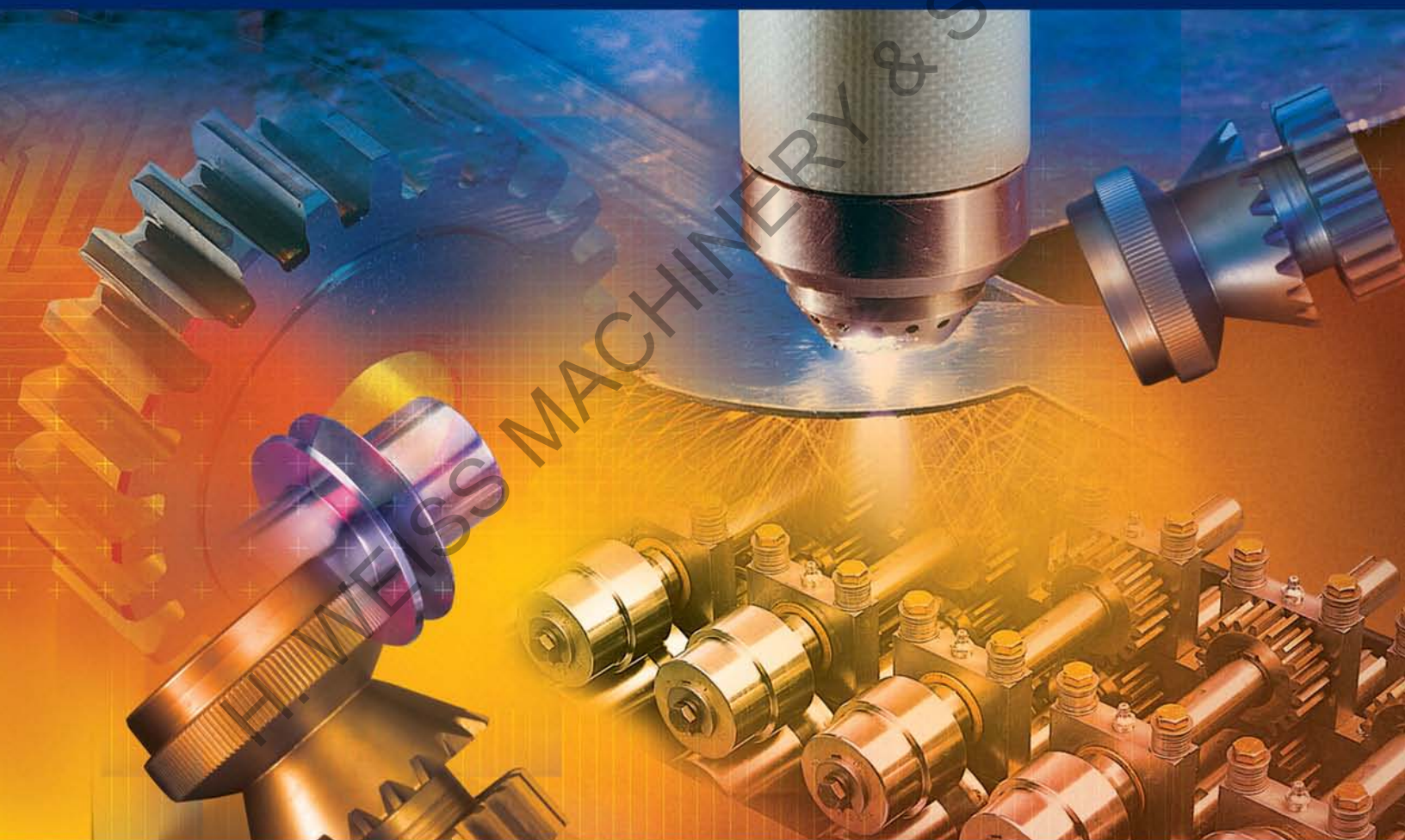


LOCKFORMER



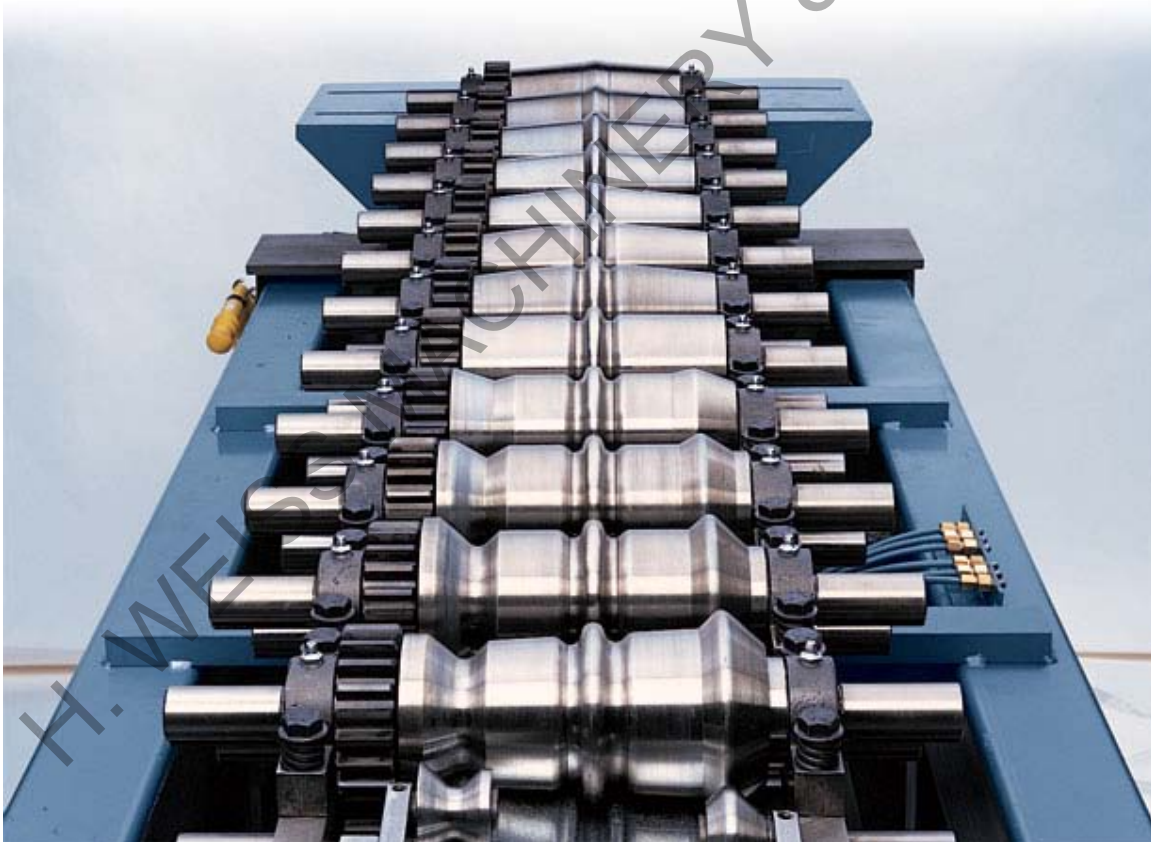
INSTRUCTIONS &
PARTS DIAGRAM
**Eleven Station
Machine**

LOCKFORMER

Eleven Station

Lockformer ½" Standing "S" and Flat "S" Cleat
Machine

Instructions and Parts Diagram





WARNING

THIS EQUIPMENT IS DESIGNED TO BE OPERATED WITH ALL COVERS SECURED IN PLACE.

OPERATION WITHOUT THESE SAFEGUARDS MAY RESULT IN CONDITIONS WHICH ARE HAZARDOUS TO THE OPERATOR AND OBSERVERS.

SAFETY GUIDELINES

Before operating the machine, study and follow the safety precautions in this section. These precautions are intended to prevent injury to you and your fellow workers. They cannot, however, cover all possible situations. Therefore, **EXERCISE EXTREME CAUTION** and use **COMMON SENSE** before performing any procedure or operation.

Safety Precautions BEFORE starting the machine(s)

- Only one person should control the machine(s). Never allow anyone to operate the controls while you are operating or working on this equipment. In addition to disconnecting power **always use lock outs and tagouts** to prevent accidental start-up when performing maintenance procedures.
- Keep your hands away from internal workings of the machinery when starting, running or stopping.
- Keep your work area clean. Remove all scrap, oil spills, rags, tools and other loose items that could cause you to slip, trip and fall.
- When cleaning the machine or any of its components, do not use toxic or flammable substances. Do not perform any cleaning while the equipment is running.
- Never override or disable any safety switch or safety interlock.
- If so equipped, make sure that hydraulic and pneumatic pressures are at specified levels before operating this equipment.
- **Do not operate the rollformer unless all covers and guards are in place.**
- Be sure that this Instruction Manual is kept near the machine so the operator can refer to it when necessary.
- Keep this equipment properly maintained.
- Always turn off power to the machine(s) at the main disconnect before performing any maintenance or adjustments so accidental start-up or electrocution cannot occur.

