welding head for welding bores down to .8” dia
- Setup manuals & dvd
- Remote weld trigger for partial bore welding or skipping over no-weld areas
- Fully 360 degree adjustable mounting system enabling control placement where it is most convenient
- Boring bar drive, 110v or 220v drive with variable feed direction RPM and variable feed rate (hydraulic or air power options also available)
- 72” long x 2.25” dia. Bar with dual 1/2” tool ports—enabling easy bore measurements w/out tool removal
- Centering kit with unique aluminum split finned feature enabling installation and removal in tight spaces
- Two auxiliary spherical self-aligning bar support bearings each of which can also support the feed unit
- Sharpened 1/2” square high-speed tool (carbide optional)
- Bore welder to boring bar interface package enables bore welder to mount directly to boring bar bearings or support
- Modular axial feed box can be mounted independently of the rotational head if desired or required.
- Tool kit
- Boring bar tool extender kit for sturdy tool holding when machining larger bores
- Corrosion-resistant materials used throughout both boring and welding system for years of shop and field reliability

- This system may be upgraded to machine and weld larger bores. The BOA-408i can be equipped to weld up to 48” diameter, and the BB6 boring system can be equipped to bore up to 30” diameter. Face welding, machining and snap-ring cutting capabilities may also be added to the BRS 6 package.

- A wide selection of various length boring bars is available for the BB6 boring system. The BB6 boring system also may be equipped with the small bore package, which enables it to machine bores as small as 1.5” diameter.
The Bore Repair Systems, Inc. AM7 bore repair package will repair bores from 35-610mm diam (1.5-24”) The bore welder and boring bar features the popular, mount anywhere pass-through drive systems. On bores where there may be restricted access, or bores that are spaced far apart, the pass-through drive design gives you the flexibility to mount where it makes the most sense, such as between the bores. On jobs such as payloader lift arm bores, the BOA-408i can be center-mounted and can weld out either end of the machine with one simple operation, without ever losing system center…this is unique to the BOA-408i design. On blind bores, our systems do not require special cumbersome remote mounting kits or various length bars because with our pass-through design the excess bar simply comes out of the back end of the machine. The BRS packages share one mount for boring and welding which allows fast setup and rapid transitions from boring to the welding process.

MODEL: BRS7  Bore welding & machining package— for 35-610mm (1.5-24”) diameter repairs

**Package (shown above) Includes:**

- Keyed, modular bar drive
- Bar axial feed arm w/wear compensation
- 120v / 240v hydraulic pump
- (2) spherical bar supports
- (2) adjustable bar / gearbox supports
- Centering cone pack with compressor sleeve
- Steel support brackets
- Remote control pendant
- (2) 1.8m (6’) & (2) 2.4m (8’) boring bars
- 1/2” pre-sharpened tool bit with facing grind
- Setup and users manual with video CD
- Custom carrying/storage case
- 1.8m (6’) 32mm (1.25”) dia. chrome bore bar
- 3/8” pre-sharpened tool bit with facing grind
- Centering cone pack for 32mm (1.25”) bar
- 32mm Reducer kit for bearings & drive
- Matching range BOA-408i bore welder
- BOA-408i to AM7 Center support interface package

**NOTE:** Popular options designed specifically for this system include the #K94.13 low profile alignment package, the carbide tooling option #K91.11, the thru bar bore measuring package # K92.10 and the digital tool bit adjuster #K93.12
### BOA-408i S5 System

**Standard Capabilities:**
- I.D. Weld range: 20mm-1.2m (.8-48")
- O.D. Weld range: 20mm-1.02m (.8-40")
- Face Welding: 20-610mm (.8-24") diameter
- Stroke: 318mm (12.5") Pass-thru & telescopic
- Long-duration welding at high amperage
- Auto-weld skip for partial bore welding
- Can weld in compact spaces (use BOA-M1 drive)
- Can weld two bores at once (2 feeders needed)

**Standard equipment:**
- Welding gun drive 120v/240v AC automatic
- Long stroke telescopic ball spindle
- Standard weld gun assembly
- Heavy duty conduit with remote weld switch
- Standard extension tube assembly
- Micro weld gun assembly
- Weld gun extensions, 152 & 254mm (6 & 10")
- Bore welder support tube
- Radial support arm
- Tool kit
- Deluxe consumables kit
- Diamond plate carry case
- Users and setup manual
- Outside diameter welding gun
- Adjustable "T" base and tack plate kit
- Large diameter welding gun
- Large diameter welding gun extenders (2)
- Radial extenders for large diameter reach (3)
- Face welding gun kit
- Handheld welding gun with quick connect
- Beam gun kit for large ID and OD welding
- Low-speed kit for precision control in large bores
- BOA-M1 compact bore welder

**Order #:** K01.50

### BOA-408i S4 System

**Standard Capabilities:**
- I.D. Weld range: 20mm-914mm (.8-48")
- O.D. Weld range: 20mm-914mm (.8-36")
- Face Welding: 20-914mm (.8-36") diameter
- Stroke: 318mm (12.5")
- Long-duration welding
- High amperage operation
- Pass-through gun drive with tool-less telescoping feature and full, tool-less reversibility

**Standard equipment:**
- Welding gun drive 120v/240v AC automatic
- Long stroke telescopic ball spindle
- Standard weld gun assembly
- Heavy duty conduit with remote weld switch
- Standard extension tube assembly
- Micro weld gun assembly
- Weld gun extensions, 152 & 254mm (6 & 10")
- Bore welder support tube
- Radial support arm
- Tool kit
- Deluxe consumables kit
- Diamond plate carry case
- Users and setup manual
- Outside diameter welding gun
- Adjustable "T" base and tack plate kit
- Large diameter welding gun
- Large diameter welding gun extenders (2)
- Radial extenders for large diameter reach (2)
- Face welding gun kit
- Handheld welding gun with quick connect
- Beam gun kit for large ID and OD welding
- Low-speed kit for precision control in large bores
- BOA-M1 compact bore welder

