HOSSFELD UNIVERSAL® MODEL NO. 2 BENDER

PARTS CATALOG NO. 100

Model No. 2 Bender with 49400 Standard H60 Hydraulic Attachment

www.hossfeldbender.com

This catalog applies only to Benders with the serial number beginning with the letter "B". The letter "B" in front of the serial number indicates the No. 2 Bender. If the serial number does **NOT** show a letter "B", the machine is the smaller No. 1 Bender. ***Parts ordered from this list will not fit the smaller Model No. 1 Bender.***

CONTENTS

BENDER 3

Basic Bender 3-4

Add-On Toolsets 5-6

School Bender 7

HYDRAULIC POWER 8-11

BENDER TOOLING AND DIES 12

OD Tube 13-17

Pipe 18-20

Electro Metallic Tube 21

Rigid Electrical Conduit 22

Flat and Bar Stock 23-31

Square Tube 32-36

Rectangular Tube 37

Angle Iron 38-42

Handrail Cap 43-45

Structural Forms 46

Scrolls 47

GLOSSARY

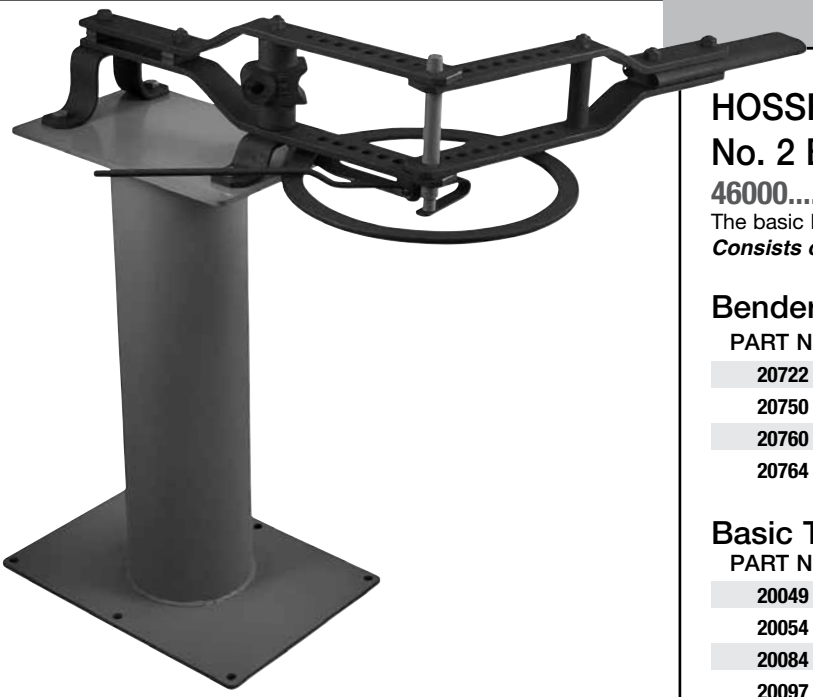
Throughout this catalog, we recommend the use of only the following types of stock. Other stock may be bent, however you should send us a sample for test bends. These specifications are what we tested on our dies to provide the most accurate radius measurements taking springback into account. To get the radius you want, use these tested material types.
These are guidelines. Other materials may be bent.

Stock Type:	Refers To:
Round OD Tube	Electric Resistance Welded (ERW), Cold Drawn Over Mandrel (DOM), Mechanical ASTM 1020 Hot Rolled Mild Steel (HRMS) Tube
Schedule 40 Pipe (American)	ASTM A53, Type F, Grade 1020, 45,000 psi Tensile Strength Steel
EMT	Trade Sizes of Electro Metallic Tube AKA "Thin-Wall Conduit"
Rigid Conduit	Trade Sizes of Rigid Electrical Conduit
Flat	ASTM A36 Hot Rolled Mild Steel (HRMS)
Bar	ASTM A36 Hot Rolled Mild Steel (HRMS)
Square Tube	ASTM Grade 1010 Mechanical Steel Tube
Rectangular Tube	ASTM A513 Low Carbon Mechanical Steel Tube
Angle Iron	ASTM A36 Hot Rolled Mild Steel (HRMS)
Handrail	Trade Sizes of Handrail Cap and Handrail Cap with Assembled Structural Channel

ASTM — American Society for Testing Materials

NO. 2 BASIC BENDER

The HOSSFELD UNIVERSAL® Model No. 2 Bender isn't just a bender – it's the heart of a complete METAL FORMING SYSTEM!



HOSSFELD UNIVERSAL® Model No. 2 Bender

46000..... 118 lbs Gross Weight

The basic Bender frame comes fully assembled.

Consists of the following components:

Bender

PART NO.	DESCRIPTION
20722	Main Frame Assembly
20750	Swinging Frame Assembly
20760	28B5 Hand Lever
20764	28B7 Hand Lever Pin

Basic Tooling

PART NO.	DESCRIPTION
20049	9B Flat-Surface Roller
20054	11B Square Block (2)
20084	17B Flat-Head Pin
20097	19B U-Pin
20098	19B4 U-Pin w/Lug
20105	20B Center Pin (for 3/4", 7/8", & 1" Eyes)
20691	22B Support Plug
20711	25B Sliding Gauge Adjusting Block
20713	25B1 Sliding Gauge Extension Rod
20721	27B Circle Stop Gauge
42015	Instruction Manual

Pedestal Stand (shown)

20768..... 140 lbs Gross Weight

Our most popular support for the basic Bender. (Bender can also be mounted directly on a workbench.) Pedestal-mounted Benders can be used for either manual bending or hydraulic bending.

Start Your METAL FORMING SYSTEM With The Model No. 2 Basic Bender

Versatile:

1000s of dies – Bend everything from standard Tube and Pipe to Bar, Flat, Angle Iron, Rigid Conduit, Re-Bar, Handrail and more – U-Bends, 90° Bends, Edge Bends, Square Bends, Rings, Eyes, Scrolls and more.

Powerful:

Bend Tube and Pipe up to 2" – Bar up to 1-1/4" – Square up to 1-1/2" – Edgebend Flat up to 1/2" thick – Unique Bender design uses leverage not brute force, so heavy-duty bends are no problem.

No Assembly Required:

Bender arrives fully assembled and trued – Connect Main Frame and Swinging Frame with a single pin – Just unpack it, mount it, and start using it!

Fully Operable:

Bender comes with basic tooling for making standard bends in Flat and Bar – Start bending right out of-the-box! Add pre-packaged Tool Sets to boost your functionality – Expand your shop with tooling for specific jobs.

Rugged:

This simple, rugged machine will stand years of use.

Easy To Use:

Set-ups are quick and easy with NO TOOLS! – Dies are fitted by moving a few pins.

Production Bending:

Ideal for single bends or large quantities – Make repeat bends easily and accurately – Lower costs on standard dies for common jobs.

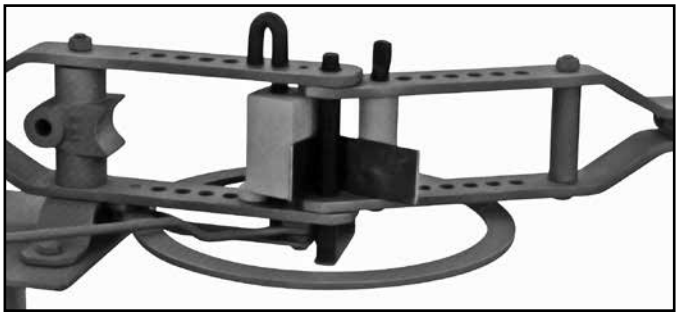
Add Hydraulic Power:

Easy-to-add – Powerful 1000 psi hydraulic pump – Use hydraulic power for all your jobs.

Stock	Maximum Capacity
Round or Square Bar	Up to 1-1/4" dia.
Flat Stock	Up to 1/2" x 4-1/2"

Basic Tooling for Angles, U-Bends, or Offsets in Flat or Bar Stock

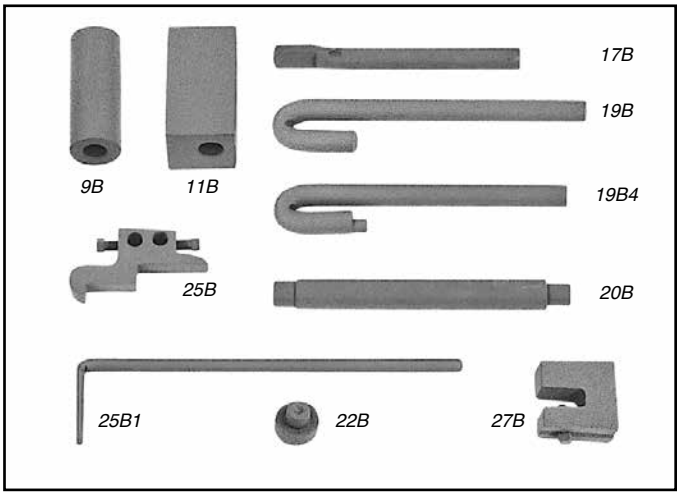
The **46000 No. 2 Bender** is a fully operable machine for making simple, accurate bends right-out-of-the-box. Instruction Manual provides complete instructions for setting up your bender to make basic bends–bend angles, U-bends, irregular shapes, or any offset in Round or Square Bar or Flat stock using the included **9B Flat-Surface Roller, 11B Square Blocks,** and **Pins**. Basic tooling also includes **Gauges** to let you accurately locate the point of the bend and gauge the degree of angle desired. Tooling included with the basic bender package is used with other tooling and dies (purchased separately). ***Order extra parts below.***



11B Block and 9B Roller bending 1/4" x 2-1/2" Flat Stock to a right angle

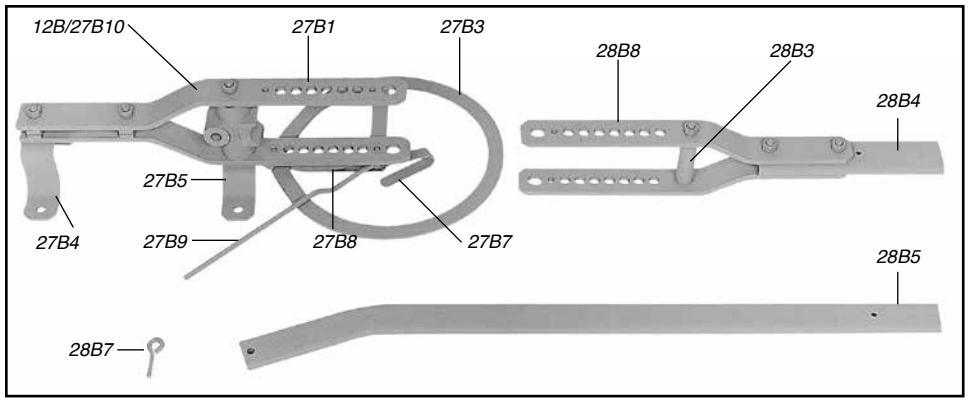
Basic Tooling

PART NO.	DESCRIPTION
20049	9B Flat-Surface Roller
20054	11B Square Block
20084	17B Flat-Head Pin
20097	19B U-Pin
20098	19B4 U-Pin w/Lug
20105	20B Center Pin (for 3/4", 7/8", & 1" Eyes)
20691	22B Support Plug
20711	25B Sliding Gauge
20713	25B1 Sliding Gauge Extension Rod
20721	27B Circle Gauge (Stop Gauge)



Replacement Parts

The **46000 No. 2 Bender** comes with a Limited Warranty for repair/replacement of defective parts for one year.
For Benders no longer under warranty, ***order replacement parts below.***



Main Frame Assembly

PART NO.	DESCRIPTION
20722	27B1 Main Frame Assembly, Complete
20731	27B3 Main Frame Circle Assembly
20737	27B4 Large MF Foot
20739	27B5 Small MF Foot
20741	27B7 MF Center Pin Support Plate
20742	27B8 MF U-Pin Support Plate
20744	27B9 MF Circle Rod for 25B Sliding Gauge
20059	12B Oscillating Block
20746	27B10 Bushing for 12B Oscillating Block

Swinging Frame Assembly

PART NO.	DESCRIPTION
20750	28B8 Swinging Frame Assembly, Complete
20756	28B3 Spacer
20757	28B4 Hand Lever Socket w/Filler
20760	28B5 Swinging Frame Hand Lever
20764	28B7 Swinging Frame Hand Lever Pin

Follow all recommendations for the minimum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.

Add Basic Tooling in Convenient Sets

The **46000 No. 2 Bender** package is a fully operable machine for simple, basic bends. In addition, we offer several **Basic Tooling Sets** that will expand the Bender's capabilities with easy-to-add tooling. These prepackaged sets contain form dies and blocks that we've found are the most popular and widely used for each type of bending. ***For complete descriptions, and for our full range of tooling for all stock sizes, turn to the listed sections.***

Pipe Dies

PART NO.	DESCRIPTION	SIZE
20075	15B Pipe Die	1/4", 3/8" & 1/2" P
20072	14B Pipe Die	3/4" & 1" P
20069	13B8 Pipe Die	1-1/4" P
20067	13B6 Pipe Die	1-1/2" P
20065	13B4 Pipe Die	2" P

Rollers

PART NO.	DESCRIPTION
20076	15B2 V-Grooved Roller for 15B, 14B, 13B8
20068	13B7 Roller for 13B6
20066	13B5 Roller for 13B4

Pipe

General Purpose Toolset for Bending Pipe

46001..... 44 lbs Gross Weight

These dies let you bend several sizes in Pipe with each setup. They may be a cost-effective solution for fabrication-type jobs when you need to bend angles, offsets, and return bends for several jobs – they let you choose your task and quickly set up the bender to fabricate several different parts. Bend all sizes of standard Pipe and Rigid Conduit. Form smooth, even radius bends without flattening the pipe or splitting the seam. Bend to any degree or to a continuous coil, as desired. ***Order the complete set or individual parts, as needed. Includes the following parts:***

For a complete description, see pg. 18 in the Pipe Section

U-Bends

PART NO.	DESCRIPTION	SIZE
20045	7B Cam Die	1-3/4"
20046	8B Cam Die	2"
20047	8B2 Cam Die	2-1/4"

Rings, Eyes

PART NO.	DESCRIPTION
20078	16B Eye-Bolt Bending Dog
20085	17B3 Offset Flat-Head Pin
20091	18B Eye Pin
20222	20B5 Center Pin (for 1/2", 5/8" & 1" Eyes)
20685	21B U-Pin Roller
20705	24B Thumb Nut (2)

Square Bends

PART NO.	DESCRIPTION
20697	23B Yoke
20717	26B Sharp Square Bending Block

Flat and Bar Stock

General Purpose Toolset for Bending Bar

46002..... 28 lbs Gross Weight

These tools let you bend "S" shapes, "U" shapes, Sharp Square Bends, Eye Bolts, Rings, Coils and more in Flat and Bar Stock. Like the General Purpose Toolset for Pipe, the General Purpose Toolset for Bar offers a cost-effective way to get a complete setup for making several types of bends in Flat or Bar.
Order the complete set or individual parts, as needed. Includes the following parts:

For a complete description, see pg. 23 in the Flat and Bar Stock Section

51B2 Edgebend Die Set

20949..... 9 lbs Gross Weight

Edgebend Flat stock "The Hard Way" with this special die that grips stock tight to maintain flatness. Die must be used with No. 20987 **50B Outbend Master Die**, No.'s 21036-21061 **52B Inner Radius Blocks** and No.'s 20940-20946 **51B3 Spacer Sets.**

For a complete description, see pg. 30 in the Flat and Bar Stock Section

PART NO.	DESCRIPTION
20954	51B2-1 Edgebend Die
20983	51B4 Edgebend Pin (2)

60B "Bulldozer" Die Set

21100..... 10 lbs Gross Weight

Form Square Bends or Round Bends in light Flat and Bar Stock including closed rings and intricate wire bends.

For a complete description, see pg. 27 in the Flat and Bar Stock Section

PART NO.	DESCRIPTION
21104	60B2 Bulldozer Die
21101	60B1 Bulldozer Center Pin
21078	53B Wrist Pin

Vertical Leg Inside Radius (IR) – Radius bends in Angle Iron are measured from the center of the bend to the inside of the Vertical Leg.
Center Line Radius (CLR) – Radius bends in Rigid Conduit and Pipe are measured from the center of the Form Die to the center of the Stock.

Angle Iron

General Purpose Toolset for Bending Angle Iron, Leg-In

20780..... 108 lbs Gross Weight

This set will let you bend several popular radius sizes with one conveniently priced package. Includes a Master Die for all bends and dies for the following radius sizes:
5", 6" 7", 9", 12", 15", 18", 24", 30", 36".

Master Die

PART NO.	DESCRIPTION
20781	30B Inbend Master Die Assembly

General Purpose Toolset for Bending Angle Iron, Leg-Out

20986..... 162 lbs Gross Weight

This set will let you bend several popular radius sizes with one conveniently priced package. Includes a Master Die for all bends and inner and outer dies for the following radius sizes:
5", 6" 7", 9", 12", 15", 18", 24", 30", 36".

Master Die

PART NO.	DESCRIPTION
20987	50B Outbend Master Die
21078	53B Wrist Pin

31B Outer Radius Blocks

PART NO.	IR	PART NO.	IR
20800	5"	20811	15"
20802	6"	20814	18"
20803	7"	20820	24"
20805	9"	20826	30"
20808	12"	20829	36"

For complete descriptions, see pgs. 38-39 in the Angle Iron Section

51B Outer Radius Blocks

PART NO.	IR	PART NO.	IR
20993	5"	21010	15"
20995	6"	21012	18"
20997	7"	21015	24"
21001	9"	21018	30"
21007	12"	21020	36"

52B Inner Radius Blocks (Dual Working Faces)

PART NO.	IR	PART NO.	IR
21039	5" / 7"	21049	18" / 24"
21040	6" / 9"	21054	30" / 36"
21046	12" / 15"		

Rigid Conduit

Set of 90° Rigid Conduit Dies

20896..... 85 lbs Gross Weight

Contains our complete set of 90° Form Dies for bending Rigid Electrical Conduit, or Schedule 40 American Pipe in Standard Pipe Sizes, up to 90° in "one pull." Make radius bends in sizes 1-1/4", 1-3/4", 3", 4", 5", and 6".

Rollers

PART NO.	DESCRIPTION
20076	15B2 Roller
20068	13B7 Roller (for 1-1/2" P)

90° Form Dies

PART NO.	DESCRIPTION	SIZE	CLR
20897	40B Form Die	3/8" P	1-1/4"
20903	41B Form Die	1/2" P	1-3/4"
20908	42B Form Die	1/2" P	3"
20913	43B Form Die	3/4" P	4"
20918	44B Form Die	1" P	5"
20923	45B Form Die w/Back Block	1-1/4" P	6"
20928	46B Form Die w/Back Block	1-1/2" P	6"

For a complete description, see pg. 22 in the Rigid Conduit Section

Scrolls

Set of Scroll Forming Dies

21221..... 27 lbs Gross Weight

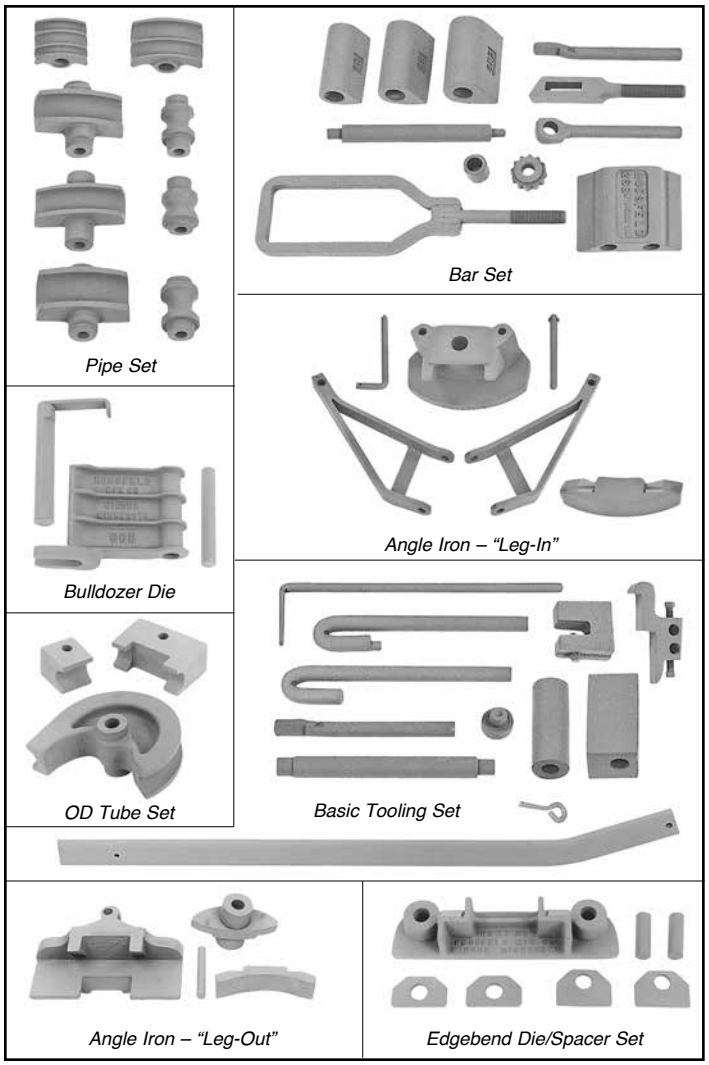
A convenient package containing three of our most popular scroll dies for bending smooth, uniform 2-1/2", 4", and 5" diameter single-turn scrolls and 6-1/2" and 8" diameter 1-1/2-turn scrolls right on the Bender. These versatile dies can be mounted directly on the Main Frame arm, or they can be used in a standalone scroll bender frame, sold separately, which can be mounted in a vise on your workbench.

PART NO.	DESCRIPTION
21218	64B Scroll Die, 2-1/2" Dia. Single-turn
21219	65B Scroll Dies for 4" Dia. Single-turn & 6-1/2" Dia. 1-1/2-turn (w/Assembling Pin)
21220	66B Scroll Dies for 5" Dia. Single-turn & 8" Dia. 1-1/2-turn (w/Assembling Pin)

For a complete description, see pg. 47 in the Scrolls Section

Safety Note: Hydraulic Power is recommended when bending the following sizes: 1-1/4" – 2" OD Tube, 1" – 2" Schedule 40 Pipe, and other heavy material.

The HOSSFELD UNIVERSAL® SCHOOL BENDER is sold with a set of basic tooling sizes. Additional tooling sold separately.



HOSSFELD UNIVERSAL® Model No. 2 School Bender with Pedestal Stand

46025..... 477 lbs Gross Weight

One Versatile Bender For All Bending Problems

The **HOSSFELD UNIVERSAL® SCHOOL BENDER** is ideal for Schools, Vocational Schools, Universities or shops who want a bender equipped with the most useful standard sizes of tooling at one price. The School Bender consists of a **Model No. 2 Bender** and a comprehensive set of tooling that will let you and your students perform most standard bends. The unusual versatility and capacity of the HOSSFELD UNIVERSAL® Bender make it the ideal machine for school shop instruction and use. This one tool with the standard dies will produce a wide variety of bends on various materials: sharp, square bends on Round, Square or Flat stock; radius bends to practically any size and on practically any material such as Bar or Flat stock, Pipe or Tube, Angle Iron and Handrail Cap; Scrolls, Lambs' Tongues and Volutes for ornamental work.* With minimum practice, your students can turn out professional looking work. At the same time, they will be learning the fundamentals of metal forming, its advantages and limitations, through actual experience.

The only tool that offers the capacity and variety of bending operations in one machine is the HOSSFELD UNIVERSAL® Bender.
Call for additional details on School Bender package.

