

TENNSMITH[®]



S h e e t M e t a l M a c h i n e r y

For more information and quote contact

Great Lakes Machine & Tool Company
800-758-2951

info@grlakesmachinetool.com



Proudly made in the USA

An American Tradition

TENNSMITH® USA

A Family Tradition

Ray Smith, Sr., and sons, Ray Smith, Jr., and W. Douglas Smith, founded the business, first known as Smith Machine Tool Company in McMinnville, Tennessee. Ray, Sr., and his brothers were the owners and managers of Powermatic, the McMinnville-based manufacturer of wood and metalworking machinery, which was established by their father, Leonard F. Smith, Sr., back in 1928. Smith Machine Tool Co., was later reincorporated as TENNSMITH, INC.

All TENNSMITH products are built in the USA—backed by an industry leading 3-year warranty.

Today, the Smith family continues to build upon eight decades of manufacturing excellence with TENNSMITH, American-made metal

forming machinery. TENNSMITH has developed a full range of sheet metal tools including Automatic Folders, Hand Brakes, Shears, Slip Rolls, Cleat Benders, Notchers and Rotary Machines. The company is recognized worldwide as a premier leader in the manufacture of sheet metal fabricating machinery. All TENNSMITH products are built in

the USA. Our 100,000 sq. ft. manufacturing facility is well equipped with the very latest in machine tool technology. TENNSMITH



Inside Smith Machine Shop (Powermatic) Early 1940's

machinery is backed by an industry leading 3-year warranty.

Quality workmanship, product performance and customer

satisfaction are the key ingredients of maintaining our future growth.

If you have suggestions, opinions or ideas that will help us improve our products, we would enjoy hearing from you.



*Proudly Made in the USA
A Family Tradition Since 1928 .*

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HEAVY-DUTY HAND BRAKES

HB
series



MODELS

HB48-12
HB73-16
HB97-18
HB97-16
HB97-12



Model HB97-16

TENNSMITH's heavy-duty hand brakes are designed and built for long service and accurate bending. Welded steel plate construction and heavy truss rods and braces provide strength and durability.

With much more substantial steel side plates than other domestically made units, these brakes have the rigidity required for upper beam adjustment without the use of wrenches.

Equipped with thrust bearings, the upper leaf adjustment screws permit quick, accurate alignment for different material thicknesses or radii.

Heavy-Duty Hand Brakes	HB48-12	HB73-16	HB97-18	HB97-16	HB97-12
Bending length	49 in./1245 mm	73 in./1854 mm	97 in./2464 mm	97 in./2464 mm	97 in./2464 mm
Front to rear beam adjustment	1/2 in./13 mm	1/2 in./13 mm	1/2 in./13 mm	1/2 in./13 mm	1/2 in./13 mm
Minimum flange in capacity material	1 in./25 mm	1 in./25 mm	1 in./25 mm	1 in./25 mm	1 in./25 mm
Shipping weight	1100 lbs./500 kg	1200 lbs./545 kg	1385 lbs./628 kg	1675 lbs./759.8 kg	2800 lbs./1273 kg



HEAVY-DUTY HAND BRAKES

MODELS
 HB121-18
 HB121-16
 HB121-14
 HB145-18

HB
 series



Other adjustment features include:

- Leveling screws and lock nuts on the pedestals
- Jack screws and tensioner bolts on the apron
- Truss rods on the apron, base and upper beam
- Fully adjustable counter balances to facilitate the bending process
- Replaceable nose bar and apron inserts

Removable apron angle and insert permit 1/4-inch reverse bends in lighter material.

Bored in line to ensure perfect alignment, the pivot points are fitted with oil impregnated bearings. The hinge pins are high-tensile, alloy steel.

Ductile steel clamp handles, heavy yokes, grease fittings and an apron stop rod complement the many other fine features of these heavy-duty brakes.

Heavy-Duty Hand Brakes	HB121-18	HB121-16	HB121-14	HB145-18
Bending length	121 in./3073 mm	121 in./3073 mm	121 in./3073 mm	145 in./3683 mm
Front to rear beam adjustment	1/2 in./13 mm	1/2 in./13 mm	1/2 in./13 mm	1/2 in./13 mm
Minimum flange in capacity material	1 in./25 mm	1 in./25 mm	1 in./25 mm	1 in./25 mm
Shipping weight	2300 lbs./1043 kg	2875 lbs./1304 kg	3250 lbs./1477 kg	3400 lbs./1545 kg

HEAVY-DUTY HAND BRAKES

FH
series



MODELS

FH616
FH818
FH816
FH1018
FH1016

Model FH1016



TENNSMITH's FH Series hand brakes are designed and built for long service and accurate bending. Welded steel plate construction and heavy truss rods and braces provide strength and durability.