**Order #:** K01.40

### BOA-408i S3 System

**Standard Capabilities:**
- I.D. Weld range: 20mm-914mm (.8-31")
- O.D. Weld range: 20mm-305mm (.8-12")
- Face Welding: 20-610mm (.8-24") diameter
- Stroke: 318mm (12.5")
- Long-duration welding
- High amperage operation
- Pass-through gun drive with tool-less telescoping feature and full, tool-less reversibility

**Standard equipment:**
- Welding gun drive 120v/240v AC automatic
- Long stroke telescopic ball spindle
- Standard weld gun assembly
- Heavy duty conduit with remote weld switch
- Standard extension tube assembly
- Micro weld gun assembly
- Weld gun extensions, 152 & 254mm (6 & 10")
- Bore welder support tube
- Radial support arm
- Tool kit
- Deluxe consumables kit
- Diamond plate carry case
- Users and setup manual
- Outside diameter welding gun
- Adjustable "T" base and tack plate kit
- Large diameter welding gun
- Large diameter welding gun extenders (2)
- Radial extenders for large diameter reach (2)
- Face welding gun kit
- Handheld welding gun with quick connect
- Beam gun kit for large ID and OD welding
- Low-speed kit for precision control in large bores
- BOA-M1 compact bore welder

**Order #:** K01.30

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**NOTE:**

All BOA-408i bore welder systems feature the pass-through drive system design. This enables simple bore-to-bore transitions by simply telescoping or retracting the bore welder gun extension assembly. The BOA-408i may also be mounted between a set of bores, and can weld our either end of the bore welder. This is a very handy feature for working on bores such as those found on the front of a payloader because by center mounting the BOA-408i drive, only one setup is required to weld both left and right side bores. Diameter adjustment is a snap with the BOA torch pivot mechanism, also included with all BOA-408i bore welder systems.

All BOA-408i bore welder systems may be equipped with the bore welder to boring bar interface for true plug and play simplicity. Once the Bore Repair Systems, Inc. boring bar is set up, the bore welder simply plugs in to the boring bar support.

All BOA-408i bore welder systems feature self-lubricating, maintenance-free, self lubricating spindle bearings, clutched chain drive and simple, durable on-board control eliminating the need for control cables or control box.
## BOA-408i Bore welder packages

<table>
<thead>
<tr>
<th>BOA-408i S2 Borewelder</th>
<th>BOA-408i S1 Borewelder</th>
<th>BOA-M1 Borewelder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Capabilities:</strong></td>
<td><strong>Standard Capabilities:</strong></td>
<td><strong>Standard Capabilities:</strong></td>
</tr>
<tr>
<td>I.D. Weld range: 20mm-533mm (.8-21&quot;)</td>
<td>I.D. Weld range: 20mm-356mm (.8-14&quot;)</td>
<td>I.D. weld range: 32mm-203mm (1.8—8.0&quot;)</td>
</tr>
<tr>
<td>Stroke: 178mm (7&quot;)</td>
<td>Stroke: 178mm (7&quot;)</td>
<td>Stroke: 260mm (10.25&quot;)</td>
</tr>
<tr>
<td>Standard-duration welding</td>
<td>Standard-duration welding</td>
<td>Standard-amperage operation</td>
</tr>
<tr>
<td>Standard amperage welding</td>
<td>Standard amperage operation</td>
<td>Ability to weld in compact spaces</td>
</tr>
<tr>
<td>Adjustable mounting feature enabling stand-alone operation or use with any boring bar</td>
<td>Stationary mounting (system usually purchased with optional boring bar and boring bar adapter)</td>
<td>Ability to weld from either end or side of gun drive</td>
</tr>
<tr>
<td>Pass-through gun drive with tool-less telescoping feature and full, tool-less reversibility</td>
<td>Pass-through gun drive with tool-less telescoping feature and full, tool-less reversibility</td>
<td>Reach: 965mm (38&quot;) (from one end) (1.9m (76&quot;) total reach if gun extender is reversed)</td>
</tr>
</tbody>
</table>

### Standard equipment:

- Welding gun positioner 120v/240v A/C, automatic
- Standard stroke telescopic ball spindle
- Standard weld gun assembly
- Standard conduit with remote weld switch
- Standard gun extension tube assembly
- Micro weld gun assembly
- Weld gun extension 254mm (10")
- Bore welder support tube
- Radial support arm
- Tool kit
- Standard consumables kit
- Diamond plate carry case
- User's and setup manual
- Adjustable "T" base and tack plate kit
- Large diameter welding gun
- 8" Radial extender for large diameter reach
- Handheld welding gun with quick connect

### Standard equipment:

- Welding gun positioner 120v/240v A/C, automatic
- Standard stroke telescopic ball spindle
- Standard weld gun assembly
- Standard conduit with remote weld switch
- Standard gun extension tube assembly
- Micro weld gun assembly
- Weld gun extension, 152mm (6")
- Bore welder support tube
- Radial support arm
- Tool kit
- Standard consumables kit
- Diamond plate carry case
- User's and setup manual
- Adjustable "T" base and tack plate kit
- Large diameter welding gun
- 8" Radial extender for large diameter reach
- Handheld welding gun with quick connect

### Standard equipment:

- Welding gun positioner, semi-automatic
- Standard stroke ball spindle
- Standard weld gun assembly
- Standard conduit with remote weld switch
- Standard gun extension tube assembly
- Gun rotation handwheel
- Remote control wire feeder contactor
- Rotation speed timer tool
- User's and setup guide
- Carry case with custom nesting
- Standard consumables kit
- Standard consumables kit
- Standard consumables kit

### Order

- Order #K01.20
- Order #K01.10
- Order #K03.10

**NOTE:**

All BOA-408i bore welder systems feature the pass-through drive system design. This enables simple bore-to-bore transitions by simply telescoping or retracting the bore welder gun extension assembly. The BOA-408i may also be mounted between a set of bores, and can weld our either end of the bore welder. This is a very handy feature for working on bores such as those found on the front of a pay loader because by center mounting the BOA-408i drive, only one setup is required to weld both left and right side bores. Diameter adjustment is a snap with the BOA torch pivot mechanism, also included with all BOA-408i bore welder systems.

