CLIMAX

RESHAPING THE WAY YOU DO BUSINESS
Portable Machining, Welding, and Advanced Valve Testing & Repair Systems

UNIQUELY POWERFUL
UNIQUELY RELIABLE

END TO END SOLUTIONS
On-site Portable Machine Tools
LINE BORING MACHINES

CLIMAX boring machines support boring diameters from 1.375 to 80 inches (35 to 2030 mm) with the precision and speed of stationary machines. Specially designed mounting brackets, spherical bearings, self-centering setup cones and movable rotational drive and feed units simplify setup and allow the tools to work in spaces too tight for most boring machines. All models feature rugged rotational drive and axial feed systems, chrome plated precision bars and heavy duty bearings, with electric, pneumatic and hydraulic power options available. They can share the same mounting system with Auto Bore Welding Systems for single-setup machining and welding.

APPLICATIONS
- Line boring of heavy construction equipment buckets and articulated joints
- Drag line housing repair
- Line boring of dam wicket gate bushings
- Ship stern tube and rudder leaf boring
- Re-boring of turbine shell housings
- Turbine coupling boring

BB5000 Boring Machine
The most compact, versatile and powerful tool in its class. Easy to set up, designed to make quick work of tough jobs in spaces too restrictive for most boring machines. Easily configured for difficult machining applications.

BB5500 Boring Machine
The most suitable for turbine coupling applications. Easy to set up, designed to make quick work of tough jobs in spaces too restrictive for most boring machines. Easily configured for difficult machining applications.

BB6100 Boring Machine
The most compact in our line of traveling head portable boring machines. Combines powerful performance with flexible setup to meet an exceptionally wide range of application and boring diameter needs.

BB7100 Boring Machine
Designed to enable boring strokes limited only by the length of the bar. Includes plenty of power to tackle the big jobs.

BB8100 Boring Machine
Designed to enable boring strokes limited only by the length of the bar and with plenty of power to tackle big jobs. Three different bearing support assemblies maximize versatility.

<table>
<thead>
<tr>
<th>QUICK-TECH</th>
<th>BAR BORING</th>
<th>BORING DIAMETERS</th>
<th>MAX. STROKE</th>
<th>TORQUE@ BAR</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB3000</td>
<td>1.25 in. (31.8 mm)</td>
<td>1.5 – 5 in. (38.1 – 127 mm)</td>
<td>10 in. (254 mm)</td>
<td>40 ft-lb (54.2 N•m)</td>
<td>Electric</td>
</tr>
<tr>
<td>BB4500</td>
<td>1.75 in., optional 1.25 in. (44.5 mm, optional 31.8 mm)</td>
<td>1.5 – 10 in. (38.1 – 254 mm)</td>
<td>24 in. (609.6 mm)</td>
<td>417 ft-lb (H*) (565.4 N•m)</td>
<td>Electric, Pneumatic, Hydraulic</td>
</tr>
<tr>
<td>BB5000</td>
<td>2.25 in., optional 1.25 in. (57.2 mm, optional 31.8 mm)</td>
<td>1.5 – 24 in. (38.1 – 609.6 mm)</td>
<td>36 in. (914.4 mm)</td>
<td>417 ft-lb (H*) (565.4 N•m)</td>
<td>Electric, Pneumatic, Hydraulic, Electric Servo</td>
</tr>
<tr>
<td>BB5500</td>
<td>2.5 in., optional 1.875 in. (63.5 mm, optional 47.6 mm)</td>
<td>2 – 4.2 in. (50.8 – 106.7 mm)</td>
<td>Length of bar</td>
<td>65 ft-lb (88.1 N•m)</td>
<td>Pneumatic, Hydraulic</td>
</tr>
<tr>
<td>BB6100</td>
<td>3.5 in. (88.9 mm)</td>
<td>8.8 – 40.8 in. (223.5 – 1036.3 mm)</td>
<td>Length of bar</td>
<td>470 – 1820 ft-lb (637.2 – 2467 N•m)</td>
<td>Hydraulic</td>
</tr>
<tr>
<td>BB7100</td>
<td>5 in. (127 mm)</td>
<td>10.25 – 58.25 in. (260.4 – 1036.3 mm)</td>
<td>Length of bar</td>
<td>2230 ft-lb (3023.5 N•m)</td>
<td>Hydraulic</td>
</tr>
<tr>
<td>BB8100</td>
<td>8 in. (203.2 mm)</td>
<td>17.1 – 85.1 in. (434.3 – 2161.5 mm)</td>
<td>Length of bar</td>
<td>2692 ft-lb (3649.9 N•m)</td>
<td>Hydraulic</td>
</tr>
</tbody>
</table>
The BORTECH automated welding systems are portable and can be used in both field and shop repairs. The automated welding systems are designed to attach directly to several CLIMAX boring machine mounting fixtures, allowing a single setup for both welding and machining operations, giving the operator the ability to weld one bore while machining another! These automated welders offer high-quality, affordable welding performance for bore, flange, and valve repair.

APPLICATIONS
- Valve and pump repair
- Motor housings and shafts
- Shaft OD repair
- Rotary crushers
- Loader bucket & hitch repair
- Gears and gear boxes
- Compressors and turbines
- Bores, pivot points, buckets and hitches
- Nozzles on pressure vessels and heat exchangers
- Continuous miners and drag lines
- Mud pumps
- Rudder Bore
- Hydraulic cylinder eye
- Presses
- Castings and injection molds
- Jaw crusher pitman arms

PRECISE, HIGH-QUALITY WELDS
BORTECH automated welding machines offer precise, high-quality, uniform welding performance. Auto Bore Welders can produce a wide variety of welds, with less need for rework compared to hand welding. And with less wire being consumed, these machines reduce overall project costs while accelerating the user’s return on investment.

BW1000 Auto Bore Welder
The CLIMAX BW1000 AutoBore-Welder automated spiral welding system provides you with an affordable bore welding system. High quality bore welding technology is now available in a ruggedly constructed, highly portable and easily affordable package.

BW2600 Auto Bore Welder
The BW2600 AutoBoreWelder is a compact blend of simplicity, performance and reliability, capable enough to tackle aggressive field applications with ease. The BW2600 interfaces directly with users existing MIG Wire feed systems, providing Skip / Fill capability, fully adjustable mechanical step, reverse weld direction, step lockout feature for face welding and optional remote pendant control.

BW3000 Auto Bore Welder
The CLIMAX BW3000 AutoBoreWelder automated step welding system provides you with a new degree of welding performance and precision. Your weld time will decrease dramatically while you produce precise, uniform, high quality welds as compared to hand welding techniques.

BW5000 Auto Bore Welder
A powerful welding and cladding system that rotates around the workpiece, the BW5000 Auto-BoreWelder produces high quality welding and cladding using any commercially available alloy such as Inconel™, Hastelloy™, Monel™, or stainless steel.

