



Pipe Beveling Machine



The LEFON ET/EV Beveling Machine is a portable beveling machine for quick and accurate weld preparation on pipe and tube. A variety of models can meet the requirement to bevel from $\frac{3}{4}$ " ID to 23 $\frac{3}{4}$ " ID pipe. Please check the specifications section for model selection. Depending on the model, the beveling machine can bevel pipe or tube with wall thicknesses from 15mm (9/16") to 70mm (2 $\frac{3}{4}$ ").

The machines are all ID mounted by a three Clamp Extension Leg mandrel design for square, rigid installation. Different sized clamp legs are used to cover the machine's entire range of pipe diameters. The ET/EV series are driven by a reliable and powerful electric motor, such as the world renowned motor supplier, METABO.

KEY FEATURES:

1. Quick Setup
 - Takes less than 5 minutes to setup
 - Adjust the Feed Handle to quickly clamp the beveler inside pipe/tube
 - Accurately centered inside pipe
 - Takes seconds to install and adjust bevel Bit
2. Easy to use
 - Switch on and off by motor switch
 - Fine tune using the Scale Wheel to micro feed the bevel
 - Compact design allows it to work in small spaces
3. Unique Design
 - Ball Bearing and self lubrication design to dramatically extend beveler life
 - High strength shaft, and large Clamp Extension Leg contact area to maximize rigidity of the machine
 - Special surface treatment to resist wear and erosion
 - Exceptional heat treatment for disk and gear allow it to work on any material

Figure 1-1 and Figure1-2 illustrate the main components of the ET, which can **bevel up to 20mm wall thickness pipe.**



Figure 1-1



Figure 1-2

Figure 2-1 and Figure 2-2 illustrate the main components of the EV, which can bevel up to 70mm wall thickness pipe



Figure 2-1



Figure 2-2

SPECIFICATIONS

Model	Pipe ID	Pipe ID	Pipe OD	Pipe OD	Max Wall Thickness(mm)	RPM	Drive Motor	Input Power	Weight (kg)
	(inch)	(mm)	(inch)	(mm)					
ET1	¾"-1"	18-25	¾"-1 ½"	21-28	15	58	Metabo, 110/220v	1020w	9
ET3	1 ⅛"-3"	28-76	1 ¼"-3 ⅝"	32-80	15	55	Metabo, 110/220v	1020w	10
ET6	2 ½"-6 1/4"	65-159	2 ⅞"-7 ⅞"	72-182	20	35	Metabo, 110/220v	1020w	22
ET10	3 ⅞"-9 ½"	80-240	3 ½"-10 ¾"	90-272	20	16	Metabo, 110/220v	2300w	35
EV10	3 ⅞"-9 ½"	80-240	3 ½"-10 ¾"	90-272	70	16	Metabo, 110/220v	2300w	44
ET14	5 ⅞"-13"	150-330	6 ⅞"-13 ⅞"	162-352	20	14	Metabo, 110/220v	2300w	56
EV14	5 ⅞"-13"	150-330	6 ⅞"-13 ⅞"	162-352	70	14	Metabo, 110/220v	2300w	65
ET24	11 ¾"-23 ⅝"	300-600	12 ⅝"-24 ¾"	320-630	20	10	Metabo, 110/220v	2300w	107
EV24	11 ¾"-23 ⅝"	300-600	12 ⅝"-24 ¾"	320-630	70	10	Metabo, 110/220v	2300w	117

CLAMP EXTENSION LEG CHART

Extension Leg	ET1	ET3	ET6	ET10	ET14	ET24
No extension leg		28-36mm ID	65-87mm ID	80-100mm ID	150-180mm ID	300-330mm ID
Ext1	18mm ID	36-44mm ID	87-105mm ID	100-120mm ID	180-210mm ID	330-360mm ID
Ext2	19mm ID	44-52mm ID	105-123mm ID	120-140mm ID	210-240mm ID	360-390mm ID
Ext3	20mm ID	52-60mm ID	123-141mm ID	140-160mm ID	240-270mm ID	390-420mm ID
Ext4	21.5mm ID	60-68mm ID	141-159mm ID	160-180mm ID	270-300mm ID	420-450mm ID
Ext5	23mm ID	68-76mm ID		180-200mm ID	300-330mm ID	450-480mm ID
Ext6	24.5mm ID			200-220mm ID		480-510mm ID
Ext7	26mm ID			220-240mm ID		510-540mm ID
Ext8	27mm ID					540-570mm ID
Ext9						570-600mm ID