Removable apron angle and insert permit 1/4-inch reverse bends in lighter material.

Bored in line to ensure perfect alignment, the pivot points are fitted with oil impregnated bearings. The hinge pins are high-tensile, alloy steel.

Other adjustment features include:

- Leveling screws and lock nuts on the pedestals
- Jack screws and tensioner bolts on the apron
- Truss rods on the apron, base and upper beam
- Replaceable nose bar and apron inserts

The FH Series is built of all-steel construction

Heavy Duty Hand Brakes	FH616	FH818	FH816	FH1018	FH1016
Capacity with bending support angle removed, mild steel	20 gauge/1.0 mm	22 gauge/0.76 mm	20 gauge/1.0 mm	22 gauge/0.76 mm	20 gauge/1.0 mm
Maximum lift of beam	2-1/4 in./57 mm	2-1/4 in./57 mm	2-1/4 in./57 mm	2-1/4 in./57 mm	2-1/4 in./57 mm
Minimum reverse bend	1/4 in./6 mm	1/4 in./6 mm	1/4 in./6 mm	1/4 in./6 mm	1/4 in./6 mm
Dimensions, counterweights in place, LxWxH	114 x 48 x 59-1/2 in. 2896 x 1220 x 1512 mm	138 x 48 x 59-1/2 in. 3506 x 1220 x 1512 mm	140 x 52 x 60 in. 3556 x 1321 x 1524 mm	159 x 52 x 60 in. 4039 x 1321 x 1512 mm	161 x 53 x 60 in. 4090 x 1347 x 1512 mm

with heavy-duty steel clamp handles, heavy yokes, grease fittings and an apron stop rod that

complement the many other fine features of these heavy-duty brakes. TENNSMITH's FH Series

hand brakes are an economically-priced solution for your bending needs.



HAND BRAKES

MODELS
HBT48-12
HBT72-16

HBT
series



Sample bends achieved with HBT72-16.



TENNSMITH's HBT72-16 is designed to provide forming capabilities for complex parts. This machine is truly a universal hand brake, which allows for the removal of both upper and lower segments of fingers. Complex parts, such as

HVAC transverse duct forming and down flanged parts, as well as architectural sheet metal and signage applications, can easily be formed using this machine.

The HBT72-16 is built with the same high-quality features and standards that TENNSMITH brakes are recognized for throughout the industry.

Other models are available upon request. Please consult TENNSMITH for specific forming questions or applications.

Heavy Duty Hand Brakes	HBT48-12	HBT72-16
Capacity, with bending support angle removed, mild steel	16 gauge/1.6 mm	20 gauge/1.0 mm
Maximum lift of beam	1-1/2 in./38.1 mm	1-1/2 in./38.1 mm
Maximum depth of box	4 in./101.6 mm	4 in./101.6 mm
Minimum flange in capacity material	1 in./25 mm	1 in./25 mm
Lower segment tooling widths	1, 1-1/2, 4, 6, 8, 12, 20 in. 25, 38, 102, 203, 305, 508 mm	1, 1-1/2, 4, 6, 8, 12, 20 in. 25, 38, 102, 203, 305, 508 mm
Maximum transverse bend (through tooling centers)	2 in./50.8 mm	2 in./50.8 mm
Dimensions, counterweights in place, LxWxH	72 x 36 x 53 in. 1829 x 915 x 1346 mm	89 1/2 x 36 x 53 in. 2273 x 915 x 1346 mm

Available options: Radius fingers.

BOX & PAN HAND BRAKES



MODELS
HBU48-12
HBU72-16



TENNSMITH's HBU Series box and pan hand brakes are an economical tool for a wide range of sheet metal bending and forming operations.

The Model HBU48-12 can handle 12-gauge and lighter materials. The Model HBU72-16 is rated for 6 feet of 16-gauge material. Each hand brake is ideal for both box and pan and straight bending in hot and cold rolled plate, stainless steel, aluminum and heavy plastic.

Ample clamping and nose bar adjustments allow for the bend radius necessary for your application. Welded steel plate construction and heavy truss rods and braces provide strength and rigidity.

This brake features a removable apron insert for 1/4-inch bends in lighter material. The upper leaf adjustment screws feature thrust bearings to prevent upper beam creep. Ductile steel clamp handles, heavy counterweights and an apron stop rod add to the brake's ease of operation.

The removable fingers are case hardened for long service. TENNSMITH's box and pan hand brake is a productive addition to any shop doing prototype or design work, fabrication or short run production in heavier materials.