<table>
<thead>
<tr>
<th>QUICK-TECH</th>
<th>AXIAL TRAVEL</th>
<th>WIRE DIAMETER RANGE</th>
<th>STEP RANGE/PITCH</th>
<th>ROTATIONAL DIRECTION</th>
<th>AUTO-SKIP</th>
<th>STANDARD TORCH RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BW1000</td>
<td>9 in. (228.6 mm)</td>
<td>0.030 - 0.045 in. (0.76 - 1.14 mm)</td>
<td>Pitch: 0.125 in. (3.2 mm) Helical</td>
<td>Clockwise rotation</td>
<td>No</td>
<td>0.88 - 24 in. (22.4 - 609.6 mm)</td>
</tr>
<tr>
<td>BW2600</td>
<td>9 in. (228.6 mm)</td>
<td>0.030 - 0.045 in. (0.76 - 1.14 mm)</td>
<td>Step Range: 0.050 - 0.200 in. (1.27 - 5.08 mm) per rev</td>
<td>Reversible</td>
<td>Skip / Fill</td>
<td>0.88 - 24 in. (22.4 - 609.6 mm)</td>
</tr>
<tr>
<td>BW3000</td>
<td>6 or 12 in. (152.4 or 304.8 mm)</td>
<td>0.023 - 0.045 in. (0.58 - 1.14 mm)</td>
<td>Step Range: 0.040 - 0.220 in. (1.0 - 5.6 mm)</td>
<td>Reversible</td>
<td>Auto Skip, Pie Mode &amp; Carriage Return</td>
<td>0.50 - 54 in. (12.7 - 1371.6 mm)</td>
</tr>
<tr>
<td>BW5000</td>
<td>10, 20, 30, 40, &amp; 50 in. (254, 508, 762, 1016 &amp; 1270 mm)</td>
<td>0.045 - 0.062 in. (1.1 - 1.6 mm)</td>
<td>Step Range: 0.070 - 0.525 in. (1.78 - 8.26 mm)</td>
<td>Reversible</td>
<td>Auto Skip, Pie Mode &amp; Carriage Return</td>
<td>12 - 120 in. (304.8 - 3048.0 mm)</td>
</tr>
</tbody>
</table>
FLANGE FACERS, SMALL ID MOUNT

With various models to reface, mill, bevel, square, counterbore, or cut end prep configurations for welding, CLIMAX and H&S TOOL offer a wide variety of rugged and innovative portable flange facers for 0.75 to 19 inch (19.1 to 482.6 mm) diameters, for ID mounting. For easy setup, the smaller units use an integral mandrel to quickly lock into place.

APPLICATIONS
- Repair of flat face, raised face and phonographic finish flanges
- Facing and beveling of pipe for sealing and weld prep
- Repairing ring grooves or cutting new grooves
- Re-machining gasket seal on tube sheet
- Re-facing of main steam inlet flanges
- Heat exchanger nozzle flange repair
- Repair piston rod mating flanges
- Boiler feed pump flanges
- Plate and vessel weld prep

MODEL BF Flange Facer
Simple, safe, and accurate. The model BF is a versatile flange facer designed for flanges ranging from 0.75 inch ID to 4.12 inches OD (19.1 to 104.6 mm).

MODEL MSF Flange Facer
The model MSF resurfaces flanges from 1.25 inches ID to 6.19 inches OD (31.8 to 157.2 mm) quickly and accurately. Works with our BG50 BOILER GUN™ for quick and easy conversion between beveling and flange facing in the field.

MODEL MTF Flange Facer
The model MTF resurfaces flanges ranging from 3.25 inches ID to 10.63 inches OD (82.6 to 270.0 mm) quickly and accurately. Works with our PB8 PIPE BEVELER for quick and easy conversion between beveling and flange facing in the field.

FF3000 Flange Facer
One of the most compact and versatile tools of its kind. With its modular design, tool-less set up and a bi-directional, infinitely variable feed, it faces and bevels with remarkable speed and precision. Facing diameters range from 1.5 to 12 inches (38.1 to 304.8 mm).

FF4000 Flange Facer
Designed for machining mid-sized diameter raised face and flat pipe flanges or beveling pipe with optional beveling head. Sets up in less than 10 minutes and delivers enough power to remove one cubic inch of metal per minute. Facing diameters range from 3 to 19 inches (76.2 to 482.6 mm).

<table>
<thead>
<tr>
<th>QUIK-TECH</th>
<th>FACING DIAMETERS</th>
<th>ID MOUNTING DIAMETERS</th>
<th>FEED RATE</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL BF</td>
<td>.75 in. ID - 4.12 in. OD (19.1 - 104.6 mm)</td>
<td>0.625 - 2.875 in. (15.9 - 73 mm)</td>
<td>.005 in. (0.13 mm) per pin</td>
<td>Pneumatic, Electric</td>
</tr>
<tr>
<td>MODEL MSF</td>
<td>1.25 in. ID - 6.19 in. OD (31.8 - 157.2 mm)</td>
<td>1.5 - 5.0 in. (38.1 - 127 mm)</td>
<td>.005 in. (0.13 mm) per pin</td>
<td>Pneumatic, Electric</td>
</tr>
<tr>
<td>MODEL MTF</td>
<td>3.25 in. ID - 10.63 in. OD (82.6 - 270 mm)</td>
<td>2.0 - 8.5 in. (50.8 - 215.9 mm)</td>
<td>.005 in. (0.13 mm) per pin</td>
<td>Pneumatic, Electric</td>
</tr>
<tr>
<td>FF3000</td>
<td>1.5 - 12 in. (38.1 - 304.8 mm)</td>
<td>1.5 - 6.75 in. (38.1 - 171.5 mm)</td>
<td>0 - 0.025 in./rev</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF4000</td>
<td>3 - 19 in. (76.2 - 482.6 mm)</td>
<td>3.0 - 12.5 in. (76.2 - 317.5 mm)</td>
<td>0 - 0.025 in./rev</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>MODEL MTF</td>
<td>4.25 in. ID - 16.25 in. OD (19.1 - 412.8 mm)</td>
<td>3.0 - 13.5 in. (76.2 - 343 mm)</td>
<td>.005 in. (0.13 mm) per pin</td>
<td>Pneumatic, Electric</td>
</tr>
</tbody>
</table>
CLIMAX offers a wide variety of rugged and innovative portable flange facers for 5 to 120 inches (127 to 3048 mm), for ID, OD or Surface Mounting. The ability to reface, mill, bevel, square, counterbore or machine weld prep or seal ring profiles, as well as the ability of many to convert from single point to milling operations, make these machines extremely versatile.