Safety precautions WHILE operating the machine(s)

- Never leave the work area while the equipment is in operation.
- Never leave the machine unattended while it is under power or in operation.
- Always be alert while operating machinery.
- Be alert for loose, worn or broken parts. Do not attempt to operate any machinery with such parts present or if the machinery is making unusual noises or actions.
- Avoid skin contact, prolonged breathing, or eye exposure to any stock lubrication fluid being used.
- Be aware of the locations of the **Power Off** or **Emergency Stop** button in case of an emergency.
- **Be sure all guards and covers are in place.**
- Continually observe the rollforming process and related equipment. If any unusual condition develops, immediately stop and inspect the machine.
- Protect yourself! Wear safety glasses. Do not wear loose clothing, neckties, or jewelry. If long sleeves must be worn, avoid loose cuffs and buttons. Tie back and contain long hair.
- Never adjust any roll feature or perform work near the rolls, gears or power take off while they are running.

General

If any pneumatic or hydraulic feature is used, disconnect the main supply and exhaust pressure and bleed the lines to prevent cycling on retained pressure.

Always shut off the power at the main disconnect switch before entering the electrical control box.

Do not use compressed air to clean the machines. Air pressure may drive dirt and small chip into the machine(s) bearing surfaces or cause bodily injury.

IMPORTANT

The information contained herein is to be use as a general guide only. For further safety information obtain and read the ANSI bulletin entitled:

ANSI B11.12-1996 Rollforming and Roll-Bending Machines safety. Requirements for Construction, Care and Use.

CONTACT: American National Standards Institute

11 West 42nd Street, New York, New York 10036



CAUTION

To provide clarity to points in question the illustrations and photos appearing in this manual are shown with covers and guards removed.

NEVER OPERATE THIS EQUIPMENT UNLESS ALL COVERS AND GUARDS ARE IN PLACE.



SAFETY GUIDELINES

You are **NOT** ready to operate this equipment if you have not read and understood all of the safety information in this manual.



WARNING

- Do not wear loose clothing, neckties, improper gloves, or jewelry while operating this machine. If long sleeves must be worn, avoid loose cuffs or buttons, Tie back or contain long hair.
- Wear proper gloves to prevent lacerations caused by sharp edges of stock as it travels through the forming operation.
- Never operate this equipment unless all covers and guards are properly installed.
- Be alert for loose, worn, or broken parts. Never operate this equipment unless it is in good working condition.
- As the stock enters the guides and feeds into the rolls, a pinch point is created as the stock advances. Keep hands clear of area and all pinch points.
- Always disconnect the main power supply power and install lock outs using a lockout / tagout procedure when making adjustments or repairs.
- When transporting, take into consideration that the machine is top heavy and may suddenly tip over.
- The machine is designed for fixed installations and is not intended for portability.

Remember that the information contained in this manual is only a portion of an adequate training program. It must be coupled with specific instructions for your application along with full information of national and local safety regulations that may apply.

Machine Instructions:

The machine as shipped has been tested for the running of 1/2" Standing "S" Cleats and Flat "S" Cleats

All settings are for 24 Gauge Galvanized Steel for the 1/2" Standing "S" Cleat.

The machine should be located in area where it is to be used, leveled, and wired for proper electrical voltage.

OPERATION: 1/2" Standing "S" Cleat

BLANK WIDTH: 4-5/16"

GAUGE OF MATERIAL: 22 Gauge to 26 Gauge Galvanized Steel

A filler gauge-assembly chimed to the entrance table should be removed from between entrance gauge bars.

Entrance Gauge Settings are recorded on *sketch #1*. Check the gauge bars for tightness from time to time.

The studs (12) passing thru the machine plates are to be tightened. The first two sections containing rolls 1 thru 4 and 5 thru are to have the nuts loosened 1/2 turn. The last section containing rolls 9 thru 11 are to have the nuts loosened 3/4 turn.

The above settings may vary slightly. A loose formed piece requires a tighter setting and a tight hem would require a looser setting.