* Additional tooling may be necessary for some of these bends.

46025 School Bender consists of the following:

PART NO.	DESCRIPTION	JOB	CAPACITY
46000	**HOSSFELD UNIVERSAL® Model No. 2 Bender**		
20768	**Pedestal Stand**		
42015	**Instruction Manual**		
46001	**General Purpose Toolset for Bending Pipe**	**Cold-Bend Schedule 40 Pipe**	**1/4" – 2" Pipe**
46002	**General Purpose Toolset for Bending Bar**	**Cold-Bend Hot Rolled Low Carbon Steel Bar Stock (AISI 1020)**	**Various Sizes, Flat and Bar**
21100	**60B Bulldozer Die Set**	**Make closed Eyes and sharp bends in Flat Stock**	**3/16" x 4-1/2" Flat**
20779	**School Toolset for Bending Angle Iron, Leg-In**	**Includes 30B Master Die Assembly and 31B 15" Inner Radius Block**	**3/16" x 2" x 2"**
20985	**School Toolset for Bending Angle Iron, Leg-Out**	**Includes: 50B Master Die Assembly and 5", 7", 18" and 24" 51B Outer/52B Inner Radius Block Sets**	**3/16" x 2" x 2"**
22589	**180° OD Tube Die Set**	**3/4" OD x 2" CLR**	**.065" Wall or heavier 3/4" OD**
21218	**64B Scroll Die, 2-1/2" Dia. Single-turn**	**Bend Single-turn 2-1/2" Scrolls in Flat and Bar stock**	**3/16" x 3/4" Flat**
20949	**51B2 Edgebend Die Set**	**Edgebend Flat Bar stock. Use with 50B Outbend Master Die and 52B Inner Radius Blocks, 5"/7" and 18"/24", included**	**3/8" x 1-3/4"**
20942	**51B3 Edgebend Spacer Set, 1/4" thick**	**Adjust Edgebend Die for narrow or wide stock**	

Stock	Hydraulic Power Recommended
OD Tube	1-1/4" through 2" OD
Pipe	1" through 2" ID
Flat	1/2"
Round or Square Bar	3/4" through 1-1/4" dia.
Square Tube	1" through 1-1/2"
Rectangular Tube	All sizes
Angle Iron	1/8" x 1-1/2" x 1-1/2" through 3/16" x 2" x 2"
Handrail	with assembled channel

H60 Hydraulic Pump

Short-run production bends and heavy bends are easy with this state-of-the-art hydraulic pump – the only hydraulic attachment you'll ever need for the **HOSSFELD UNIVERSAL® MODEL NO. 2 Bender.**

Power & Control:

With hydraulic-equipped bender and foot-control, complete bends faster, with less work – and gauge degree of bend better – than with manual bending. Double-action cylinder puts 1000 psi of hydraulic assist onto the Swinging Frame – Bend 2" Pipe or Tube up to 360°. At the touch of your foot, cylinder returns Swinging Frame to start position while you reset stock for additional bending.

Safe:

Safe design lets you control hydraulic action when YOU want – Hydraulic pump runs continuously when power unit is ON, giving you fast response, but you Start/ Stop the hydraulic action – Foot Switch controls flow of hydraulic fluid to cylinder – Removing foot from switch IMMEDIATELY stops flow of hydraulic fluid – INSTANTLY stops movement of Swinging Frame.

Uses Less Force:

Bender's unique design lets you operate safely – Rotating Swing Arm uses leverage to get the job done – More leverage means you can use less force – Hydraulic pump uses lower PSI than other hydraulic systems – with the same results!

Compare Our Speed:

Bend 2" Pipe to 90° (6" radius) in under 45 seconds – Bend 2" Pipe to 180° in under 2 minutes – depending on skill of operator – Fast retraction – from full extend to full retract in approximately 10 seconds.

Production Bending:

Limit switch attaches to bending circle – stops bender at precision point every time – great for making repeated production bends!

Easy To Use:

Switching back and forth between manual and power operation is easy – Hydraulic Cylinder connects to Swinging Frame with single pin.

Take a look at these features –

- 1000 PSI – Bender's unique design lets you bend with less force
- Pumps 453 cu. in. of oil per minute (approx. 2 gallons)
- Designed to operate on a 15 amp circuit
- Precision limit switch attachment for identical, repeated bends
- Foot control allows use of both hands while bending – you're free to control the stock as you bend
- 10-foot cord allows for foot operation in any position around bender
- Foot switch is rated for over 1 million cycles – includes OSHA-approved guard designed to protect your foot when on the pedal
- Separate extend/retract pedals let you control bend at all times
- Foot guard is large enough to accept steel-toed boots
- Liquid-filled pressure gauge allows for easy pressure reading
- Large adjustment knob allows for easy pressure adjustment control–even with gloves on
- State-of-the-art pressure-balanced gear pump provides greater efficiency and quiet operation
- New SAFE straight thread porting and only two hose connections helps reduce possibility of leaks on hydraulic unit

SAFE WORKING CAPACITY OF HYDRAULIC POWER EQUIPMENT.

The 49405 H60 Hydraulic Power Unit is covered by a 1-year limited warranty. It is factory precision adjusted at a maximum pressure of 1000 pounds per square inch. Operation of the Power Unit at a hydraulic pressure greater than 1000 pounds per square inch will exceed the design working capacity of the machine and its bending tools. This could be dangerous to the operator and will void the warranty. Only the 49405 H60 Hydraulic Pump and other hydraulic packages supplied by us are authorized for use with the HOSSFELD UNIVERSAL® MODEL NO. 2 BENDER; use of other hydraulic units may void applicable warranties.

Use Hydraulic Power For ALL Your Bending Needs

We offer packages with everything you need for hydraulic bending including the H60 Hydraulic Pump, Hydraulic Cylinder & Hoses, and Conversion Kit to convert your Model No. 2 Bender. **We recommend using hydraulic power for heavier stock**. However it can be used for ALL bending applications–most of the bends shown in this catalog, from light to heavy stock, can be made with the hydraulic power attachment.

Making Production Runs

The Hydraulic Attachment lets you make precision bends using a Limit Switch attached to the Main Frame circle. This Limit Switch operates a solenoid valve on the hydraulic power unit controlling the flow of hydraulic fluid to the hydraulic cylinder. When the rotating swinging frame contacts the Limit Switch, it halts the flow of hydraulic fluid and stops a hydraulically-powered bend at a precise set point. The precision-control Limit Switch lets you make repeated identical bends in a production environment.

- To start a bend with a piece of stock in place, apply hydraulic assist to the swinging frame by pressing the EXTEND foot switch.
- When the swinging frame contacts the limit switch, the solenoid valve stops the flow of hydraulic fluid to the cylinder. The swinging frame instantly stops at the preset degree of bend, and the solenoid valve directs the hydraulic fluid back into the storage tank.
- Pressing the RETRACT pedal returns the swinging frame to the starting point. You can them remove the bent stock from the bender and set a new piece in place.
- Repeating the process with a new piece of stock will produce an identical bend whose variance depends only on the variance of the mechanical properties of the piece of stock being bent.

Give special attention to the following when setting up a job to bend a batch of precision parts with the Hydraulic Power Attachment:

- The exact degree of the bend – its precision – will depend on the position of the Limit Switch along the gauge circle. Use trial and adjustment to place the Limit Switch.
- The bent piece of stock will *spring-back* somewhat when the hydraulic cylinder is retracted and the stock is removed from the bender.
- Bending a production batch to a specified tolerance depends on the uniformity of the mechanical properties of your bending stock. In the extreme example, even pieces cut from different parts of the same length of stock might vary significantly in their amount of spring-back. Establish an inspection routine that will minimize rejects.

46000 Model No. 2 Bender with 49400 Standard H60 Hydraulic Package

Standard H60 Hydraulic Package

49400 ..... 176 lbs Gross Weight

Our best value–this hydraulic package includes everything you need to use hydraulic power for most applications. Includes: H60 Hydraulic Power Unit, double-action hydraulic cylinder, hoses, foot switch, and conversion kit to convert the Model No. 2 Bender for use with hydraulic power. Bend offsets, angles, return bends, or 360° circles with most tooling, as appropriate. Package does not include **"L-Type" Swinging Frame***. Purchase **H60 L-Frame Hydraulic Package** below, or add "L-Type" Swinging Frame when you're ready to upgrade. (Sold separately on pg. 11).

PART NO.	DESCRIPTION
49405	H60 Hydraulic Pump with Hoses and Foot Switch
49126	H4 Hydraulic Cylinder Assembly
49350	Hydraulic Conversion Hardware Set

H60 L-Frame Hydraulic Package

49401 ..... 219 lbs Gross Weight

This package includes the **"L-Type" Swinging Frame*** in addition to standard components: H60 Hydraulic Power Unit, hydraulic cylinder, hoses, foot switch, and conversion kit. Use L-Type Swinging Frame in place of the Standard Swinging Frame to bend a full 180° with 180° Wrap-Around Tube and Pipe Dies.

PART NO.	DESCRIPTION
49405	H60 Hydraulic Pump with Hoses and Foot Switch
49126	H4 Hydraulic Cylinder Assembly
49350	Hydraulic Conversion Hardware Set
49270	H52 "L-Type" Swinging Frame

* L-Type Swinging Frame needed to bend between 90°-180° using Wrap-Around-Style Tube and Pipe Dies, sold on pgs. 13-15 and 19.

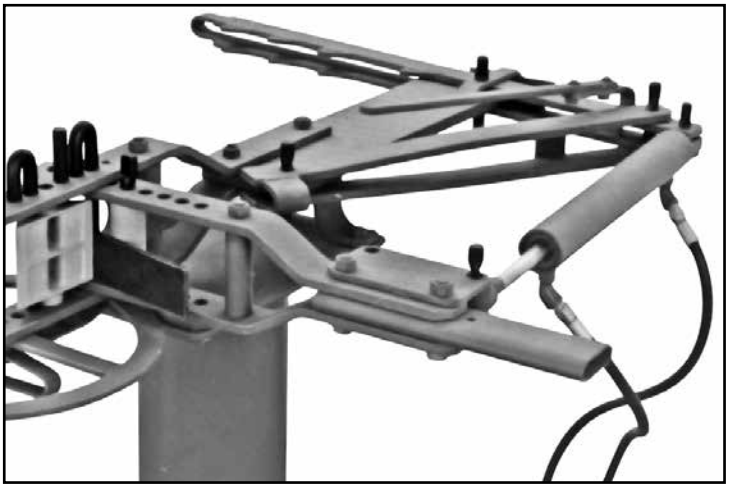
Only the 49405 H60 Hydraulic Pump and hydraulic packages supplied by us are authorized for use with the HOSSFELD UNIVERSAL® Model No. 2 Bender; use of other hydraulic units may void applicable warranties.

Hydraulic Components

H60 Hydraulic Pump with Hoses and Foot Control

49405 ..... 75 lbs Gross Weight

Unit is self-contained and fully electronically controlled. Includes single phase, 1HP, 115/230V, 60Hz motor, hydraulic reservoir, limit switch, 2 hoses, and separate electric foot switch to control the action. Extend/retract pedals keep the movement of the hydraulic arm in your control. Limit switch attaches anywhere along bending circle to stop Swinging Arm instantly at a pre-set point. (Shown on pg. 8)



Sharp Square Bending Block forms sharp square bend on wide flat stock with hydraulic assist

H4 Hydraulic Cylinder Assembly (includes H4D Street Els (2) and H5 T-Yoke)

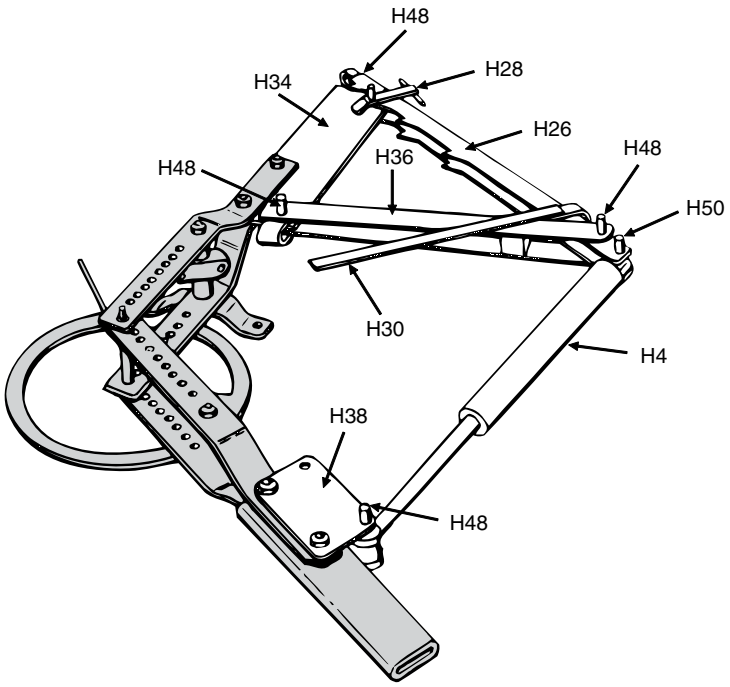
49126 ..... 18 lbs Gross Weight

Hydraulic Conversion Hardware Set

49350 ..... 89 lbs Gross Weight

Kit converts **Standard Model No. 2 Bender** for use with **Hydraulic Pump**. Hydraulic equipment attaches with just 4 bolts. Illustrated instruction included. ***Order the complete set or individual parts, as needed. Includes the following parts:***

PART NO.	DESCRIPTION
49236	H26 Ratchet Bar
49237	H28 Ratchet Bar Guide
49238	H30 Ratchet Bar Handle
49239	H32 Set of Ratchet Bar Handle Bolts & Nuts (2 each)
49243	H34 Main Frame Extension Plate
49244	H36 Swinging Frame Support Arm
49246	H48 3/4" Dia. Pin (4)
49247	H50 5/8" Dia. Pin (1)
49250	H38-1 Swinging Frame Cylinder Plate (2)
49248	H38-2 Swinging Frame Cylinder Plate Bolt, 5/8" x 3-1/2" (2)
49249	H38-3 Swinging Frame Cylinder Plate Nut, 5/8" (2)

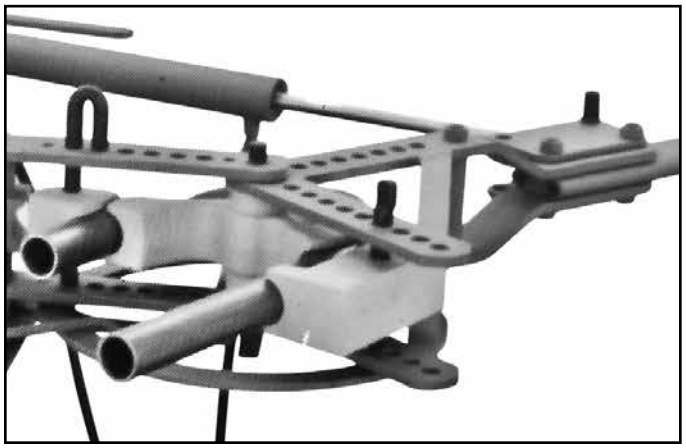


49126 H4 Hydraulic Cylinder Assembly and 49350 Hydraulic Conversion Kit

Why does spring-back occur?

Trade items such as Pipe, Tube, Bar, etc. produced from Steel, Iron, Copper, Brass, Aluminum, or other ductile metals have been hardened by some combination of cold drawing and alloying with other chemical elements to give the stock the qualities of strength and elasticity. Elastic materials in general, when bent, will return to their original condition when released. However, if metal is bent beyond its elastic limit, it will tend to retain the form of the bend. During the bending of stock, the material in the **OUTSIDE** radius of the bend will be progressively stretched beyond its elastic limit *(stressed in tension)*. The material in the **INSIDE** radius of the bend will be progressively compressed beyond its elastic limit *(stressed in compression)*. Although these tension and compression stresses are opposite in effect, they never end up being equal in force. The difference between the forces of stress in the inside and outside of a bend is the cause of *spring-back*.

For speed reasons, using hydraulic power to bend Rings, Eyes, etc. on top of the bender (pgs. 24-25 and 28) is not recommended. Bending manually will achieve faster results.



"L-Type" Swinging Frame bends 2" Pipe a full 180° using a 180° wrap-around-type die

Add More Capability

H52 "L-Type" Swinging Frame

49270.....

This special swinging frame is used to bend Pipe or Tube from 90° up to 180° on "Wrap-Around" – type dies. Installs easily in place of Standard Swinging Frame with a single pin.

H52 "L-Type" Swinging Frame

Hydraulic Cylinder attached using H55 90° "One-Stroke" Hydraulic Cylinder Mount. 44B Rigid Conduit 90° Die shown bendiing 1" Pipe to 90° with a single stroke

H55 90° "One Stroke" Hydraulic Cylinder Mount

49285..... 15 lbs Gross Weight

Bend a full 90° with just one stroke of the cylinder. Lets you mount Hydraulic Cylinder directly onto bender frame to make bends up to 90° with one stroke.
Maximum recommended size:
1" Pipe x 5" CLR (Center Line Radius).

H61 Electric Foot Switch

49410..... 17 lbs Gross Weight

H4 Hydraulic Cylinder Assembly and H24 Hoses (2)

49125..... 23 lbs Gross Weight

Need Replacement Parts?

Through normal wear and tear, you may occasionally need replacement parts for your hydraulic equipment. We've listed a few of the most useful ones.

Need Something You Don't See?

Call us; we have a large range of replacement parts, and we'll make every effort to meet your needs.

Call Us For Additional Needs

Never bend stock to an inside diameter smaller than the diameter of the stock itself. **Examples:**
Minimum inside-diameter eye in 5/8" stock = 5/8"
Minimum inside-diameter eye in 3/4" stock = 3/4"

HOSSFELD UNIVERSAL® Benders are ALL-IN-ONE Benders

A Complete Metal-Forming System:

The HOSSFELD UNIVERSAL® Bender is NOT JUST ANY BENDER – it's a complete metal-forming system. You make it as simple or as powerful as you need.

Unparalleled Variety:

We have developed the LARGEST range of Tooling and Dies in the industry. Browse the tooling section to see the wide range of stock and shapes available. You'll find clear pictures of each type of tooling and its easy setup in the bender. Dream up ideas no other bender will let you accomplish as easily.

Solutions:

We focus on SOLUTIONS and have many options for making different types of bends. Call us with your bending questions: (507) 452-2182.

Smooth Bends – No Mandrels Needed:

You'll get the highest quality bends with our Benders and tooling. Our Tube and Pipe dies will bend Round OD Steel Tube and Pipe smoothly, without surface blemish and without the use of internal supporting mandrels. Square and Rectangular Steel Tubing can also be bent without mandrels and, in most cases, with only slight longitudinal indentation on the internal surface of the bend ("crush bend"). Square and Rectangular tubing in materials other than steel and steel alloy may also be bendable. Send us samples of these alloy job stock items, and we will evaluate the bendability, make a sample bend, and return the bent specimen to you for your evaluation.

Quality and Durability:

Our dies are made from cast iron for durability. Selected parts are heat treated for maximum durability and even better performance.

IMPORTANT SAFETY INFORMATION

HOSSFELD UNIVERSAL® Benders and tooling have been engineered to bend safely only steel forms which have been carefully selected as to quality of steel. The American Society for Testing of Materials (ASTM) has published standards for the quality of many products and is an international source of information on quality of metals. Volume 01.01 relates to iron and steel pipe and tubing. Volume 01.05 relates to steel bars. Other volumes relate to alloy steels, copper and copper alloys, magnesium and magnesium alloys, and aluminum and aluminum alloys.

HOSSFELD UNIVERSAL® Benders have been engineered to operate on steel stock only. We recommend that your purchase order for steel stock request that an analysis of the heat be submitted so that you may compare the quality with that shown in the ASTM Standards for the grade of steel you require. Volumes of ASTM Standards are usually available in public libraries. Although the **HOSSFELD UNIVERSAL® Bender** and tooling listed in this parts catalog have been engineered to operate reliably on ASTM Hot Rolled Mild Steel (HRMS) stock only, other ductile metals may be bent. We ask that you submit samples of the alloy stock to our engineering staff for evaluation as to bendability and tooling requirements before any extensive use of the Bender and tooling for your intended use. We will return the sample bent specimens to you for your consideration.