All BOA-408i bore welder systems may be equipped with the bore welder to boring bar interface for true plug and play simplicity. Once the Bore Repair Systems, Inc. boring bar is set up, the bore welder simply plugs in to the boring bar support.

All BOA-408i bore welder systems feature self-lubricating, maintenance-free, self lubricating spindle bearings, clutched chain drive and simple, durable on-board control eliminating the need for control cables or control box.

Covered under Pat. Nos 6,137,076; 6,448,531; 6,737,608; 6,284,995; 6,486,438
**Consumable parts (welding)**

### Welding Tips

<table>
<thead>
<tr>
<th>Tip Type</th>
<th>Diameter</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stub, .8mm (.030&quot;)</td>
<td></td>
<td>#1058</td>
</tr>
<tr>
<td>Stub, .9mm (.035&quot;)</td>
<td></td>
<td>#1059</td>
</tr>
<tr>
<td>Stub, 1.2mm (.045&quot;)</td>
<td></td>
<td>#1060</td>
</tr>
<tr>
<td>Standard, .8mm (.030&quot;)</td>
<td></td>
<td>#1061</td>
</tr>
<tr>
<td>Standard, .9mm (.035&quot;)</td>
<td></td>
<td>#1062</td>
</tr>
<tr>
<td>Standard, 1.2mm (.045&quot;)</td>
<td></td>
<td>#1063</td>
</tr>
<tr>
<td>Hi-amp, .9mm (.035&quot;)</td>
<td></td>
<td>#2040</td>
</tr>
<tr>
<td>Hi-amp, 1.2mm (.045&quot;)</td>
<td></td>
<td>#2041</td>
</tr>
<tr>
<td>Hi-amp, 1.3mm (.052&quot;)</td>
<td></td>
<td>#2042</td>
</tr>
<tr>
<td>Micro-gun, .8mm (.030&quot;)</td>
<td></td>
<td>#1255</td>
</tr>
</tbody>
</table>

### Welding Nozzles

<table>
<thead>
<tr>
<th>Nozzle Type</th>
<th>Diameter</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini nozzle, insul. ceramic 32-50mm (.125-2.00&quot;)</td>
<td>#1092C</td>
<td></td>
</tr>
<tr>
<td>Mini nozzle, brass 32-50mm (.125-2.00&quot;)</td>
<td>#1092B</td>
<td></td>
</tr>
<tr>
<td>Stub nozzle (use for dia. to 50mm (.200&quot;)</td>
<td>#1066</td>
<td></td>
</tr>
<tr>
<td>Standard nozzle (use for dia. Over 127mm (.50&quot;)</td>
<td>#1067</td>
<td></td>
</tr>
<tr>
<td>Hi-amp nozzle (for use on beam &amp; hi-amp gun)</td>
<td>#2067</td>
<td></td>
</tr>
<tr>
<td>Hi-amp stub nozzle (use on beam &amp; hi-amp gun)</td>
<td>#2074</td>
<td></td>
</tr>
<tr>
<td>Micro-gun nozzle body</td>
<td></td>
<td>#1258</td>
</tr>
<tr>
<td>Hand-held gun nozzle</td>
<td></td>
<td>#1308</td>
</tr>
</tbody>
</table>

### Welding Diffusers

<table>
<thead>
<tr>
<th>Diffuser Type</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini diffuser</td>
<td>#1093</td>
</tr>
<tr>
<td>Standard diffuser</td>
<td>#1057</td>
</tr>
<tr>
<td>Hi-amp diffuser</td>
<td>#2068</td>
</tr>
<tr>
<td>Hi-amp stub diffuser</td>
<td>#2075</td>
</tr>
<tr>
<td>Hi-amp diffuser to gun adapter, 9-12mm</td>
<td>#1251</td>
</tr>
<tr>
<td>Hi-amp diffuser to gun adapter</td>
<td>#2080</td>
</tr>
</tbody>
</table>

### Liner & Conduits

<table>
<thead>
<tr>
<th>Conduit Type</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liner, conduit replacement</td>
<td>#1038</td>
</tr>
<tr>
<td>Liner (1.5m (.5&quot;) section, trim to fit)</td>
<td>#1039</td>
</tr>
<tr>
<td>Conduit assembly, standard duty QC</td>
<td>#A315</td>
</tr>
<tr>
<td>Conduit assembly, heavy duty QC</td>
<td>#A337</td>
</tr>
<tr>
<td>Conduit assembly, extra heavy duty QC</td>
<td>#A338</td>
</tr>
</tbody>
</table>

### Welding wire

<table>
<thead>
<tr>
<th>Wire Type</th>
<th>Diameter</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large cast bore welder wire, .8mm (.030&quot;)</td>
<td></td>
<td>#1103</td>
</tr>
<tr>
<td>Large cast bore welder wire, .9mm (.035&quot;)</td>
<td></td>
<td>#1202</td>
</tr>
</tbody>
</table>