Station 11 has two (2) collars, one top and one bottom. These collars control the closing of the cleat and can be adjusted to desired opening of cleat. *Sketch #2* has recommended settings. To adjust collars; loosen the four set screws and turn clockwise to tighten and counter clockwise to loosen. Eight flats are ground on the threaded shaft. Locate flats before tightening collar so as not, to ruin threads. See *sketch #3*.

The exit straighteners should be set according to the 1/3" Standing "S" settings outlined on *sketch #4*.

Should bow occur at these settings, reset gauges in opposite direction of bow.

OPERATION: Flat "S" Cleat

BLANK WIDTH: 3-13/32"

GAUGE OF MATERIAL: 22 Gauge to 26 Gauge Galvanized Steel

Place the filler gauge assembly between-the entrance gauge bars. See *sketch #2*.

The studs passing thru the plates and the collars do not necessarily have to be reset from the 1/2" Standing "S" Cleat to the Flat "S" Cleat. Adjust as required.

The Exit Straightener should be set according to the Flat "S" Cleat settings outlined on *sketch #4*.

Should bow occur at these settings reset gauges in opposite direction of bow.

Machine Lubrication:

Grease fittings are located on the front panel of machine. These fittings lubricate the main drive bearings which should be kept well lubricated.

Apply grease to all gear teeth occasionally to help eliminate noise and galling of gears.

Recommended Lubricants:

- Standard Oil Co. Standard Viscous #3 or Polarine
- Imperial Oil & Grease Co.
- Div.- of Beatrice Foods Molub Alloy #2BRB572 or Holub Alloy #3
- Mobil Oil Co. Mobil Plea EP2

Machine Parts Ordering:

If ever ordering machine parts, please specify on the order: "For 11 Station Machine, Serial #_____".

Replacement Rolls:

If ever ordering replacement rolls, use the numbers stamped on the side face of rolls.

