

# Low Clearance Split Frame



### DESCRIPTION

E.H. Wachs LCSF Low Clearance Split Frame is the world's most versatile and comprehensive line of lightweight split frame, clamshell style portable machine tools on the market today. The LCSF is designed to cut, bevel, single point, counterbore and face flanges on pipe and tubing ranging from 2 to 48 inches 0.D. (DN50-1200), on most wall thicknesses and materials.

#### **COLD CUTTING PROCESS**

The LCSF is ideal for all types of pipe cutting, beveling and end prepping. Our split frames are named for their ability to split in half at the frame, or "break open" and bolt back together again. This allows them to open and mount around the O.D. of inline piping, or they can be slipped closed over open ended pipe. The LCSF has been engineered to apply precise, consistently square cuts and bevels on pipe, tube and casing the first time, every time.

Like all E.H. Wachs cutting machines, our LCSF split frame utilizes a cold cutting machining process, an operation that minimizes the risks associated with hot torch cutting and grinding, particularly important when hydrocarbons are present. In addition, torch cutting typically creates a heat affected zone (HAZ) and introduces airborne contaminants into the environment, unacceptable in many worksites and a potential health hazard.

### SUPERIOR CONSTRUCTION

Designed with a compact cross section for low clearance applications, the LCSF is constructed of steel and aluminum components - steel where strength is needed, aluminum where strength is less critical than weight. A major advantage of the Wachs LCSF is their light weight; these machines typically can be set up by one operator without the need for additional lifting devices.

The LCSF (like all Wachs split frames) incorporates full roller bearing construction, rather than less expensive bushings. Our bearings require less power to drive than bushings, and contribute to a long service life. The Wachs LCSF can be quickly adjusted to compensate for wear, unlike other machines that may require costly bushing replacement. And to protect your machine, every LCSF ships in a heavy duty steel or Pelican™ storage case.

With thirteen standard models available to fit most popular pipe diameters and schedules plus additional sizes available by special order, there's an LCSF to fit your every need. Order the most productive, best supported split frame machines in the industry, the E.H. Wachs LCSF Low Clearance Split Frame.

### **FEATURES**

- Machine quickly splits to mount around Outside Diameter of in-line pipe
- Parts and accessories interchangeable between various sizes
- Cuts and bevels pipe of any wall thickness. Materials include: carbon steel and it's alloys: Hastelloy™ and Inconel™ as well as other exotic materials
- Self-squaring pipe clamping system with integrated, close tolerance legs and wide feet for exceptional stability
- Feed system offers low clearance operation with precise feed, for controlled cutting
- Low friction adjustable bearing system provides maximum stability and extended machine life
- Fully enclosed bearing and drive gear system for operational safety

LCSF



LCSF splits to surround pipe a continuous section of pipe.

# **ROTATING RING** PIPE CUTTER & BEVELER



Hot torch cutting requires grinding and produces an undesirable heat affected zone.



LCSF cuts and bevels simultaneously leaving a clean precision prep ready for welding



LCSF with bridge slide accessory shown on Steam Generator during replacement



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# LCSF

### SPECIFICATIONS

**Cutting Tool Surface Speed:** 60 Surface Feet per Minute

Drive Options: Pneumatic, Hydraulic, or Electric

Air Requirements: 65 Cubic Feet per Minute @ 90 PSI or 1.7 Cubic Meters per Minute @ 6.2 BAR

**Hydraulic Requirements:** 8 Gallons per Minute @ 1,500 PSI (31 Liters per Minute @ 104 BAR minimum)

15 Gallons per Minute @ 2,000 PSI (57 Liters per Minute @ 138 BAR)

Feed Method: Star Wheel

Feed Rate: Fixed @ .0026" per trip

Finish: Hard Chrome Plating

Packaging: Heavy duty carrying case

## RADIAL AND AXIAL CLEARANCE



### **STANDARD EQUIPMENT**

- Self Squaring Mounting System
- Fitted Storage Case
- Operating Tools
- Operating Manuals