(superior weld bead tracking with this wire)

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Covered under Pat. Nos 6,137,076; 6,448,531; 6,737,608; 6,284,995; 6,486,438
Other patents pending

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Bore Repair Systems, Inc.
97 Lower Cemetery Road
Langdon, NH 03602 USA
Borerepair.com - 603-835-2409
Fax: 603-835-2609
**Welding Guns**

- Gun, short QC  #A328
- Gun, standard QC  #A313
- Gun, micro QC for ID's 20-50mm (.8"-2.0")  #A336
- Gun, large dia. for ID's 200-380mm (8"-15") QC  #A310
- Gun, outside dia. for 25mm-305mm (1"-12") QC  #A317
- Hi-amp gun  #A209

**Specialty Guns**

- Extra heavy duty gun, ultra hi-amp  #A404
- Heavy duty gun extender  #K23.10
- Face welding gun kit  #K13.10
- Beam gun kit (adjustable ID and OD welding)  #K13.11
- Hand held gun assembly QC  #A333

**Gun Extenders**

- Gun extension assembly 150mm (6")  #A309
- Gun extension assembly 250mm (10")  #A335
- Gun diameter extension kit (125mm (5") x2  #K13.12

**Welder Supports**

- "T" Base with tack plate  #K11.11
- "A" Base with tack plate and tool (compact)  #K31.21
- Universal Hex mount (use with BOA-M1 only)  #A329
- Radial support, BOA-M1  #A308
- Support tube (BOA-M1)  #3099
- Center support kit (BOA-M1)  #K31.11
- Center support kit (BOA-408i)  #K11.21
- Radial support extension 102mm (4")  #A118
- Radial support extension 204mm (8")  #A119
- Centering tube & cone kit (45-160mm(1.8-6.4"))  #K11.12

**Drive Spindles**

- Spindle assembly, 250mm (10") (BOA-M1 only)  #A320
- Spindle assembly, 356mm (14")  #A325
- Spindle assembly, 457mm (18")  #A319
- Spindle assembly, 610mm (24")  #A326

**Telescopinig weld gun Extension Assemblies**

- Telescoping tube assembly, 305mm (12")  #A339
- Telescoping tube assembly, 483mm (19")  #A316
- Telescoping tube assembly, 610mm (24")  #A340
- Telescoping tube assembly, 915mm (36")  #A341

Covered under Pat. Nos 6,137,076; 6,448,531; 6,737,608; 6,284,995; 6,486,438
Other patents pending

Bore Repair Systems, Inc.
97 Lower Cemetery Road
Langdon, NH 03602 USA
Borererepair.com - 603-835-2409
Fax: 603-835-2609
BOA 408i upgrades

- Low-speed gearset kit #K12.14
- Standard-speed gearset kit #K12.13
- Std/Low-speed gearset kit #K12.12
- Auto-skip upgrade #A129

Boring bar supports, centering, etc.

- Boring bar base-plate support kit, adjustable #K94.21
- Bearing spherical bearing insert assembly, 1.75" #A922
- Support, universal adjustable one-arm boring bar #K94.30
- Support kit, 2x one-arm w/bearing & joiner bolts #K94.32
- Support, universal compact triangle kit #K94.51
- Boring bar align kit (low-profile) for 1.25" dia bars #K94.10
- Boring bar align kit (low profile) for 1.75" dia bars #K94.11
- Boring bar align kit (low profile) for 1.25 & 1.75" #K94.12
- Boring bar align kit (low profile) for 2.0" dia bars #K94.13
- Boring bar align kit (low profile) for 2.25" dia bars #K94.14
- Alignment spider kit, 6"-10" diameter bores #K94.15
- Alignment spider kit, 10"-14" diameter bores #K94.16
- Tool extender arm, 3" - for 6"-10" dia. boring #K91.20
- Tool extender arm, 5" - for 10" - 14" dia boring #K91.21

Boring bar related accessories

- ID bore measure gage, standard model #K92.10
- ID bore measure gage, tight bore model #K92.20
- Multi-function tool bit adjuster kit for 1/2" sq. #K93.12
- Multi-function tool bit adj. kit for 1/2 & 3/8" sq. #K93.16
- Multi-function tool adj. kit for 1/2, 3/8 and 1/4" sq. #K93.17
- Tool adjuster body, for 1/4" sq. bits #A903
- Tool adjuster body, for 3/8" sq. bits #A904
- Multi-function tool bit adjuster kit for 10mm sq. bit #K93.13
- Multi-function tool bit adjuster kit for 12mm sq. bit #K93.14
- Digital micrometer head upgrade #9089U
- Cutting bit, HSS w/5% cobalt, pre-sharp 1/4" sq. #9085
- Cutting bit, HSS w/5% cobalt, pre-sharp 3/8" sq. #9088
- Cutting bit, HSS w/5% cobalt, pre-sharp 1/2" sq. #9087
- Cutting bit kit, carbide 3/8" square low-profile #K91.10
- Cutting bit kit, carbide 1/2" square low-profile #K91.11
- Bit, rep'l. carbide insert #9130
- Groove cutting kit for 1.75" dia bars, base model #K96.11
- Groove cutting kit for 2.0" dia bars, base model #K96.12
- Groove cutting kit for 2.25" dia bars, base model #K96.13

Note: Also available for your boring bar system are various length bars, face machining kits, two-arm mounting kits, morse-tapered bars (allowing end-of-bar drilling operations) and more. Call us for any of your special applications.
### Boring Bar Packages (EV SERIES)