Lockformer 11 Station

Description – CHASSIS

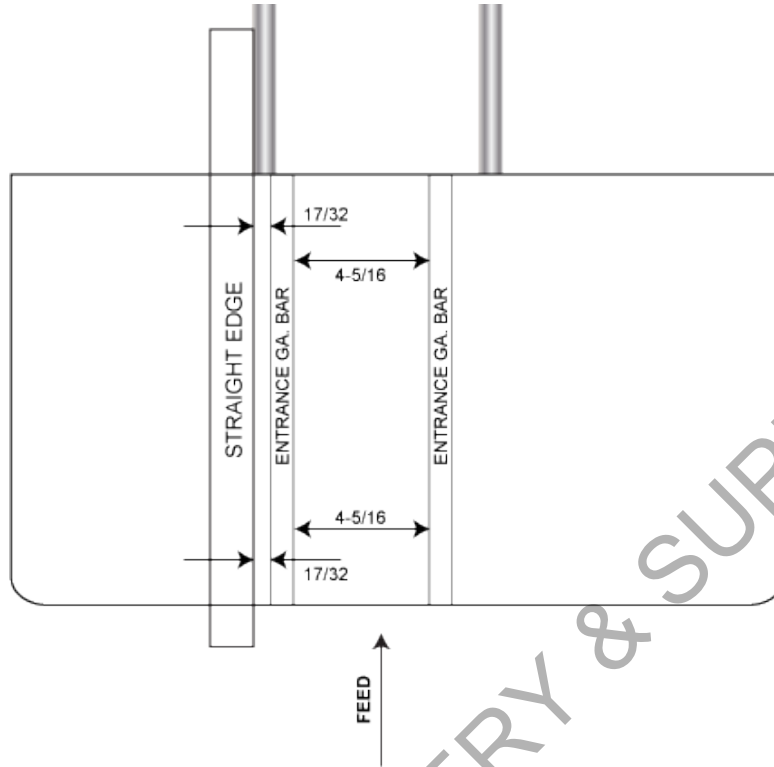
Bom or where used for 780201

Stock Number	I/T EM	Component Description	QTY Used
13329	2 EA	ROLL SHAFT	22.00
13330	2 EA	FIRST DRIVE SHAFT	1.00
13331	2 EA	SECOND DRIVE SHAFT	1.00
13332	2 EA	THIRD DRIVE SHAFT	1.00
13711	2 EA	MAIN IDLR STP SPCR	1.00
13712	2 EA	IDLER STEP SPACER	9.00
13713	2 EA	PLAIN SPACER	20.00
14160	2 EA	GEAR ,DRIVEN, 8/10DP, 20T, 1"B	22.00
14161	2 EA	GEAR,IDLER, 8/10DP, 20T, 1-1/8"B	9.00
14162	2 EA	GEAR, MN. IDLER, 8710DP, 20T, 1-1/4	1.00
14301	2 EA	GEAR, DRIVE, 8/10DP, 30T, 1"B	1.00
14640	2 EA	COLLAR, DRIVE, SHAFT	1.00
14661	2 EA	THRUST CLR	2.00
20218	2 EA	TOP PLATE	2.00
20409	2 EA	TOP PLATE	4.00
20410	2 EA	BTM FRT PLT	1.00
20411	2 EA	BTM BACK PLT	1.00
21303	2 EA	ENT GA BAR	2.00
37000	2 EA	GREASE FTG SHIM	1.00
42001	2 EA	LUBE BOLT, 60153	1.00
51900	2 EA	FIBR GR ASSY	1.00
59296	2 EA	CHASSIS ASSY	0.00
60153	4 EA	HHCS, 1/2-13X1-1/2	61.00
60450	4 EA	SHCS, 1/2-13X1	1.00
60877	4 EA	BOLT, CARRDG, 3/8-16X1-3/4	4.00
60954	4 EA	FHSHCS, 1/2-13X1	4.00
61120	4 EA	NUT, HEX, 3/8-16, HEAVY S.F.	8.00
61122	4 EA	NUT, HEX, 3/8-16, FINISHED	4.00
61302	4 EA	NUT, JAM, 3/8-16, FINISHED, 9/16AF	12.00
62027	4 EA	SHIM, 3/8, 3/4, .082	12.00
62029	4 EA	WSHR, FLAT, 3/8, 7/8, 1/16	24.00
62340	4 EA	WSHR, SPRG, 3/8, 3/4, .040 (MORE)	144.00
62364	4 EA	WSHR, LOCK, 1/2, MED. HEL. SPRG.	61.00
62402	4 EA	KEY, WOODRUFF, #15	47.00
62518	4 EA	RETAINING RING, 5160-98 TRUARC	22.00
62551	4 EA	STUD, 3/8-16, 7, THRD BOTH ENDS	12.00
62633	4 EA	PIN, DWL, 3/8X1	12.00
66090	4 EA	BRG, NDL, 7/8X1-1/8X1	9.00
66100	4 EA	BRG, NDL, 1X1-1/4X3/4	46.00
66111	4 EA	BRG, NDL, 1X1-1/2X3/4	6.00
66320	4 EA	BRG, 1.000X1 .562X.078	2.00
66321	4 EA	BRG, THRS. RACE, 1.000X1.562X.092	2.00
66422	4 EA	BRG, THRS, 7/8X1-1/2X1/16	9.00
66425	4 EA	BRG, THRS, 1X1-3/4X1/16	51.00
66600	4 EA	CONN, FEM, 886L, 1/4X1/8	7.00
66610	4 EA	CONN, 888L, HALF UNION	7.00
66640	4 EA	CONN, LUBE, 1/8"NPT, 1610-BL	7.00
66650	4 EA	ELBW, FEM, ANGLE BODY MALE, 20026	1.00
66700	4 EA	(MORE)	45.00
85153	4 EA	TUBE, NYLAFLOW, 1/4" POLYPENCO (MORE)	1.00
85178	4 EA	NAMEPLATE, CLEAT FORMER, (MORE)	1.00
		NAMEPLT, LOCKFORMER LOGO 20 GA.	