**CM6200 Circular Mill**

For machining large flanges 73.5 – 199 inches (1866.9 – 5054.6 mm) in diameter, and featuring a center machine clearance designed to fit over 24 inch (609.6 mm) diameter kingpins, this Circular Mill can be configured for powerful milling, single-point machining and grinding operations. Extraordinary rigidity, versatility, and power are at your fingertips – this machine can handle your toughest large flange machining applications, with a quick and accurate machining to meet the demanding wind tower or large crane base machining applications. Servo control, optional single point turning and ID, OD or surface mounts provide a truly versatile machine.

**APPLICATIONS**
- Re-facing of ship hatch sealing surfaces
- Re-facing of main steam inlet flanges
- Re-surfacing of large pump base housings
- Re-facing of valve flanges
- Heat exchanger repair
- Wind tower section flange milling
- Re-machining of rotary crane bearing surfaces
- Ship thruster mount facing, milling and drilling

<table>
<thead>
<tr>
<th>QUIK-TECH Flange Facer</th>
<th>FACING DIAMETERS</th>
<th>MILLING DIAMETERS (ID MOUNT)</th>
<th>ID MOUNTING DIAMETERS</th>
<th>OD MOUNTING DIAMETERS</th>
<th>MINIMUM SWING DIAMETER</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF5000</td>
<td>5 - 24 in. (127 - 609.6 mm)</td>
<td>Single Point Only</td>
<td>5 - 18 in. (88.9 - 457.2 mm)</td>
<td>ID Mount Only</td>
<td>9.5 in. (241.3 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF5200</td>
<td>5.7 - 32 in. (144.8 - 812.8 mm)</td>
<td>Single point only</td>
<td>5.7 - 32 in. (144.8 - 812.8 mm)</td>
<td>ID mount only</td>
<td>22.75 in. (577.9 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF5300 with Extended Arm</td>
<td>5.7 - 40 in. (144.8 - 1016 mm)</td>
<td>Single point only</td>
<td>5.7 - 32 in. (144.8 - 812.8 mm)</td>
<td>ID mount only</td>
<td>26.25 in. (666.8 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF6300</td>
<td>11.8 - 60 in. (299.7 - 1524.0 mm)</td>
<td>Single Point Only</td>
<td>11.8 - 57.5 in. (299.7 - 1460.5 mm)</td>
<td>ID Mount Only</td>
<td>38.1 - 63.8 in. (967.7 - 1620.5 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF7200</td>
<td>30 - 72 in. (762 - 1828.8 mm)</td>
<td>Single Point Only</td>
<td>30 - 72 in. (762 - 1828.8 mm)</td>
<td>ID Mount Only</td>
<td>55.8 in. (1417.3 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF8200</td>
<td>45 - 120 in. (1143 - 3048 mm)</td>
<td>Single Point Only</td>
<td>45 - 120 in. (1143 - 3048 mm)</td>
<td>ID Mount Only</td>
<td>84.7 in. (2151.4 mm)</td>
<td>Pneumatic</td>
</tr>
</tbody>
</table>

*Surface mount available*
With various models of OD mount flange facers to reface, mill, bevel, square, counterbore, or cut end prep configurations for welding, CLIMAX offers a wide variety of rugged and innovative portable flange facers, for 0 to 120 inch (25 to 3050 mm) diameters, for OD mounting, and several of our machines can be configured for facing, milling, or both!

For easy setup, larger units can be installed with a separate mount or chuck to which the facer body is installed.

### APPLICATIONS
- Re-facing of ship hatch sealing surfaces
- Re-machining of rotary crane bearing surfaces
- Re-facing of main steam inlet flanges
- Re-surfacing of large pump base housings
- Re-facing of valve flanges
- Heat exchanger repair
- Re-facing compact flange face angles and RTJ grooves
- Wind tower section flange milling
- Ship thruster mounting, milling, and drilling
- Pipeline flange re-facing

### FLANGE FACERS, OD MOUNT / CIRCULAR MILL

#### OD-Mount Configuration

<table>
<thead>
<tr>
<th>QUICK-TECH Flange Facer</th>
<th>FACING DIAMETERS</th>
<th>MILLING DIAMETERS (ID MOUNT)</th>
<th>ID MOUNTING DIAMETERS</th>
<th>OD MOUNTING DIAMETERS</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF1000</td>
<td>0 - 12 in. (0 - 304.8 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>2 - 12 in. (50.8 - 304.8 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF1200</td>
<td>0 - 12.5 in. (0 - 317.5 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>4 - 12.5 in. (101.6 - 317.5 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF2400</td>
<td>0 - 24.5 in. (0 - 622.3 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>11.2 - 24.4 in. (284.5 - 619.8 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF3600</td>
<td>0 - 36.5 in. (0 - 927.1 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>23.2 - 36.4 in. (589.3 - 924.6 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF6300</td>
<td>11.8 - 60 in. (299.7 - 1524.0 mm)</td>
<td>Single Point Only</td>
<td>ID Mount Only</td>
<td>11.8 - 57.5 in. (299.7 - 1460.5 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>FF8200</td>
<td>45 - 120 in. (1143 - 3048 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>45 - 120 in. (1143 - 3048 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>ODF 30 - 70</td>
<td>0 - 70.5 in. (0 - 1790.7 mm)</td>
<td>Single Point Only</td>
<td>OD Mount Only</td>
<td>9.2 - 70.5 in. (233.7 - 1790.7 mm)</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>QUICK-TECH Circular Mill</td>
<td>FACING DIAMETERS</td>
<td>MILLING DIAMETERS (ID MOUNT)</td>
<td>ID MOUNTING DIAMETERS</td>
<td>OD MOUNTING DIAMETERS</td>
<td>POWER OPTIONS</td>
</tr>
<tr>
<td>CM6200</td>
<td>78.9 - 1772 in. (2004.1 - 45009 mm)</td>
<td>69.5 - 184 in. (1765.3 - 4673.6 mm)</td>
<td>OD Mount Only</td>
<td>98.4 - 209.9 in. (2499.36 - 5331.46 mm)</td>
<td>Electric Servo</td>
</tr>
</tbody>
</table>
ODF 30 - 70 Speed Facers

The H&S TOOL Speed Facers are designed with safety and productivity-enhancing features that separate this line of machines from the competition. For customers who need to go from crate-to-cut in 15 minutes or less, the choice of the H&S TOOL Speed Facers will provide quick and easy setup and operation.

FF1000 Flange Facer

This OD-mount machine features a low-profile power module and centering/leveling plate for fast and easy setup. Mounting bell with wide-access windows simplifies gearbox adjustments. Facing diameters range from 0 to 12 inches (0 to 304.8 mm).

FF2400 OD Mount Flange Facer

This safe, versatile and rugged OD Mount Flange Facer can machine 7 flange types up to 24.4 inches (619.8 mm) in diameter without any attachments. Designed for the rugged challenges of the Oil, Gas & Chemical industry, this machine sets a new standard in operator safety while delivering up to 30% time savings on flange facing jobs.