Box & Pan Hand Brakes	HBU48-12	HBU72-16
Capacity, stainless steel	16 gauge/1.6 mm	20 gauge/1.0 mm
Maximum lift of beam	1-1/2 in./38.1 mm	1-1/2 in./38.1 mm
Maximum depth of box	4 in./101.6 mm	4 in./101.6 mm
Minimum flange in capacity material	1 in./25 mm	1 in./25 mm
Dimensions, counterweights in place, LxWxH	72 x 36 x 53 in. 1829 x 915 x 1346 mm	96 x 36 x 53 in. 2438 x 915 x 1346 mm

Available option: Radius fingers.



BOX & PAN HAND BRAKES

MODELS
 F6-48-12
 F6-72-12
 F6-96-12
 F6-120-14

**F6
series**



Finger Assortments

Model F6	Number of Fingers			Total
	3"W	4"W	5"W	

TENNSMITH's F6 Series box and pan brakes were designed to provide heavy-duty forming capability, along with the flexibility of removable 6-inch box depth fingers. Ample clamping and easy-to-use nose bar adjustments allow for a quick-setting bend radius. Welded steel plate construction and heavy truss rods and braces provide strength and rigidity.

Other adjustment features include:

- Leveling screws and lock nuts on the pedestals
- Jack screws and tensioner bolts on the apron
- Truss rods on the apron, base and upper beam
- Fully adjustable counter balances to facilitate the bending process
- Removable apron angle and insert permit 1/4-inch reverse bends in lighter material

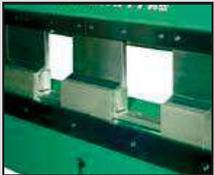
Box & Pan Hand Brakes	F6-48-12	F6-72-12	F6-96-12	F6-120-14
Capacity, stainless steel	16 gauge/1.6 mm	16 gauge/1.6 mm	16 gauge/1.6 mm	20 gauge/1.0 mm
Maximum lift of beam	1-1/2 in./38.1 mm	2-1/4 in./57 mm	2-1/4 in./57 mm	2-1/4 in./57 mm
Maximum depth of box	6 in./152.4 mm	6 in./152.4 mm	6 in./152.4 mm	6 in./152.4 mm
Minimum flange in capacity material	1 in./25 mm	1 in./25 mm	1 in./25 mm	1 in./25 mm
Dimensions, counterweights in place, LxWxH	72 x 49 x 56 in. 1829 x 1245 x 1425 mm	110 x 53 x 60 in. 2794 x 1347 x 1524 mm	137 x 53 x 60 in. 3480 x 1347 x 1524 mm	161 x 53 x 60 in. 4090 x 1347 x 1524 mm

Available options: Radius fingers; extension fingers (right and left extension fingers form inside corners with a return flange across the top on boxes, cabinets, etc.); open end fingers (provide triangular, square and rectangular tube forming abilities). Ask dealer for more details.

UNIVERSAL BRAKES

EBT
series

MODEL
EBT60-16



TENNSMITH's new EBT Series is a versatile machine that allows for the removal and repositioning of both the upper and lower segments for forming complex parts. In

addition, the EBT incorporates gas spring cylinders in lieu of traditional counterweights to assist in the bending process and the raising and lowering of the upper beam. The brake also features goat's foot style upper beam tooling.

Common applications include:

- Architectural and ornamental metalforming
- Signage
- Aircraft panel fabrication

<i>Universal Brake</i>	<i>EBT60-16</i>
Bending length	60-1/4 in./1537 mm
Bending beam adjustment	1 in./25 mm
Segmented tooling width	20, 12, 8, 6, 4, 1.5, 1
Maximum transverse bend (through tooling centers)	2-1/4 in./57 mm
Shipping weight	1150 lbs./521.6 kg

Please consult a TENNSMITH sales representative for specific forming applications.



Model HBS48-16
Shown with optional stand.



BENCH-MODEL HAND BRAKES

- MODELS**
 HBU48-16
 HBS48-16
 U48-22
 S48-22

**bench
series**



Bench-Mounted Hand Brakes	HBU48-16	HBS48-16	U48-22	S48-22
Bending length	48-1/4 in./1225 mm	48-1/4 in./1225 mm	48-1/4 in./1225 mm	48-1/4 in./1225 mm
Maximum lift of beam	1-1/4 in./31.75 mm	1-3/4 in./44 mm	7/8 in./22.2 mm	7/8 in./22.2 mm
Minimum reverse bend	1/4 in./6 mm	1/4 in./6 mm	5/16 in./7.9 mm	5/16 in./7.9 mm
Finger widths	2, 3, 4 in. 51, 76, 101 mm	—	2, 3, 4 in. 51, 76, 101 mm	—

SHEARS

foot-squaring series

MODELS

36
52



TENNSMITH's squaring shears offer precision shearing and rugged construction at an affordable price. The shear frame, bed and cutter head assemblies are constructed of heavy-duty cast iron. The shear bed is machined and then surface ground to precision tolerances to ensure an accurate working surface.