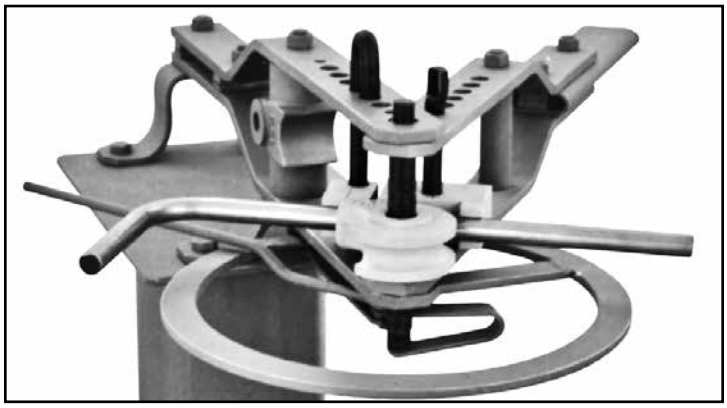
Forming "U-bends" in 2" Pipe

OD TUBE

Safety Note: .134" Wall (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our OD Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

Round OD Tube – All specifications refer to Electric Resistance Welded (ERW), cold drawn over mandrel (DOM), Mechanical ASTM A36 Hot Rolled Mild Steel (HRMS) Tube.
Outside Diameter (OD) – Round OD Tube is measured by its Outside Diameter, e.g., 1" OD.
Center Line Radius (CLR) – Radius bends in OD Tube are measured from the center of the bend to the **center line** of the tube. CLR sizes are for bends made in Round OD Tube. Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

Stock	Capacity	Maximum Wall
Round OD Tube	3/8" – 2" OD	.134" (10 Gauge)

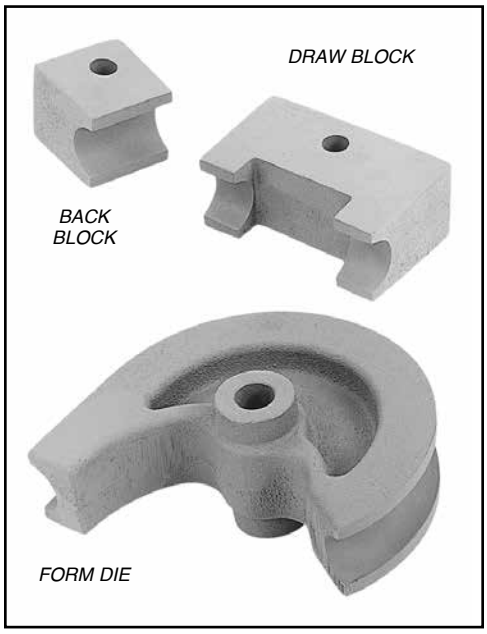


180° OD Tube Die Set (Form Die, Back Block, Draw Block) bending OD Tube to a small radius

180° OD Tube Die Sets

Bend OD Tube to 180° With "Wrap-Around" – Style Dies

Form small-radius bends up to 180° with "One-Pull." These dies will bend listed types of **Round OD Tube** smoothly, without distortion or surface blemish, and without the use of internal supporting mandrels or any kind of filler. Add precision-controlled Hydraulic Power for accurate production of quantity parts. ***We recommend using Hydraulic Power when bending larger stock sizes, listed below.***



HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

3/8" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
21454	1-1/4"
21460	1-1/2"
21480	2-1/4"
21521	4"
21558	6-1/4"
21606	8"

1/2" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
21645	1-1/4"

.049" Min Wall (18 Gauge)

PART NO.	CLR
21650	1-1/2"
21655	1-3/4"
21660	2"
21672	2-1/2"
21683	3"
21688	3-1/4"
21705	4"
21729	5"

5/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
22100	1-1/2"
22105	1-3/4"
22110	1-13/16"
22116	2"

.049" Min Wall (18 Gauge)

PART NO.	CLR
22121	2-1/4"
22126	2-3/8"
22131	2-1/2"
22137	2-3/4"
22143	3"
22148	3-1/4"
22158	3-5/8"
22169	4"
22181	4-1/2"
22193	5"
22217	6"
22251	7-3/16"
22274	8"

OD Tube continued on next page

Round OD Tube – All specifications refer to Electric Resistance Welded (ERW), cold drawn over mandrel (DOM), Mechanical ASTM A36 Hot Rolled Mild Steel (HRMS) Tube.
Outside Diameter (OD) – Round OD Tube is measured by its Outside Diameter, e.g., 1" OD.
Center Line Radius (CLR) – Radius bends in OD Tube are measured from the center of the bend to the **center line** of the tube. CLR sizes are for bends made in Round OD Tube. Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

Safety Note: Hydraulic Power is recommended for bending the following sizes: 1-1/4" – 2" OD Tube

STOCK	CAPACITY	MAXIMUM WALL
Round OD Tube.....	3/8" – 2" OD	.134" (10 Gauge)

180° OD Tube Sets continued

3/4" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
22585	1-7/8"
22589	2"
22593	2-1/4"
22598	2-1/2"
22604	2-3/4"

.049" Min Wall (18 Gauge)

PART NO.	CLR
22610	3"
22622	3-3/8"
22627	3-1/2"
22632	3-9/16"
22644	4"
22650	4-1/8"
22656	4-3/16"
22667	4-3/8"
22673	4-1/2"
22685	5"
22697	5-3/8"
22703	5-1/2"
22715	6"
22721	6-1/4"
22733	6-11/16"
22750	7-1/16"
22767	7-5/8"
22778	7-13/16"
22783	8"
22799	8-1/2"
22814	9"

7/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
23105	1-3/4"
23110	2"
23122	2-1/2"
23126	2-3/4"
23132	3"
23144	3-1/2"
23156	4"

.049" Min Wall (18 Gauge)

PART NO.	CLR
23162	4-1/4"
23168	4-7/16"
23174	4-3/4"
23180	5"
23192	5-1/2"
23209	6"
23232	6-3/4"
23270	8-1/2"

15/16" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
23715	4-1/2"

1" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
23825	2-1/4"
23831	2-1/2"
23837	2-3/4"
23843	3"
23849	3-1/4"
23855	3-1/2"
23861	3-3/4"

.049" Min Wall (18 Gauge)

PART NO.	CLR
23867	4"
23879	4-1/2"
23885	4-3/4"
23891	5"
23903	5-1/2"
23915	6"
23921	6-3/16"
23933	6-1/2"
23951	6-7/8"
23957	7"
23969	7-1/2"
23981	8"

1-1/16" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
24539	2"
24547	2-1/4"
24555	2-1/2"
24564	2-3/4"

.049" Min Wall (18 Gauge)

PART NO.	CLR
24571	3"
24579	3-1/2"
24587	4"
24603	4-1/2"
24612	4-3/4"
24620	5"
24624	5-1/2"
24628	6"
24636	6-1/4"
24640	6-1/2"
24648	7"
24656	7-1/2"

1-1/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
25020	3"
25032	3-7/16"
25050	4"
25062	4-1/2"

.049" Min Wall (18 Gauge)

PART NO.	CLR
25086	5-1/2"
25098	6"
25110	6-1/2"
25122	7"

1-3/16" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
25525	2-1/2"

.065" Min Wall (16 Gauge)

PART NO.	CLR
25621	6-1/2"

Hydraulic Power recommended when bending 1-1/4" OD Tube and up.

1-1/4" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
26036	2-1/4"
26054	3"
26072	3-5/8"

.109" Min Wall (12 Gauge)

PART NO.	CLR
26084	4"

.065" Min Wall (16 Gauge)

PART NO.	CLR
26096	4-1/2"
26120	5-1/2"
26132	6"
26138	6-1/4"
26156	7"
26180	8"

OD TUBE

Safety Note: .134" Wall (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our OD Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

Follow all recommendations for the minimum and maximum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.

180° OD Tube Sets continued

1-5/16" OD

.120" Min Wall (11 Gauge)

PART NO.	CLR
27200	3"
27204	3-1/8"
27212	3-1/2"
27216	3-3/4"
27220	4"
27224	4-1/16"
27232	4-1/2"
27236	4-5/8"

.083" Min Wall (14 Gauge)

PART NO.	CLR
27244	5"
27252	5-1/2"

.065" Min Wall (16 Gauge)

PART NO.	CLR
27260	6"
27276	6-1/2"
27284	6-3/4"
27292	7"
27308	7-1/2"

1-3/8" OD

.120" Min Wall (11 Gauge)

PART NO.	CLR
26750	3"
26774	4"

.083" Min Wall (14 Gauge)

PART NO.	CLR
26798	5"

.065" Min Wall (16 Gauge)

PART NO.	CLR
26822	6"
26850	6-11/16"
26862	7"
26902	8"

1-1/2" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
28017	2-1/2"
28029	3"
28053	4"
28059	4-1/4"
28065	4-1/2"
28077	5"

.083" Min Wall (14 Gauge)

PART NO.	CLR
28095	5-3/4"
28101	6"

.065" Min Wall (16 Gauge)

PART NO.	CLR
28147	7-1/2"
28159	8"

1-5/8" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
28637	3"
28643	3-1/4"
28649	3-1/2"
28655	3-3/4"
28661	4"
28667	4-1/4"
28673	4-1/2"
28685	5"
28697	5-1/2"

.120" Min Wall (11 Gauge)

PART NO.	CLR
28709	6"

.095" Min Wall (13 Gauge)

PART NO.	CLR
28741	7"

1-3/4" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
29260	3-1/2"
29296	5"
29308	5-1/2"

.120" Min Wall (11 Gauge)

PART NO.	CLR
29320	6"
29338	6-5/8"

1-7/8" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
29910	4"
29922	4-1/2"
29928	4-3/4"
29934	5"
29946	5-3/8"
29964	6"
29976	6-1/2"
29988	7"

2" OD

.120" Min Wall (11 Gauge)

PART NO.	CLR
30716*	6"

* Includes Swinging Frame Plates.

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

OD Tube continued on next page

Round OD Tube – All specifications refer to Electric Resistance Welded (ERW), cold drawn over mandrel (DOM), Mechanical ASTM A36 Hot Rolled Mild Steel (HRMS) Tube.
Outside Diameter (OD) – Round OD Tube is measured by its Outside Diameter, e.g., 1" OD.
Center Line Radius (CLR) – Radius bends in OD Tube are measured from the center of the bend to the **center line** of the tube. CLR sizes are for bends made in Round OD Tube. Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

Safety Note: Hydraulic Power is recommended for bending the following sizes: 1-1/4" – 2" OD Tube.

Feed-Along OD Tube Die Sets

Make Large-Radius Bends up to 360° in OD Tube

Bend larger-radius bends or coils. These dies will bend listed types of **Round OD Tube** smoothly, without distortion or surface blemish, and without the use of internal supporting mandrels or any kind of filler. Add precision-controlled Hydraulic Power for accurate production of quantity parts. ***We recommend using Hydraulic Power when bending larger stock sizes, listed below.***

Feed-Along OD Tube Die Set (Form Die, Back Block, Draw Block) bending OD Tube to a large radius

1/2" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
21747	5-3/4"
21824	9"
21847	10"
21882	11-3/4"
21887	12"
21898	13"
21908	14"
21918	15"
21928	16"
21948	18"
21968	20"

5/8" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
22153	3-1/2"
22229	6-5/16"
22246	7"
22294	9"
22314	10"
22334	11"
22344	12"
22374	15"
22404	18"
22419	20"
22459	28"
22479	32"

3/4" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
22755	7-1/4"
22788	8"
22803	8-1/2"
22819	9"
22839	10"
22859	11"
22868	11-1/2"
22876	12"
22884	13-1/2"
22889	13-3/4"
22900	15-3/16"
22914	16"
22969	23"

7/8" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
23198	5-9/16"
23227	6-5/8"
23237	7"
23248	7-1/2"
23259	8"
23305	10"
23328	11"
23339	12"
23362	14"
23529	36"
23559	48"
23573	130"
23590	150"

1" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
23939	6-1/2"
23987	8"
24005	8-5/8"
24017	9"
24029	9-1/2"
24041	10"
24077	11-3/4"
24083	12"
24089	12-1/2"
24107	14"
24125	15-1/8"
24143	16-1/8"
24161	17-1/2"
24173	18-1/2"
24191	19-5/8"
24221	24"
24239	27"
24257	30"
24335	42"
24355	48"
24375	59"
24390	65"
24405	83"
24425	168"

1-1/16" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
24632	6"
24644	6-1/2"
24668	8"
24676	8-1/2"

.049" Min Wall (18 Gauge)

PART NO.	CLR
24680	9-1/4"
24684	9-1/2"
24692	10-1/2"
24700	11-1/2"
24704	12"
24712	13"
24720	14"
24744	17"
24748	17-1/2"
24760	18"
24777	20"
24809	24"
24834	30"
24858	36"
24882	42"
24906	48"
24910	54"
24914	60"
24954	120"

1-1/8" OD

.049" Min Wall (18 Gauge)

PART NO.	CLR
25146	8"
25206	10-1/2"
25224	11-1/2"
25314	18-9/16"
25362	24-9/16"
25404	31"

1-3/16" OD

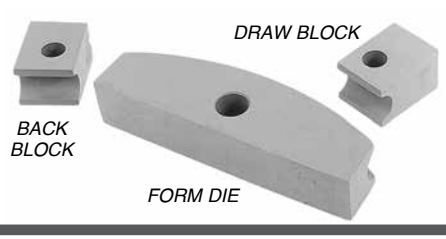
.065" Min Wall (16 Gauge)

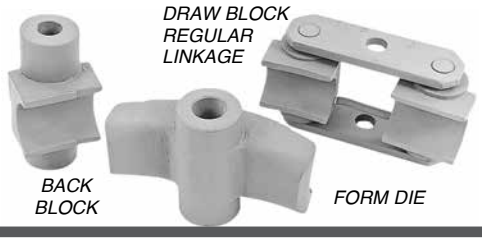
PART NO.	CLR
25759	14"
25795	17"
25855	24"

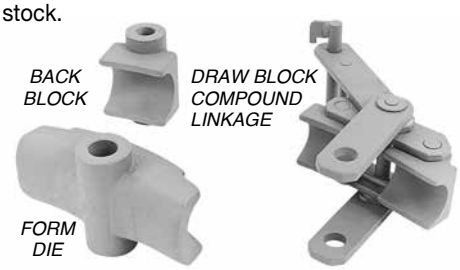
OD TUBE

Safety Note: .134" Wall (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our OD Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

Follow all recommendations for the minimum and maximum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.







Hydraulic Power recommended when bending 1-1/4" OD Tube and up.

1-1/4" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
26228	10"
26258	11-1/4"
26298	14-3/8"
26318	16"
26378	21-5/8"
26395	23-5/8"
26450	32-3/8"
26552	57"
26608	168"

1-5/16" OD

.083" Min Wall (14 Gauge)

PART NO.	CLR
27264	6"
27296	7"
27312	7-1/2"
27328	8"
27352	9"
27360	9-1/2"

.065" Min Wall (16 Gauge)

PART NO.	CLR
27376	10-1/2"
27392	12"
27404	12-3/4"
27408	13"
27424	14"
27440	15"
27512	24"
27536	30"
27556	35"
27560	36"
27572	48"
27624	96"
27720	192"

1-3/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
26975	16"
26983	18"
27000	20"

1-1/2" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
28107*	6"
28207*	10"
28234*	11"
28314	17-1/2"
28320	18"
28356	22"
28374	25"
28380	26"
28393	29-1/8"
28385	36"
28388	48"

1-5/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
28715*	6"

.134" Min Wall (10 Gauge)

PART NO.	CLR
28755	7-1/2"
28789	9"

.065" Min Wall (16 Gauge)

PART NO.	CLR
28813*	10"

.120" Min Wall (11 Gauge)

PART NO.	CLR
28819	10"
28845	11"

.083" Min Wall (14 Gauge)

PART NO.	CLR
28857	12"
28869	13"

.065" Min Wall (16 Gauge)

PART NO.	CLR
28929*	18"
29013	30"
29037	34"
29049	36"
29109	51"

1-3/4" OD

.120" Min Wall (11 Gauge)

PART NO.	CLR
29374	8"

.083" and .065" Wall ONLY (14 Gauge and 16 Gauge)

PART NO.	CLR
29380*	8"

.065" Min Wall (16 Gauge)

PART NO.	CLR
29616	29"
29688	41-1/4"
29795	104-7/8"

1-7/8" OD

.065" Min Wall (16 Gauge)

PART NO.	CLR
30012*	8"
30038*	9"
30100	12"
30148	16"
30196	20"
30220	24"
30238	27"
30280	34"
30340	48"
30546	85-1/2"
30582	192

2" OD

.134" Min Wall (10 Gauge)

PART NO.	CLR
30753	9"

.065" Min Wall (16 Gauge)

PART NO.	CLR
30765**	10"
30909*	24"
30919*	26"
30985*	36"
31017*	42"
31035*	48"
31105*	62"

* Die Set includes Draw Block with "Regular Linkage."
** Die Set includes Draw Block with "Compound Linkage."

Schedule 40 American Pipe – ASTM A53, Type F, Grade 1020, 45,000 psi Tensile Strength Steel.
Inside Diameter (ID) – Schedule 40 American Pipe is measured by its Inside Diameter (ID), e.g., 1" ID.
Center Line Radius (CLR) – Radius bends in Pipe are measured from the center of the bend to the **center line** of the Pipe. CLR specifications are for bends made in Pipe.
Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

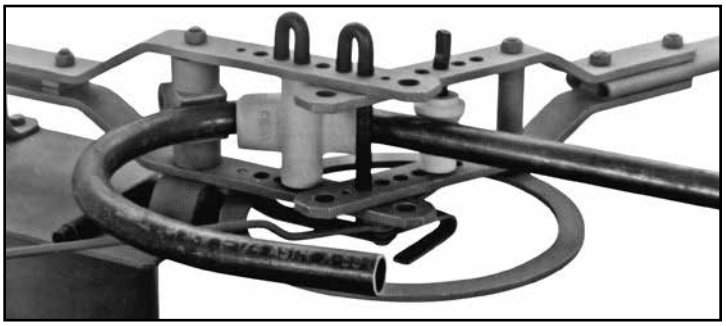
Safety Note: Schedule 40 is the MAXIMUM Pipe thickness that can safely be bent with ALL Pipe Die Sets. Bending thicker stock may result in breakage of die and/or injury.

Stock	Capacity	CLR	
Schedule 40 Pipe and Rigid Conduit	1/4" – 2" ID	Min: 1/4" ID x 2-1/2" CLR	Max: 2" ID x 10" CLR

General Purpose Pipe Dies

Form Smooth Radius Bends in Pipe and Rigid Conduit

These dies offers solutions for bending several sizes of **Pipe** with a single setup. They may be a cost-effective solution for fabrication-type jobs when you need to bend angles, offsets, and return bends for several jobs – they let you choose your task and quickly set up the bender to fabricate several different parts. ***Order the complete General Purpose Set or individual parts, as needed.***



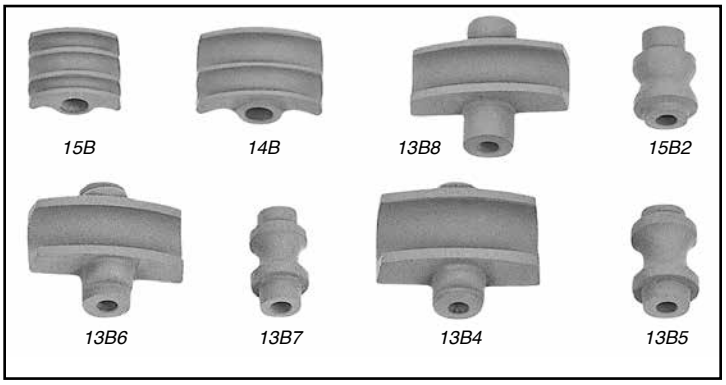
13B8 Pipe Die and 15B2 Grooved Roller bending 1-1/4" Pipe to an 8" radius return bend

General Purpose Set

General Purpose Toolset for Bending Pipe

46001..... 44 lbs Gross Weight

This set, sold on p. 5, lets you bend several sizes in **Pipe** with each setup. Bend all sizes of standard **Pipe and Rigid Conduit**. Form smooth, even radius bends without flattening the pipe or splitting the seam. Bend to any degree or to a continuous coil, as desired. ***The set includes all the following; dies can be ordered individually.***

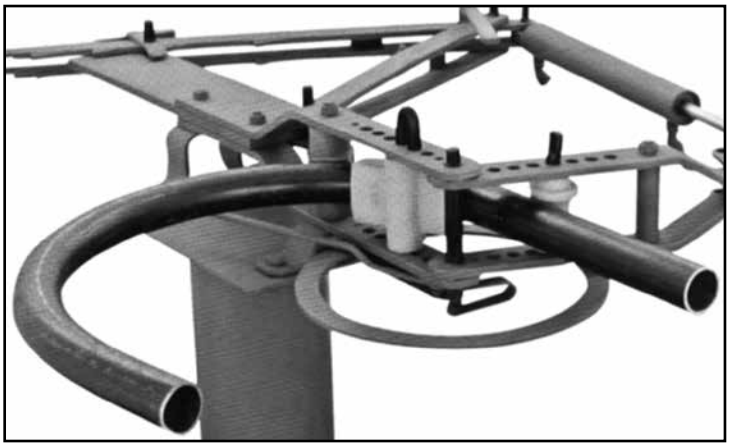


Pipe Dies

PART NO.	DESCRIPTION	SIZE
20075	15B Pipe Die	1/4", 3/8" & 1/2" P
20072	14B Pipe Die	3/4" & 1" P
20069	13B8 Pipe Die	1-1/4" P
20067	13B6 Pipe Die	1-1/2" P
20065	13B4 Pipe Die	2" P

Rollers

PART NO.	DESCRIPTION
20076	15B2 V-Grooved Roller for 15B, 14B, 13B8
20068	13B7 Roller for 13B6 (1-1/2")
20066	13B5 Roller for 13B4 (2")

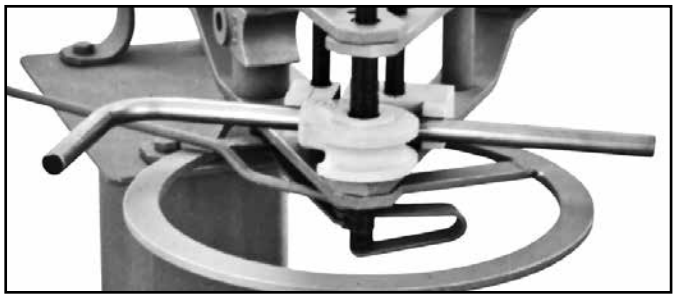


13B4 Pipe Die & 13B5 Roller bending 2" Pipe with hydraulic assist

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Safety Note: Hydraulic Power is recommended for bending the following sizes: 1" – 2" Schedule Pipe.

Follow all recommendations for the minimum and maximum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.

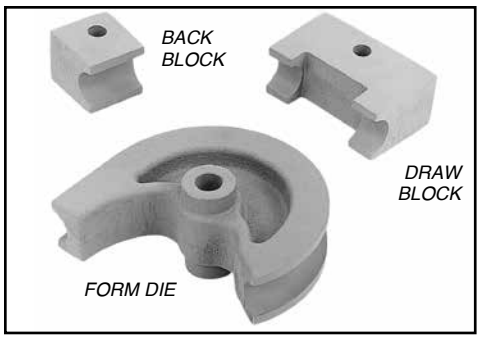


180° Pipe Die Set (Form Die, Back Block, Draw Block) bending Pipe to a short radius

180° Pipe Die Sets

Bend Pipe to 180° With "Wrap Around"-Style Dies

Make bends up to 180° in a single operation. These dies will bend listed types of **Schedule 40 Pipe** smoothly, without distortion or surface blemish, and without the use of internal supporting mandrels or filler of any kind. Add precision-controlled Hydraulic Power for accurate production of quantity parts. ***We recommend using Hydraulic Power when bending larger stock sizes, as listed below.***



1/4" Pipe

PART NO.	CLR
31625	1-1/4"
31630	1-1/2"
31637	1-3/4"
31655	2-1/2"
31697	4-1/4"

3/8" Pipe

PART NO.	CLR
32100	1-3/8"
32105	1-1/2"
32118	1-7/8"
32148	3"
32166	3-3/4"

1/2" Pipe

PART NO.	CLR
32600	1-1/4"
32606	1-1/2"
32618	2"
32630	2-1/2"
32636	2-5/8"
32648	3"
32655	3-1/4"
32662	3-1/2"
32676	4"
32704	5"
32732	6"
32746	6-1/2"

3/4" Pipe

PART NO.	CLR
33200	2"
33206	2-1/4"
33212	2-1/2"
33218	2-3/4"
33224	3"
33236	3-1/2"
33250	4"
33264	4-1/2"
33271	4-3/4"
33278	5"
33292	5-1/2"
33306	6"
33319	6-1/4"
33326	6-1/2"
33342	7"
33361	7-1/2"
33393*	8-1/2"

Hydraulic Power recommended when bending 1"-2" Pipe.

1" Pipe

PART NO.	CLR
33829	2-1/4"
33835	2-7/16"
33841	2-1/2"
33853	3"
33859	3-1/8"
33871	3-1/2"
33877	3-3/4"
33883	4"
33890	4-1/16"
33904	4-1/2"
33911	4-5/8"
33925	5"
33938	5-1/2"
33951	6"
33971	6-1/2"

1" Pipe *(continued)*

PART NO.	CLR
33981	6-3/4"
33991	7"
34021	7-1/2"
34046**	8"
34063**	8-1/4"
34073**	8-1/2"

1-1/4" Pipe

PART NO.	CLR
34500	3"
34506	3-1/4"
34512	3-1/2"
34518	3-3/4"
34524	4"
34530	4-1/4"
34536	4-1/2"
34548	5"
34560	5-1/2"
34572	6"
34596	7"
34630**	8"

1-1/2" Pipe

PART NO.	CLR
35050	4"
35062	4-1/2"
35068	4-3/4"
35074	5"
35086	5-3/8"
35104	6"
35116	6-1/2"
35128	7"

2" Pipe

PART NO.	CLR
35630	6"

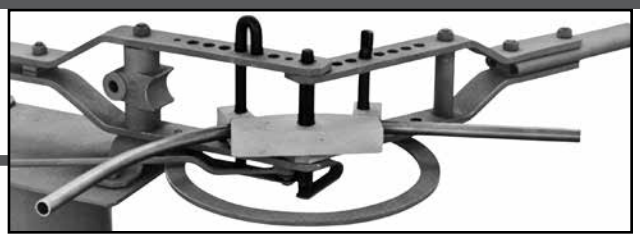
* Die Set not pictured; comes with Form Die, Bolt-on Back Block, and 2 Rollers. (Instructions included)

** Die set not pictured; comes with Form Die and 2 Rollers ONLY. Use 20059 12B Oscillating Block as Back Block, included with Basic 46000 Bender. (Instructions included)

Schedule 40 American Pipe – ASTM A53, Type F, Grade 1020, 45,000 psi Tensile Strength Steel.
Inside Diameter (ID) – Schedule 40 American Pipe is measured by its Inside Diameter (ID), e.g., 1" ID.
Center Line Radius (CLR) – Radius bends in Pipe are measured from the center of the bend to the **center line** of the Pipe. CLR specifications are for bends made in Pipe. Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

Stock	Maximum Capacity
Schedule 40 Pipe	1/4" – 2" P

Safety Note: Schedule 40 is the MAXIMUM Pipe thickness that can safely be bent with ALL Pipe Die Sets. Bending thicker stock may result in breakage of die and/or injury.