FF3600 OD Mount Flange Facer

This safe, versatile and rugged OD Mount Flange Facer can machine 7 flange types up to 36.4 inches (924.6 mm) in diameter without any attachments. Designed for the rugged challenges of the Oil, Gas & Chemical industry, this machine sets a new standard in operator safety while delivering up to 30% time savings on flange facing jobs.

CM6200 Circular Mill

This safe, versatile and rugged OD Mount Flange Facer can machine 7 flange types up to 12.5 inches (317.5 mm) in diameter without any attachments. Designed for the rugged challenges of the Oil, Gas & Chemical industry, this machine sets a new standard in operator safety while delivering up to 30% time savings on flange facing jobs.

FF6300 Flange Facer

Performance, versatility and safety. Delivers high-torque performance to quickly resurface flanges and repair sealing and bearing surfaces efficiently and cost-effectively. Can be configured in either ID, OD, or surface-mount configurations for a variety of machining applications, with a quick and easy change over. Facing diameters range from 11.8 – 60 inches (299.7 – 1524.0 mm).

FF8200 Flange Facer

A true workhorse, with the size and muscle to machine large-diameter flange faces. It gives up nothing in accuracy thanks to its rigidity, easy positioning and uniform rotation rates, even when mounted in vertical flanges. Features a tool head that can be rotated a full 360 degrees, infinitely variable feed rates, and remotely adjustable air-powered feedbox so radial and axial feeds can be done quickly and safely. Facing AND milling diameters range from 45 to 120 inches (1143 – 3048 mm).

THE SPEED FACER™ FAMILY

We can build any SPEED FACER™ up to 120 inches (3048 mm) in diameter on request.
Whether cutting O-ring grooves, repairing turbine spindles, or fixing an out-of-round gear seat area on the shaft of a highspeed production machine, a CLIMAX portable lathe can pay for itself on its first job. Our family of lathes bolt onto the end of a shaft to re-turn shafts and roll journals from 1.5 inches to 24 inches (38 to 610 mm). Some models can work in quarters as tight as 7 inches (177.8 mm) of radial clearance, while the PL4000 has the ability to machine a tapered shaft. Pneumatic power is standard, with optional electric power available on several models. Our portable drill is engineered to deliver high-torque performance to quickly drill more holes in less time!

**LATHE APPLICATIONS**
- Repairing of yoke assemblies on ship rudder control devices
- Re-machining of rotor journal turbine shafts and fan shafts
- Re-turning of elevator motor shafts
- Re-machining of agitator journals
- Large shafts in tight spots on bodies and frames, drilling and tapping inside SAG mill

**DRILL APPLICATIONS**
- Drilling holes in catapult troughs on aircraft carriers
- Drilling holes in Titanium
- Drilling bolt patterns for vertical magnetic plates
- Ream out holes
- Stud removal
- Repair bolt holes and threads on shaft coupling flanges
- Over-sizing holes on flanges for clearance
- Repairing bolt holes on bodies and frames

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### PL2000 Lathe
Plenty of power in a compact package. Gets the job done with just 7 inches (177.8 mm) of radial clearance. Its simplified mounting, bolted directly to the end of the shaft, speeds setup and reduces costly downtime for work on shaft diameters from 1.5 to 9 inches (38.1 to 228.6 mm).

### PL3000 Lathe
Re-turns large shafts and roll journals by mounting directly to the work piece and rotating around the shaft. Ruggedly dependable, accurate and powerful, it can eliminate hours of equipment dismantling. Designed for shaft diameters from 4 to 11.25 inches (101.6 to 285.8 mm).

### PL4000 Lathe
Does big jobs in tight spots. Mounts to the end of the work piece, requires minimal clearance, and re-turns both straight and tapered shafts precisely. Its turning bar is easily adjusted for reach, turning radius and obstacle clearance on projects with shaft diameters ranging from 8 to 24 inches (203.2 to 609.6 mm).

### PD3000 Pneumatic Drill
The PD300 Pneumtic portable drill delivers high-torque performance to quickly drill more holes in less time! Our drill is equipped with a 3.0 HP motor and can reliable drill holes up to 1.5 inches (38.1 mm) diameter through tough metals like HY80 steel.

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### Quick-Tech Lathe Specifications

<table>
<thead>
<tr>
<th>Quick-Tech Lathe</th>
<th>Max. Turning Reach</th>
<th>Shaft Diameters</th>
<th>Cutter</th>
<th>Power Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL2000</td>
<td>12.5 in. (317.5 mm)</td>
<td>1.5 - 9 in. (38.1 - 228.6 mm)</td>
<td>1/2 in. (12.7 mm) HSS round lathe tool bit</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>PL3000</td>
<td>22 in. (558.8 mm)</td>
<td>4 - 11.25 in. (101.6 - 285.8 mm)</td>
<td>3/8 in. (10 mm) lathe tool bit</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>PL4000</td>
<td>27 in. (685.8 mm)</td>
<td>8 - 24 in. (203.2 - 609.6 mm)</td>
<td>1/2 in. (12.7 mm) square lathe tool bit</td>
<td>Pneumatic</td>
</tr>
</tbody>
</table>

### Quick-Tech Drill Specifications

<table>
<thead>
<tr>
<th>Quick-Tech Drill</th>
<th>Feed Rate</th>
<th>Maximum Cutting Depth</th>
<th>Spindle Size</th>
<th>Drill Size</th>
<th>Power Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD3000</td>
<td>.003 or .006 ipr (0.076 or 0.152 mmpr)</td>
<td>6.5 in. (165.1 mm)</td>
<td>Morse Taper #3</td>
<td>0.625 in. (15.9 mm)</td>
<td>3 HP Pneumatic</td>
</tr>
</tbody>
</table>
PORTABLE MILLS

Wherever equipment repair applications involve milling critical mounting surfaces, CLIMAX has a precision machine that can be perfectly configured to fit. Our portable three-axis milling machine family starts with the PM4200 – a versatile model with available bed options with 20, 49 or 78 inches (508, 1244.6 and 1981.2 mm) of travel. Our largest mill, the LM6200 features the ability to configure for linear AND gantry milling, with up to 84 inches (2133.6 mm) of x-axis travel and 34 inches (863.6 mm) of y-axis travel. There is plenty of spindle torque for fast metal removal and the capacity to mill in nearly any position.

For about the same cost as machining a keyway off-site, you can purchase a CLIMAX key mill. These two-axis and three-axis mills cut keyways, slots, pockets, or flats on shaft diameters of 1.5 to 24 inches (38 to 610 mm). They can be operated in any position, thanks to their sealed gear box lubrication.