**Standard Capabilities / Features**
- **EV4 Boring bar system**
  - I.D. Bore machining range 24-254mm (1-10”)
  - Electric powered — your choice 120 or 240vac
  - Standard reach 1.82m (72”)
  - Stroke: 280mm (11”)
  - Pass-through, mount anywhere drive system
  - Dual tool ports on 32 & 44mm (1.2 & 1.7”) bars (enables use of optional ID snap gage w/o tool removal)
  - 15-170 RPM range allows use of optional snapping groove cutter and face machining head
  - Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
  - Fully reversible — use left or right grind bits

- **EV3 Boring bar system**
  - I.D. Bore machining range 35-254mm (1.5-10”)
  - Electric powered — your choice 120 or 240vac
  - Standard reach 1.82m (72”)
  - Stroke: 280mm (11”)
  - Pass-through, mount anywhere drive system
  - Dual tool ports on both boring bars (enables use of optional ID snap gage w/o tool removal)
  - 15-170 RPM range allows use of optional snapping groove cutter and face machining head
  - Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
  - Fully reversible — use left or right grind bits

- **EV2 Boring bar system**
  - I.D. Bore machining range 47-254mm (1.8-10”)
  - Electric powered — your choice 120 or 240vac
  - Standard reach 1.82m (72”)
  - Stroke: 280mm (11”)
  - Pass-through, mount anywhere drive system
  - Dual tool ports on boring bar (enables use of optional ID snap gage w/o tool removal)
  - 15-170 RPM range allows use of optional snapping groove cutter and face machining head
  - Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
  - Fully reversible — use left or right grind bits

**Standard equipment:**
- Keyed, modular bar drive
- Bar axial feed arm w/ wear compensation
- 120v / 240v motor with variable RPM gearbox
- (2) spherical bar supports
- (2) adjustable bar / gearbox supports
- Centering cone pack with compressor sleeve
- Steel support brackets
- Integrated control box mounted on motor
- 1.8m (6’) 44mm (1.75”) dia. chrome bore bar
- 1/2” pre-sharpened tool bit with facing grind
- Setup and users manual with video CD
- Custom aluminum diamond-plate case
- 1.8m (6’) 32mm (1.25”) dia. chrome bore bar
- 3/8” pre-sharpened tool bit with facing grind
- Centering cone pack for 32mm (1.25”) bar
- 32mm Reducer kit for bearings & drive
- 1.2m (4’) 22mm (7/8”) dia. chrome bore bar
- 1/4” pre-sharpened tool bit with facing grind
- Centering cone pack for 22mm (7/8”) bar
- 22mm Reducer kit for bearings and drive

**OPTIONAL ACCESSORIES:**
- Automatic bore welder & interface kit
- ID snap gage kit
- Tool bit adjuster package
- Shorter boring bars (all diameters)
- Longer boring bars (all diameters)
- Face machining kit
- Snap-ring groove machining kit
- Bar coupling kit
- Perimeter-mount bearing and machine sup.

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**Order #K09.13**

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**Order #K09.12**

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**Order #K09.11**

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Covered under Pat. Nos 6,137,076; 6,448,531; 6,737,608; 6,284,995; 6,486,438

Other patents pending
### AM7 Boring bar system

**Standard Capabilities / Features**
- D. Bore machining range 35-610mm (1.5-24")
- Hydraulic powered—120v, 240v or 480v pump
- Standard reach 2.4m (96”)
- Stroke: 280mm (11") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- RPM range allows use of optional snap-ring groove cutter and face machining head
- Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

**Standard Capabilities:**
- D. Bore machining range 35-610mm (1.5-24")
- Electric powered—your choice 120 or 240vac
- Standard reach 1.82m (72”)
- Stroke: 457mm (18") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- Broad RPM range allows use of optional snap-ring groove cutter and face machining head
- Smooth, simple adjustable rotation based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

### BB6 Boring bar system

**Standard Capabilities / Features**
- D. Bore machining range 35-610mm (1.5-24")
- Electric powered—your choice 120 or 240vac
- Standard reach 1.82m (72”)
- Stroke: 457mm (18") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

**Standard Capabilities:**
- D. Bore machining range 35-610mm (1.5-24")
- Electric powered—your choice 120 or 240vac
- Standard reach 1.82m (72”)
- Stroke: 457mm (18") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

### TM5 Boring bar system

**Standard Capabilities / Features**
- D. Bore machining range 36-305mm (1.5-12")
- Hydraulic powered—120 or 240vac pump
- Stroke: 457mm (18") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- Smooth, simple rotation-based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

**Standard Capabilities:**
- D. Bore machining range 36-305mm (1.5-12")
- Electric powered—your choice 120 or 240vac
- Standard reach 1.82m (72”)
- Stroke: 457mm (18") (indefinitely re-indexable)
- Pass-through, mount anywhere drive system
- Dual tool ports in boring bars (enables use of optional ID snap gage w/o tool removal)
- Smooth, simple adjustable rotation based feed ensures smoothest possible finishes in your bores
- Fully reversible—use left or right grind bits