HEAVY DUTY

Cutting and Beveling Machine

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MACHINERY & ENGINEERING GROUP

LEFON Heavy Duty Pipe Cutting and Beveling Machine is portable, designed to use in both workshop and on-site. It is heavy duty, specially intended for heavy wall pipes with high wall-thickness in heavy duty applications. It machines pipe by the cold cutting principle that eliminates any heat affected zone. The machine split frame is made from aluminum which is extremely low weight for easy handling and lifting and is versatile in application and can perform many operations. The machine provides a fast metal removal rate and high working speed which presents the economical manufacturing solution.

APPLICATIONS:

- Cutting off pipes
- Simultaneous cutting and beveling
- Weld Preparation on the pipe end
- Inside-turning of pipe ends
- Flange facing, or Flange Repairing on-site

FEATURES:

- Aluminum body, extremely low weight, can be used in both on-site and workshop
- Easy to use, one operator can mount and dismount the machine on a pipe within minutes
- Excellent stability and enhanced gear heat treatment ensures expanded machine life
- Heavy Duty, cutting and beveling simultaneously
- Suitable for cutting all kinds of material, from cast iron, high strength alloy, to stainless steel
- Base plate can be easily installed and uninstalled, for workshop and field applications
- Five models available, covering OD from 2" to 30" (780mm), wall thickness can reach up to 6" (150mm)
- Three power sources available for different applications: Hydraulic Station, Pneumatic, and Electric
 - > Easy to move and powerful Hydraulic station
 - > High torque pneumatic motor is from world's #1 nutrunner manufacturer, Cleco of Cooper Power Tool
 - > Powerful and reliable Electric motor supplied by Metabo

Enhanced gear heat treatment ensures the longevity of machine life

Three Drive Options

- Metabo Electric Motor
- Hydraulic Station
- Cleco pneumatic motor

Absolutely heavy duty, cut and bevel up to 3" (75mm) any material

Unique Base Plate Design

- Easy to install for workshop use
- Quick separation from cutting frame for field use





The cutting machine body is aluminum. The light weight body allows one person to easily set up and operate.



The machine consists of a two half circular spited frame that can join together at any point around the pipe, making it easy for tight space or field use. Top lifting ring designed for easy field use.



Pneumatic motor is 90 degrees relative to the pipe axis, allowing work in tight spaces.

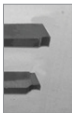





Micro clamping scale provides accurate control on beveling progress



Robust Bit holder design to ensure cutting and beveling progress is implemented perpendicular to pipe axis even if the pipe is not round, and to eliminate Bit damage.

Cutting and Beveling Bit Selection

Application	Type of Bit
Use two Bits to cut heavy duty pipes	
Welding Preparation, use specially designed Bits based on customer drawing	
Bits to cut and bevel simultaneously	
Bits to bevel both pipe ends	

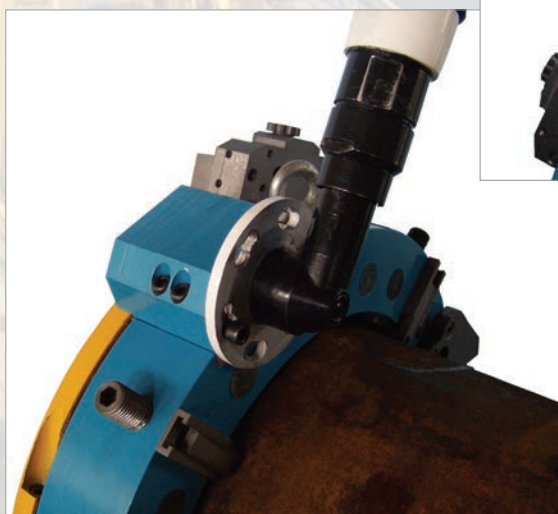
HYDRAULIC STATION:



SPECIFICATIONS:

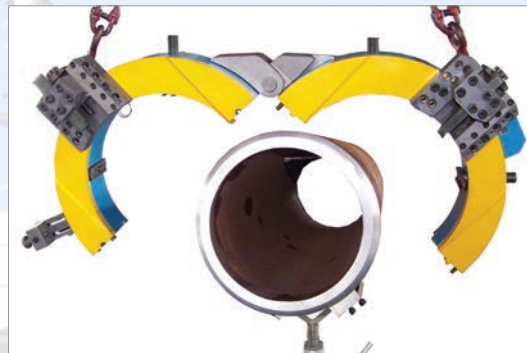
Model Number		LCB 6	LCB 12	LCB 18	LCB 24	LCB 30
Hydraulic motor power	Hp(W)	--	7.4	7.4	7.4	7.4
	Nm	--	170	170	170	170
Oil working pressure	psi	--	1449	1449	1449	1449
Oil flow rate min. required	gpm	--	4.2	4.2	4.2	4.2

CLECO PNEUMATIC MOTOR:



SPECIFICATIONS:

Model Number		LCB 6	LCB 12	LCB 18	LCB 24	LCB 30
Pneumatic motor power	Hp(W)	--	2(1470)	2(1470)	3(2205)	3(2205)
	Nm	--	149	149	149	149
Air consumption	L/min	--	1698	1698	1698	1698
	cfm	--	60	60	60	60
Air working pressure	bar	--	6.21	6.21	6.21	6.21
	psi	--	90	90	90	90



TECHNICAL FEATURES:

Model Number		LCB 6	LCB 12	LCB 18	LCB 24	LCB 30
Range OD	mm	50-170	150-320	300-480	450-630	600-780
	inches	2" - 6"	6" - 12"	12" - 18"	18" - 24"	24" - 30"
Wall Thickness	mm	≤43	≤150	≤150	≤150	≤150
	inches	≤1.69	≤5.9	≤5.9	≤5.9	≤5.9
Radial Feed Rate	mm/rev.	0.08	0.08	0.08	0.08	0.08
	inches	0.004	0.004	0.004	0.004	0.004
Idle Speed	RPM	30	20	12	11	11
Net Weight	Kg	24	40	54	70	90
Cleco Pneumatic Motor						
Pneumatic motor power	Hp(W)	--	2(1470)	2(1470)	3(2205)	3(2205)
	Nm	--	149	149	149	149
Air consumption	L/min	--	1698	1698	1698	1698
	cfm	--	60	60	60	60
Air working pressure	bar	--	6.21	6.21	6.21	6.21
	psi	--	90	90	90	90
Metabo Electric Motor						
Electric motor power	Watt	1020	--	--	--	--
Voltage	Volt	110/220	--	--	--	--
Frequency (cycles)	Hertz	50/60	--	--	--	--
Hydraulic Station						
Hydraulic motor power	Hp(W)	--	7.4	7.4	7.4	7.4
	Nm	--	170	170	170	170
Oil working pressure	psi	--	1449	1449	1449	1449
Oil flow rate min. required	gpm	--	4.2	4.2	4.2	4.2



LEFON SquareDevil

Clean and Precise



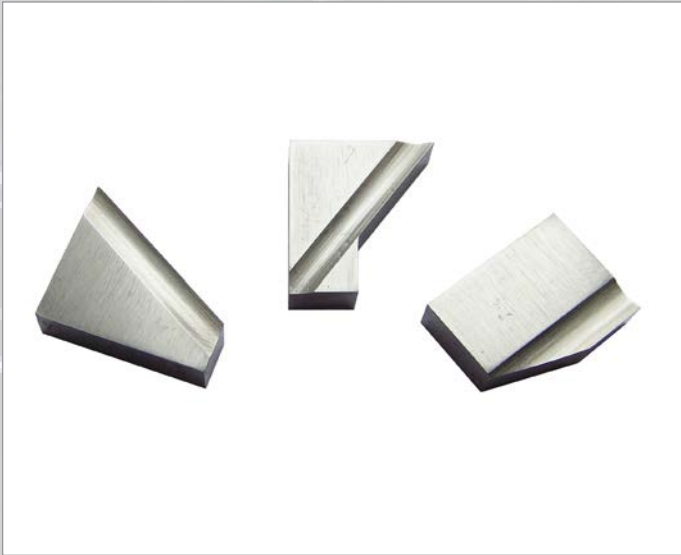
**LEFON SquareDevil, the ultimate
tube end facing solution**

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Ideal for high purity, sanitary industry fabrication



Facing and Beveling Bits



Collet / OD Mounting Saddles



SquareDevil (front view)



SquareDevil (back view)

LEFON SquareDevil:

LEFON SquareDevil, the portable tube squaring / facing machine, specially designed to flatten and bevel a tube end, making it burr-free, and perfectly straight to the axis of the tube. After facing, the tube is ready for orbital welding or other tube fabrication. It is ideal for industries requiring high cleanliness / purity / sanitation, such as Beverage, Dairy, Pharmaceutical, Water Treatment, Food, Semi-Conductor etc.