APPLICATIONS
• Shovel, excavator and dragline car body, track frame and side rail milling
• Milling of base plates for mounting pumps and motors
• Milling of platens of large die casting presses
• Milling of vertical slides on steel rolling mills
• Machining of lock and dam gates
• Re-facing of mining truck struts
• Heat exchanger seal slot milling

KEY MILL APPLICATIONS
• Milling of keyways in motor shafts
• Milling of stress relief slots in bridges
• Milling of radius slots in turbine shafts
• Machining of pipe ID flats
• Chipper and conveyor repair
• Elevator shaft repair

<table>
<thead>
<tr>
<th>QUIK-TECH Milling Machine</th>
<th>X-AXIS TRAVEL</th>
<th>Y-AXIS TRAVEL</th>
<th>MAX. VERTICAL TRAVEL</th>
<th>SPINDLE SIZE</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM4200</td>
<td>20,49, or 78 in. (508.0, 1244.6 or 1981.2 mm)</td>
<td>8 in. (203.2 mm) w/ Weldon, 12 in. (304.8 mm) w/ HSK</td>
<td>3 in. (76.2 mm) w/ Weldon Spindle, 4 in. (101.6 mm) w/ HSK Spindle</td>
<td>0.75 in. (19.1 mm) Weldon, 40A (HSK)</td>
<td>Electric, Pneumatic, Hydraulic</td>
</tr>
<tr>
<td>LM5200</td>
<td>36, 60, or 84 in. (914.4, 1524, 2133.6 mm)</td>
<td>16 or 34 in. (406.4 or 863.6 mm)</td>
<td>4 in. (101.6 mm)</td>
<td>40 NMTB/CAT 40</td>
<td>Hydraulic</td>
</tr>
<tr>
<td>LM6200</td>
<td>32, 56, 80, 104, 128, 152, or 176 in. (812.8, 1402.2, 2032, 2641.6, 3251.2, 3660.8, or 4470.4 mm)</td>
<td>26, 38, 72, or 106 in. (660.4, 965.2, 1828.8, or 2692.4 mm)</td>
<td>8 in. (203.2 mm)</td>
<td>50 NMTB/CAT 50</td>
<td>Hydraulic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QUIK-TECH Key Mill</th>
<th>KEYWAY LENGTH</th>
<th>KEYWAY WIDTH</th>
<th>SHAFT DIAMETERS</th>
<th>SPINDLE DIAMETER</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM3000</td>
<td>6 in. (152.4 mm)</td>
<td>1.25 in. (31.8 mm)</td>
<td>0.75 - 10.5 in. (19.1 - 266.7 mm)</td>
<td>0.625 in. (15.9 mm)</td>
<td>Electric, Pneumatic, Hydraulic</td>
</tr>
<tr>
<td>KM4000</td>
<td>8 in. (203.2 mm)</td>
<td>3.25 in. with 2 in. sideshift (82.6 mm with 50.8 mm sideshift)</td>
<td>4 - 24 in (101.6 - 609.6 mm)</td>
<td>Inch: 0.75 in. (19 mm) Metric: 0.79 in. (20 mm)</td>
<td>Electric, Pneumatic, Hydraulic</td>
</tr>
</tbody>
</table>

KM4000 Key Mill
A rugged performer designed with a 2-inch (50.8 mm) sideshift to cut wide keyways at minimal cost. Versatile, smooth and precise, it mounts anywhere along a shaft, at any angle, and eliminates the need for a costly assortment of different size cutters. For shaft diameters ranging from 4 to 24 inches (101.6 to 609.6 mm).

PM4200 Milling Machine
The PM4200 features longitudinal power feed with cross travel controlled manually. Attachable to the workpiece or to a support structure. Choose X-axis travel up to 20, 49, or 78 inches (508.0, 1244.6, or 1981.2 mm).

LM5200 Linear/Gantry Mill
Like nothing on the market today, configure this mill for Linear or Gantry milling in nearly any position! Modular bed sections allow the length to be expanded from 48 - 96 inches (1219.2 - 2438.4 mm) without losing rigidity (with 36 - 84 inches (914.4 - 2133.6 mm) of travel).

LM6200 Linear/Gantry Mill
A revolutionary, heavy-duty mill that can be configured for Linear or Gantry milling in nearly any position! Modular bed sections allow the length to be expanded from 48 – 192 inches (1219.2 – 4876.8 mm) without losing rigidity (with 32 – 152 inches (812.8 – 4470.4 mm) of travel).

KM3000 Key Mill
A small but rugged machine able to cut full-depth keyways or mill flats quickly, without requiring extensive dismantling or costly set-up time. Designed for shaft diameters from 0.75 to 10.5 inches (19.1 to 266.7 mm).

KEY MILL APPLICATIONS
• Milling of keyways in motor shafts
• Milling of stress relief slots in bridges
• Milling of radius slots in turbine shafts
• Machining of pipe ID flats
• Chipper and conveyor repair
• Elevator shaft repair
VALVE REPAIR MACHINES

Lightweight for easy handling and installation, CLIMAX valve grinding and lapping machines span working ranges for gate valves from 1.3 to 39.4 inches (32 to 1000 mm) and Globe valves from 0.4 to 24 inches (10 to 600 mm) as well as conical seats. You can quickly change grinding disks and adjust the grind pressure during operation. Solid construction, sealed lubrication and pre-loaded bearings ensure long life and low maintenance. From globe valves to control valves, CLIMAX valve repair machines pay for themselves by saving downtime, valve inventory costs and off-site labor.

APPLICATIONS
• Repairing and refurbishing of MSIV valves
• Grinding and lapping of globe, check and gate valve seats
• In-place repair of safety valves
• Onsite re-machining of seat and seal areas on Fisher and Dresser control valves

VM1000 Series Gate Valve Repair
Available in six configurations, able to grind and lap gate and check valve seats and resurface seat areas to original manufacturer specifications or higher. A tilting adapter is included to assure quick and easy adjustment of grinding pressure.

VM2000 Series Globe Valve Seat Grinding Safety Valve Repair
A series of five rugged yet compact configurations designed for fast, precise grinding and lapping of globe valves with flat or conical seats. All models offer a range of diameter configurations and the ability to easily and quickly change disks and adjust grinding pressure during operation.

VM5800 Stationary Gate Valve Repair
Stationary Globe Valve Repair
This stand-alone stationary machine, suitable for service trucks as well as repair shops, offers a full range of grinding and lapping applications for globe and gate valves and gate valve wedges. Single point machining is also available with optional facing head.

VM8000 Globe /Control Valve Repair
Designed to bore, face and thread Fisher and Dresser Masoneilan control valves or comparable configurations from 3 to 10 inches (76.2 to 254 mm) in diameter.