<table>
<thead>
<tr>
<th>Standard equipment</th>
<th>Keyed, modular bar drive</th>
<th>Keyed, modular bar drive</th>
<th>Keyed, modular bar drive</th>
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</thead>
<tbody>
<tr>
<td>Keyed, modular bar drive</td>
<td></td>
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</tr>
<tr>
<td>Bar axial feed arm w/wear compensation</td>
<td>120v / 240v hydraulic pump</td>
<td>120v / 240v hydraulic pump</td>
<td>120v / 240v hydraulic pump</td>
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<tr>
<td>(4) spherical bar supports</td>
<td>(2) adjustable bar / gear box supports</td>
<td>(2) full-size, adjustable supports (spherical)</td>
<td>(3) adjustable bar / gear box supports</td>
</tr>
<tr>
<td>Centering cone pack with compressor sleeve</td>
<td>Centering cone pack</td>
<td>Centering cone pack with compressor sleeve</td>
<td></td>
</tr>
<tr>
<td>(4) Steel support legs &amp; (8) Securing clamps</td>
<td>Steel support brackets</td>
<td>Steel support brackets</td>
<td></td>
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<tr>
<td>Remote control pendant</td>
<td>Integrated control box mounted on motor</td>
<td>Integrated controls on hydraulics plus remote</td>
<td></td>
</tr>
<tr>
<td>1/2&quot; pre-sharpened tool bit with facing grind</td>
<td>1.8mm (6&quot;) long, 57mm (2.25&quot;) dia. boring bar</td>
<td>1.8mm (6&quot;) 44mm (1.75&quot;) dia. chrome bore bar</td>
<td></td>
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<tr>
<td>Setup and users manual with video CD</td>
<td>1/2&quot; pre-sharpened tool bit with facing grind</td>
<td>1/2&quot; pre-sharpened tool bit with facing grind</td>
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<tr>
<td>Custom carrying/storage case</td>
<td>Custom aluminum diamond-plate case</td>
<td>Custom aluminum diamond-plate case</td>
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<tr>
<td>3/8&quot; pre-sharpened tool bit with facing grind</td>
<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
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<tr>
<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
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<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
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<tr>
<td>32mm Reducer kit for bearings &amp; drive</td>
<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
<td>Centering cone pack for 32mm (1.25&quot;) bar</td>
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<tr>
<td>Extended range boring head package</td>
<td>Extended range boring head package</td>
<td>Extended range centering spider kit</td>
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<tr>
<td>(3) 32mm (1.25&quot;) diameter bars: 4&quot;, 6&quot; and 8&quot; long</td>
<td>Extended range boring head package</td>
<td>Extended range boring head package</td>
<td></td>
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<tr>
<td>(3) 50.8mm (2.0&quot;) diameter bars: 4&quot;, 6&quot; and 8&quot; long</td>
<td>(bars come with aluminum storage boxes)</td>
<td>(bars come with aluminum storage boxes)</td>
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<tr>
<td>(2) hydraulic motor kit w/integrated mounting</td>
<td>(bars come in plastic storage tubes)</td>
<td>(bars come in plastic storage tubes)</td>
<td></td>
</tr>
<tr>
<td>(all bars come with aluminum storage tubes)</td>
<td>(all bars are chrome plated &amp; straightened)</td>
<td>(all bars are chrome plated &amp; straightened)</td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES:**
- Automatic bore welder & interface kit
- ID snap gage kit
- ID bore measure snap gage kit
- Tool bit adjuster package
- Shorter boring bars (all diameters)
- Longer boring bars (all diameters)
- Face machining kit
- Snap-ring groove machining kit
- Face machining kit
- Bar coupling kit
- Various bearing supports ie: spider & 2-arm
- Bar coupling kit
- Various bearing supports ie: spider & 2-arm

**OPTIONAL ACCESSORIES:**
- Automatic bore welder & interface kit
- ID snap gage kit
- Tool bit adjuster package
- Shorter boring bars (all diameters)
- Longer boring bars (all diameters)
- Face machining kit
- Snap-ring groove machining kit
- Snap-ring groove machining kit
- Bar coupling kit
- Micro-bar kit—for machining down to 25mm dia

**OPTIONAL ACCESSORIES:**
- Automatic bore welder & interface kit
- ID snap gage kit
- Tool bit adjuster package
- Shorter boring bars (all diameters)
- Longer boring bars (all diameters)
- Face machining kit
- Snap-ring groove machining kit
- Snap-ring groove machining kit
- Bar coupling kit
- Micro-bar kit—for machining down to 25mm dia
**Combination Boring / Welding Packages**

- **Welding / Boring systems below share the same mount for easy one-step setup and boring to welding transitions**

- **Systems below all feature dual tool / accessory ports on bar. This feature, when used with snap gage and digital tool adjuster gives you the easiest and most accurate means of measuring the bore with the tool bit and bar still in place, and the most accurate way to adjust your tool bit for precise final cuts with .0001” precision.**

- **Many systems below (EV, TM and AM) feature the centering cone tightener kit. This unique kit makes the job of centering your bar and keeping the cones tight by yourself a breeze. Kit includes its own spanner wrench.**

- **All systems below feature the unique pass-through drive design. This design, unlike the old fashioned end-mounted designs of other brands offers users far superior setup versatility. The pass-through design is excellent for bores that are spaced far apart and for parts that have blind bores. These bores are commonly found on construction machinery.**

- **All packages below may be customized as you need. Packages below may swap the BOA-408i for the BOA-M1 for $2875. pkg. discount**