These shears feature triaction, high-carbon high-chromium (HCHC) steel blades. Both the upper and lower blades have a 2-degree edge relief and the lower blade has an additional 1-degree face relief for maximum material penetration with minimum effort. Triaction blades help prevent material movement while shearing, prolonging blade life.

TENNSMITH shears have the most complete adjustment features of any sheet metal shear

on the market. The lower shear blade is bed-adjusting and the upper blade is adjustable by means of a truss bar on the cutter head. The spring-activated holddown feet clamp the work piece securely in place and are easily adjustable to compensate holding pressure for light or heavy gauge material. There is ample clearance between the holddown feet and shear blades to allow good operator vision for line-of-sight cutting. The standard, double-locking back gauge, which features embossed scales and vernier wheels for fine adjustment, gives highly accurate readings.

<i>Foot-squaring Shears</i>	<i>Model 36</i>	<i>Model 52</i>
Maximum shearing capacity, stainless steel	20 gauge/1.0 mm	20 gauge/1.0 mm
Back gauge range	30 in./762 mm	30 in./762 mm
Floor space, gauges in position	45 x 80 in. 1143 x 2032 mm	60 x 80 in. 1524 x 2032 mm
Shipping weight	700 lbs./317.5 kg	950 lbs./431 kg

Standard equipment includes a back gauge, front extension arms with stop, bevel gauge and graduated side scales. Additional option: Squaring arm.



Model 52H

AIR & HYDRAULIC SHEARS

MODELS
36A
52A
52H

power series



TENNSMITH's power shears combine all of the features of our foot shears with the advantage and convenience of air or hydraulic operation. TENNSMITH power shears are a productive addition to any shop. The air shears utilize heavy-duty, tie rod-type pneumatic cylinders, which provide up to 40 strokes per minute in capacity materials.

A foot-operated air valve control, pressure regulator, air gauge, oiler/condenser cups and neoprene, padded holddown feet are standard features. We recommend a maximum air supply of 75 psi for operating these shears at rated capacity. Where air supply pressures exceed 75 psi, an in-line regulator is helpful to provide pressure control.

The model 52H cycles at 45 strokes a minute, thanks to its first class hydraulic system. The hydraulic unit is of a low maintenance design featuring a solenoid actuated valve, 3-hp electric motor, self contained pump in tank with pressure gauge, check valve and industrial quality cylinders. The motor is protected by a magnetic starter.

Other electrical safety features include a low voltage on/off switch; low voltage, shrouded, electric foot switch; step-down transformer with low voltage circuit fuse; fully enclosed electrical box; and insulated reinforced conduit for all wiring. Models 36A and 52A are ideal ways to enhance shearing productivity with minimal investment.

All shears are standard equipped with high-carbon high-chromium (HCHC) blades.

Power Shears	Model 36A	Model 52A/52H
Maximum shearing capacity, stainless steel	20 gauge/1.0 mm	20 gauge/1.0 mm
Back gauge range	30 in./762 mm	30 in./762 mm
Floor space, gauges in position	45 x 80 in. 1143 x 2032 mm	60 x 80 in. 1524 x 2032 mm
Strokes per minute, full length	40	40/45
Air consumption per stroke	1.1 cu. ft./0.031 cu. m.	1.33 cu. ft. / n/a 0.038 cu. m. / n/a
Shipping weight	800 lbs./363 kg	1085 lbs./1300 lbs. 492 kg/590 kgs

Standard equipment includes back gauge, front extension arms with stop, bevel gauge, graduated side gauges, foot control and neoprene padded holddown feet.
Available options: Squaring arm and one-shot lubricating system.

HAND SHEAR

SK
series

MODEL
SK1020



TENNSMITH's SK Series shear is built with the quality and high exacting standards that our customers have come to expect from our line of machinery. This model is ideal for customers interested in 10-foot shearing capacity with the affordability of manual operation.

The SK shear is equipped with a standard 2x-R, 0-24 Inch, quick-moving back gauge system, 4-edge high carbon/high chrome blades and precision bearings.

Please consult a TENNSMITH sales representative for more information on the SK model shear.

SK Series Shear	SK1020
Maximum shearing capacity, stainless steel	24 gauge/0.61 mm
Back gauge range	24 in./610 mm
Shipping weight	2,900 lbs./1318 kg

Available options: Five-foot squaring arm, front support arms and protractor.



Model SK1020 Back gauge

MECHANICAL SHEARS

MODELS
MSE616
MSE1016

MSE
series



Model MSE1016

TENNSMITH's MSE Series is based on our popular LM model shears.

Standard features include:

- 30-inch front-operated 2x back gauge system
- 4-edge high carbon/high chrome blades and precision bearings

The MSE616 is available as a standard model or in our popular Performance Package.

Model MSE1016 comes standard with Performance Package F or R*.