<table>
<thead>
<tr>
<th>QUIK-TECH Grinding &amp; Lapping</th>
<th>VALVE SEAT DIAMETER RANGE</th>
<th>VALVE THROAT DIAMETER RANGE</th>
<th>CUTTER</th>
<th>POWER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM1150 VM1200</td>
<td>1.3 - 7.9 in (32 - 200 mm)</td>
<td>17.7 in (450 mm)</td>
<td>Gate/Swing Check</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM1350 VM1500 VM1600</td>
<td>1.6 - 23.6 in (40 - 600 mm)</td>
<td>39.4 in (1000 mm)</td>
<td>Gate/Swing Check</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM1700 VM1900</td>
<td>7.9 - 39.4 in (200 - 1000 mm)</td>
<td>55.1 in (1400 mm)</td>
<td>Gate/Swing Check</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM2050C VM2100C VM2150C VM2350C</td>
<td>0.4 - 12 in (10 - 305 mm)</td>
<td>23.6 in (600 mm)</td>
<td>Globe (Conical Seats)</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM2050S VM2150S</td>
<td>0.4 - 5.9 in (10 - 150 mm)</td>
<td>11.8 in (300 mm)</td>
<td>Globe (Flat Seats)/Safety</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM2350 VM2500 VM2600</td>
<td>3.1 - 23.6 in (80 - 600 mm)</td>
<td>31.5 in (800 mm)</td>
<td>Globe (Flat Seats)</td>
<td>Electric Pneumatic</td>
</tr>
<tr>
<td>VM5800</td>
<td>0.4 - 13.8 in (10 - 350 mm)</td>
<td>N/A</td>
<td>Gate/Globe</td>
<td>Electric</td>
</tr>
<tr>
<td>QUIK-TECH Single Point</td>
<td>VALVE SEAT DIAMETER</td>
<td>VALVE THROAT DIAMETER</td>
<td>CUTTER</td>
<td>POWER OPTIONS</td>
</tr>
<tr>
<td>VM8000</td>
<td>2.5 - 10 in. (6.35 - 254.0 mm)</td>
<td>3 - 10 in. (76.2 - 254 mm)</td>
<td>0.5 in square HSS tool bit or carbide inserts</td>
<td>Pneumatic Hydraulic</td>
</tr>
</tbody>
</table>
H&S TOOL offers four models of portable pipe bevelers for fabrication shop and on-site field use. Each model has a large working range with the power and accuracy to meet budget and schedule demands. The tube rolling & expanding equipment is compact, powerful and reliable. The pneumatic powered rolling motors range from small 1,000 rpm models, for condenser tubes, up to larger units that produce 600 ft lbs (821.1 Nm) of torque, for high pressure boiler tubes.

**POWER BEVELER APPLICATIONS**
- Pipe line facing and beveling
- Counter boring
- Tube repair
- Valve and fittings
- Coupling repair
- ID Bevels
- Flange facing
- Wall reduction
- Counter boring
- Drum and header beveling
- Ship building

**TUBE ROLLING & EXPANDING APPLICATIONS**
- Fire tube boilers
- Water tube boilers
- Super heaters
- Pressure vessels
- Heat exchangers
- Condensers
- Chillers
- Absorbers
- Coolers
- Evaporators

**POWER BEVELER / TUBE ROLLING & EXPANDING EQUIPMENT**

**QUIK-TECH Power Beveler**

<table>
<thead>
<tr>
<th>POWER BEVELER</th>
<th>WORKING RANGE</th>
<th>RADIAL TOOL CLEARANCE</th>
<th>TRAVEL</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB6</td>
<td>1.7 in. ID - 7 in. OD (43.2 ID - 177.8 OD mm)</td>
<td>7 in. (177.8 mm)</td>
<td>3.0 in. (76.2 mm)</td>
<td>Pneumatic (3.0 HP / 2.2 kW)   Electric (2.5 HP / 1.9 kW) Hydraulic (4.9 HP / 3.4 kW)</td>
</tr>
<tr>
<td>PB8</td>
<td>2 in. ID - 8.625 in. OD (50.8 ID - 219.1 OD mm)</td>
<td>9 in. (228.6 mm)</td>
<td>3.5 in. (88.9 mm)</td>
<td>Pneumatic (3.0 HP / 2.2 kW) Electric (2.5 HP / 1.9 kW) Hydraulic (5.36 hp / 4.0 kW)</td>
</tr>
<tr>
<td>PB12</td>
<td>2 in. ID - 8.625 in. OD (50.8 ID - 219.1 OD mm)</td>
<td>14 in. (355.6 mm)</td>
<td>4.5 in. (114.3 mm)</td>
<td>Pneumatic (3.0 HP / 2.2 kW) Electric (2.5 HP / 1.9 kW) Hydraulic (5.36 hp / 4.0 kW)</td>
</tr>
<tr>
<td>PB30</td>
<td>8 in. ID - 30 in. OD (203.2 ID - 762.0 OD mm)</td>
<td>24 in. (609.6 mm) and 30 in. (762 mm)</td>
<td>4.5 in. (114.3 mm)</td>
<td>Pneumatic (3.5 HP / 2.6 kW) Hydraulic (10.72 HP / 8.0 kW)</td>
</tr>
</tbody>
</table>

**QUIK-TECH Tube Rolling & Expanding Equipment**

<table>
<thead>
<tr>
<th>TUBE ROLLING &amp; EXPANDING EQUIPMENT</th>
<th>WORKING RANGE</th>
<th>TORQUE LEVEL</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.25 in. ID - 4.5 in. OD (6.4 - 114.3 mm)</td>
<td>up to 600 lbs (821.1 Nm)</td>
<td>Pneumatic</td>
</tr>
</tbody>
</table>

**PB6 POWER BEVELER**
The PB6 Power Beveler is a combination of power, versatility, and reliability in a compact package. Designed to perform on-site machining with speed and accuracy, delivering the optimal speed and torque combination to make short work of your pipe prep projects.

**PB12 POWER BEVELER**
The PB12 Power Beveler is a combination of power, versatility, and reliability in a compact package. Designed to perform on-site machining with speed and accuracy, delivering the optimal speed and torque combination to make short work of your pipe prep projects.

**PB30 POWER BEVELER**
The PB30 Power Beveler is a powerful and reliable pipe machining and beveling tool. Heavy duty gearing combines with variable speed control for smooth, accurate cutting of different pipe sizes, wall thicknesses, and materials.

**TUBE ROLLING & EXPANDING EQUIPMENT**
Compact, powerful, and reliable. Choose between small 1,000 rpm models for condenser tubes up to larger models that produce torque levels up to 600 lbs (821.1 Nm). All models have variable torque with sensing cam for accurate automatic expanding.
The BOILER GUN™ tube bevelers are a combination of power, versatility and ease of use in a compact 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.