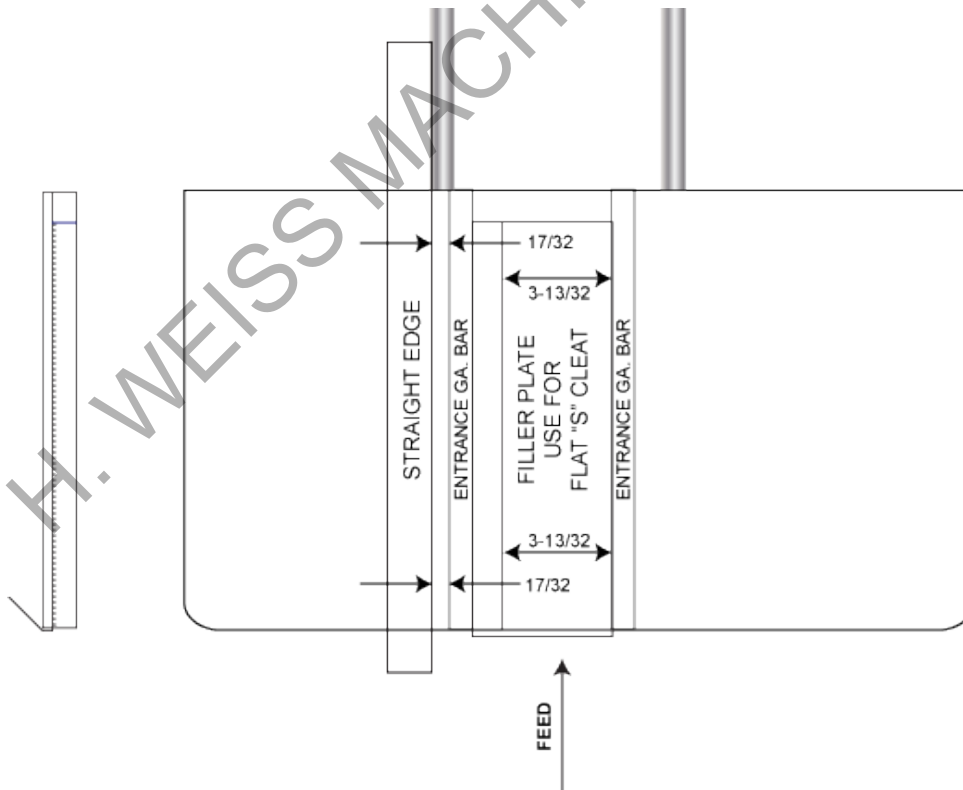
Lockformer 11 Station

Assy# Component CL Description

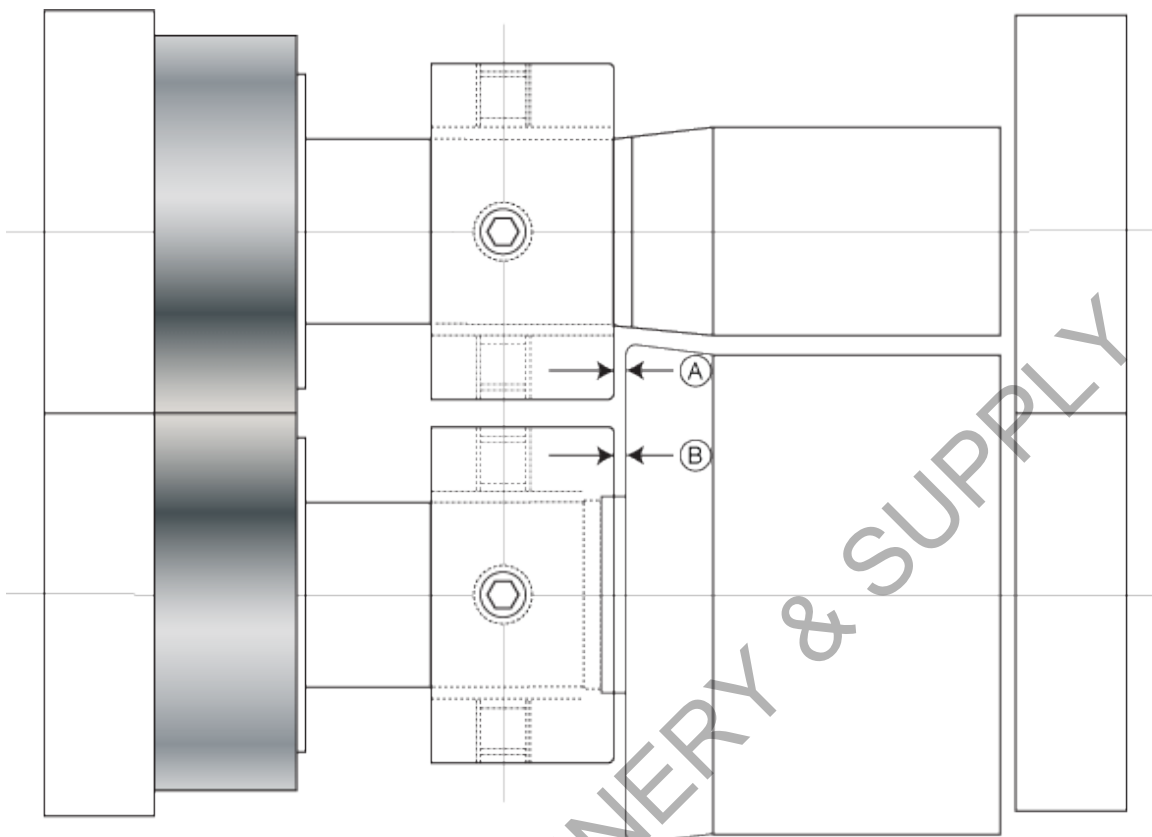
Component Item Number	Qty per Um Component Description	Type /Rolls
16025	T1 FORMING ROLL	A 74346
16026	T2 FORMING ROLL	A 74346
16027	T3 FORMING ROLL	A 74346
16028	T4 FORMING ROLL	A 74346
16029	T5 FORMING ROLL	A 74346
16030	T6 FORMING ROLL	A 74346
16031	T7 FORMING ROLL	A 74346
16032	T8 FORMING ROLL	A 74346
16033	T9-A FORMING ROLL	A 74346
16034	T9-B FORMING ROLL	A 74346
16035	T10 FORMING ROLL	A 74346
16036	T11 FORMING ROLL	A 74346
16037	B1 FORMING ROLL	A 74346
16038	B2 FORMING ROLL	A 74346
16039	B3 FORMING ROLL	A 74346
16040	B4 FORMING ROLL	A 74346
16041	B5 FORMING ROLL	A 74346
16042	B6 FORMING ROLL	A 74346