Numerous options are available. Please consult a TENNSMITH sales representative for specific details.



Model MSE1016-F shown from rear.
(Sheet Support System-F)



Model MSE1016 shown with 2x back gauge

MSE Series Shears	MSE616	MSE1016
Maximum shearing capacity, stainless steel	20 gauge/1.0 mm	20 gauge/1.0 mm
Back gauge range	30 in./762 mm	30 in./762 mm
Motor-230/460v, 3-phase, 60Hz	3 hp	3 hp
Floor space, gauges in position	92 x 69 x 50 in. 2337 x 1753 x 1270 mm	140 x 69 x 50 in. 3556 x 1753 x 1270 mm

Available options: Air-operated sheet support system, five-foot squaring arm, front support arms, protractor and stroke counter.

The MSE Performance Package includes:

1. Five-foot squaring arm
2. Pair of front support arms
3. Air-operated sheet support system, F or R*

**"F" is a Front Return Material System via material tray located under the shear table. "R" is a Rear Return Material System.

LOW PROFILE SHEARS



MODELS
LM410
LM610
LM810



Model LM410
Shown with optional squaring arm,
front supports, light beam and
digital readout (DRO).

TENNSMITH's low-profile LM Series mechanical shears utilize a simple low maintenance design, coupled with an array of standard features for an attractive combination of high value and solid performance.

Models LM410, LM610, LM810, LM1014 and LM1214 now incorporate the unique 2x back gauge system. This allows the operator to move the backstop from 0 up to 30 inches (0 to 24 inches for Model LM410) in approximately 2 seconds with only two rotations of the handle. An optional digital readout is available for this system.

The LM Series shears are standard with four-edge, high carbon, high chrome top and bottom blades, independent, self-leveling holddown feet with neoprene inserts, single, continuous

Low-Profile Mechanical Shears	LM410	LM610	LM810
Maximum shearing capacity, stainless steel	14 gauge/2.0 mm	14 gauge/2.0 mm	14 gauge/2.0 mm
Back gauge range	24 in./610 mm	30 in./610 mm	30 in./762 mm
Number of holddown feet	8	12	14
Dimensions, LxWxH	72 x 68 x 55-1/2 in. 1829 x 1753 x 1410 mm	81 x 69 x 56 in. 2058 x 1753 x 1423 mm	116 x 72 x 56 in. 2947 x 1829 x 1423 mm

Available options: Please consult a representative for a complete listing.

and job stroke cycles, motor reverse switch, precision-machined table with hand well, dual inch/metric inlaid bed scales and

non-metallic gibs.

The LM410 model incorporates all of the

popular LM series features into this 52" cutting length, 10-gauge mild-steel capacity shear. Model LM610 has a rated capacity of 10-gauge



LOW PROFILE SHEARS

MODELS
LM1012
LM1014
LM1214

LM
series



mild steel with a maximum cutting length of 60-1/2 inches.

The LM1014 will handle 14-gauge mild steel up to 121 inches. The LM1214 is rated for 14-gauge mild steel with 145-inch cutting length.

To enhance productivity, optional equipment available for the machines include:

- Five or ten-foot squaring arm
- Front support arms
- Protractor attachment

On models LM1014 and LM1214, the air operated sheet support is available in two styles:

- **System R** drops the supported material to the rear of the machine.
- **System F** returns the supported material to the front of the machine via a front return chute.

The LM Series shears are now available in an optional "Performance Package" configuration.

Low-Profile Mechanical Shears	LM1012	LM1014	LM1214
Maximum shearing capacity, stainless steel	16 gauge/1.6 mm	18 gauge/1.25 mm	18 gauge/1.25 mm
Back gauge range	30 in./762 mm	30 in./762 mm	30 in./762 mm
Number of holddown feet	16	16	18
Dimensions, LxWxH	140 x 72 x 56 in. 3556 x 1829 x 1423 mm	143 x 69 x 56 in. 3632 x 1829 x 1423 mm	164 x 72 x 56 in. 4166 x 1829 x 1423 mm

Available options: Please consult a representative for a complete listing.

The LM Performance Package includes:

1. Five-foot squaring arm
2. Pair of front support arms
3. Air-operated sheet support system, F or R*

*"F" is a Front Return Material System via material tray located under the shear table. "R" is a Rear Return Material System.

LOW PROFILE SHEARS



MODELS
 LM1010
 LM1010-2x
 LM1210



Model LM1010

TENNSMITH's LM1010 is equipped with a standard "GO TO" 30-inch back gauge system. The ballscrew-driven back gauge provides quick, accurate cuts. The LM1010 is powered by a 12-1/2-hp gear motor attached to a mechanical linkage which provides smooth, quiet operation.