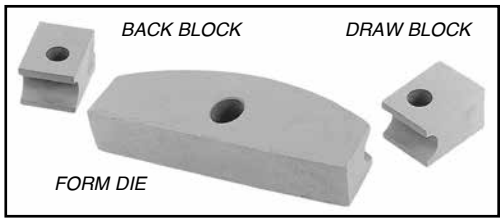


Feed-Along Pipe Die Set (Form Die, Back Block, Draw Block) bending Pipe to a large radius

Feed-Along Pipe Die Sets

Make Large-Radius Bends up to 360° in Pipe

Bend **Pipe** more than 180°, or bend larger radius sizes than are available with "One-Pull" 180° "Wrap-Around" Pipe Dies. Bend 90°, 180°, 270°, 360° or anything in between. Make U-bends in larger radii, or bend full 360° circles. These dies will bend listed types of Pipe smoothly, without distortion or surface blemish, and without the use of internal supporting mandrels or filler of any kind. Add precision-controlled Hydraulic Power for accurate production of quantity parts.
We recommend using Hydraulic Power when bending larger stock sizes, as listed below.



1/4" Pipe

PART NO.	CLR
31715	5"

3/8" Pipe

PART NO.	CLR
32232	6-5/16"

1/2" Pipe

PART NO.	CLR
32753	6-3/4"
32789	8-1/4"
32807	9"
32825	9-9/16"
32885	13"
32909	15"
32944	18"
32962	19-1/4"
32986	22"
32992	23"
33034	30"

3/4" Pipe

PART NO.	CLR
33313	6"
33336	6-1/2 "
33381	8"
33404	8-1/2"
33422	9-1/4"
33428	9-1/2"
33452	10-1/2"
33470	11-1/2"
33476	12"
33488	13"
33500	14"
33536	17"
33542	17-1/2"
33548	18"
33572	20"
33596	24"
33629	30"
33668	36"
33681	42"
33689	48"

3/4" Pipe (*continued)*

PART NO.	CLR
33694	54"
33706	60"
33800	120"

Hydraulic Power recommended when bending 1"-2" Pipe.

1" Pipe

PART NO.	CLR
33958	6"
33999	7"
34030	7-1/2"
34054	8"
34090	9"
34102	9-1/2"
34126	10-1/2"
34150	12"
34162	12-3/4"
34168	13"
34180	14"
34192	15"
34276	24"
34312	30"
34342	35"
34348	36"
34415	48"
34460	96"
34492	192"

1-1/4" Pipe

PART NO.	CLR
34610	7-1/2"
34637	8"
34669*	9"
34689*	10"
34709*	11"
34719*	12"
34729*	13"
34749	15"
34869	30"
34893	34"

1-1/4" Pipe (*continued)*

PART NO.	CLR
34905	36"
35010	192"
35030	242-1/2"
35042	297-1/2"

1-1/2" Pipe

PART NO.	CLR
35152	8"
35176	9"
35236	12"
35284	16"
35332	20"
35356	24"
35374	27"
35459	44"
35471	46"
35485	48"
35494	54"
35510	72"
35610	192"

2" Pipe

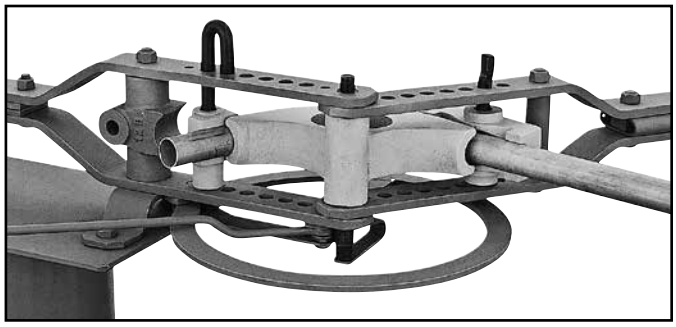
PART NO.	CLR
35661**	7"
35709**	9"
35742	11"
35769	12"
35781	13"
35799	14-1/2"
35865	20"
35991	42"
36685	180"

* Die Set not pictured; comes with Form Die and Roller ONLY. Use 20059 12B Oscillating Block as Back Block, included with basic 46000 Bender. (Instructions included)

** Die Set not pictured; comes with Form Die, Back Block, and 20066 13B5 Roller.

EMT – Trade sizes of Electro Metallic Tube AKA "Thin-Wall Conduit."
Center Line Radius (CLR) – Radius bends in EMT are measured from the center of the bend to the **center line** of the tube.

Stock	Degree of Bend	Capacity
EMT	90°	Trade Sizes, 1/2" – 1-1/4"
EMT	180°	Trade Sizes, 1/2" – 3/4"
EMT	0 – 360° (Feed-Along)	Trade Sizes, 1/2" – 2"



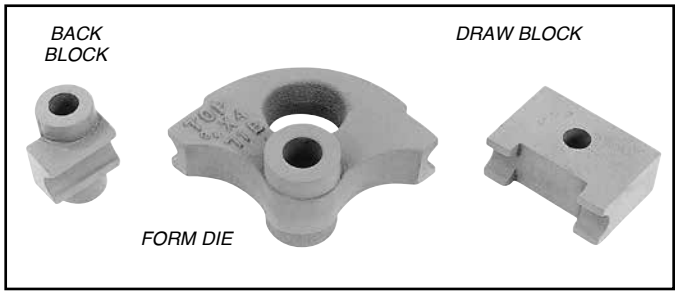
73B 90° Form Die and Back Blocks bending 1-1/4" EMT to 6" radius

70B–73B 90° "One-Pull" EMT Die Sets

Make 90° "One Pull" Bends in Electro Metallic Tube

Bend thin-wall **Electro Metallic Tube** up to 1-1/4" dia. Make full, round, smooth bends without wrinkling, because the tube is entirely supported from the outside–no mandrels or fillers are needed.

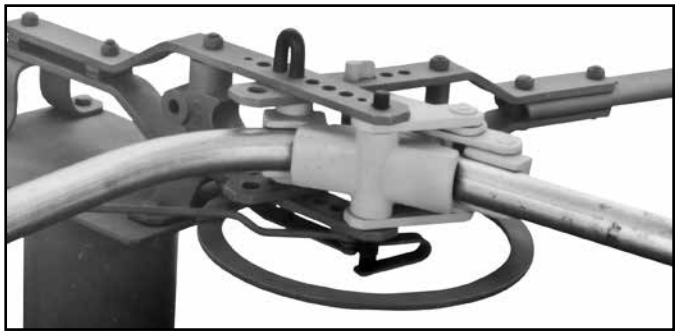
PART NO.	DESCRIPTION	SIZE	CLR
21223	70B Die Set	1/2" EMT	3"
21229	71B Die Set	3/4" EMT	4"
21239	72B Die Set	1" EMT	5"
21255	73B Die Set	1-1/4" EMT	6"



76B 180° "One-Pull" EMT Die Sets

Make 180° "One Pull" Bends in Electro Metallic Tube up to 3/4" diameter

PART NO.	DESCRIPTION	SIZE	CLR
21315	76B Die Set	1/2" EMT	2"
21321	76B Die Set	1/2" EMT	3"
21329	76B Die Set	1/2" EMT	4"
21337	76B Die Set	1/2" EMT	6"
21360	76B Die Set	3/4" EMT	3"
21368	76B Die Set	3/4" EMT	4"



75B Feed-Along Form Die with Compound Linkage bending 2" Electrical Metallic Conduit

74B, 75B, 77B Feed-Along EMT Die Sets

Make Large-Radius Bends up to 360° in Electro Metallic Tube

Bend thin-wall **Electro Metallic Tube** up to 2" dia. Draw Blocks have compound linkage, providing extra leverage and making it easy to make 90° bends, 180° return bends, 360° bends and offsets anywhere in between.

PART NO.	DESCRIPTION	SIZE	CLR
21345	77B Die Set	1/2" EMT	7-7/16"
21350	77B Die Set	1/2" EMT	7-5/8"
21355	77B Die Set	1/2" EMT	10"
21376	77B Die Set	3/4" EMT	6-1/8"
21271	74B Die Set w/Regular Linkage	1-1/2" EMT	8"
21292	75B Die Set w/Compound Linkage	2" EMT	10"

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

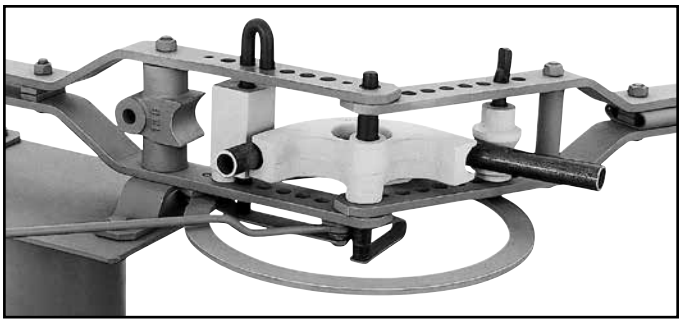
Rigid Conduit – Trade sizes of Rigid Electrical Conduit.
Schedule 40 American Pipe – ASTM A53, Type F, Grade 1020, 45,000 psi Tensile Strength Steel.
Inside Diameter (ID) – Pipe and Rigid Conduit are measured by their Inside Diameter (ID), e.g., 1" ID.
Center Line Radius (CLR) – Radius bends in Rigid Conduit and Pipe are measured from the center of the bend to the **center line** of the stock. CLR sizes are for bends made in Pipe or Conduit. Final radius dimensions will vary for Copper, Brass, Aluminum or Alloy Steel.
Contact Factory if you have bending jobs requiring other materials.

Stock	Capacity
Rigid Conduit, Pipe	3/8" – 1-1/2" ID

40B–46B 90° Rigid Conduit Form Dies

Bend Rigid Electrical Conduit and Standard Pipe to 90°

Used by electricians for quantity production of 90° Ells in **Rigid Conduit**. Complete tooling includes a **90° Form Die, Back Block,** and **Draw Block** or **Roller**, purchased separately. Purchase the General Purpose Set, containing all 90° Form Dies and Rollers, or order dies individually, as needed. ***Refer to Table for the appropriate tooling combination.***



44B Rigid Conduit 90° Form Die bending 1" Conduit to a 5" radius

General Purpose Set

Set of 90° Rigid Conduit or Pipe Dies

20896 ..... 85 lbs Gross Weight

This set, also sold on pg. 6, contains all 90° Form Dies and Rollers below for bending **Rigid Electrical Conduit** or **Schedule 40 Pipe** up to 90° in "One Pull."

FORM DIE

90° Form Dies (CLR)

PART NO.	DESCRIPTION	SIZE	CLR
20897	40B Form Die	3/8" P	1-1/4"
20903	41B Form Die	1/2" P	1-3/4"
20908	42B Form Die	1/2" P	3"
20913	43B Form Die	3/4" P	4"
20918	44B Form Die	1" P	5"
20923	45B Form Die & Back Block	1-1/4" P	6"
20928	46B Form Die & Back Block	1-1/2" P	6"

Rollers

PART NO.	DESCRIPTION
20068	13B7 Grooved Roller
20076	15B2 V-Grooved Roller

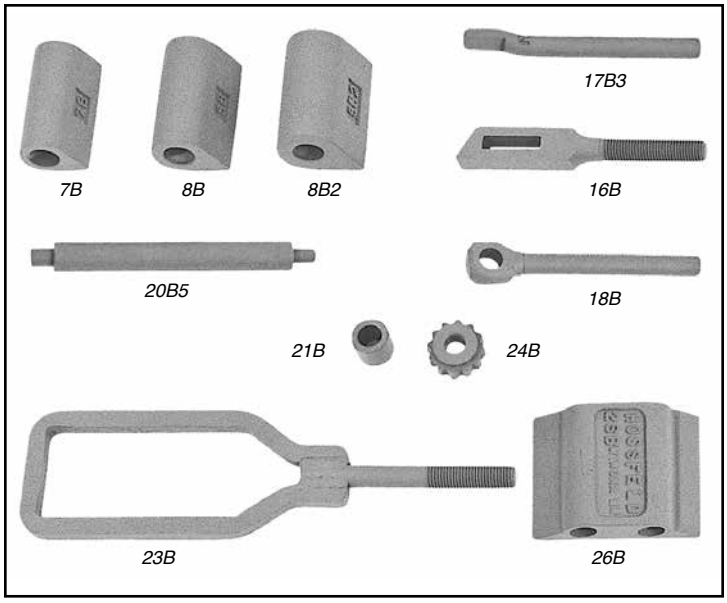
Size (ID)	Main Frame Back Block	Swinging Frame Draw Block
3/8" – 1/2" P	11B Square Block*	11B Square Block*
3/4" – 1" P	11B Square Block*	15B2 V-Grooved Roller
1-1/4" P	1-1/4" Back Block (included)	15B2 V-Grooved Roller
1-1/2" P	1-1/2" Back Block (included)	13B7 Grooved Roller

* Included with basic 46000 Bender package

90° bend in Rigid Conduit

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Round or Square Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).



General Purpose Set

General Purpose Toolset for Bending Bar

46002 ..... 28 lbs

These tools let you bend "S" shapes, "U" shapes, Sharp Square Bends, Eye Bolts, Rings, Coils and more in **Flat** and **Bar Stock**. Like the General Purpose Toolset for Pipe, the General Purpose Toolset for Bar offers a cost-effective way to get a complete setup for making several types of bends in Flat or Bar. Order the complete set or individual parts, as needed. ***Includes the following parts. Tooling described fully in following sections.***

U-Bends

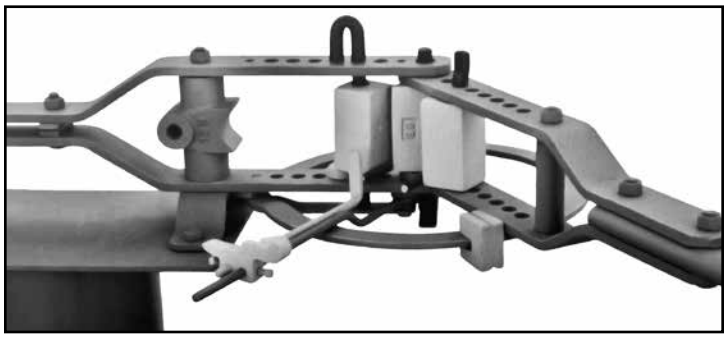
PART NO.	DESCRIPTION	DIAMETER
20045	7B Cam Die	1-3/4"
20046	8B Cam Die	2"
20047	8B2 Cam Die	2-1/4"

Rings, Eyes

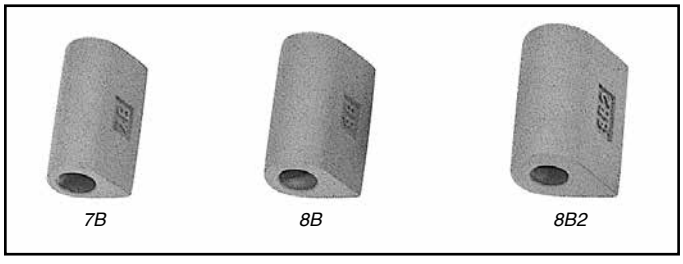
PART NO.	DESCRIPTION
20078	16B Eye-Bolt Bending Dog
20085	17B3 Offset Flat-Head Pin
20091	18B Eye Pin
20222	20B5 Center Pin (for 1/2", 5/8" & 1" Eyes)
20685	21B U-Pin Roller
20705	24B Thumb Nut (2)

Square Bends

PART NO.	DESCRIPTION
20697	23B Yoke
20717	26B Sharp Square Bending Block



8B Cam Die (2") and 11B Square Blocks bend 'U'-Bolt in Round Stock to a predetermined point set by the 27B Circle Stop Gauge



Stock	Maximum Capacity
Flat Stock	Up to 1/2" x 4-1/2"
Round or Square Bar Stock	Up to 1-1/4" dia.

7B, 8B, 8B2 Self-Locking Cam Dies

Form Smooth "U"-Shapes in Heavy Flat and Bar Stock

Bend "U" shapes with an inside spread of 1-3/4", 2" or 2-1/4" in heavy **Flat** or **Bar Stock**. You can easily build these Cam Dies up to a larger inside spread by bending a piece of Flat Stock around them.

PART NO.	DESCRIPTION	DIAMETER
20045*	7B Cam Die	1-3/4"
20046*	8B Cam Die	2"
20047*	8B2 Cam Die	2-1/4"

* Included in 46002 General Purpose Toolset for Bending Bar

Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Round or Square Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).

16B & 16B2 Eye-Bolt Bending Dogs

Form Small-Diameter Rings, Eye Bolts, "U"s, "S"s in Flat and Bar

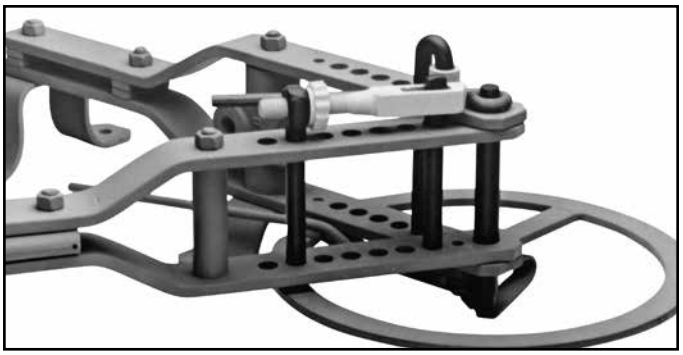
16B Eye-Bolt Bending Dog bends neat, smooth Eye Bolts, "U"-shapes, "S"-shapes, etc., in thin **Round** or **Square Bar** up to 5/8".

Bend Eyes and "U"s with 1/2", 5/8", 3/4", 7/8" and 1" inside openings using standard **20B Center Pin** (included in basic 46000 Bender tooling package) and **20B5 Center Pin** (included in 46002 General Purpose Bar Toolset).

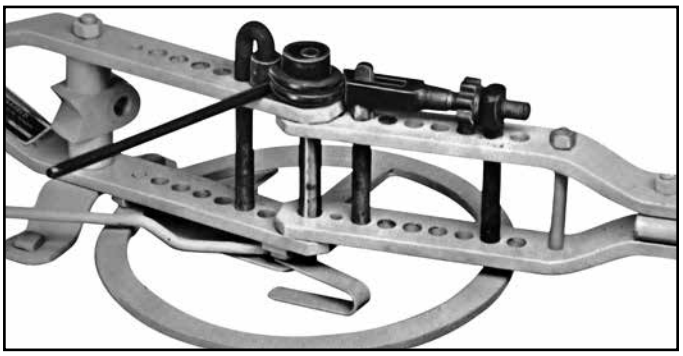
Bend Eyes up to 2" using **20B7 Cast Rollers** (pg. 25) mounted over center pin. With this setup, bend 1-1/2" – 2" Eyes in heavier stock.

Bend Rings and Coils of any diameter. Ideal for bending small-diameter rings. Form bend around a short piece of Pipe of the right diameter. Bend larger rings by purchasing a **20B1 Round Cam** (pg. 28) (An alternate setup for bending large Rings is also shown on pg. 28).

Use the wider **16B2 Eye Bolt Bending Dog** with available longer **20B6 Center Pins** (pg. 25) and longer backing pin to bend Flat Stock up to 1/8" x 1-1/2" wide and form Eyes from 3/8"– 1" ID.



16B Eye-Bolt Bending Dog, toe to front, bending small-diameter Eye Bolt around 20B Center Pin on top of bender



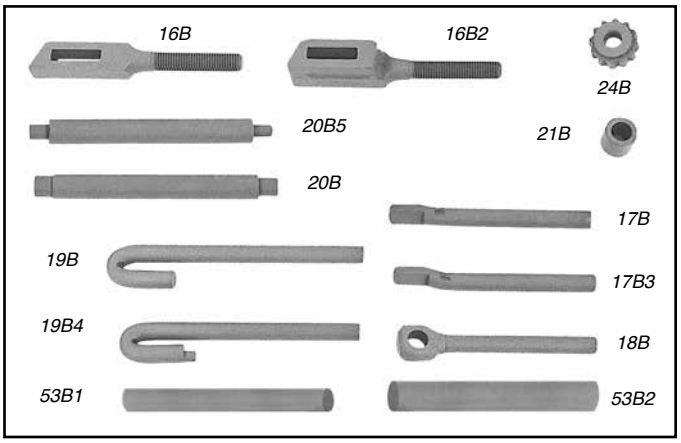
16B Eye-Bolt Bending Dog, toe to back, forms a coil around 20B1 Round Cam

Eye-Bolt Bending Dogs

PART NO.	DESCRIPTION
20078**	16B Eye-Bolt Bending Dog
20080	16B2 "Wide Nose" Eye-Bolt Bending Dog
20705**	24B Thumb Nut

Pins & Rollers

PART NO.	DESCRIPTION	DIAMETER
20222**	20B5 Center Pin	1/2", 5/8", 1"
20105*	20B Center Pin	3/4", 7/8", 1"
20097*	19B U-Pin	-
20098*	19B4 U-Pin w/Lug	-
20685**	21B U-Pin Roller	-
20084*	17B Flat-Head Pin	-
20085**	17B3 Offset Flat-Head Pin	-
20091**	18B Eye Pin	-
21080	53B1 Straight Main Frame Pin	-
21084	53B2 Straight Center Pin	1"
20049*	9B Flat-Surface Roller	-

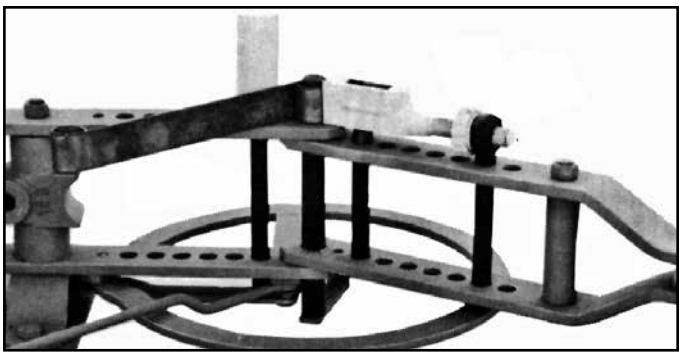


* Included in basic 46000 Bender package
** Included in 46002 General Purpose Bar Toolset

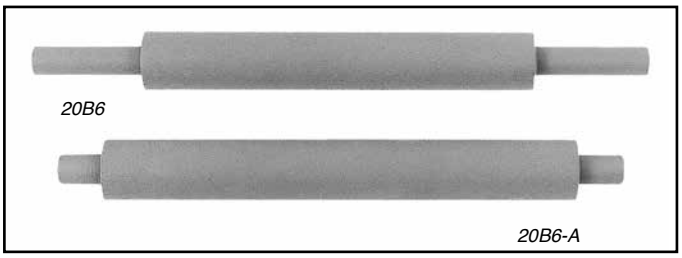
Choose To Bend:	Bar Up to 5/8"	Bar Up to 3/4"	Flat Up to 1/8" x 1-1/2"	Recommended Tooling	Inside Diameter
16B Eye-Bolt Bending Dog	X	X	–		–
16B2 "Wide-Nose" Eye-Bolt Bending Dog	–	–	X		–
	X	–	–	20B5 Std. Center Pin	1/2", 5/8", 1"
	X	–	–	20B Std. Center Pin	3/4", 7/8", 1"
	–	–	X	20B6 Short-end Center Pins	1/4" – 15/16"
	–	–	X	20B6 Long-end Center Pins	3/8" – 15/16"
	–	–	X	53B2 Long Center Pin	1"
	X	X	–	20B7 Cast Rollers	1-1/2" – 2"
	X	X	–	20B1 Round Cam	2-1/2" – 8-3/4"

Aproximate guidelines for optimal tooling combinations. Other combinations possible; however, always observe minimum recommended bending sizes (see note, top of pg. 25)

Never bend stock to an inside diameter smaller than the diameter of the stock itself. **Examples:**
Minimum inside-diameter eye in 5/8" stock = 5/8"
Minimum inside-diameter eye in 3/4" stock = 3/4"
(Refer to table on bottom of pg. 24).