16043	B7 FORMING ROLL	A 74346
16044	B8 FORMING ROLL	A 74346
16045	B9-A FORMING ROLL	A 74346
16046	B9-B FORMING ROLL	A 74346
16047	B10 FORMING ROLL	A 74346
16048	B11 FORMING ROLL	A 74346
16049	T&B11-C ROLL	A 75024
21466	EXIT ADJ BAR	A 75024
25074	STRAIGHTENER	A 75024
29474	EXIT ANGLE IRON	A 75024
31113	SHEET-SLIDE LONG	A 75024
33045	EXIT BASE PAD	A 75024
57181	FLAT S GAUGE WLDMT	A 75024
59298	GENL ASSY	A 75272
60047	5/16-18X3/4 HHCS	75024
60152	1/2-13X1-1/2 HHCS	75024
60570	8-32X1/2RHMS	75024
60680	3/8-16X3/8SSS	75024
60875	3/8-16X1CB	75024
60877	3/8-16X1 3/4CB	75024
61020	8-32 HN	75024
61160	1/2-13HN HVY SF	75024 77094
61473	3/8-16 WING NUT	75024
62010	5/16X1/16 WSHR	75024
62029	3/8X1/16 WSHR	75024
62053	1/12X02/ WSHR	75024
62364	1/2 LCK WSHR	75024