KEY FEATURES:

- Faces and Bevels most metals including stainless steel, nickel and carbon steels, chrome, copper-nickel alloy, aluminum
- Wide range of collets (clamps)/ OD Mounting Saddles available, to avoid tube distortion
- Three SquareDevil models available to work on tubes from 1/8" OD to 4 1/2" OD
- High quality collets made from stainless steel rather than aluminum
- Can face and bevel tube wall thickness up to 10mm
- Powerful 120/220 volt Metabo electrical motor
- Micro feed system
- A full range of beveling and squaring bits are available

Model	Pipe OD (inch)	Pipe OD (mm)	Max Wall Thickness(mm)	RPM	Drive Motor	Input Power	Weight (kg)
SquareDevil-1.5	0.125"-1.5"	3.175-38.1	4	400	Metabo, 110/220v	1020w	4
SquareDevil-2.0	0.1875"-2"	4.76-50.8	10	160	Metabo, 110/220v	1020w	11
SquareDevil-4.5	0.25"-4.5"	6.35-114.3	10	140	Metabo, 110/220v	1020w	19





 **LEFON** **ORBITAL PIPE SAWS**
MACHINERY & ENGINEERING GROUP

Orbital Pipe Saws



LEFON Orbital Pipe Saws are the cost effective and reliable solution to square cut and bevel almost all types of metal pipe. All R Series orbital pipe saws deliver a precise, square and clean cut, making it unnecessary to do any additional preparation work on the cut-off face for orbital welding.

ADVANTAGES:

- Precise right angle cut
- Cold cut to prevent thermal distortion
- Fast pipe clamping, deformation-free clamping system
- Easy set up regardless of the diameter
- Easy execution of the cut
- Just a few seconds to finish the cut with one single rotation around
- Simultaneous cutting and beveling with beveling blade mounted
- Cutting speed regulation suitable for each wall thickness pipe

Specification:

Model	Lite4	Lite6	R4	R6	R8	R12
Pipe OD	¼"-4"	2"-6"	½"-4"	3"-6"	6"-8"	8"-12"
	6-120 mm	6-120 mm	19-120 mm	85-182 mm	150-230 mm	215-325 mm
Wall thickness	0.02"-0.12"	0.02"-0.12"	0.04"-0.22"	0.08"-0.4"	0.08"-0.4"	0.08"-0.4"
	0.5-3 mm	0.5-3 mm	1-7 mm	2-10 mm	2-10 mm	2-10 mm
Motor	1000 w	1000 w	1600 w	1600w	1600w	1600w
Blade RPM	30-150	30-150	150-250	150-250	150-250	150-250
Voltage/ Frequency	110/220 V 50/60 Hz	110/220 V 50/60 Hz	110/220 V 50/60 Hz	110/220 V 50/60 Hz	110/220 V 50/60 Hz	110/220 V 50/60 Hz
Net Weight	25 kg	28 kg	75 kg	90 kg	110 kg	130 kg
	55 lb	57 lb	165 lb	198 lb	242 lb	286 lb
Application	<ul style="list-style-type: none"> • Thin-wall stainless-steel tubes • Stainless steel pips • Low and unalloyed steel • Casting materials, non-ferrous metal • Copper, aluminum and plastic pipes 					

OPERATION PROCEDURE:

Cutting is executed by manually rotating the machine housing 360 degrees around the pipe. With a circular, toothed blade driven by 1600 watt motor, the pipe is cut with one single rotation. It is driven by a powerful and sturdy electric motor equipped with six speed regulators.