16B2 "Wide-Nose" Eye Bolt Bending Dog with longer 20B6 Long-End Center Pin and longer 53B1 Backing Pin & 9B Roller bending Eye in 1-1/2" x 1/8" Flat Stock



20B6-A Short-End (3/4") Center Pins for Bar Stock

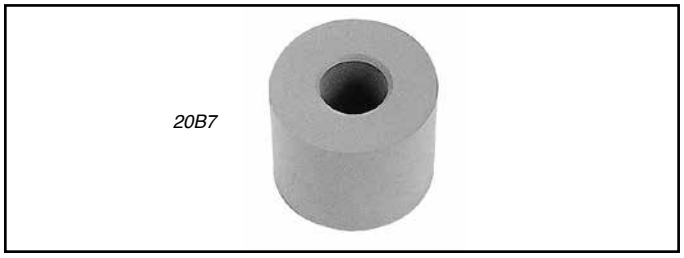
Form Eyes and small-radius bends in **Bar Stock** using the **16B Eye-Bolt Bending Dog**. Overall pin length is 9-3/16"; listed sizes show diameter of bending end.

PART NO.	DIA.	PART NO.	DIA.
20244	1/4"	20250	5/8"
20245	5/16"	20251	11/16"
20246	3/8"	20252	3/4"
20247	7/16"	20253	13/16"
20248	1/2"	20254	7/8"
20249	9/16"	20255	15/16"

20B6 Long-End (1-7/8") Center Pins for Flat Stock

Form Eyes and small-radius bends in **Flat Stock** using the **16B2 "Wide-Nose" Eye-Bolt Bending Dog**. Overall pin length is 10-1/4"; listed sizes show diameter of bending end.

PART NO.	DIA.	PART NO.	DIA.
20232	3/8"	20237	11/16"
20233	7/16"	20238	3/4"
20234	1/2"	20239	13/16"
20235	9/16"	20240	7/8"
20236	5/8"	20241	15/16"



Stock	Capacity
Bar	Small-to-Medium sizes; up to 1-1/4" dia. max
Flat	1/2" x 2"

20B7 Cast Rollers

Make Simple Radius Bends in Bar Stock

Ideal general-purpose rollers for making simple radius-bends in medium-size **Bar Stock**. They mount easily onto the Bender's **20B Center Pin** and come in a wide variety of radii. Roller face is 2" tall.

PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.
20265	1-1/2"	20272	3-1/4"	20279	5"	20286	6-3/4"	20294	8-3/4"
20266	1-3/4"	20273	3-1/2"	20280	5-1/4"	20287	7"	20295	9"
20267	2"	20274	3-3/4"	20281	5-1/2"	20288	7-1/4"	20296	9-1/4"
20268	2-1/4"	20275	4"	20282	5-3/4"	20289	7-1/2"	20297	9-1/2"
20269	2-1/2"	20276	4-1/4"	20283	6"	20290	7-3/4"	20298	9-3/4"
20270	2-3/4"	20277	4-1/2"	20284	6-1/4"	20291	8"	20299	10"
20271	3"	20278	4-3/4"	20285	6-1/2"	20292	8-1/4"	20305	11-1/2"
						20293	8-1/2"		

Stock	Capacity
Bar	Larger sizes; up to 1-1/4" dia. max

20B7 Steel Rollers

Bend Heavier Bar Stock With Durable Steel Rollers

Form round bends in larger-size Bar Stock. Steel Rollers are heat-treated to withstand heavier stock. If you're going to bend the heaviest **Bar Stock**, consider these.
Not a Stock Item. Special Order Only

PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.
20321	1-7/16"	20325	2-1/4"	20330	3-1/2"
20322	1-1/2"	20326	2-1/2"	20331	3-3/4"
20341	1-5/8"	20327	2-3/4"	20332	4"
20323	1-3/4"	20328	3"	20333	4-1/4"
20324	2"	20329	3-1/4"	20334	4-1/2"

Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Round or Square Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).

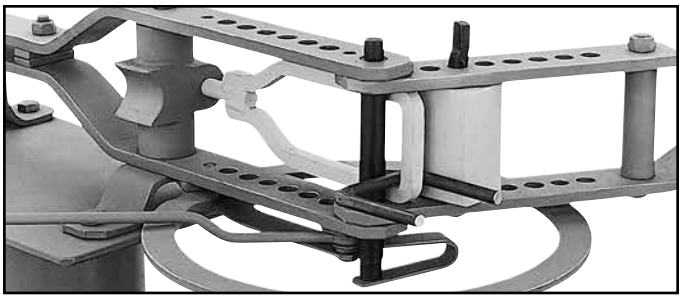
Stock	Capacity
Thin Round or Flat	Up to 1/4" dia. (uses 17B Flat-Head Pin)
Round or Square Bar	1/2" – 5/8" dia. (uses 11B Square Block)
Flat Stock	Up to 1/4" x 3"

23B Sharp, Square-Corner Yoke

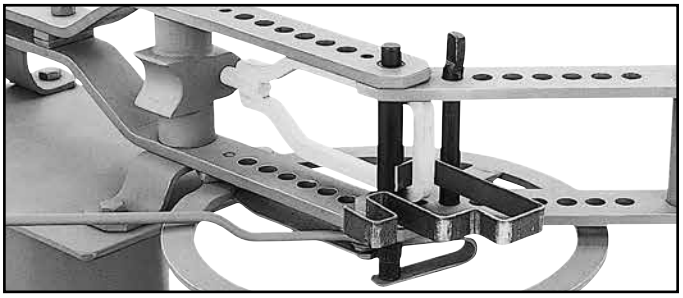
Form Sharp-Cornered Bends in Light Stock

Form sharp-cornered bends and intricate ornamental iron work in light stock. Form sharp bends, sharp-cornered "U"-Bolts, or short, close Hooks on the ends of Rods, with sharp inside corners and an inside spread of as little as 5/8".

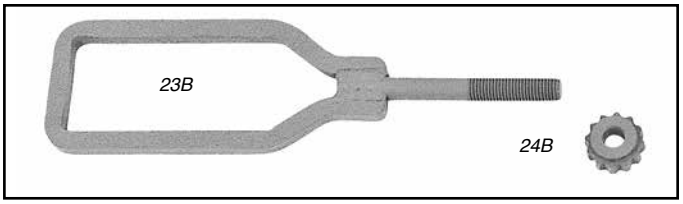
PART NO.	DESCRIPTION
20697*	23B Yoke
20705*	24B Thumb Nut



23B Yoke/24B Thumb Nut (not shown) with 11B Square Block forming sharp, square bend in Round Bar



23B Yoke/24B Thumb Nut (not shown) with 17B Flat-Head Pin bending ornamental ironwork in thin, Flat Stock



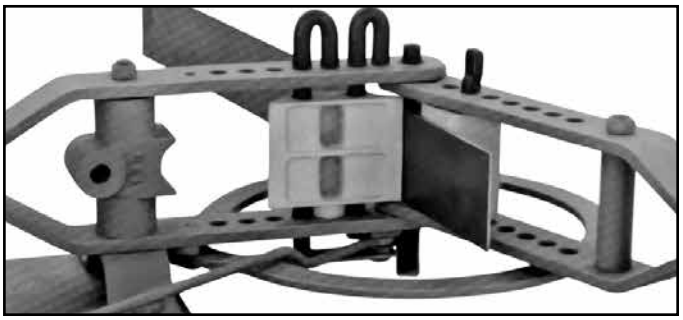
Stock	Capacity
Flat Stock	Up to 1/4" x 4-1/2"

26B Sharp, Square-Corner Bending Block

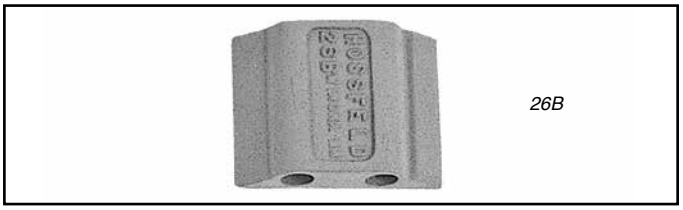
Form Sharp-Cornered Bends in Heavy, Wide Flat Stock

Forms sharp-cornered bends up to 90° in heavy, wide, **Flat Stock**. Form sharp offsets, stake pockets, sharp-cornered “U” clips – any type of bend where a clean, sharp inside corner is required.

PART NO.	DESCRIPTION
20717*	26B Sharp, Square Bending Block

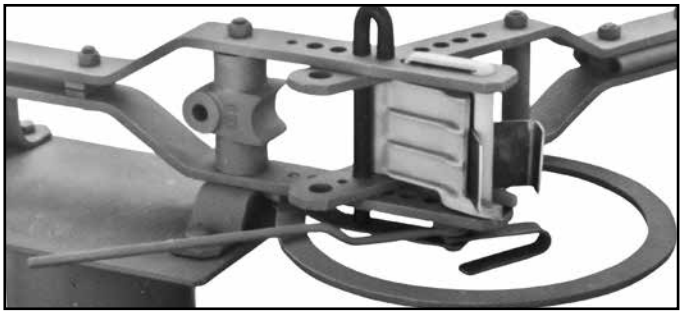


26B Sharp Square Bending Block ready to bend Wide Flat Stock

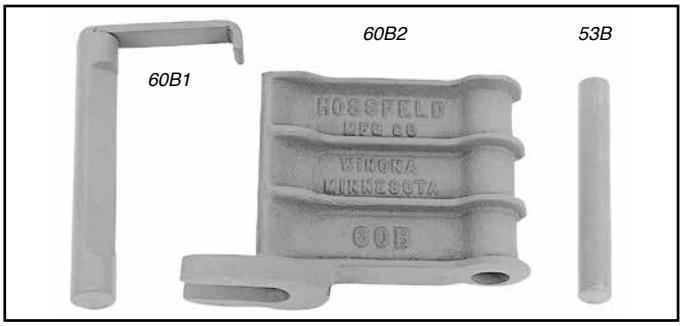


* Included with 46002 General Purpose Bar Toolset

Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Round or Square Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).



60B-2 Bulldozer Die and removable 60B-1 Center Pin forming angle bend in Flat Stock



Stock	Capacity
Flat	Up to 3/16" x 4-1/2"
Round Wire	Up to 1/4"

60B "Bulldozer" Die

Bend "Closed" Round or Square Eyes in Flat Stock

Bends round or square CLOSED Eyes in light **Flat Stock**. Remove closed bends like Rings and Eyes easily by pulling a single pin. "Press-forms" 90° bends in Flat Stock up to 3/16" x 4-1/2". The Die is also ideal for making intricate bends and round eyes in Wire up to 1/4" diameter. Make square-cornered bends with the **60B1 Center Pin**. Make round bends by substituting the **19B or 20B Center Pins *(included with basic 46000 Bender package)***.
Add optional bushings for even larger diameters.

Bulldozer Die Attachment

21100.....10 lbs Gross Weight

PART NO.	DESCRIPTION
21104	**60B2 Bulldozer Die**
21101	**60B1 Center Pin**
21078	**53B Wrist Pin**

Need Something You Don't See?

Call us; we have a large range of replacement parts, and we'll make every effort to meet your needs.

Call Us For Additional Needs
(507) 452-2182

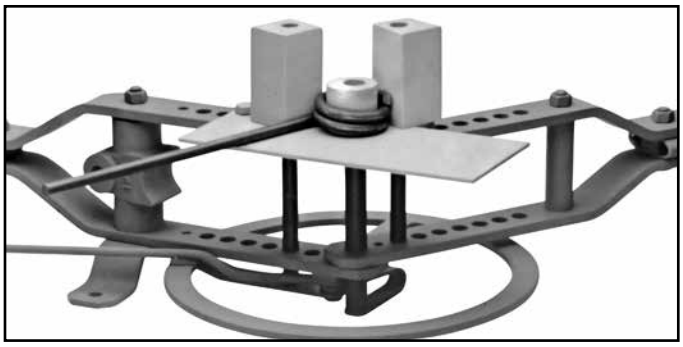
Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Inside Radius (IR) – Radius bends in Flat and Bar Stock are measured from the center of the bend to the **inside edge** of the stock.

Stock	Capacity
Round or Square Bar	Up to 5/8" Dia.
Flat Stock	Up to 3/16" x 2"

20B1 Round Cams

Form Large-Diameter Rings And Eyes in Light Stock

Bend large-diameter Rings or Eyes in light **Flat** or **Bar Stock** on top of Bender Frame. Tooling consists of **20B2A Support Plate** and **Pins** for setup and **20B1 Round Cam** of the desired radius. ***Use 11B Square Blocks as backing blocks (included w/basic 46000 Bender package).***



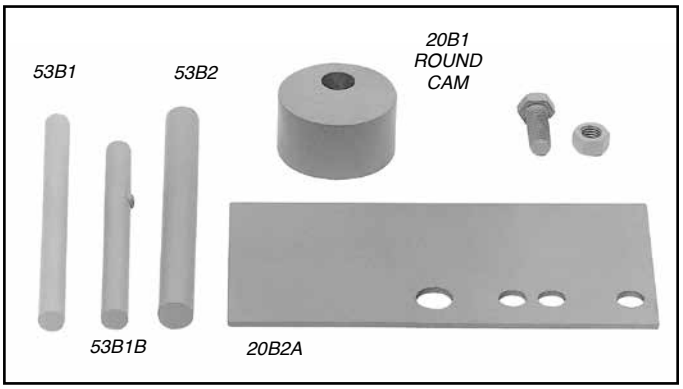
20B1 Round Cam mounted on 53B2 Center Pin and 20B2A Support Plate forms coil in Round Bar on top of the frame. 11B Square Blocks are used as backing blocks.

Support Plate and Pins

PART NO.	DESCRIPTION
20186	20B2A Support Plate w/Bolt & Nut
21080	53B1 Straight Main Frame Pin, 3/4" Dia.
21082	53B1B Straight Swing Frame Pin, 3/4" Dia.
21084	53B2 Straight Center Pin, 1" Dia.

20B1 Round Cast Cams

PART NO.	DIA.	PART NO.	DIA.
20110	2-1/4"	20136	5-1/2"
20112	2-1/2"	20138	5-3/4"
20114	2-3/4"	20140	6"
20116	3"	20142	6-1/4"
20118	3-1/4"	20144	6-1/2"
20120	3-1/2"	20146	6-3/4"
20122	3-3/4"	20148	7"
20124	4"	20149	7-1/4"
20126	4-1/4"	20150	7-1/2"
20128	4-1/2"	20151	7-3/4"
20130	4-3/4"	20152	8"
20132	5"	20153	8-1/4"
20134	5-1/4"	20154	8-1/2"
		20155	8-3/4"



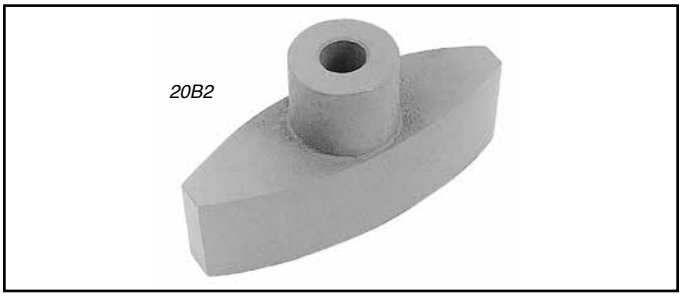
20B2 Wide (2-1/2") Flat-Face Radius Blocks

Form Large-Radius Bends in Wide Flat Stock – "The Easy Way"

Bend **Flat Stock** up to 2-1/2" – "The Easy Way" – in larger-radius bends. These Radius Blocks have a flat surface suitable for bending Flat and Bar stock and Dual Faces so each block can bend two different radii.

Stock	Capacity
Flat Stock	Up to 1/2" – 2-1/2"

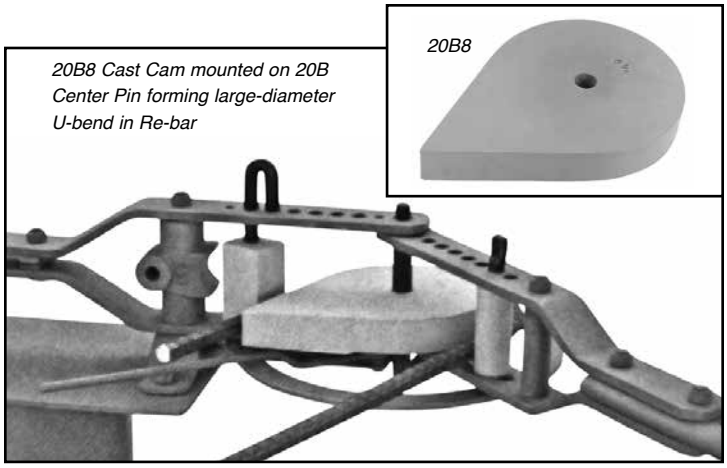
PART NO.	IR	PART NO.	IR
20158	4-1/2" / 5-1/2"	20173	28" / 30"
20159	5" / 6"	20175	34" / 35"
20157	6-1/2" / 7-1/2"	20177	39" / 40"
20160	7" / 8"	20178	42" / 48"
20161	9" / 12"	20180	54" / 60"
20162	10" / 11"	20202	66" / 72"
20163	13" / 14"	20203	78" / 84"
20164	15" / 18"	20183	108" / 120"
20167	20" / 22"	20184	228" / 240"
20169	24" / 36"		



20B2 Wide, Flat-Face Radius Blocks can also be used with the **63B "E-Type" Clamp** to bend heavy Flat stock "The Hard Way." (See pg 31).

Bar Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Re-bar – Trade sizes of Reinforcing Bar.
Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).

Stock	Capacity
Bar	Up to 1-1/4" dia. cold
Re-bar	Up to 1" Grade 40
Flat	Up to 1/2" x 1-3/4" (Cast cams); 1/2" x 4-1/2" (Steel Cams)



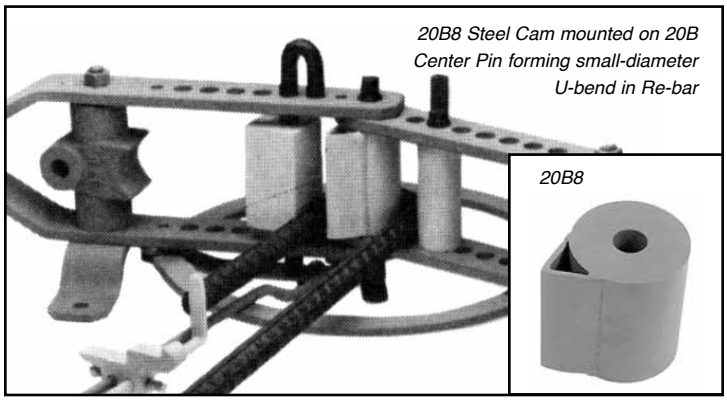
20B8 Cast Cam mounted on 20B Center Pin forming large-diameter U-bend in Re-bar

20B8 Self-Locking Cast Cams for Re-Bar

Make Uniform Leg U-Bends in Re-Bar and Bar Stock up to 11-1/2" Diameter

Form bends in **Bar Stock** or **Reinforcing Bar** up to 180°. Also bend Flat stock. These general purpose Cast Cams will form large-diameter, uniform-leg U-bends, 90° bends, 180° bends, and anything in-between. Self-locking cam shape grabs stock and holds it to prevent slippage – so you'll get uniform legs every time. Ideal for bending Re-Bar including "bent anchor bolts" for reinforcing jobs. Easy to bend fill-in mat and saddles as needed on the job. The are sturdy dies for a wide range of radius sizes from 2-1/2" up to 11-1/2" diameter. Cam face is 1-3/4" tall.

PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.
20357	2-1/2 "	20367	5"	20377	7-1/2"	20387	10"
20358	2-3/4"	20368	5-1/4"	20378	7-3/4"	20388	10-1/4"
20359	3"	20369	5-1/2"	20379	8"	20389	10-1/2"
20360	3-1/4"	20370	5-3/4"	20380	8-1/4"	20390	10-3/4"
20361	3-1/2"	20371	6"	20381	8-1/2"	20391	11"
20362	3-3/4"	20372	6-1/4"	20382	8-3/4"	20392	11-1/4"
20363	4"	20373	6-1/2"	20383	9"	20393	11-1/2"
20364	4-1/4"	20374	6-3/4"	20384	9-1/4"		
20365	4-1/2"	20375	7"	20385	9-1/2"		
20366	4-3/4"	20376	7-1/4"	20386	9-3/4"		



20B8 Steel Cam mounted on 20B Center Pin forming small-diameter U-bend in Re-bar

20B8 Self-Locking Steel Cams

Bend Heavy Steel and Re-Bar to Small Diameters With Durable Steel Cams

Steel Cams are heat-treated to withstand heavier stock. Form small-diameter U-bends in steel or heavier stock like **Re-bar**. These cams will bend from 1-1/2" to 4-1/2" diameter and are excellent for making close return-bends down to a small diameter. Cam face is 4-1/2" tall.

PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.	PART NO.	DIA.
20421	1-1/2"	20447	2-1/4"	20471	3"	20495	3-3/4"
20425	1-9/16"	20449	2-5/16"	20473	3-1/16"	20497	3-13/16"
20427	1-5/8"	20451	2-3/8"	20475	3-1/8"	20499	3-7/8"
20429	1-11/16"	20453	2-7/16"	20477	3-3/16"	20501	3-15/16"
20431	1-3/4"	20455	2-1/2"	20479	3-1/4"	20503	4"
20433	1-13/16"	20457	2-9/16"	20481	3-5/16"	20505	4-1/16"
20435	1-7/8"	20459	2-5/8"	20483	3-3/8"	20507	4-1/8"
20437	1-5/16"	20461	2-11/16"	20485	3-7/16"	20509	4-3/16"
20439	2"	20463	2-3/4"	20487	3-1/2"	20511	4-1/4"
20441	2-1/16"	20465	2-13/16"	20489	3-9/16"	20513	4-5/16"
20443	2-1/8"	20467	2-7/8"	20491	3-5/8"	20515	4-3/8"
20445	2-3/16"	20469	2-15/16"	20493	3-11/16"	20517	4-7/16"
						20519	4-1/2"

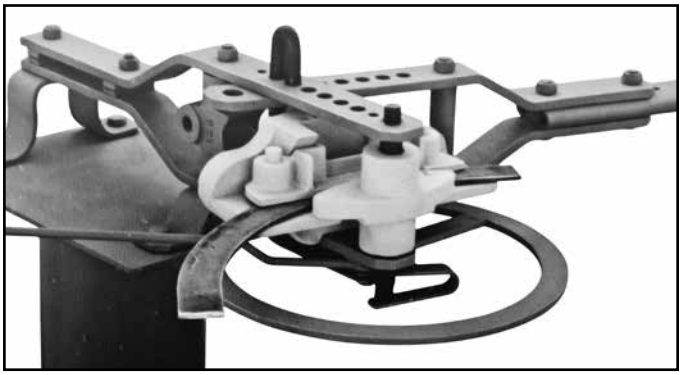
Flat Stock – ASTM A36 Hot Rolled Mild Steel (HRMS).
Inside Radius (IR) – Radius bends in Flat and Bar Stock are measured from the center of the bend to the **inside edge** of the stock.