The LM1010 is rated at a maximum of 10-gauge material with a cutting width of 121 inches. To enhance productivity, optional equipment available for the machines include: five or ten-foot squaring arm, front support arms, light beam and protractor attachment. A rear drop sheet support system is available for the LM1010.

Additionally, the LM1010-2x is equipped with the popular 2x manual back gauge option. This allows the operator to move the backstop from 0 to 30 inches in approximately two seconds with

Low-Profile Mechanical Shears	LM1010	LM1010-2x	LM1210
Maximum shearing capacity, stainless steel	14 gauge/2.0 mm	14 gauge/2.0 mm	14 gauge/2.0 mm
Back gauge range	30 in./762 mm (Go-To)	30 in./762 mm (2x)	30 in./762 mm (Go-To)
Number of holddown feet	16	16	18
Dimensions, less gauges, LxWxH	145 x 39 x 59-1/2 in. 3683 x 991 x 1511 mm	145 x 39 x 59-1/2 in. 3683 x 991 x 1511 mm	169 x 39 x 60 in. 4293 x 991 x 1524 mm
Shipping weight	9,400 lbs./4272 kg	9,400 lbs./4272 kg	11,400 lbs./5182 kg

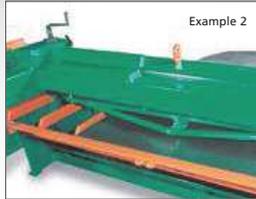
Available options: Please consult a representative for a complete listing.

only two rotations of the handle. An optional digital readout is available for this system.

manufactured in the USA at competitive prices.

TENNSMITH LM Series shears are quality

OPTIONAL SHEET SUPPORT SYSTEM



The optional sheet support system is recommended for gauging of thin material. With this air-powered support mechanism, one operator can effectively shear cumbersome, light-gauge stock. The sheet support system is available in two styles: **System F**, available on models LM1014 and LM1214, is a front return support which drops sheared parts to a front chute for easy retrieval; and support **System R** which drops sheared material to the rear of the machine.

Unlike competitive front return systems, with the LM Series Performance Package F, you can cut materials longer than the standard back gauge length by deactivating the sheet support.

Example 1 illustrates longer material being sheared by sliding material under the backstop. Most competitors are limited to 24" or 30," and longer pieces cannot be sheared like a TENNSMITH does.

Example 2 illustrates the sheet support system.



2X BACK GAUGE WITH DIGITAL READOUT

All MSE and LM models come standard with the unique 2x back-gauge system. The design of the 2x allows the operator to position the back stop from 0 to 30 inches with only two rotations of the handle. Speed of the 2x is unmatched with positioning speeds of only 2 seconds. With the combination

of the Optional Digital Readout for 2x Back-gauge System, the operator adds both speed and great accuracy to the job. The optional digital display shows measurements in 0.001" increments. Longer travel ranges are available by request.



STANDARD INDEPENDENT HOLDDOWNS

Independent, spring-loaded, self-leveling holddowns exert uniform pressure on a work piece, ensuring an accurate cut. The plungers have neoprene inserts to prevent marring the surface of the piece.

NOTE: Safety guard has been removed for photo purposes only.

MSE & LM SHEARS

Options



OPTIONAL SQUARING ARM

The optional five-foot squaring arm is a precision gauge, which can be mounted left or right and has inlaid inch/metric scaling and adjustable guide block. Also available in ten and twelve-foot lengths. A toggle on the block lets sheet stock slide underneath, then pivots to the stop position.



OPTIONAL GO-TO BACK GAUGE SYSTEM

The optional Go-To back-gauge system features a twin ball screw design which provides accuracy and repeatability. The standard travel range is 30-inches, longer travels are available. The back-gauge is powered by a 3/4 -hp gear motor and operated by a Go-To control system. Models LM1010 and LM1210 are standard with this system.

MORE OPTIONS AVAILABLE

- Five-foot squaring arm
- 10-foot squaring arm
- Front support arms
- T-slotted table — Supports arms with Inlaid Inch/Metric Scales
- Material cart (MSE1016 and LM1014)
- Stroke counter
- Protractor for angled cuts
- Go-To ball screw driven back gauge
- High speed motors for increased cutting cycles
- Air-operated sheet support system (Front or Rear return)
- Performance packages

AUTOMATIC FOLDERS

SBS
series

MODELS
SBS12614
SBS15016



Model SBS12614

SBS Series Folders	SBS12614	SBS15016
Bending capacity, mild steel	14 gauge/2.0 mm	16 gauge/1.5mm
Bending capacity, stainless steel	16 gauge/1.5 mm	18 gauge/1.25 mm
Bending length	126 in. /3200 mm	150 in./3800 mm
Back gauge depth	40 in. /1016 mm	60 in./1524 mm
Clamping beam opening height	7 in./178 mm	7 in./178 mm
Folding beam adjustment	1 in./25 mm	1 in./25 mm
Working height	34 in./864 mm	34 in./864 mm
Dimensions, LxWxH	180 x 96 x 72 in. 4572 x 203 x 1829 mm	204 x 96 x 72 in. 5182 x 203 x 1829 mm
Machine weight	9,020 lbs.	10,180 lbs.
Shipping weight	9,885 lbs.	11,195 lbs.
Back gauge motor	¾ hp	¾ hp
Clamping beam motor	2 hp	3 hp
Bending beam motor	2 + 2 hp	2 + 2 hp