## **OPTIONAL EQUIPMENT**

- Bridge Slide for Single Point Beveling. counterboring and flange facing of Heavy Wall Pipe
- Out of Round Tracking Slides
- Low Clearance Tool Slides
- Extended Tool Slides
- Worm Gear Tool Slides
- Pneumatic, Hydraulic or Electric Drive Options
- Extension Legs for Pipe, Elbows and Fittings and Thin Wall Applications
- Tooling for all Prep Configurations

### **CONTACT US FOR** A DEMO OR QUOTE

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## **OPTIONAL** ACCESSORIES

Allows the operator to convert from low clearance tool slides to extended slides in minutes.





RING SET

LCSF TOOL SLIDES





UNIVERSAL COUNTERBORE SLIDE

OUT OF ROUND WORM GEAR SLIDES TRACKING SLIDES



MODEL	LCSF 206/3	LCSF 408/3	LCSF 610/3	LCSF 612/3	LCSF 814/3	LCSF 1016/3	LCSF 1420/3	LCSF 1824	LCSF 2228	LCSF 2632	LCSF 3036	LCSF 3642	LCSF 4248
Part Number	60-000-06	60-000-08	60-000-10	60-000-12	60-000-14	60-000-16	60-000-20	60-000-24	60-000-28	60-000-32	60-000-36	60-000-42	60-000-48
A Dim. (mm)	6.88" (174.75)	8.88" (225.55)	11.0" (279.4)	13.0" (330.2)	14.25" (361.95)	16.25" (412.75)	20.25" (514.35)	24.5" (622.3)	28.5" (723.9)	32.5" (825.5)	36.5" (927.1)	42.5" (1079.5)	48.5" (1231.9)
EXTENDED TOOL SLIDE (TOOL STROKE: 1.50") (38.1 mm) USING SLIDE #60-415-00/60-416-00													
B Dim. (mm)	7.51" (190.75)	8.51" (216.15)	9.94" (252.48)	10.94" (277.88)	11.45" (290.83)	12.70" (322.58)	14.70" (373.38)	16.63" (422.4)	18.63" (473.2)	20.63" (524)	22.63" (574.8)	25.64" (651.26)	28.64" (727.46)
C Dim. (mm)	6.0" (152.4)	6.0" (152.4)	6.0" (152.4)	6.0" (152.4)	6.0" (152.4)	6.0" (152.4)	6.0" (152.4)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)
SUPER EXTENDED TOOL SLIDE (TOOL STROKE 2.00") (50.8mm) USING SLIDE # 60-437-00/60-438-00													
B Dim. (mm)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.0" (482.6)	21.0" (533.4)	23.0" (584.2)	25.0" (635)	28" (711.2)	31'' (787.4)
C Dim. (mm)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)	7.0" (177.8)
MACHINE CAPACITY (Nominal Pipe Size)													
in (mm)	2-6" (50.8-152.4)	4-8" (101.6-203.4)	6-10" (152.4-254)	6-12" (152.4-304.8)	8-14" (203.2-355.6)	10-16" (254-406.4)	14-20'' (355.6-508)	18-24'' (457.2-609.6)	22-28" (558.8-711.2)	26-32" (660.4-812.8)	30-36" (762-914.4)	36-42" (914.4-1066.8)	42-48" (1066.8-1219.2)
OPERATING WEIGHT (with pinion drive, without slides or drive motor)													
lbs (kgs)	31 (14)	37 (17)	49 (22)	55 (25)	59 (27)	77 (35)	92 (42)	189 (86)	213 (97)	235 (107)	259 (118)	297 (135)	329 (150)

All dimensions shown for nine diameters are US nominal diameters in inches, plus metric nominal diameters (DN) in parenthesis. Tubing and solid diameters if shown are actual US inches plus metric millimeter equivalents.