Stock	Capacity	Inside Radius (IR)
Flat	Up to 1/2" x 1-3/4"	3" – 120" (10 ft) IR
Handrail Capping	Standard Handrail	Min. recommended radius: 9" IR

51B2 Edgebend Die

Edgebend Flat Stock and Handrail – "The Hard Way"

Bend **Flat Stock** and **Handrail Capping** edgeways–AKA "The Hard Way". Complete tooling consists of the **51B2 Edgebend Die Set, 50B Outbend Master Die, 53B Wrist Pin**, a **51B3 Spacer Set**, and a **52B Inner Radius Block** of the desired radius. The size of the Inner Radius Block determines the radius of the bend. Inner Radius Blocks have Dual Faces for bending two different radii.



51B2-1 Edgebend Die used with 50B Master Die and Pins and 52B Inner Radius Block edgebending Flat Stock in a wide radius.

51B2 Edgebend Die Set

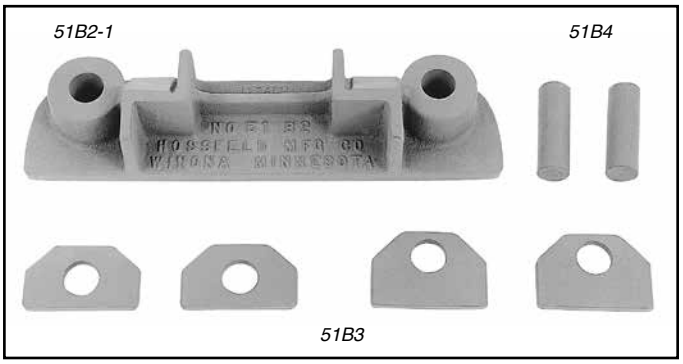
20949 ..... 9 lbs Gross Weight

This special die (also sold on pg. 5) grips **Flat Stock** or **Handrail** tightly so it bends without twisting.

PART NO.	DESCRIPTION
20954	51B2-1 Edgebend Die
20983	51B4 Edgebend Pin (2)

Master Die

PART NO.	DESCRIPTION
20987	50B Outbend Master Die
21078	53B Wrist Pin



The **50B Outbend Master Die** and **52B Inner Radius Blocks** are used BOTH for edgebending Flat Stock and for bending Angle Iron, Leg Out. (See pg. 39).

52B Inner Radius Blocks

PART NO.	IR	PART NO.	IR	PART NO.	IR	PART NO.	IR
21036	3" / 3-1/2"	21043	8" / 13"	21050	21" / 23"	21057	72" / 84"
21037	4" / 5"	21044	9" / 12"	21051	22" / 26"	21058	96" / 108"
21038	4-1/2" / 5-1/2"	21045	10" / 20"	21052	25" / 27"	21059	96" / 120"
21039	5" / 7"	21046	12" / 15"	21053	28" / 32"	21060	192" / 336"
21040	6" / 9"	21047	14" / 16"	21054	30" / 36"	21061	120" / 132"
21041	7" / 8"	21048	17" / 19"	21055	42" / 48"		
21042	7" / 11"	21049	18" / 24"	21056	54" / 60"		

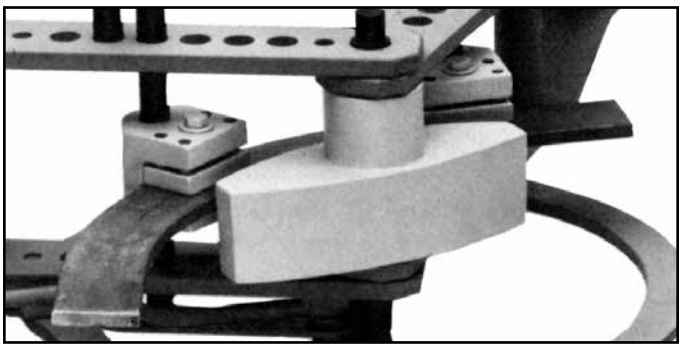
51B3 Spacer Sets (Includes 2 Short & 2 Long)

PART NO.	THICKNESS	PART NO.	THICKNESS
20940	1/8"	20944	3/8"
20941	3/16"	20945	7/16"
20942	1/4"	20946	1/2"
20943	5/16"		

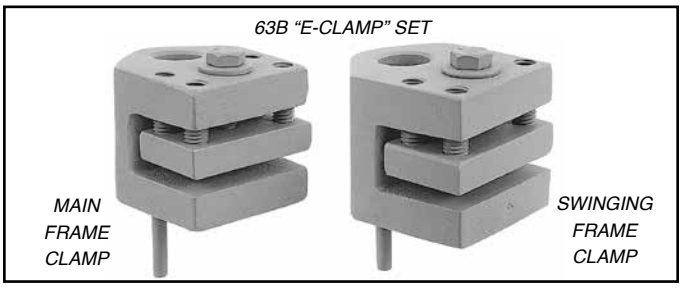
EXTRA-LONG **51B3 Spacer Sets** are available (Nos. 72656-72930) for bending narrower Flat stock. These spacers will keep the stock tight against the **52B Inner Radius Block**.
Call Factory for details.

Inside Radius (IR) – Radius bends in Flat Stock are measured from the center of the bend to the **inside edge** of the Stock.

Stock	Capacity
Flat	Up to 3/8" x 2"



63B "E-Clamp" edgebending heavy Flat stock with a 20B2 Wide, Flat-Face Radius Block



63B "E-Type" Edgebend Clamp Set

Edgebend Heavier Flat Stock to a Larger Radius– "The Hard Way"

Required tooling consists of a **63B "E-Clamp" Set** and a **20B2 Wide, Flat-Face Radius Block** of desired radius size.

63B "E-Type" Edgebend Clamp Set

21201 ..... 11 lbs Gross Weight

Clamp set includes one each of Main Frame and Swinging Frame clamps.

PART NO.	DESCRIPTION
21202	63B-MF Main Frame E-Clamp, Only
21203	63B-SF Swinging Frame E-Clamp, Only

20B2 Wide, Flat-Face Radius Blocks can also be used to bend wide Flat stock "The Easy Way." (See pg. 28).

20B2 Wide, Flat-Face Radius Blocks

PART NO.	IR	PART NO.	IR	PART NO.	IR	PART NO.	IR
20158	4-1/2" / 5-1/2"	20163	13" / 14"	20177	39" / 40"	20184	228" / 240"
20159	5" / 6"	20164	15" / 18"	20178	42" / 48"		
20157	6-1/2" / 7-1/2"	20167	20" / 22"	20180	54" / 60"		
20160	7" / 8"	20169	24" / 36"	20202	66" / 72"		
20161	9" / 12"	20173	28" / 30"	20203	78" / 84"		
20162	10" / 11"	20175	34" / 35"	20183	108" / 120"		

180° bend "The Hard Way"

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Square Tube – Mechanical ASTM Grade 1010 Steel Tube.
Inside Radius (IR) – Radius bends Square Tube are measured from the center of the bend to the **inside edge** of the Tube.

Safety Note: Hydraulic Power is recommended when bending 1" Square Tube and above.

Stock	Capacity	Wall Thickness
Square Tube.....	1/2" – 1-1/2" OD	.065" – .134" Wall (16 Gauge – 10 Gauge)

180° Square Tube Die Sets

Bend Square Tube to 180° with "Wrap-Around" Style Dies

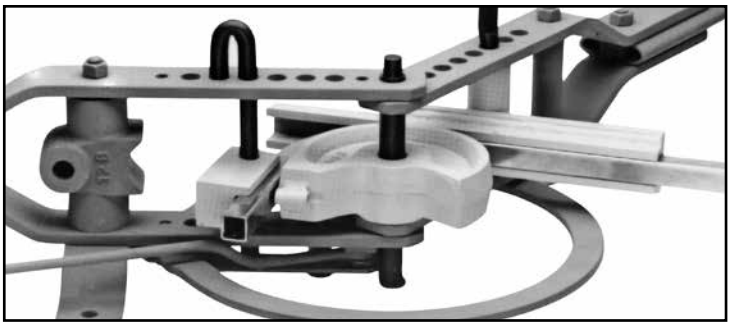
Bend **Square Tube** up to 180° with "One Pull." You don't need mandrels or fillers to support the tube, with only slight indentation along the internal surface of the bend due to the design of the die ("crush bend"). Add precision-controlled Hydraulic Power for ease in bending any size or for accurate production of quantity parts. ***We recommend Hydraulic Power for bending Square Tube from 1" – 1-1/2"***.

Complete Die Sets consist of a **Form Die** and **Dowel Pin, Back Block, Draw Block**, and **9B Roller**. Some components may be duplicated in the assembled die sets, so bending the same square tube size to a different radius, or bending different square tube sizes to the same radius, may not require the purchase of additional Die Sets. All components can be purchased separately. Individual Draw Blocks (sold on pg. 35). Back Blocks are designed to be used only with the listed Form Die for a radius and cannot be interchanged with other Form Dies.

Example: If you already have a 103B 3/4" SQ x 4" IR Die Set, and you want to bend 1" SQ to the same radius, order a 103B 1" SQ Back Block and the 1" Draw Block.

Example: If you already have a 103B 1" SQ x 4" IR Die Set, and you want to bend 1" SQ to a 3" radius, order a 116B 3" Form Die and 116B 1" Back Block.

Contact the Factory for assistance or if there is a size you don't see.



103B Square Tube 180° Die Set (Form Die, Back Block, Draw Block) bending a 4" radius in 3/4" Square Tube

11B Square Block used as backing block with 37894 Dowel Pin inserted in Form Die to secure the stock

2" IR

116B2 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38700	1/2" SQ
38703	5/8" SQ
38705	3/4" SQ

180° Form Die, Only

PART NO.	SIZE
38701	1/2" – 3/4" SQ

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38702	1/2" SQ
38704	5/8" SQ
38706	3/4" SQ

2-1/4" IR

116B3 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38711	1/2" SQ
38714	5/8" SQ
38716	3/4" SQ

180° Form Die, Only

PART NO.	SIZE
38712	1/2" – 3/4" SQ

Back Blocks, Only

.065" Min Wall (16 Gauge)

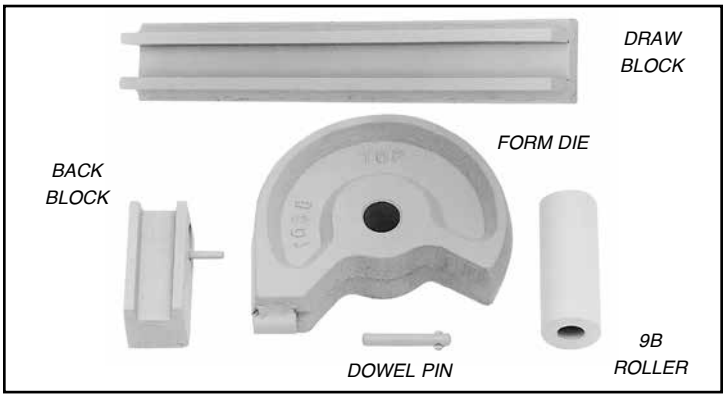
PART NO.	SIZE
38713	1/2" SQ
38715	5/8" SQ
38717	3/4" SQ

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Safety Note: .134" Wall (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

Follow all recommendations for the minimum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.

180° Sq. Tube Sets continued



Need Something You Don't See?

Call us; we have a large range of replacement parts, and we'll make every effort to meet your needs.

Call Us For Additional Needs
(507) 452-2182

2-3/8" IR

116B4 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38722	1/2" SQ
38725	5/8" SQ
38727	3/4" SQ

180° Form Die, Only

PART NO.	SIZE
38723	1/2" – 3/4" SQ

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38724	1/2" SQ
38726	5/8" SQ
38728	3/4" SQ

3" IR

116B 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
37900	1/2" SQ
37919	5/8" SQ
37938	3/4" SQ
37957	7/8" SQ
37976	1" SQ

180° Form Die, Only

PART NO.	SIZE
37901	1/2" - 1" SQ

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
37902	1/2" SQ
37921	5/8" SQ
37940	3/4" SQ
37959	7/8" SQ
37978	1" SQ

4" IR

103B 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38050	1/2" SQ
38069	5/8" SQ
38088	3/4" SQ
38107	7/8" SQ
38127	1" SQ
38146	1-1/8" SQ

.083" Min Wall (14 Gauge)

PART NO.	SIZE
38165*	1-1/4"
38203*	1-1/2"

180° Form Die, Only

PART NO.	SIZE
38051	1/2" - 1-1/2" SQ

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38052	1/2" SQ
38071	5/8" SQ
38090	3/4" SQ
38109	7/8" SQ
38129	1" SQ
38148	1-1/8" SQ

*Die Sets include Form Die/Dowel Pin, Draw Block, and 9B Flat-Surface Roller ONLY. Use No. 20054 11B Square Block as Back Block (standard w/46000 Bender).

SQUARE TUBE

Square Tube – Mechanical ASTM Grade 1010 Steel Tube.
Inside Radius (IR) – Radius bends Square Tube are measured from the center of the bend to the **inside edge** of the Tube.

Safety Note: Hydraulic Power is recommended when bending 1" Square Tube and above.

Stock	Capacity	Wall Thickness
Square Tube.....	1/2" – 1-1/2" OD.....	.065" – .134" Wall (16 Gauge – 10 Gauge)

180° Sq. Tube Sets continued

5" IR

104B 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38280	1/2"
38299	5/8"
38318	3/4"
38337	7/8"
38356	1"
38375	1-1/8"

.083" Min Wall (14 Gauge)

PART NO.	SIZE
38394*	1-1/4"
38432*	1-1/2"

180° Form Die, Only

PART NO.	SIZE
38281	1/2" - 1-1/2" SQ

*Die Sets include Form Die/Dowel Pin, Draw Block, and 9B Flat-Surface Roller ONLY. Use 20054 11B Square Block as Back Block (standard with 46000 Bender).

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38282	1/2"
38301	5/8"
38320	3/4"
38339	7/8"
38358	1"
38377	1-1/8"

6" IR

105B 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38510	1/2" SQ
38529	5/8" SQ
38548	3/4" SQ
38567	7/8" SQ
38586	1" SQ
38605	1-1/8" SQ

.083" Min Wall (14 Gauge)

PART NO.	SIZE
38624	1-1/4" SQ
38662**	1-1/2" SQ

180° Form Die, Only

PART NO.	SIZE
38511	1/2"-1-1/2" SQ

Die Sets include Form Die/Dowel Pin, Draw Block, Back Block, 9B Flat-Surface Roller, and 38675 Sq. Tube Roller. One or both Rollers may be needed for your bend. ***Call Factory for details.*

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38512	1/2" SQ
38531	5/8" SQ
38550	3/4" SQ
38569	7/8" SQ
38588	1" SQ
38607	1-1/8" SQ (Bolt-on BB)

.083" Min Wall (14 Gauge)

PART NO.	SIZE
38626	1-1/4" SQ (Bolt-on BB)
38664	1-1/2" SQ (Bolt-on BB)

7" IR

107B 180° Sq. Tube Die Sets

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38840	1/2" SQ
38843	5/8" SQ
38845	3/4" SQ
38847	7/8" SQ
38849**	1" SQ

180° Form Die, Only

PART NO.	SIZE
38841	1/2" - 1-1/2" SQ

Die Sets for 1" through 1-1/2" OD x 7" IR come with Form Die/Dowel Pin, Draw Block, Back Block, 9B Flat-Surface Roller, and 38675 Sq. Tube Roller. One or both Rollers may be needed for your bend. ***Call Factory for details.*

Back Blocks, Only

.065" Min Wall (16 Gauge)

PART NO.	SIZE
38842	1/2" SQ (Bolt-On BB)
38844	5/8" SQ (Bolt-On BB)
38846	3/4" SQ (Bolt-On BB)
38848	7/8" SQ (Bolt-On BB)
38850	1" SQ (Bolt-On BB)
38852	1-1/8" SQ (Bolt-On BB)

.083" Min Wall (14 Gauge)

PART NO.	SIZE
38854	1-1/4" SQ (Bolt-On BB)
38858	1-1/2" SQ (Bolt-on BB)

Safety Note: .134" Wall (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

Follow all recommendations for the minimum wall thickness that can be bent with the tooling. Bending stock that is too thin or too thick for the desired radius may result in breakage or distortion of the stock.

180° Sq. Tube Sets continued

Square Tube Draw Blocks

Draw Blocks can be used with **ALL** Form Dies

.065" Min Wall (16 Gauge)

PART NO.	SIZE
37906	1/2" SQ
37925	5/8" SQ
37944	3/4" SQ
37963	7/8" SQ
37982**	1" SQ
38152**	1-1/8" SQ

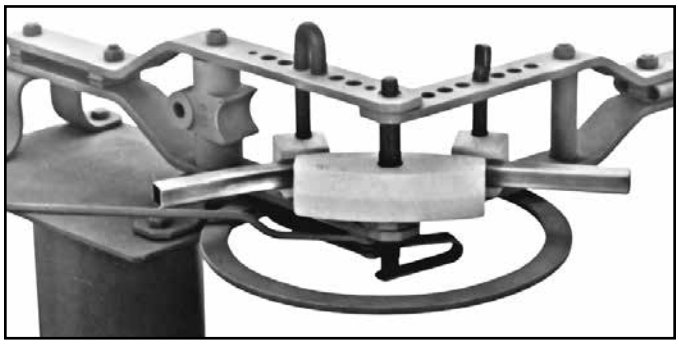
.083" Min Wall (14 Gauge)

PART NO.	SIZE
38171**	1-1/4" SQ
38209**	1-1/2" SQ

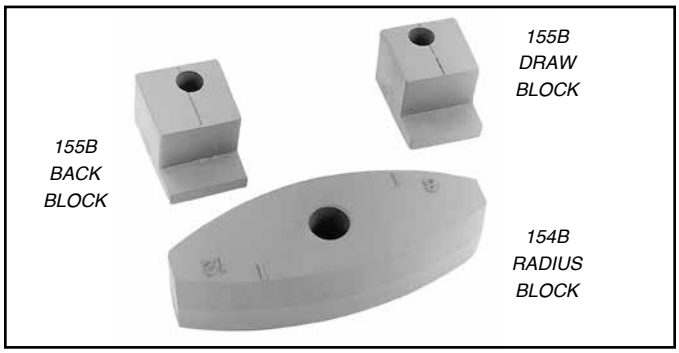
Miscellaneous Parts for Square Tube

PART NO.	DESCRIPTION
20049*	9B Flat-Surface Roller
37894	Sq. Tube Form Die Dowel Pin
38675**	Sq. Tube Roller

* Included with basic 46000 Bender package.
Square Tube Draw Blocks require a 20049 9B Flat-Surface Roller for setup. A 9B is included with the basic 46000 Bender package and is also included in each Square Tube Die Set. In addition, bending 1-1/2" OD x 6" IR or 1" OD – 1-1/2" OD x 7" IR requires the 38675 Sq. Tube Roller. When ordering single Draw Blocks, order additional Rollers below. ***Contact Factory for questions.*



154B Crowned Radius Block and 155B Back Block/Draw Block Set bending Square Tube



154B/155B Feed-Along Square Tube Die Sets

Make Large-Radius Bends up to 360° in Square Tube

Form larger radius bends in **Square Tube**. Complete tooling consists of a **155B Master Back Block/Draw Block Set** for the Square Tube size and a **154B Crowned Radius Block** for the desired radius. Special "crowned" profile forms the tube smoothly around the bend with only slight longitudinal crimping along the tube ("crush bend"). Radius blocks have dual faces, so each block can make two different radius bends.

155B Feed-Along Back/Draw Block Sets

PART NO.	SIZE	PART NO.	SIZE
38875	1/2" SQ	38930	1" SQ
38888	5/8" SQ	38944	1-1/8" SQ
38902	3/4" SQ	38958	1-1/4" SQ
38916	7/8" SQ	38986	1-1/2" SQ

154B Feed-Along "Crowned" Radius Blocks

PART NO.	IR	PART NO.	IR
39010	8" / 11-1/2"	39044	42" / 48"
39012	9" / 12"	39056	54" / 55"
39014	10" / 15"	39062	60" / 72"
39018	14" / 16"	39074	84" / 96"
39020	18" / 20"	39086	108" / 120"
39026	24" / 36"	39110	149" / 150"
39034	30" / 33"		

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

154B Crowned Radius Blocks can be used for forming larger radius bends in BOTH Square Tube and Rectangular Tube. (See pg. 37).

SQUARE TUBE

Square Tube – Mechanical ASTM Grade 1010 Steel Tube.
Center Line Radius (CLR) – Section Diagonal bends in Square Tube are measured from the center of the bend to the **center line** of the Tube.

Safety Note: .134" (10 Gauge) is the maximum wall thickness you can safely bend with ANY of our Tube Die Sets. Bending thicker stock may result in breakage of the die and/or injury.

20B11 180° Square Tube Dies ("Section Diagonal")

Bend Square Tube on "Section Diagonal" up to 180°

Bend **Square Tube** on the Section Diagonal up to 180°.*
Tooling consists of a **20B11 Form Die**, a **Back Block** to fit the Square Tube, and a **15B2 V-Grooved Roller** as Draw Block.

20B11 180° Square Tube Form Dies

PART NO.	CLR
43500	5-1/2"

Square Tube Back Blocks

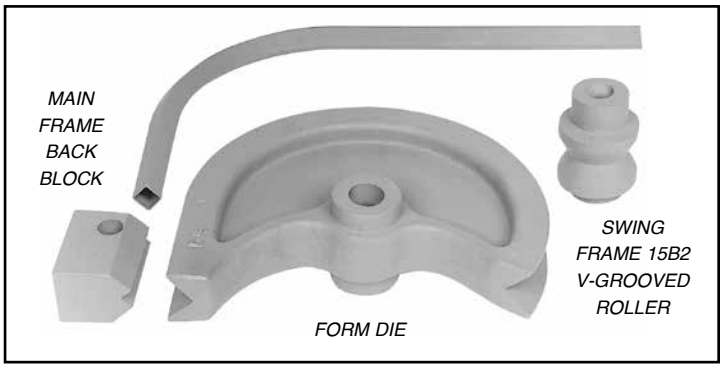
PART NO.	SIZE
42985	1/2" - 3/4" SQ
42986	7/8" - 1" SQ

Roller

PART NO.	DESCRIPTION
20076**	15B2 V-Grooved Roller

* Limited radius sizes only
** Included with 46001 General Purpose Pipe Toolset

20B11 Form Die using 11B Square Block (left) and 9B Roller (right) as backing blocks. Custom Back Block and V-Grooved Roller available at left



20B9 Feed-Along Square Tube Dies ("Section Diagonal")

Bend Square Tube on "Section Diagonal" up to 360°

Form larger-radius bends in **Square Tube** on the Section Diagonal.
Tooling consists of a **20B9 Form Die** for the desired radius and a **Master Back Block/Draw Block Set** for the Square Tube size.
Form Dies have dual working faces for bending two different radii.