Contact Great Lakes Machine & Tool Co. for a detailed brochure on SBS Automatic Folders



AUTOMATIC FOLDERS

MODELS
SBS12614
SBS15016

SBS
series



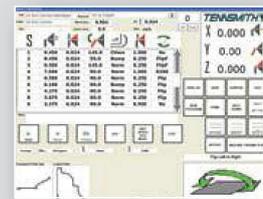
All drive systems are controlled by frequency inverters, a feature that gives the SBS Series folders exceptional accuracy.

Center motor placement maximizes power while reducing torque loss through the drive shaft.

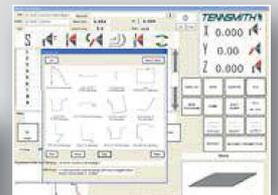
Twin motor drives for the folding contribute both speed and a high degree of accuracy.

Adjustable base panels enable the SBS Series to create an intricate and endless range of finished pieces.

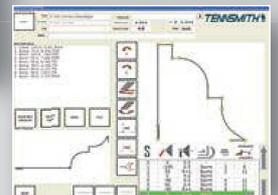
SBS Series speeds	SBS12614	SBS15016
Clamping beam speed	2.5" per second	2.0" per second
Folding beam speed	90 degrees per second	90 degrees per second
Back gauge speed (0.375" to 40")	7 seconds	7 seconds



Run Screen



Saved Profile Screen



Graphic screen



MODELS
 SR24
 SR36
 SR42



MODEL SR36
 Shown with optional stand.



MODEL SR36
 Shown with optional stand.

SR Series slip rolls	SR24	SR36	SR42
Maximum forming length	24 in./610 mm	36 in./914 mm	42 in./1067 mm
Minimum forming radius	1 in./0.25 mm	1 in./0.25 mm	1 in./0.25 mm
Dimensions LxWxH			

Available option: Heavy-duty fabricated floor stand.



MODEL SR48
Shown with optional stand



Model SR48P

MODELS
SR324
SR336
SR342
SR48
SR48P



SR Series slip rolls	SR324	SR336	SR342	SR48	SR48P
Maximum forming length	24 in./610 mm	36 in./914 mm	42 in./1067 mm	49 in./1244 mm	49 in./1244 mm
Minimum forming radius	1 in./0.25 mm	1 in./0.25 mm	1 in./0.25 mm	1-1/2 in./0.38mm	1-1/2 in./38 mm
Gearing ratio	n/a	Direct drive	Direct drive	4 : 1	4 : 1
Motor-230/640v, 3-phase, 60Hz	n/a	n/a	n/a	n/a	3/4 hp
Shipping weight	215 lbs./98 kg	275 lbs./125 kg	295 lbs./134 kg	1100 lbs./500 kg	1100 lbs./499 kg

ROTARY MACHINES

manual series



MODELS
R22
R24



Model R24



Model R22

Manual Rotary Machine	R24
Throat	n/a
Shipping weight	35 lbs./15.7 kg
Roll Chart – R24	
Roll Diagram	Type
	Ogee Beading

Manual Rotary Machine		R22	
Throat		7 in./177 mm	
Shipping weight		67 lbs./30 kg	
Roll Chart – R22			
Name	Part Number	Roll Diagram	Type
"C"	22106/22107		Burring
"E"	22110/22111		Crimping
"G"	22115/22116		Single Beading



Model PR16

POWER ROTARY

MODEL
PR16

power
series



Power Rotary Machine	PR16
Capacity, stainless steel	20 gauge/1.0 mm
Distance, shaft center to center	2.5 in./63.5 mm
Working speed variable	3 to 45 rpm
Shipping weight	350 lbs./159 kg

Roll Chart – PR16	
Roll Diagram	Type
	Flange
	Offset
	Burring
	Crimping
	Single Beading

NOTCHER, CLEAT & CHEEK BENDERS

manual tools



MODELS

18
24
30
DS24-20
16-18

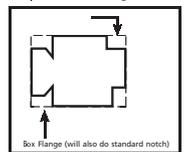
Model 24 Cleat Bender
Shown with optional stand.



Model DS24-20 Cheek Bender



Optional Box Flange Blade



Box Flange (will also do standard notch)

Optional box flange blades are available for the reinforced box, pan and chassis corners. Front gauges and large surface, ground work table with inlaid scales are standard features.