11 STATION 1/2" STANDING "S" CLEAT



11 STATION FLAT "S" CLEAT
Entrance Ga. Settings (sketch 2)

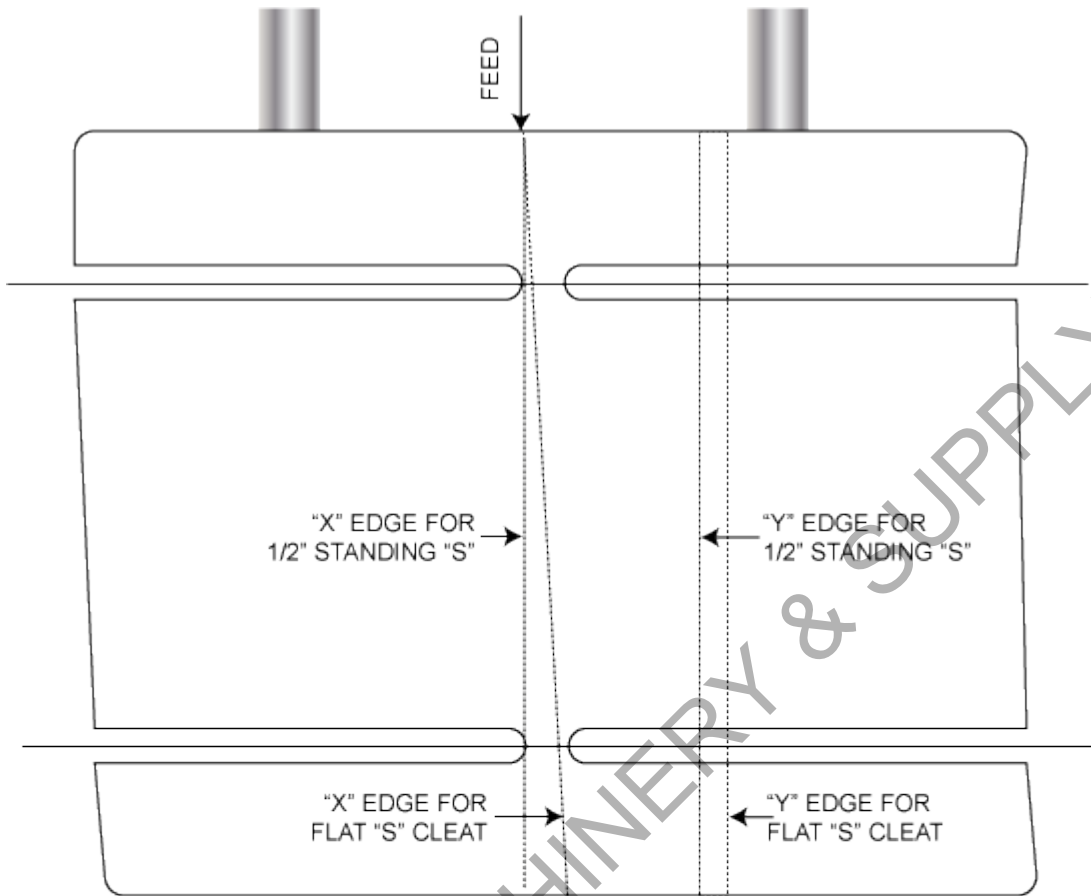


Adjustable Collars Station 11 (sketch #3)

To adjust collar loosen the four (4) set screws and turn the clockwise to tighten and counter-clockwise to loosen. Eight flats are ground on the threaded shaft; locate flats before tightening set screws so as not to ruin threads.

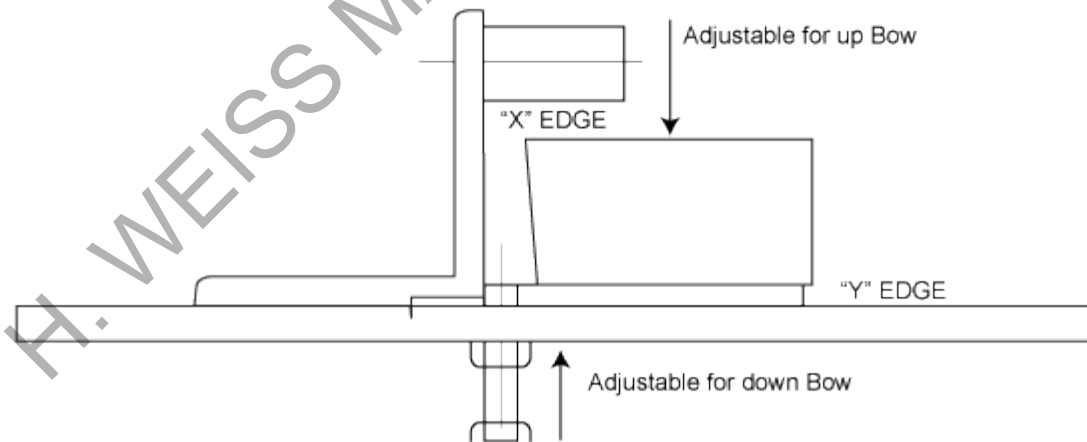
As material gauges vary, the collars may be reset to form desired closure of cleat.

Position	22 to 24 ga	24 to 26 ga
A	.165	.150
B	.197	.182



The straighteners are to be positioned along the scribed lines on the table according to the profile being run.

Position of exit straighteners. (sketch 4)



LOCKFORMER

The Lockformer®
Company

711 Ogden Avenue

Lisle, Illinois 60532-1399

Due to continuous improvements, Lockformer® reserves the right to modify the product design and specifications contained herein without notice. Please contact your Lockformer® sales representative for the most current specification information.

H. WEISS MACHINERY & SUPPLY