**APPLICATIONS**
- Boiler tube repair
- Stub removal
- Pipe lines
- Seal weld removal
- Water wall repair
- Hand hole cap removal
- Fin-fan plug resurfacing
- Fin removal
- Tube condensers
- Weld overlay machining
- Overlay removal
- Dutchman/Single tube applications
- Counterboring (ID match and chill ring prep)
- Heat exchanger weld repair
- J-Prep for orbital welding
- Attemperator plug removal
- Tube sheet weld removal
- Membrane removal
- Rifled tube boring
- Overlay beveling
- Flange facing
- Clad removal

**BG22 BOILER GUN™**
The BG22 Boiler Gun has the ease of use, power, and versatility needed to get your jobs done faster. Lightweight and armed with the most power in the industry, the BG22 Boiler Gun can bevel, square, and perform other machining operations on a wide range of tubing.

**BG22 OD BOILER GUN™**
The BG22 OD is a narrow-head tube machining tool for working in tight areas. The OD clamp system centers and locks the tool securely in place for excellent accuracy and safety. Mount a specialty cutting head and you can perform I.D. cleaning including the removal of tube rifling.

**BG38 BOILER GUN™**
The BG38 Boiler Gun has the power, versatility and ease of use needed to get your jobs done faster. Lightweight and armed with the most power in the industry, the BG22 Boiler Gun can bevel, square, and perform other machining operations on a wide range of tubing.

**BG38 SPECIAL BOILER GUN™**
The BG38 Special is a high speed, high production tool that bevels, squares, and removes membranes on water wall panels. It is a powerful, lightweight machine that uses a patented pneumatic motor to turn the cutter with replaceable carbide inserts at 5,000 rpm to make short work of large products.

**BG44 BOILER GUN™**
The BG44 Boiler Gun™ has the power, versatility, and ease of use needed to get the job done fast. Field proven and armed with the most power in the industry, the BG44 Boiler Gun™ can bevel, square, and perform other machining operations on a wide range of tube and pipe sizes.

**BG50 BOILER GUN™**
The BG50 Boiler Gun has the power, versatility, and ease of use needed to get your jobs done faster. Lightweight and armed with the most power in the industry, the BG50 Boiler Gun can bevel, square, and perform other machining operations on a wide range of pipe.

<table>
<thead>
<tr>
<th>QUIK-TECH</th>
<th>WORKING RANGE</th>
<th>RADIAL TOOL CLEARANCE</th>
<th>HEAD WIDTH</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG22</td>
<td>0.5 in. ID - 2.5 in. OD (12.7 ID - 63.5 OD mm)</td>
<td>0.8 in. (20.3 mm)</td>
<td>1.6 in. (50.8 mm)</td>
<td>Pneumatic (1.3 HP / 0.97 kW)</td>
</tr>
<tr>
<td>BG22OD</td>
<td>0.75 in. ID - 2.25 in. OD (19.1 - 57.2 mm)</td>
<td>0.75 in. (19.1 mm)</td>
<td>1.5 in. (38.1 mm)</td>
<td>Pneumatic (1.3 HP / 0.97 kW)</td>
</tr>
<tr>
<td>BG38</td>
<td>0.625 in. ID - 3.000 in. OD (15.8 ID - 76.2 OD mm)</td>
<td>1.312 in. (33.3 mm)</td>
<td>2.625 in. (66.6 mm)</td>
<td>Pneumatic (1.3 HP / 0.97 kW)</td>
</tr>
<tr>
<td>BG38 SPECIAL</td>
<td>0.5 in. ID - 3.0 in. OD (12.7 - 76.2 mm)</td>
<td>0.750 in. (19 mm)</td>
<td>1.5 in. (38.1 mm)</td>
<td>Pneumatic (4 HP / 3 kW)</td>
</tr>
<tr>
<td>BG44</td>
<td>.875 in.ID - 5.000 in. OD (22.2 ID - 127 OD mm)</td>
<td>1.312 in. (33.3 mm)</td>
<td>2.625 in. (66.7 mm)</td>
<td>Pneumatic (1.3 HP / 0.97 kW)</td>
</tr>
<tr>
<td>BG50</td>
<td>1 in. ID - 5.562 in. OD (25.4 - 141.3 mm)</td>
<td>2.75 in. (69.83 mm)</td>
<td>4 in. (101.6 mm)</td>
<td>Pneumatic (1.3 HP / 0.97 kW)</td>
</tr>
</tbody>
</table>
The H&S TOOL split-frame OD mount machine (clamshell) design is a unique combination of safety, reliability, ease of use, rigidity, and precision. With three options to choose from the split-frame OD mount machine can cover a wider range of applications to meet the demands of your specific project.

The H&S TOOL pipe saws reliably cut tubes and pipes with speed and accuracy. Abrasive cutting wheel saws are offered in two hand-held models and one track-mounted model with optional cutting wheel sizes. The versatile chain-mounted reciprocating saw cuts up to 24 inches (609.6 mm).

RS24 Reciprocating Saw
The RS24 reciprocating saw is a versatile, reliable tool that can cut up to 24 inches (609.6 mm) in diameter. It can be used as a hand held saw or with optional pipe base, power feed and bow accessories to make quick work of pipe or structural steel cutting applications.

CHS Compact Saw
The CHS is a compact, lightweight hand saw that produces high horsepower and over 3,000 RPM to cut through heavy wall pipes and tubes with ease. Proven in years of job-site use, these rugged saws have all of the features needed in a production tool.

TS-400 Track Saw
The model TS-400 is a powerful, accurate track saw that improves productivity in water wall panel replacement projects. The patented track mounting system eliminates wheels and rollers yet slides easily into position and stops kick backs without the need for a lock.

SPLIT-FRAME OD MOUNT MACHINE / PIPE SAW

<table>
<thead>
<tr>
<th>QUIK-TECH Split Frame</th>
<th>WORKING RANGE</th>
<th>SLIDE SWING</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFC</td>
<td>.625 - 2.625 in. (15.9 - 66.7 mm)</td>
<td>1 in. (25.4 mm)</td>
<td>Pneumatic &amp; Electric</td>
</tr>
<tr>
<td>AFC</td>
<td>1 - .48 in. (25.4 - 1219.2 mm)</td>
<td>1, 2, 3, 4, &amp; 7 in. (25.4, 50.8, 76.2, 101.6, &amp; 177.8 mm)</td>
<td>Pneumatic, Electric &amp; Hydraulic</td>
</tr>
<tr>
<td>BFC</td>
<td>36 - 86 in. (914.4 - 2184.4 mm)</td>
<td>4, 7, &amp; 10 in. (101.6, 177.8, &amp; 254 mm)</td>
<td>Pneumatic, Electric &amp; Hydraulic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QUIK-TECH Pipe Saw</th>
<th>CUT</th>
<th>TYPE OF SAW</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS24</td>
<td>up to 24 in. (609.6 mm)</td>
<td>reciprocating saw</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>CHS</td>
<td>depth of cut 2, 3, &amp; 3.5 in. (50.8, 76.2, &amp; 88.9 mm)</td>
<td>track saw</td>
<td>Pneumatic</td>
</tr>
<tr>
<td>TS-400</td>
<td>up to 4 in. (101.6 mm)</td>
<td>hand saw</td>
<td>Pneumatic</td>
</tr>
</tbody>
</table>