### Models and Description

<table>
<thead>
<tr>
<th>Model</th>
<th>Combination Bore Welding &amp; Machining Kit Descriptions</th>
<th>Package P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BRS2</strong> (Electric drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> EV 2 <strong>Pass-Thru Drive Electric</strong>- FOR BORES 47-254mm (1.8-10&quot;) DIAM. <strong>KIT DESCRIPTION:</strong> Bar included: (1) Chromed 1 3/4&quot; Ø x 72&quot; long w/ dual tool ports, 115v or 220v, Hi Torque 3.3 hp, Reversing Var. Elec. Drive (12-190 RPM) with reversing feed mechanism, centering cone set w/ tightener kit, 2 spherical bar support bearings, 2 machine supports, aluminum custom case, tool bit, BOA-408i bore welder package w/center support kit. (upgradable drive can run 7/8&quot; and 1.25&quot; dia bars)</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110911</strong></td>
</tr>
<tr>
<td><strong>BRS3</strong> (Electric drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> EV 3 <strong>Pass-Thru Drive Elec.-</strong> FOR BORES 35-254mm (1.4-10&quot;) DIAMETER <strong>KIT DESCRIPTION:</strong> 2 Bar set: (1ea.) 1 3/4&quot; &amp; 1 1/4&quot; Ø Chrome Bars x 72&quot; long w/ dual tool ports, 115v or 220v, Hi Torque 3.3hp, Reversing Var. Elec. Drive (12-190 RPM) with reversing feed mechanism, centering cone set w/ tighten kit, 2 spherical bar support bearings, 2 machine supports, aluminum custom case, tool bit, BOA-408i bore welder package w/center support kit. (upgradable drive can run 7/8&quot; dia bar kit for small diameter boring)</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110912</strong></td>
</tr>
<tr>
<td><strong>BRS4</strong> (Electric drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> EV 4 <strong>Pass-Thru Drive Elec.-</strong> FOR BORES 24-254mm (1-10&quot;) DIAMETER <strong>KIT DESCRIPTION:</strong> 3 Bar set: (1ea.) 1 3/4&quot; &amp; 1 1/4&quot; Ø Chrome Bars x 72&quot; long w/ dual tool ports, (1) 7/8&quot;Ø Chrome Bar x48&quot;, 115v or 220v, Hi Torque 3.3hp, Reversing Var. Elec. Drive (12-190 RPM) with reversing feed mechanism, centering cone set w/ kit, 2 spherical bar support bearings, 2 machine supports, aluminum custom case, adj. machine mount, reducer kits for 1.25&quot; and 7/8&quot; bars, centering cones for all bar sizes w/tightener kit plus 3 tool bits, BOA-408i bore welder package w/center support kit.</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110913</strong></td>
</tr>
<tr>
<td><strong>BRS5</strong> (Hydraulic drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> TM 5 <strong>Pass-Thru Drive Hydraulic-</strong> FOR BORES 35-305mm (1.4-12&quot;) DIAM. <strong>KIT DESCRIPTION:</strong> 2 Bar set: (1ea.) 1 ¾&quot;Ø &amp; 1 1/4&quot;Ø x 72&quot; long115v or 220v, 1.5hp 2-speed hydraulic drive, centering cones w/tightener kit, 2 spherical bar support bearings, 2 universal machine supports, 3 tool bits, custom storage case, BOA-408i automatic bore welder package w/center support kit. <strong>OPTIONS AVAILABLE:</strong> Electric drive, variable-speed 5hp Hyd drive upgrade, vari-feed upgrade, facing head, ID bore measuring tools, snap-ring groove cutter, custom length bars &amp; tool ports, extended diameter cutting heads.</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110914</strong></td>
</tr>
<tr>
<td><strong>BRS6</strong> (Electric drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> BB 6 <strong>Pass-Thru Drive Electric-</strong> FOR BORES 35-610mm (1.4-24&quot;) DIAM. <strong>KIT DESCRIPTION:</strong> 2 ¼&quot;Ø Bar x 72&quot; long, 1.25 2&quot; Bar x 72&quot; long w/dual tool ports , 110v or 220v electric drive option, alignment cones, tooling, tool extensions, 3 adjustable bar/machine supports, tool kit &amp; custom storage case, BOA-408i bore welder package w/bore welder adapter kit. <strong>OPTIONS AVAILABLE:</strong> Lg. bore kit (up to 24&quot;)Ø, facing head, carbide tooling kit, pneumatic drive, 10 hp hydraulic drive, custom length bars, digital tool adjustment gage, BOA-408i bore &amp; IDE measure kit, snap ring groove cutting kit. (also available without 1.25&quot; dia bar package—call for price)</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110915</strong></td>
</tr>
<tr>
<td><strong>BRS7</strong> (Hydraulic drive)</td>
<td><strong>BORING SYSTEM MODEL:</strong> AM 7 <strong>Pass-Thru Drive Hydraulic</strong>- FOR BORES 35-610mm (1.4-24&quot;) DIAM. (expandable to 762mm (30&quot;) Diameter capability) <strong>KIT DESCRIPTION:</strong> 6 bar package: 2&quot; &amp; 1.25&quot; Ø Bars x 96&quot;, 72&quot; &amp; 48” long, 1.5 hp hydraulic drive, (110v/220v pump) alignment cones w/tightener, tooling, 2 spherical bearings &amp; machine supports, cases, BOA-408i bore welder package w/center support kit. <strong>OPTIONS AVAILABLE:</strong> Lg. bore kit (up to 30&quot;)Ø, facing head, carbide tooling kit, custom length bars, digital tool adjuster kit, thru-bar ID measure kit, snap ring cutting tool, 5hp hydraulic drive upgrade</td>
<td>(Comes with BOA-408i bore welder and direct mount interface) <strong>Order # K05.110916</strong></td>
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</table>

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**Covered under Pat. Nos:** 6,137,076; 6,448,531; 6,737,608; 6,284,995; 6,486,438

**Other patents pending**

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**DATE CODE** 3/2013

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**www.borerepair.com - 603-835-2409**

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*subject to change. Call for quote*
## Specialty equipment

### BOA-550HD borewelder

**Specifications:**
- Stroke: 410mm (16”)
- Reach: 1780mm (70”)
- Min. diameter HD Std.: 89mm (3.5”)
- Min. diameter HD Opt.: 63mm (2.5”)
- Max. diameter HD Opt.: 1830mm (72”)
- AutoSkip: Standard
- Weld Modes: ID, (OD and Faces Opt.)
- Max. Step: 2.5mm (.1”)
- Max. Amperage Std.: 225
- Max. Amperage Opt.: 300
- QC Conduit System
- QC Gun System
- Variable Mechanical Feed
- BOA-408i Compatible
- Input Volts: 115/240v AC