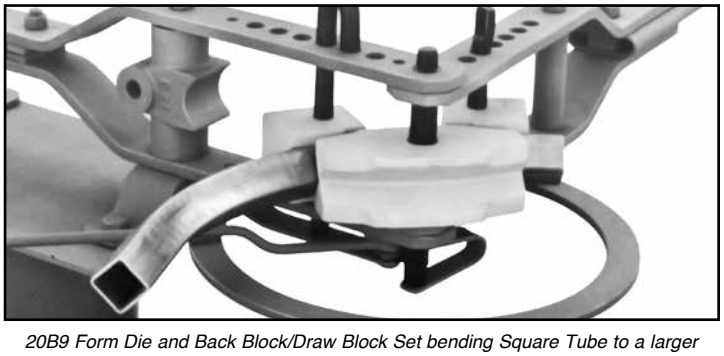
20B9 Feed-Along Sq. Tube Form Dies

PART NO.	CLR
43000	10" / 12"
43002	14" / 16"
43004	18" / 20"
43006	22" / 24"

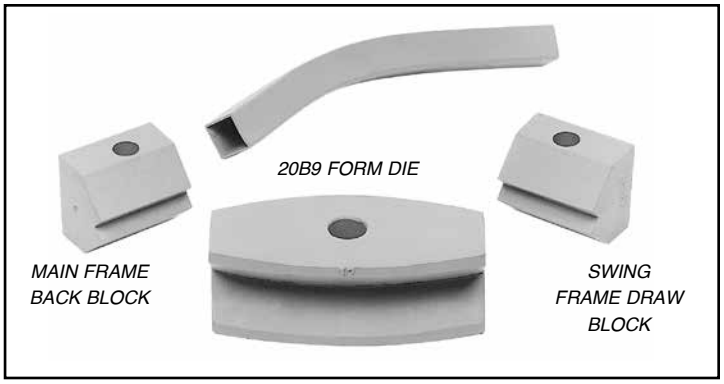
Square Tube Back Block/Draw Block Sets

PART NO.	SIZE
42970	1/2", 5/8" & 3/4" SQ
42975	7/8", 1", 1-1/8" & 1-1/4" SQ

20B9 Form Dies can be used to bend BOTH Square Tube and Angle Iron, Heel-in. (See pg. 41).



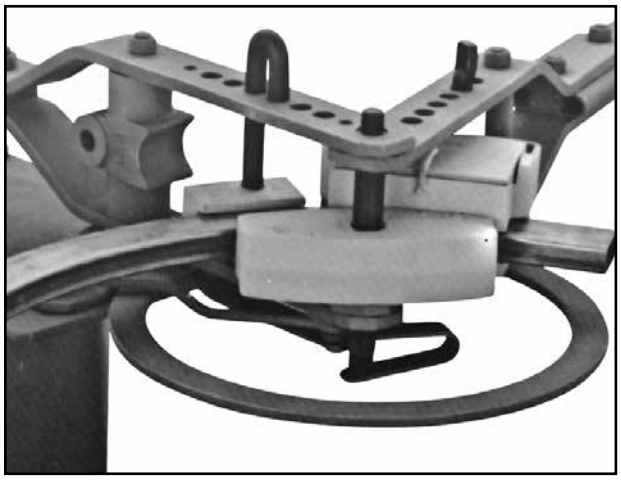
20B9 Form Die and Back Block/Draw Block Set bending Square Tube to a larger radius on the section diagonal



Safety Note: Hydraulic Power is recommended when bending ANY SIZE Rectangular Tube.

Rectangular Tube – ASTM A513 Low Carbon Mechanical Steel Tube.
Inside Radius (IR) – Radius bends in Rectangular Tube are measured from the center of the bend to the **inside edge** of the tube.

Stock	Wall Thickness
Rectangular Tube.....	.065" – .109" Wall (16 Gauge – 12 Gauge)



150B Master Die & 151B Inner Wedge grip stock as it bends along 154B "Crowned" Radius Block and 152B Back Block

154B Feed-Along "Crowned" Radius Blocks

Edgebend Rectangular Tube – "The Hard Way"

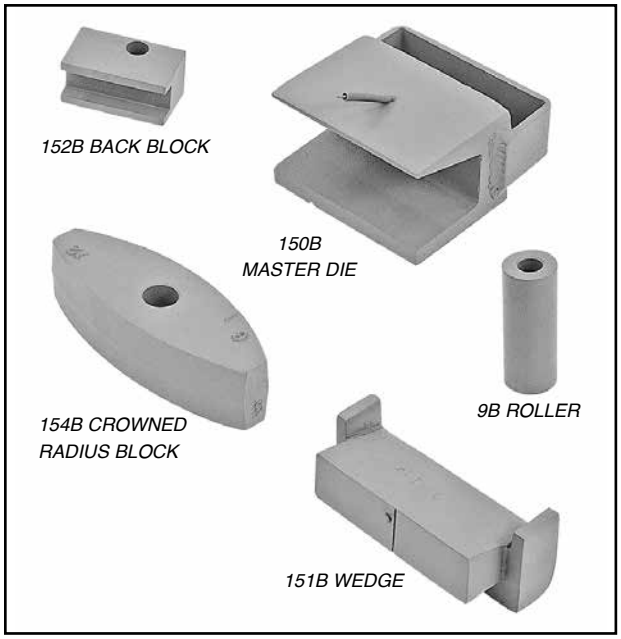
Form large-radius bends in **Rectangular Tube, Edgeways** – ("The Hard Way"). Tooling consists of a **150B Master Die, 151B Inner Wedge Block, 9B Flat-Surface Roller** and **152B Back Block** and a **154B "Crowned" Radius Block** for the radius to complete the set. Unique "wedge" grips the tube tightly to avoid twisting or distortion. "Crowned" profile forms the tube smoothly with only slight longitudinal indentation along the inside diameter of the bend *("crush bend")*. Radius blocks have dual faces, so each block can make two different radius bends.

150B Master Die

PART NO.	DESCRIPTION
39225	150B Rectangular Tube Master Die

Additional Parts

PART NO.	DESCRIPTION
20049	9B Flat-Surface Roller
39270	153B Elevation Plug (for 3/4" x 1-1/2" Rect. Tube)



154B Feed-Along "Crowned" Radius Blocks

PART NO.	IR	PART NO.	IR
39010	8" / 11-1/2"	39044	42" / 48"
39012	9" / 12"	39056	54" / 55"
39014	10" / 15"	39062	60" / 72"
39018	14" / 16"	39074	84" / 96"
39020	18" / 20"	39086	108" / 120"
39026	24" / 36"	39110	149" / 150"
39034	30" / 33"		

152B Back Blocks

PART NO.	SIZE
39261*	1/2" x 2"
39265**	3/4" x 1-1/2"
39260*	3/4" x 2"
39262	1" x 1-1/2"
39259	1" x 2"

151B Inner Wedge Blocks

PART NO.	SIZE
—	—
39250	3/4" x 1-1/2"
—	—
39245	1" x 1-1/2"
39240	1" x 2"

* Back Block available only; no Inner Wedge
** Requires 39270 153B Elevation Plug

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

154B "Crowned" Radius Blocks are used to bend large radii in BOTH Rectangular Tube and Square Tube. (See pg. 35)

Edgebend Rectangular Tube – "The Easy Way". We also offer tooling to bend Rectangular Tube vertically (along the long side). ***These items are special order. Call Factory for details.***

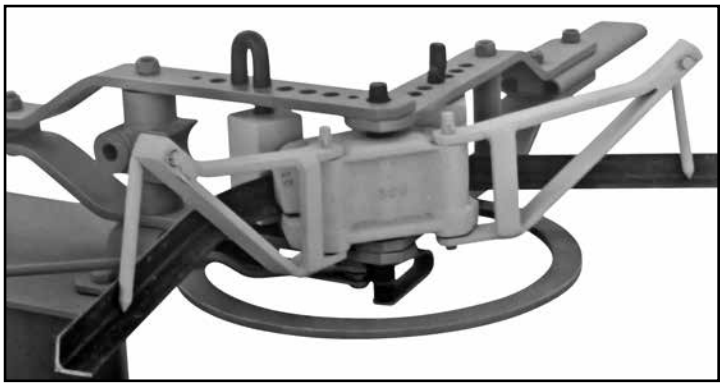
Angle Iron – ASTM A36 Hot Rolled Mild Steel (HRMS)
Vertical Leg Inside Radius (IR) – Radius bends in Angle Iron are measured from the center of the bend to the **inside edge** of the vertical leg.

Stock	Capacity
Angle Iron.....	3/16" x 2" x 2" (cold) / 3/8" x 2" x 2" (hot)

30B/31B Angle Iron Dies – "Leg-In"

Bend Angle Iron, Leg-In, As Small As 4" Radius Without Twisting or Distortion

These dies works on a wedge principle. When bending pressure is applied, the Inner Radius Block holds the horizontal flange of the stock in a vise-like grip to prevent crimping or twisting. Tooling consists of a **30B Master Die Assembly** and **31B Inner Radius Block** of desired size. ***Purchase the General Purpose Set, or order parts individually, as needed.***



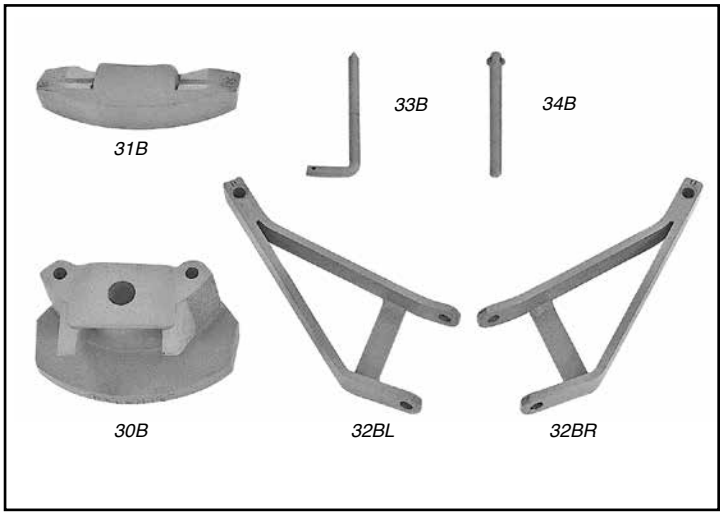
30B Master Die Assembly (Master Die, Swing Arms, and stabilizing Prongs)
31B Inner Radius Block bending Angle Iron, "Leg-In"

General Purpose Toolset

General Purpose Toolset for Bending Angle Iron, Leg-In

20780.....108 lbs Gross Weight

This set, also sold on pg. 6, includes the Master Die Assembly and a set of the most popular sizes of Inner Radius Blocks, conveniently priced and packaged: 5", 6", 7", 9", 12", 15", 18", 24", 30", and 36" radii. ***Included items are starred (*) below.***



Master Die Assembly

30B Inbend Master Die Assembly, Complete

20781*.....

Contains the following parts. All parts can be purchased separately.

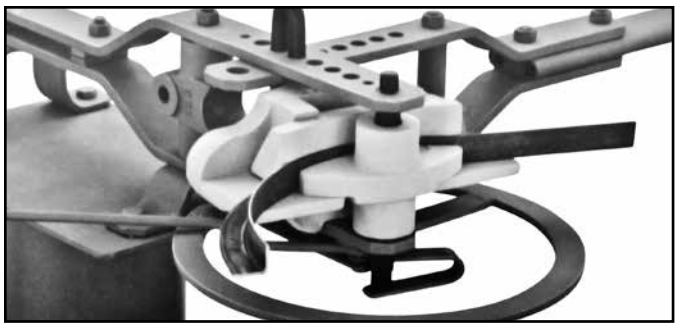
PART NO.	DESCRIPTION
20782	30B Inbend Master Die
20851	32BR Right Holding Arm
20852	32BL Left Holding Arm
20859	33B Prong (for Holding Arm) (2)
20865	34B Pin (for Holding Arm) (2)

31B Inner Radius Blocks

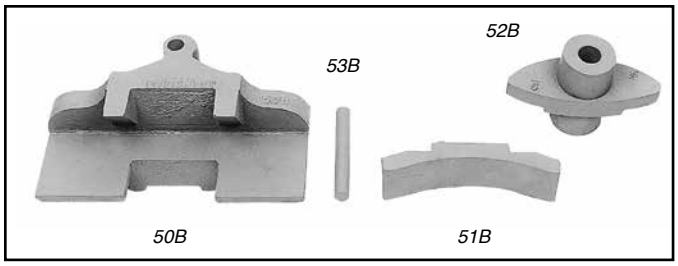
PART NO.	IR	PART NO.	IR
20798	4"	20815	19"
20799	4-1/2"	20816	20"
20800*	5"	20818	22"
20801	5-1/2"	20820*	24"
20802*	6"	20822	26"
20803*	7"	20824	28"
20804	8"	20826*	30"
20805*	9"	20827	32"
20806	10"	20828	34"
20807	11"	20829*	36"
20808*	12"	20830	40"
20809	13"	20831	44"
20810	14"	20832	48"
20811*	15"	20833	60"
20812	16"	20834	72"
20813	17"	20835	96"
20814*	18"	20836	120"

"S" bend in Angle Iron:
"Leg-In" (top) and "Leg-Out" (bottom)

* Included in 20780 General Purpose Toolset



50B Master Die, 51B Outer Radius Block, 52B Inner Radius Block bending Angle Iron, "Leg-Out" Radius Block and 152B Back Block



50B, 51B, 52B Angle Iron Dies – "Leg-Out"

Bend Angle Iron, Leg-Out, As Small As 3" Radius, Or Up To 10' Circles

Tooling consists of a **50B Master Die** and **53B Wrist Pin** and matching **51B Outer** and **52B Inner Radius Blocks.** Outer wedge grips flange tightly while the Swinging Arm bends the stock around the Inner Radius Block. Inner Radius Blocks have dual faces for bending two different radii. ***Purchase the General Purpose Set, or order parts individually, as needed.***

General Purpose Toolset

General Purpose Toolset for Bending Angle Iron, Leg-Out

20986 ..... 162 lbs Gross Weight

This set, also shown on pg. 6, includes the Master Die and Wrist Pin and a set of the most popular sizes of Inner and Outer Radius Blocks, conveniently priced and packaged: 5", 6", 7", 9", 12", 15", 18", 24", 30", and 36" radii. ***Included items are starred (*) below.***

50B Master Die

PART NO.	DESCRIPTION
20987*	**50B Outbend Master Die**
21078*	**53B Wrist Pin**

51B Outer Radius Blocks

PART NO.	IR	PART NO.	IR
20989	**3"**	**21032**	**17"**
20990	**3-1/2"**	**21012***	**18"**
20991	**4"**	**21033**	**19"**
20992	**4-1/2"**	**21013**	**20"**
20993*	**5"**	**21014**	**22"**
20994	**5-1/2"**	**21015***	**24"**
20995*	**6"**	**21016**	**26"**
20996	**6-1/2"**	**21017**	**28"**
20997*	**7"**	**21018***	**30"**
20998	**7-1/2"**	**21019**	**32"**
20999	**8"**	**21020***	**36"**
21000	**8-1/2"**	**21021**	**42"**
21001*	**9"**	**21022**	**48"**
21002	**9-1/2"**	**21023**	**54"**
21003	**10"**	**21024**	**60"**
21004	**10-1/2"**	**21025**	**66"**
21005	**11"**	**21026**	**72"**
21006	**11-1/2"**	**21027**	**84"**
21007*	**12"**	**21028**	**96"**
21008	**13"**	**21029**	**108"**
21009	**14"**	**21030**	**120"**
21010*	**15"**	**21031**	**132"**
21011	**16"**		

52B Inner Radius Blocks

PART NO.	IR	PART NO.	IR
21036	**3" / 3-1/2"**	**21049***	**18" / 24"**
21037	**4" / 5"**	**21050**	**21" / 23"**
21038	**4-1/2" / 5-1/2"**	**21051**	**22" / 26"**
21039*	**5" / 7"**	**21052**	**25" / 27"**
21040*	**6" / 9"**	**21053**	**28" / 32"**
21041	**7" / 8"**	**21054***	**30" / 36"**
21042	**7" / 11"**	**21055**	**42" / 48"**
21043	**8" / 13"**	**21056**	**54" / 60"**
21044	**9" / 12"**	**21057**	**72" / 84"**
21045	**10" / 20"**	**21058**	**96" / 108"**
21046*	**12" / 15"**	**21059**	**96" / 120"**
21047	**14" / 16"**	**21060**	**192" / 336"**
21048	**17" / 19"**	**21061**	**120" / 132"**

* Included in General Purpose Toolset

Angle Iron – ASTM A36 Hot Rolled Mild Steel (HRMS)
Vertical Leg Inside Radius (IR) – Radius bends in Angle Iron are measured from the center of the bend to the **inside edge** of the vertical leg.

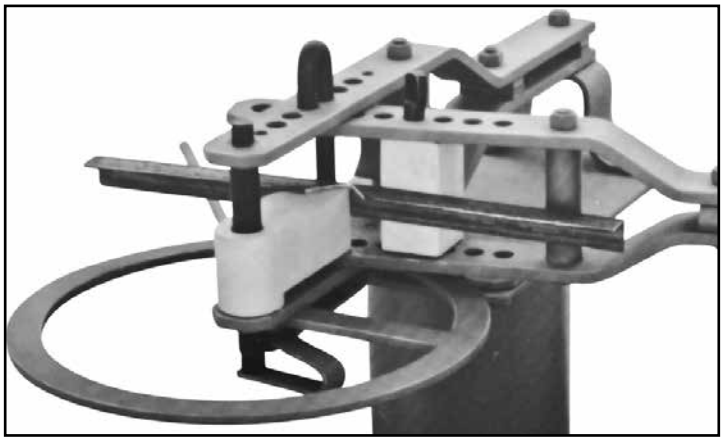
Stock	Maximum Capacity
Angle Iron	5/16" x 2-1/2" x 2-1/2"

35B "Notched" Angle Iron Die

Notch Your Angle Iron; Then Bend It Closed To Form Sharp Corners

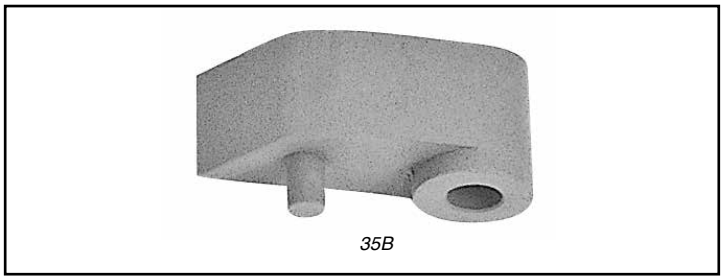
Form sharp bends in Angle Iron, "Leg-In" after the point of the bend has been notched. Also forms sharp "V" bends in Flat Stock.

PART NO.	DESCRIPTION
20872	**35B Notched Angle Iron Die**



35B Notched Angle Die bending notched Angle Iron, "Leg-in"

"Notched" Angle Iron

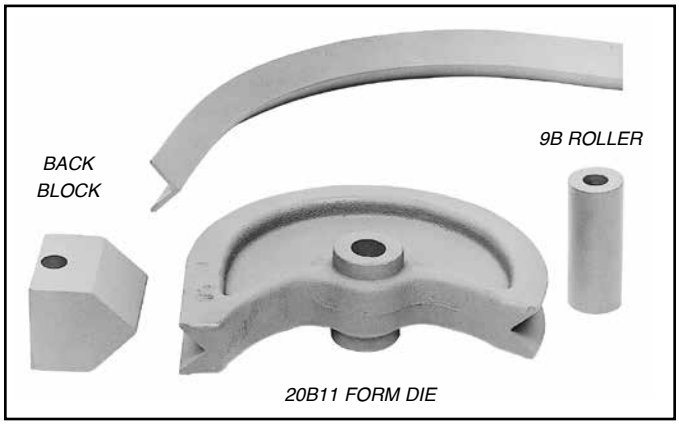


35B

Need Something You Don't See?

Call us; we have a large range of replacement parts, and we'll make every effort to meet your needs.

Call Us For Additional Needs
(507) 452-2182



20B11 FORM DIE

Stock	Capacity
Angle Iron	1/8" x 1/2" x 1/2" through 3/16" x 1" x 1"

20B11 180° Angle Iron Dies – "Heel-In"

Bend Angle Iron "Heel-In" up to 180°

Bend Angle Iron with the "Heel-In" up to 180° with "One Pull." * Tooling consists of a "Wrap Around" – style **20B11 Form Die, Master Back Block**, and **9B Flat-Surface Roller**.

20B11 180° Form Die

PART NO.	CLR
43500	**5-1/2"**

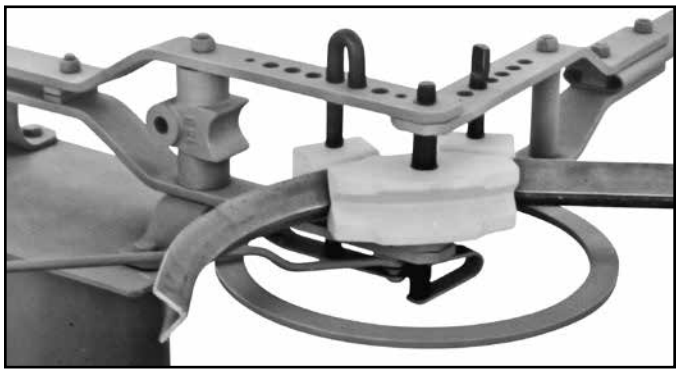
Back Block

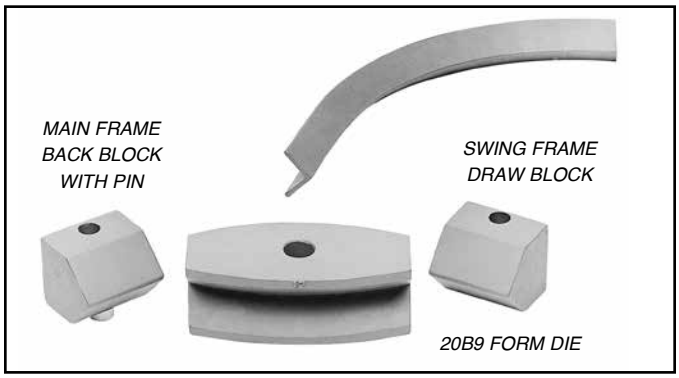
PART NO.	DESCRIPTION
42900	**Angle Iron, Heel-In Back Block**

Roller

PART NO.	DESCRIPTION
20049**	**9B Flat-Surface Roller**

* Limited sizes only
** Included with basic 46000 Bender package


20B9 Feed-Along Form Die and 42980 Back Block Set (includes Block Block and Draw Block) bending Angle Iron, Heel-In



20B9 FORM DIE

Stock	Maximum Capacity
Angle Iron.....	1/8" x 1/2" x 1/2" through 3/16" x 1-1/2" x 1-1/2"

20B9 Feed-Along Angle Iron Dies – "Heel-In"

Form Larger-Radius Bends in Angle Iron With The "Heel-In"

Form larger-radius bends in Angle Iron, "Heel-In". Tooling consists of a **Master Draw Block/Back Block Set** for ALL radius sizes and a **20B9 Form Die** for the desired radius. Form Dies have dual working faces for bending two different radii.

20B9 Feed-Along Form Dies

PART NO.	CLR
43000	**10"/12"**
43002	**14"/16"**
43004	**18"/20"**
43006	**22"/24"**

Back Block Set

PART NO.	DESCRIPTION
42980	**Back Block/Draw Block Set for ALL radii**

20B9 Form Dies can be used to bend BOTH Angle Iron, "Heel-In" and Square Tube. (See pg. 36).

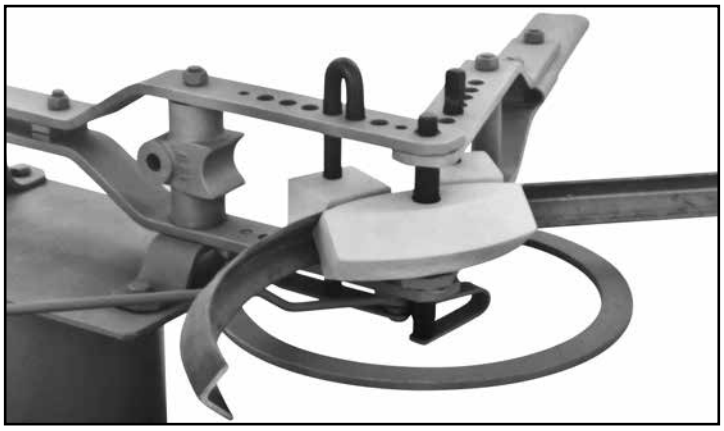
Angle Iron – ASTM A36 Hot Rolled Mild Steel (HRMS)
Inside Radius (IR) – Radius bends in Angle Iron "Heel-Out" are measured from the center of the bend to the **inside edge** of the heel.