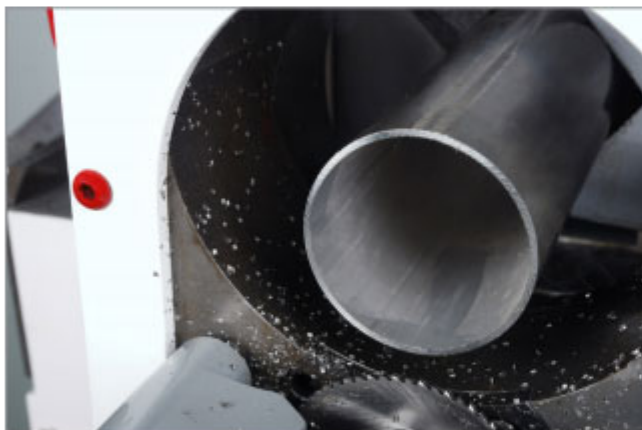


PACKAGES:

Model	LxWxH (mm)	Net Weight (kg)	Gross Weight (kg)
R4	820 x 540 x 470mm	75	100
R6	920 x 870 x 570mm	90	117
R8	1050 x 590 x 670mm	105	133
R12	1050 x 590 x 790mm	126	155

One pipe cutting/beveling machine set will include the following items. Please inform the manufacturer or forwarder of any missing parts or transportation damage immediately.

1. One pipe cutting/beveling machine
2. One base plate
3. Three standard class blades
4. One ring spanner(SW22)
5. Two hexagon socket head wrenches
6. One tube of LEFON saw blade lubricant
7. One operation manual
8. One spare parts list



Fast, accurate cuts every time



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We offer a quality product
and are CE Certified.

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SAW BLADE&LUBRICANT

LEFON cutting blade is made in Europe. Three class of blade are available: Economical, Durable, and Extra-Durable.

Economical Blade is made from DMo5 Bright,

Durable Blade is made from DMo5 Black HAWK,

Extra-Durable Blade is made from Co5% Black HAWK

The blades has been universally designed and developed for all kind of orbital pipe/tube cutting machine, i.e. this blade can be used on machine from other manufacturers. The blade is suitable for cutting all kind of standard metal material.



	Standard	Durable	Extra-Durable
Material	This blade is made by HSS with Mo 5% W6% Cr4% V2%	This blade is made by HSS with Mo 5% W6% Cr4% V2%,	This blade is made by HSS with Mo 5% W6% Cr4% V2%, Co 5%
Hardness	The hardness of the blade is between 63 to 65 Hrc. The outside surface hardness reaches 800 HV.	The outside surface hardness reaches 3400 HV!	HSS material can reach 66 Hrc. The outside surface hardness reaches 3400 HV!
Application	Good to cut any kind of material. The special surface grinding allows it to cut very soft materials e.g. copper, brass, aluminum	Good to cut any kind of material, stainless steel or any steel but with high performance	Good to cut any kind of material. Ideal for Ti or Inconel and stainless steel but with high performance.
Working Life	Blade working life depends on the material of pipe, the OD, and the wall thickness	Durable has 40% more life than Standard Blade, or 60% more life if cutting stainless steel.	Extra-durable blade has 50% more life than standard, and 100% more if cutting stainless steel
Instruction	This blade is NOT suitable for dry cutting, must be used with coolant or at least good quantity of cutting oil	This blade is suitable for dry cutting or misting fluid cooling.	This blade is suitable for dry cutting or misting fluid cooling.

Model	Dimension			Cutting Pipe Wall Thickness		Remarks
	OD(mm)	OD(inch)	Teeth Number	mm	inch	
L6364	63	2.48	64	1.0--2.5	0.039--0.098	most popular
L63100	63	2.48	100	0.7--1.5	0.0276--0.059	
L6844	68	2.68	44	2.0--7.0	0.079--0.276	most popular
L6872	68	2.68	72	1.0--2.5	0.039-0.098	
L8044	80	3.15	44	5.0--10.0	0.197--0.394	
L8080	80	3.15	80	1.0--2.5	0.039--0.098	small size of square pipe

Operating Speed :

Model	Materials of tube/pipe	Choosing speed button	Blade Rotating Speed
Lite4 R4 R6 R8 R12	High alloy steel Stainless steel	1-2	150-183
	Low alloy steel	3-4	183-216
	Plastic non-ferrous metal Carbon steel pipe Zinc coated pipe	5-6	216-250

Non-toxic Lubricant/coolant (200 ml package)

Direction:

Add 1-2 drops of lubricant on the top of blade teeth for every two lines of cutting.