Cleat benders	Model 18	Model 24	Model 30
Maximum bending	18 in./457 mm	24 in./610 mm	30 in./762 mm
Dimensions, handles removed, LxWxH	25-1/2 x 12-1/2 x 12-1/2 in. 648 x 317.5 x 317.5 mm	32 x 10 x 11 in. 813 x 254 x 280 mm	38 x 10 x 11-1/2 in. 965 x 254 x 292 mm

Available option: Heavy-duty fabricated stand.

TENNSMITH's cleat benders are manually operated tools that form uniform drive cleat edges on rectangular duct work in seconds without set-up or adjustment. The upper handle forms the cleat and the lower handle opens the tool for easy removal of the material. Heavy cast iron and fabricated steel construction provides long life and trouble-free operation. A TENNSMITH cleat bender can save you time and money.

TENNSMITH's cheek bender is a rugged tool built for increased productivity while getting the most consistent bends quickly. Model DS24-20's two-way trunnion design holds the bending apron steady at the base of the bend ensuring accuracy throughout the length of the sheet.

This machine can be bench-mounted and adjusts for bends of 1/4 to 7/8 inches, 24 inches long.

TENNSMITH's cheek bender handles mild steel to 20-gauge.

The TENNSMITH notcher, Model 16-18, is a versatile, heavy-duty bench tool for shearing, notching and piercing work. The heavy cast iron construction allows the notcher to be used to side shear six inches of material to its rated capacity; and the throat behind the upper ram is beveled on one side to permit long strips of material to pass without restriction.

Notches of more than 90 degrees can be accomplished in two operations. The upper blades can be reversed for a "nose to heel" cutting action; and the ram stroke can be controlled by means of two set screws to permit limited throat piercing and knockout operations.

Cheek bender	DS24-20
Maximum bending	24 in./610 mm
Dimensions, handles removed, LxWxH	31 x 8-1/4 x 2-3/4 in. 788 x 216 x 70 mm

Notcher	Model 16-18
Maximum capacity piercing, mild steel	18 gauge/1.25 mm
Dimensions, handles removed, LxWxH	19 x 18 x 15 in. 238 x 257 x 381 mm

Available options: Tab blades and heavy-duty fabricated stand.

GENERAL INFORMATION

Approximate Shearing, Bending and Forming Capacities for Various Materials Compared to Mild Steel								
Mild Steel Capacity	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	10 Ga.
FERROUS METALS								
Iron – dead soft	————— Same as Mild Steel —————							
Steel – low carbon H.R.	————— Same as Mild Steel —————							
Steel – low carbon C.R.	————— Same as Mild Steel —————							
Steel – 40-50% carbon H.R.	28 Ga.	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.
Steel – 1074, 1095 C.R. annealed spring steel	28 Ga.	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.
Steel – low carbon C.R. HARD	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.
Stainless – annealed	28 Ga.	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.
NON-FERROUS METALS								
Aluminum – 1100-0, 2024-0, 3004-0, 5052-0, 5052-H32, 6061-T4, 6061-0, 6063-0, 6063-T4, 7075-0	.050	.060	.070	.090	.125	.150	.200	.3125
Aluminum – 2011-T3, 2014-T4, 2024-T3, 5086-H36, 6061-T6	.030	.036	.048	.063	.090	.105	.125	.150
Aluminum – 2014-T6, 7075-T4, 7075-T6	.015	.018	.024	.030	.036	.048	.060	.075
Copper – electrolytic	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	10 Ga.	8 Ga.
Bronze – commercial	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	10 Ga.	8 Ga.
Brass 70-30	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	10 Ga.	8 Ga.
Nickel alloys – inconel 600, monel R405, nickel 200A annealed	28 Ga.	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.
Zinc – as rolled	————— Same as Mild Steel —————							
PLASTICS								
ABS compounds	.060	.090	.120	.150	.200	.225	.250	.3125
Polycarbonate	.048	.063	.075	.125	.125	.156	.188	.200
PRINTED CIRCUIT BOARDS								
Copper-clad epoxy laminate	.058	.072	.086	.115	.150	.200	.250	.3125

Approximate Gauge Equivalents											
Gauge	28 Ga.	26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	11 Ga.	10 Ga.
inches	.015	.018	.024	.030	.036	.048	.060	.075	.105	.120	.135
mm	.38	.46	.61	.76	1.00	1.25	1.60	2.00	2.70	3.05	3.50

3-YEAR LIMITED WARRANTY



Great Lakes Machine & Tool Company
P.O. Box 15 Avon Lake, OH 44012
800-758-295 Fax 440-933-4385
info@grlakesmachinetool.com

**OTHER APPLICATIONS FOR
TENNSMITH MACHINERY**