Stock	Capacity
Angle Iron.....	1/8" x 1/2" x 1/2" through 3/16" x 1-1/2" x 1-1/2"

20B10 Feed-Along Angle Iron Dies – "Heel-Out"

Bend Angle Iron "Heel Out" from 10" to 20" Radius

Tooling consists of a **Master Back Block/Draw Block Set** for ALL radius sizes and a **20B10 Form Die** for the desired radius. Form Dies have dual working faces for bending two different radii.



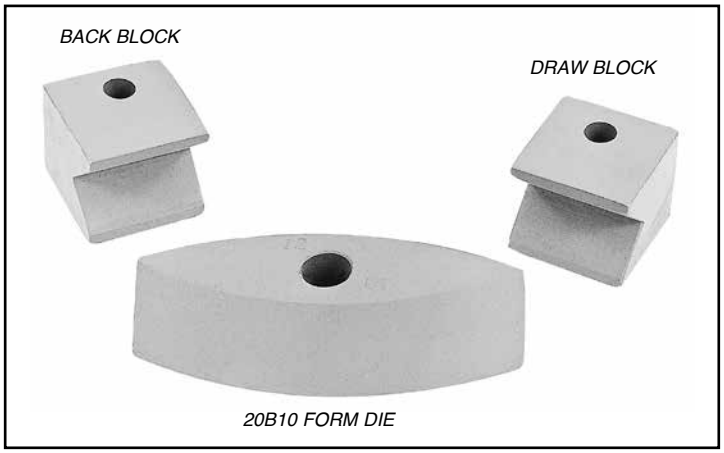
20B10 Form Die with 42990 Back Block/Draw Block Set bending Angle Iron with the "Heel Out"

20B10 Feed-Along Form Dies

PART NO.	IR
43400	**10" / 12"**
43404	**18" / 20"**

Block Set

PART NO.	DESCRIPTION
42990	**Back Block/Draw Block Set for ALL radii**

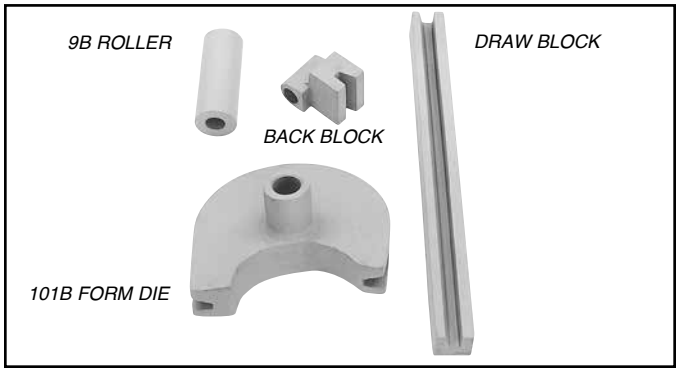


Radius bend in Angle Iron:
"Heel-Out" (shown on left) and "Heel-In" (shown on right)

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Center Line Radius (CLR) – Radius bends in Handrail are measured from the center of the bend to the **center line** of the stock.

101B Die Set (Form Die, Back Block, and long Draw Block) bending 4" radius in 1-3/4" Handrail



Handrail Cap

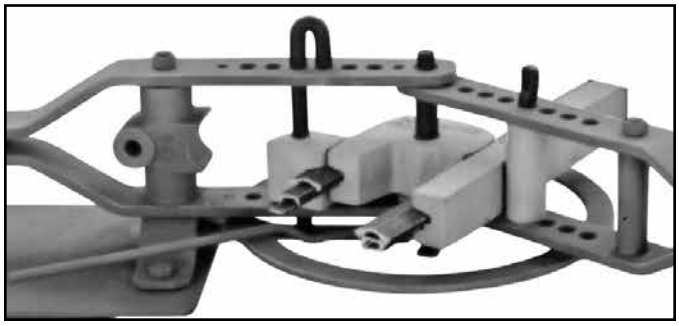
We offer tooling for bending several sizes of **Handrail Cap** alone or with Assembled Channel. Bend small radius sizes up to 180° with "One Pull". To bend larger radius sizes, purchase Feed-Along style dies, which let you bend any offset up to full 360° circles by feeding the tooling through and bending until you reach the desired degree of bend.

180° Edgebend Die Sets for Handrail Cap

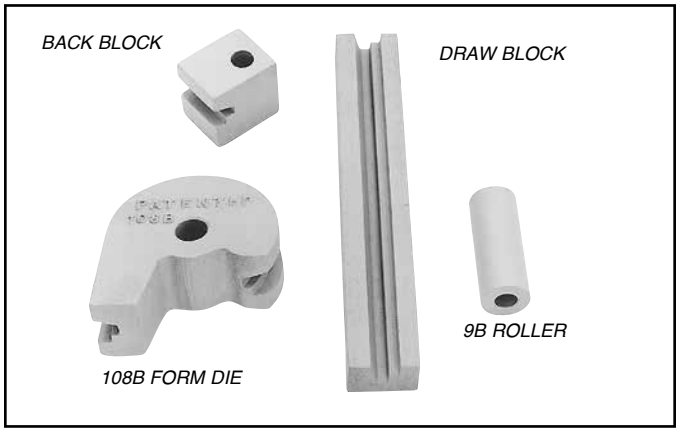
Edgebend Standard 1-3/4" Handrail to 180° with "One Pull"

Form small-radius edgebends in **Handrail Cap** up to 180° without twisting or distortion.

PART NO.	DESCRIPTION	SIZE	CLR
37000	100B Handrail Die Set	1-3/4"	3"
37017	101B Handrail Die Set	1-3/4"	4"
37034	126B Handrail Die Set	1-3/4"	5"



108B Die Set (Form Die, Back Block, long Draw Block) bending 3" radius in Handrail Cap and Structural Channel combined. Hydraulic Power recommended (not shown)



180° Edgebend Die Sets for Handrail Cap Assembly

Edgebend Handrail Cap Assembly to 3" or 4" Sizes, Up to 180°

Form small-radius edgebends in **Handrail Cap** assembled with Structural Channel. Two sizes available for making return bends up to 180° in one operation.

PART NO.	DESCRIPTION	SIZE	CLR
37267	108B Handrail Die Set	1-3/4"	3"
37283	109B Handrail Die Set	1-3/4"	4"
37298	— Handrail Die Set	1-15/16"	4"

We recommend using the Hydraulic Attachment when bending Handrail with Assembled Channel (pgs. 8-11). Alternative "L-Type" Swinging Frame needed to bend 180° with hydraulic attachment.

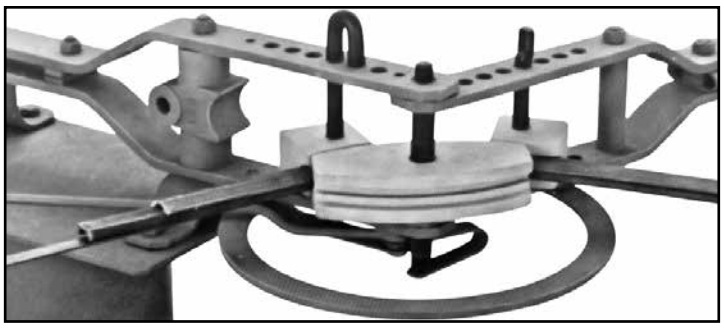
Inside Radius (IR) – Radius bends in Handrail are measured from the center point of the bend to the **center** of the stock.

Stock	Capacity
Handrail	Trade sizes of Handrail Cap with assembled Structural Channel

160B Feed-Along Edgebend Die Sets for Handrail Cap Assembly

Make Larger Edgebends in Molded Handrail Assemblies

Form larger-radius edgebends in two- or three-piece **Handrail Assemblies**. Use Rectangular Tube or Structural Channel and filler strip as insert; bend assembled handrail as one piece. Tooling consists of a **160B Form Die** for the desired radius and a **160B Master Back Block Set** (for all radius sizes). Radius Blocks have dual faces for bending two different radii. Bend 1-3/4" or 1-15/16" Molded Iron Handrail Cap with Assembled Channel from 10" – 116" radius.

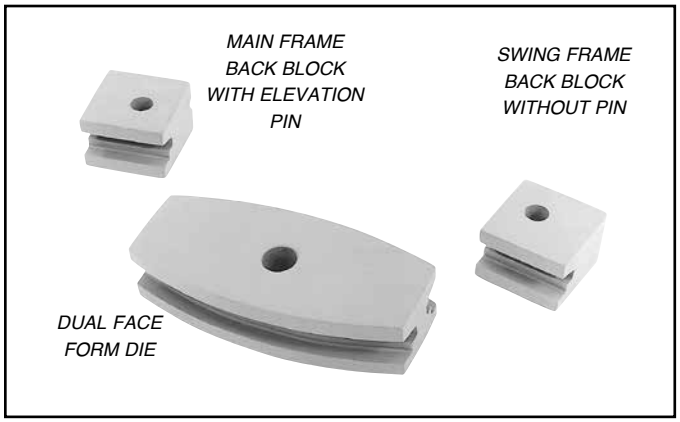


160B Form Die, Back Block, and Draw Block edgebending 3-piece Handrail Assembly (Handrail, Channel, and filler strip)

1-3/4" Handrail Cap Assembly

160B Back Block Set

PART NO.	DESCRIPTION
37207	Back Block Set for ALL radii (Set of 2)



160B Feed-Along Form Dies

PART NO.	CLR	PART NO.	CLR
37210	10" / 11"	37221	32" / 34"
37211	12" / 13"	37223	40" / 42"
37212	14" / 15"	37225	46" / 48"
37213	16" / 17"	37228	56" / 58"
37214	18" / 19"	37235	82" / 84"
37215	20" / 21"	37240	106" / 108"
37216	22" / 23"	37242	114" / 116"
37217	24" / 25"		

1-15/16" Handrail Cap Assembly

Back Block Set

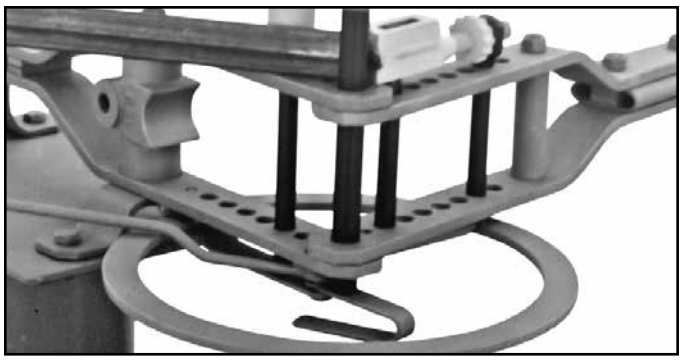
PART NO.	DESCRIPTION
37325	Back Block Set for ALL radii (Set of 2)

Feed-Along Form Dies

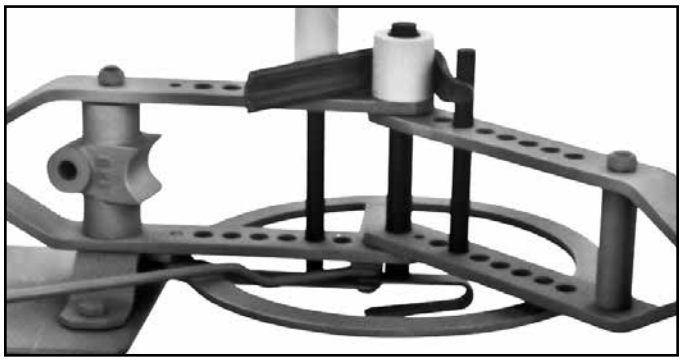
PART NO.	CLR
37328	10" / 11"
37343	40" / 41"

Radius bends in Handrail assemblies

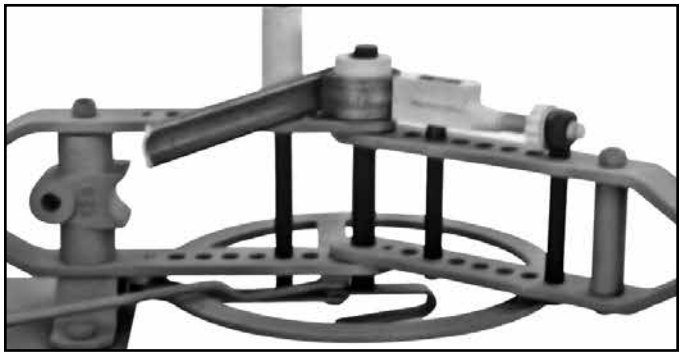
Center Line Radius (CLR) – Radius bends in Handrail are measured from the center of the bend to the **center line** of the stock.



Bending tip of Lambs Tongue with 16B2 Wide-Nose Bending Dog



Completing Lambs Tongue using 20B7 Steel Roller



16B2 Wide-Nose Bending Dog bending Volute around 20B7 Steel Roller

Stock	Capacity
Handrail.....	up to 1/2" x 1-3/4"

42011 Toolset For "Lambs Tongues" and "Volutes"

Bend Lambs Tongues and Volutes in Handrail Capping

Bend **Handrail Capping** up to 1/2" x 1-3/4" into Lambs Tongues. Extra Spacer blocks available for different thicknesses and widths of stock. Bend Handrail Capping up to 1/2" x 1-3/4" into Volutes of any diameter.

Set of Tools for Handrail Lambs Tongues and Volutes

42011 ..... 19 lbs Gross Weight

Set contains the following parts. All parts sold separately and may be included in other sets. ***Call Factory to avoid duplicating what you may already have.***

PART NO.	DESCRIPTION
20049*	9B Flat-Surface Roller
20080	16B2 "Wide Nose" Eye-Bolt Bending Dog
20084*	17B Flat-Head Pin
20091**	18B Eye Pin
20340	20B7 Steel Roller for Lambs Tongue, 2-3/8" Dia.
20705**	24B Thumb Nut
21080	53B1 Straight Main Frame Pin, 3/4" Dia.
21082	53B1B Straight Swing Frame Pin, 3/4" Dia.
21084	53B2 Straight Center Pin, 1" Dia.

* Included with standard 46000 Model No. 2 Bender

** Included in 46002 General Purpose Toolset for Bending Bar

Feed-Along Brass Handrail Die Sets

Edgebend Molded Brass Handrail Cap

We offer tooling in a limited number of radius sizes for edgebending **Molded Brass Handrail**. Tooling consists of a Back Block set and a Radius Block for the desired radius. Radius Blocks have dual faces for bending two different Radii. ***Special order only. Price on request.***

Back Block Set

PART NO.	DESCRIPTION	SIZE
76995	Back Block Set (2)	2-1/4" x 13/16"

Feed-Along Radius Blocks

PART NO.	SIZE	CLR
77000	2-1/4" x 13/16"	10" / 11"
77003	2-1/4" x 13/16"	16"/17"
77015	2-1/4" x 13/16"	40" / 41"

Outside Radius (OR) – Radius bends in Structural Channel are measured from the center point of the bend to the outside edge of the stock.
Inner Radius (IR) – Stem-In radius bends in T-Iron are measured from the center point of the bend to the inside of the "T" bar.

Stock — Maximum Capacity
Structural Channel..... 2" x 1" x 3/16"

20B3 Feed-Along Structural Channel Dies – "Leg-In"

Your Solution for Bending Structural Channel

Bend standard **Structural Channel, "Leg-In"**, in large radius sizes using feed-along dies that let you bend up to 360°.

20B3 FORM DIE

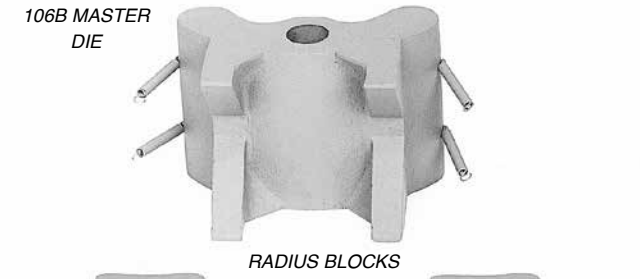
PART NO.	OR
20189	11-1/2"
20190	14-1/2"
20191	17-1/2"
20192	20-1/2"
20193	23-1/2"
20194	26-1/2"
20195	29-1/2"
20196	32-1/2"
20199	33-1/2"
20197	35-1/2"
20198	38-1/2"

Stock — Maximum Capacity
T-Iron..... 3/16" x 1-1/2" x 1-1/2"

106B T-Iron Die Sets – "Stem-In"

Bend Structural T-Iron Up to 360°

Required tooling consists of a **106B Master Die** and a **Block Set** consisting of two Radius Blocks. Use two 20054 **11B Square Blocks** as Back Block and Draw Block (included with basic 46000 Bender package).



106B MASTER DIE

RADIUS BLOCKS

106B Master Die

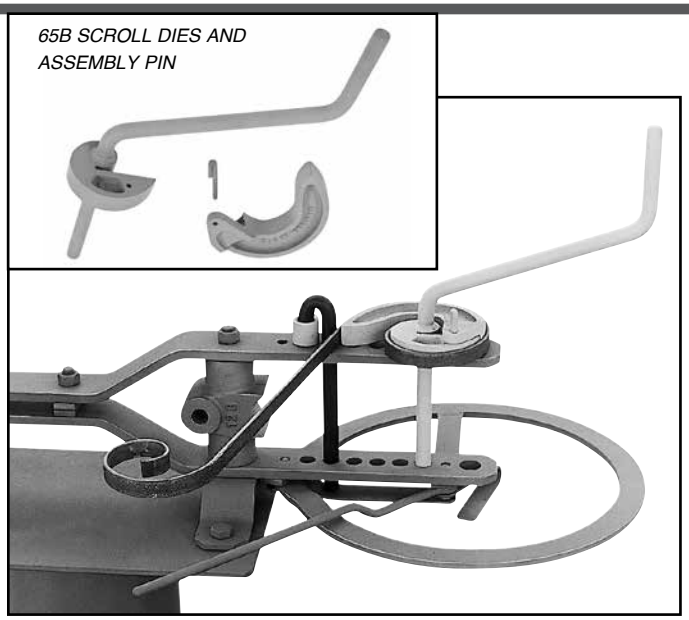
PART NO.	DESCRIPTION
37591	106B T-Iron Master Die

T-Iron, Stem-In, Radius Block Sets (Set of 2)

PART NO.	IR	PART NO.	IR
37592	9"	37622	18"
37597	10"	37629	20"
37600	11"	37641	24"
37603	12"	37661	30"
37606	13"	37681	36"
37609	14"	37721	48"
37612	15"	37741	60"
37615	16"		

HOSSFELD UNIVERSAL® parts and dies are designed to be used with HOSSFELD UNIVERSAL® Benders. Use of other benders with HOSSFELD UNIVERSAL® parts and dies may cause inferior performance or lead to breakage of such parts or dies.

Safety Note: Hydraulic Power should not be used when bending scrolls on top of the bender.



Scroll Bending Dies form uniform single turn and one-and-a-half turn scrolls

General Purpose Set

General Purpose Set of Scroll Forming Dies

21221 ..... 27 lbs Gross Weight

This set, also sold on pg. 6, is conveniently packaged and priced to include 64B, 65B, and 66B, our most popular scroll dies for bending 2-1/2", 4" and 5" Dia. single-turn scrolls and 6-1/2" and 8" Dia. one-and-a-half-turn scrolls. Included items are starred (*), at right.

64B–68B Scroll Dies

Bend Single-Turn or 1-1/2-turn Scrolls from 2-1/2" to 11"

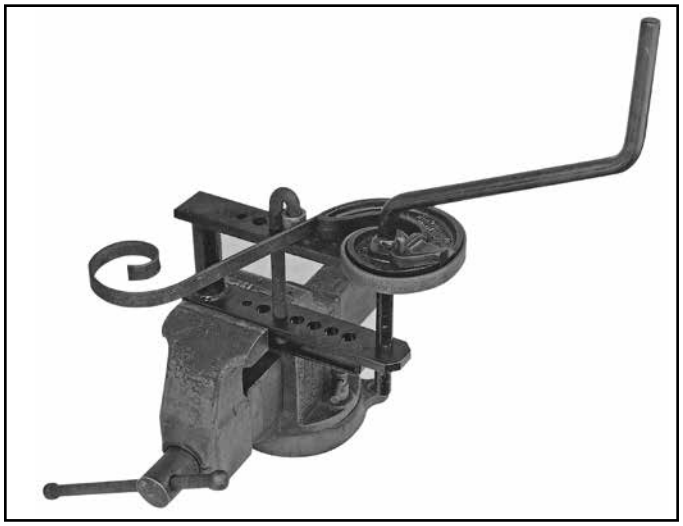
Form smooth, uniform scrolls of 2-1/2", 4", 5" or 7" Dia. single-turn, and 6-1/2", 8" and 11" Dia. one-and-a-half turn. Hand operation – form complete scrolls in seconds! These dies fit either the Model No. 2 Bender or the smaller Model No. 1 Bender (request catalog 50). You can also mount them in the vise-held standalone scroll bender frame, sold below, and work right on your workbench. Purchase the General Purpose Set or individual dies as needed.

Scroll Dies

PART NO.	DESCRIPTION
21218*	64B Scroll Die, 2-1/2" Dia. Single-turn
21219*	65B Scroll Dies for 4" Dia. Single-turn & 6-1/2" Dia. 1-1/2-turn (with Assembling Pin)
21220*	66B Scroll Dies for 5" Dia. Single-turn & 8" Dia. 1-1/2-turn (with Assembling Pin)
70400**	68B Scroll Dies for 7" Dia. Single-turn & 11" Dia. 1-1/2-turn (with Assembling Pin)
21217	Assembling Pin, only (for 65B, 66B, 68B)

* Included in General Purpose Set

** Available ONLY for the Model No. 2 Bender



Scroll Bender in vise. (Vise not included)

Standalone Scroll Bender

Bend 2-1/2" to 8" Scrolls Right on Your Workbench

This complete, standalone scroll bender can be mounted in a vise right on your workbench. Comes complete with Vise-held Scroll Bender Frame and the General Purpose Set of scroll dies, above, for bending 2-1/2", 4" and 5" Dia. Single-turn and 6-1/2" and 8" Dia. 1-1/2-turn scrolls. Scroll dies can be used with either the standalone scroll frame or the Model No. 2 or smaller Model No. 1 Benders and mounted directly in the Bender frame. ***Call for Brochure with complete details.***

Hand Operated Scroll Bender, Complete

17000 ..... 34 lbs Gross Weight

PART NO.	DESCRIPTION
17011	Vice-held Scroll Frame
05055	19 U-Pin
05165	21 U-Pin Roller
21218	64B Scroll Die, 2-1/2" Dia. Single-turn
21219	65B Scroll Dies for 4" Dia. Single-turn and 6-1/2" Dia. 1-1/2-turn (with Assembling Pin)
21220	66B Scroll Dies for 5" Single-turn and 8" Dia. 1-1/2-turn (with Assembling Pin)

HOSSFELD UNIVERSAL® MODEL NO. 2 BENDER

Hossfeld Manufacturing

1272 Breezy Lane
Winona, Minnesota 55987 U.S.A.

Office: (507) 452-2182 • Fax (507) 454-1194

Parts Catalog No. 100

Copyright 2024 Hossfeld Manufacturing. All rights reserved.

Printed in the U.S.A.

HOSSFELD UNIVERSAL is a registered trademark of Hossfeld Manufacturing.