Benefit:

Lubricant would effectively lower cutting temperature, extend blade life, and improve cutting result. For more details, please refer to LEFON's orbital cutting machine operation manual.

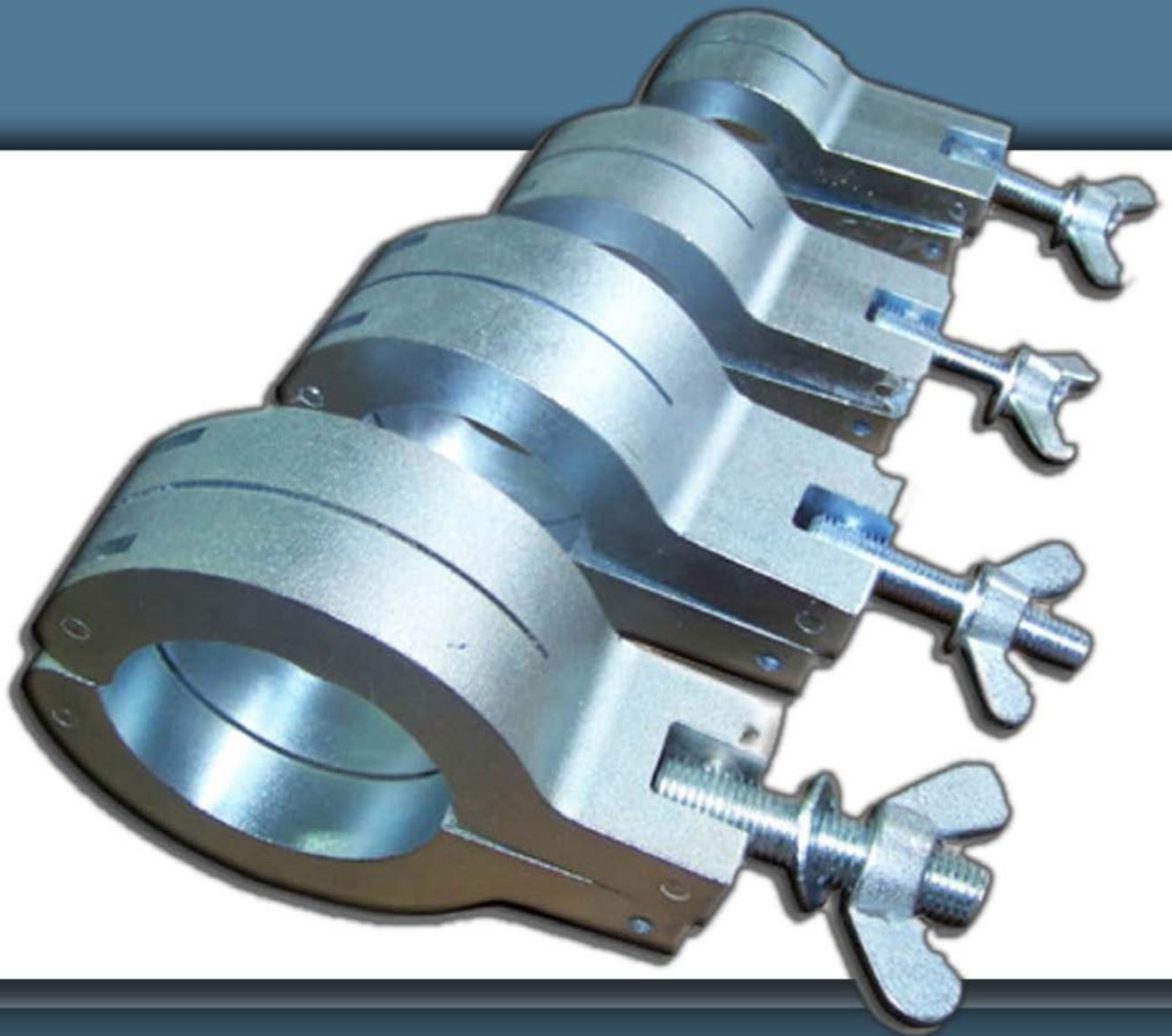


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MITER SAW



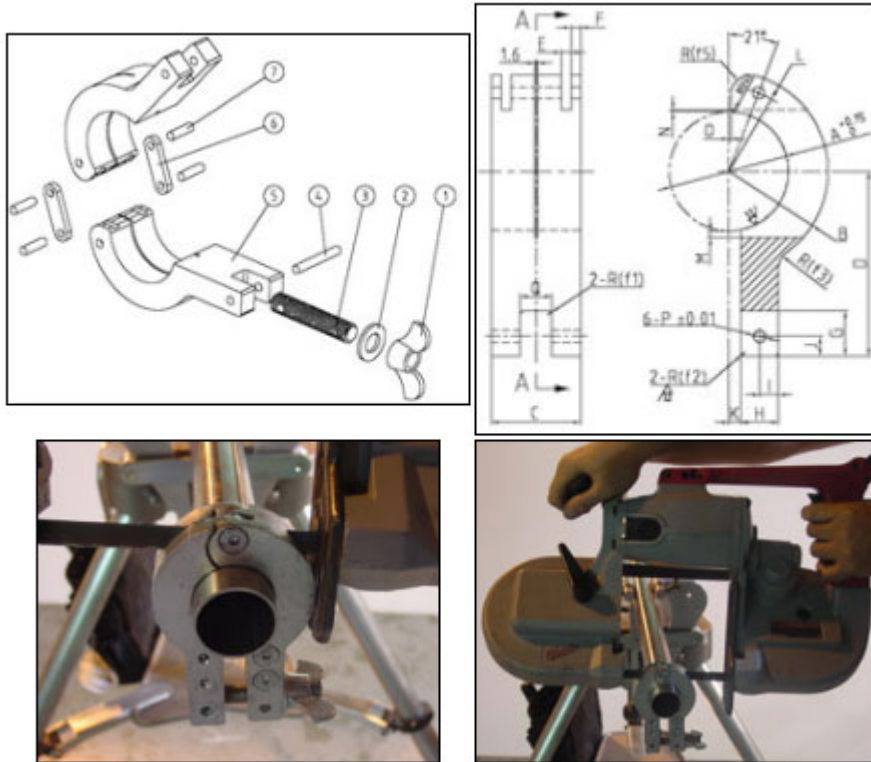
Model	specification	Package	NW/GW	certification
Portable Band Saw	"700W, speed: 0-70m/PM BLADE: 1140x13x0.6MM CUTTING 105mm"	55x24.5x25.4cm	6.2/7kgs	"GS CE EMC CUL approval "
6" Miter Saw	"800W/6.5A, speed: 7400RPM BLADE: 6"/150MM CUTTING 35/16mm"	41x24x25.5cm	4.5/5.5kgs	"GS CE EMC CSA aproval "
8" Miter Saw	" 1800W/15A, speed: 4600RPM BLADE: 210mm/8-1/4" CUTTING CAPACITY60x200mm/20x200/6 0x140/30x140mm "	54.5x47.5x38.5cm	13/17.5kgs	GS CE EMC CUL approval
10" Miter Saw	" 1800W/15A, speed: 4600RPM BLADE: 254mm/10" CUTTING CAPACITY70x300mm/50x300/7 5x210/50x210mm "	72x55.5x39cm	15.9/19.8kgs	GS CE EMC CUL approval
12" Miter Saw	" 2300W, speed: 4600RPM MAX CUTTING BLADE: 305mm/12" CUTTING CAPACITY100x320mm/50x320/ 100x210/50x210mm "	65x61x45cm	20.3/24.8kgs	GS CE EMC approval



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SAW GUIDE

Based on customer need, LEFON presents the latest design of Saw Guide that adopts rugged hard facing to ensure durability and convenient usage. If the pipe is not round, this Saw Guide can also work as rounding clamps to facilitate welding. Variety of Saw Guide models are available, customized for different OD size tube/pipe.



Tube/Pipe Size	Model
1/2"	SG050
3/4"	SG075
0.840"	SG084
1"	SG100
1.050"	SG105
1.315"	SG131
1.5"	SG150
1.660"	SG166
1.90"	SG190
2"	SG200
2.375"	SG237
2.5"	SG250
2.875"	SG287
3"	SG300
3.5"	SG350
4"	SG400
4.5"	SG450