SPLIT FRAME OD MOUNT APPLICATIONS
- Pipe severing, beveling, squaring
- Flange re-surfacing
- Counterbore machining
- Desalination plant pipe severing & beveling
- Food processing plant pipe severing & beveling
- Airport fuel line piping repair
- Industrial pipe replacement

PIPE SAW APPLICATIONS
- Waterwall panel replacement
- Single tube repair/replacement
- Waterwall replacement
- Single pipe repair/replacement

PIPE SAW APPLICATIONS
- Waterwall panel replacement
- Single tube repair/replacement
- Waterwall replacement
- Single pipe repair/replacement
The lineup of CALDER advanced valve testing systems, manufactured by CLIMAX, are the most flexible and versatile systems on the market. The CALDER test system can seamlessly expand and evolve with your business, giving you the lowest total cost of ownership (TCO) and the highest return on investment (ROI) over the life of the tester. Our testing systems are designed, engineered, and manufactured to provide the most advanced equipment and accessories in the industry today. We specialize in Hydrostatic Valve Test Equipment and Pneumatic Valve Test Equipment. All CALDER products are available for sale world-wide, including the European Union and other locations where CE certification is required.

**APPLICATIONS**
- Gate Valve Testing
- Globe Valve Testing
- Check Valve Testing
- Ball Valve Testing
- Butterfly Valve Testing
- Control Valve Testing
- Safety Relief Valve Testing

<table>
<thead>
<tr>
<th>QUICK-TECH Flange Facer</th>
<th>TYPE OF VALVE</th>
<th>VALVE SHAPE</th>
<th>VALVE CLAMPING</th>
<th>TYPES OF TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPC</td>
<td>All except SRV’s</td>
<td>Highly adaptable</td>
<td>Blind flange or any clamp fixture</td>
<td>Hydrostatic &amp; low pressure air seat leakage</td>
</tr>
<tr>
<td>USV</td>
<td>Ball, globe, gate, check, &amp; butterfly valves</td>
<td></td>
<td>Clamping across body</td>
<td>Hydrostatic &amp; low pressure air seat leakage</td>
</tr>
<tr>
<td>UFV</td>
<td>Ball, globe, gate, &amp; check valves</td>
<td></td>
<td>Flange Clamping</td>
<td>Hydrostatic &amp; low pressure air seat leakage</td>
</tr>
<tr>
<td>HFS</td>
<td>Ball, globe, gate, &amp; check valves</td>
<td></td>
<td>Flange Clamping</td>
<td>Hydrostatic &amp; low pressure air seat leakage</td>
</tr>
<tr>
<td>TAT</td>
<td>Ball, globe, gate, &amp; check valves</td>
<td></td>
<td>Flange Clamping</td>
<td>Hydrostatic &amp; low pressure air seat leakage</td>
</tr>
<tr>
<td>SRV</td>
<td>Relief Valves</td>
<td></td>
<td>Flange Clamping</td>
<td>Set/cracking point (water) seat leakage (water, air, &amp; nitrogen)</td>
</tr>
<tr>
<td>SRV Control Valve Combo Testers</td>
<td>Ball, globe, gate, check, &amp; relief valves</td>
<td></td>
<td>Flange Clamping</td>
<td>Set/cracking point (water) &amp; seat leakage (water, air, &amp; nitrogen)</td>
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</table>

<table>
<thead>
<tr>
<th>COMPUTER</th>
<th>PRESSURE RANGE</th>
<th>POWER REQUIREMENT</th>
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<tbody>
<tr>
<td>DAAS</td>
<td>Data Acquisition and Analysis System</td>
<td>Main power 120v or 230v single phase 50-60Hz</td>
</tr>
<tr>
<td>DACS</td>
<td>Data Acquisition and Control System</td>
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</tr>
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</table>
HFS HydroPro™ Hydraulic Flange Seals
Clamps and seals flanged valves for pressure testing and eliminates all those blind flanges. Paired with the HydroPro™ Universal Flange Valve Tester, it is capable of hydrostatic tests up to 9,700 psi and low pressure air tests up to 125 psi, enabling the user to test API valves that have multiple flanges as well as valves that aren’t straight, like elbow valves, 90’s and T’s.

MPS Mobile Pump System
When hydrostatic pressure is needed in the shop or in remote places the Mobile Pump System is made to take the pressure to the test piece.

USV HydroPro™
Universal Straight Valve Tester
Clamps and seals straight-bodied valves for pressure testing. Capable of hydrostatic tests up to 9700 psi and low-pressure air tests up to 125 psi. Our unique tilting feature rotates clamped valves 90 degrees from horizontal to vertical, ensuring removal of all air prior to pressurizing the system. Our patented Easy-Out Seal Plate Holders allow quick change-out of seal plates from flanged to other valve end type connections without the use of special tools, bolts, nuts or gaskets.

UFV HydroPro™
Universal Flange Valve Tester
Clamps and seals flanged valves for pressure testing. Capable of hydrostatic tests up to 9700 psi and low-pressure air tests up to 125 psi. Our unique tilting feature rotates clamped valves 90 degrees from horizontal to vertical, ensuring removal of all air prior to pressurizing the system. Paired with an HFS this is the best way to test API valves, where cross body pressure on the valve is not an option.

SRV Safety Relief Valve Tester
Performs SRV set pressure and seat leakage tests. Our unique ‘J’ tube design allows for a free flow of air or water from the source to the SRV being tested providing a cushion of air under the SRV seat to prevent seat damage. The control panel is ergonomically designed 90 degrees from the clamp fixture to provide splash shield partition between the operator and the clamp table.

HPC HydroPro™ Test Console
Easy to use and versatile enough to perform a wide variety of valve tests when paired with a hydraulic clamping system or even blind flanging. Built with OEM certified components, the Hydro Pro Console is designed for high pressure water, with low pressure air supply for pressure testing performance you can trust.

DAAS SmarTest™
Captures the performance of your valve test digitally. The system will allow the operator to isolate any point along the graph line of the test to display the numeric value of the pressure. Data can be reported in both .PDF or .CSV file formats. Built-in Wi-Fi capability allows for easy and secure sharing of data. This rugged splash-proof (IP67) unit is ideal for industrial valve testing environments.

TAT Turn-Around-Tester™
Designed for easy transportation to job sites making it ideal for valve servicing companies or plant turn-arounds, eliminating the need for taking valves back to the shop. This flanged valve testing system conforms to specified API 598 and allows the operator to perform hydrostatic valve testing in nontraditional environments. Complete with clamp fixture and control console, the Turn-Around-Tester™ is a one-stop shop for valve testing on-site.