**Order #:** K02.10

### BOA-L34 linear welder

**Specifications:**
- Max Extension: 250cm (100”)
- Stroke: 860mm (34”)
- Min. Step: 6.4mm (.25”)
- Feed: Mechanical
- Min. Diameter: 25mm (1”)
- Max. Diameter: No Limit
- Max. Amperage: 300
- QC Conduit System
- QC Gun System
- BOA-408i Compatible
- Input Volts: 115/240v AC

**Order #:** K04.10

### BOA-SIZER bore finisher

**Specifications:**
- Min. Diameter: 44mm (1.75”)
- Max Diameter: 260mm (10.25”)
- Stroke Stops: Quick Set
- Attaches to: Boring Bar or Stand Alone base
- Stones: Roughing and Finishing
- Driveshafts: 4 lengths
- Removal Rate: .025 (.001”) /minute
- Vertical Operation Weight Assist

**Order #:** K07.10

### Standard equipment includes:

<table>
<thead>
<tr>
<th>BOA-550HD borewelder</th>
<th>BOA-L34 linear welder</th>
<th>BOA-SIZER bore finisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable Base</td>
<td>Leveling Base</td>
<td>HD Drive Motor</td>
</tr>
<tr>
<td>SS Support Rod</td>
<td>Activation Switch</td>
<td>#6 and #7 Sizer Head</td>
</tr>
<tr>
<td>Radial Extension Arms (2)</td>
<td>Heavy Duty Gun</td>
<td>Driveshafts (5)</td>
</tr>
<tr>
<td>Conduit Support Tube</td>
<td>Heavy Duty Consumables Kit</td>
<td>Universal Joint Assembly</td>
</tr>
<tr>
<td>Heavy Duty Gun</td>
<td>Drive System</td>
<td>Anti-Torque Backbone Assembly</td>
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<tr>
<td>Gun Extenders (2)</td>
<td>Conduit Assembly</td>
<td>In/Out Stop Rod Kit</td>
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<tr>
<td>Conduit Assembly</td>
<td>Aluminum Diamond Plate Case</td>
<td>Carrying Case</td>
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<tr>
<td>Heavy Duty Consumables Kit</td>
<td>User’s Manual</td>
<td>Sizing Oil</td>
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<tr>
<td>Aluminum Diamond Plate Case</td>
<td>1 year warranty</td>
<td>User’s Manual</td>
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<tr>
<td>User’s Manual</td>
<td>1 year warranty</td>
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<tr>
<td>Drive System</td>
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<tr>
<td>1 year warranty</td>
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</tbody>
</table>

### Optional accessories:

- Boring bar system
- Face welding system
- Small diameter HD gun
- Extended range / reach components
- MIG wirefeeder adapter
- Beam gun kit (for large ID & OD work)
- Part rotation turntable
- MIG wirefeeder adapter
- Custom welding gun
- Automatic boring bar kit
- Automatic bore welder kit
EQUIPMENT LEASE APPLICATION

EQUIPMENT / PRICING QUESTIONS? CALL BRS PHONE: 800-650-1005
Please Fax to 800 599 5440 for Immediate Application Processing

COMPANY INFORMATION

<table>
<thead>
<tr>
<th>Company Legal Name</th>
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<tbody>
<tr>
<td>Street Address</td>
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<tr>
<td>County</td>
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<td>City/State/Zip Code</td>
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<td>Bus. Phone</td>
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<td>Fax Number</td>
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<td>E mail address</td>
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<td>Federal Tax I.D. #</td>
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Please Check:  
- [ ] Corporation  
- [ ] LLC  
- [ ] Partnership  
- [ ] Proprietorship  
- [ ] Non-Profit

OWNER/PRINCIPAL INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
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<td>% of Ownership</td>
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Name | Home Address | City/St/Zip |
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<td>Soc. Sec. #</td>
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<td>% of Ownership</td>
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If additional Principals, please include on additional sheet.

BANK INFORMATION

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Contact</th>
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<tbody>
<tr>
<td>Bus. Checking Account #</td>
<td>Phone Number</td>
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<td>Other Loan, or Trade References:</td>
<td>Acct. #</td>
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<tr>
<td>Other Loan, or Trade References:</td>
<td>Acct. #</td>
</tr>
<tr>
<td>Landlord or Mortgage References:</td>
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</tbody>
</table>

By signing below, the undersigned individual, who is either a principal of the credit applicant or a personal guarantor of its obligations, provides written instruction to the lessor, or its designee (and any assignee or potential assignee thereof) authorizing review of his/her personal credit profile from a national credit bureau and permission to obtain a reference from the above referenced Bank. Such authorization shall extend to obtaining a credit profile in considering this application and subsequently for the purposes of update, renewal or extension of such credit or additional credit and for reviewing or collecting the resulting account. A Photostat or facsimile copy of this authorization shall be valid as the original. By signature below, I/we affirm my/our identity as the respective individuals identified in the above application.

Signature of Applicant X _____________________________________________ Date: __________________

Vendor Name and Address: Bore Repair Systems, Inc. - 97 Lower Cemetery Road - Langdon, NH 03602

Cost: $ ___________________________ Contact: Erik Esslinger Phone Number: 603-835-2409

Equipment Description: ____________________________________________

Lease Term (months):  
- [ ] 12  
- [ ] 24  
- [ ] 36  
- [ ] 48  
- [ ] 60  
- [ ] Other

Purchase Options:  
- [ ] $1.00  
- [ ] 10% of Equipment Cost  
- [ ] Fair Market Value  
- [ ] Other