

Ground MILLHOG®

Right Angle I.D. Clamping
Tube and Pipe Beveling Tool
0.5" I.D. to 2.25" O.D.
12.7 mm I.D. to 57.15 mm O.D.

Key Features

- Narrow body 1.5in (38.1 mm) wide for beveling a single tube in a waterwall
- Three interchangeable motor choices, pneumatic, electric and battery
- Rugged steel housing for lasting durability
- Patented clamping system permits the clamps to release as easily as they tighten, no hammer needed!
- Permanently attached wrenches keep the operating essentials at the operator's finger tips
- Dual opposed ball bearing supported gear drive design
- Proprietary EscoLock blade holding system minimizes vibration and maximizes tube and pipe bevels per blade

Popular tube and pipe beveling applications

- Bevel, face and bore
- "J" prep for orbital welding
- Tube to tube sheet weld removal and tube sheet weld preparation
- Boiler tube membrane removal
- Boiler tube overlay and cladding removal
- Boiler tube waterwall single tube replacement
- Reface fin fan tube seat surfaces

Pneumatic Standard

Works well on all tube and pipe alloys including stainless steel.



Pneumatic Air Clamp

Quickly clamps and releases, reduces cycle between bevels.



Electric

Reliable plug in power, high torque and low rpm. Superior performance on all alloys including membrane and overlay removal.



Battery

Excellent for beveling all alloys including overlay and membrane removal. Best of all it's hose and cord free.



Only 1.5" wide for single boiler tube beveling



The air clamp increases production and minimizes operator fatigue



Remove membrane from between tubes



Remove membrane and overlay/cladding from between tubes

Ground Clamp Rib Selector and corresponding spares Mandrel, Draw Rod, Actuator, Retention Bands and Springs

Clamp Rib Set	I.D. Range				Mandrel		Draw Rod	Actuator	Roll Pin	Retention	
	in	mm	mm	mm	Part #	Size (in)				Band	Spring
G-01A	.500	.655	12.7	16.6	G-204	.500	G-18A	G-17A	G-15A	G-14E	
G-02A	.625	.780	15.9	19.8	G-204	.500	G-18A	G-16A	G-15A	G-14F	
G-02A	.625	.780	15.9	19.8	G-20	.625	G-18	G-16	G-15	G-14F	
G-03A	.750	.905	19.1	22.9	G-20	.625	G-18	G-17	G-15	G-14F	
G-04	.875	1.030	22.3	26.1	G-20	.625	G-18	G-17	G-15		G-14
G-05	1.00	1.155	25.4	29.3	G-20	.625	G-18	G-17	G-15		G-14
G-06	1.125	1.280	28.6	32.5	G-20	.625	G-18	G-17	G-15		G-14
G-07	1.250	1.405	31.8	35.6	G-20	.625	G-18	G-17	G-15		G-14
G-08	1.395	1.530	35.0	38.8	G-20	.625	G-18	G-17	G-15		G-14
G-09	1.500	1.655	38.1	42.0	G-20	.625	G-18	G-17	G-15		G-14
G-10	1.625	1.780	41.3	45.2	G-20	.625	G-18	G-17	G-15		G-14
G-11	1.750	1.905	44.5	48.3	G-20	.625	G-18	G-17	G-15		G-14
G-12	1.875	2.030	47.7	51.5	G-20	.625	G-18	G-17	G-15		G-14
G-13	2.000	2.155	51.0	54.7	G-20	.625	G-18	G-17	G-15		G-14

Roll Pin & Actuator
G-15A, G-17A & G-16A

0.500" Mandrel & Draw Rod
G-204 & G-18A (Used with G-01A & G-02A Clamp Rib Set)

Roll Pin & Actuator
G-15, G-16 & G-17

0.625" Mandrel & Draw Rod
G-20 & G-18 (Used with G-02A - G-13 Clamp Rib Set)

Ground Cutterhead Blade Lock and Screw

Cutterhead		Mandrel		Blade Lock		Lock Screw	
Part #	Size	Part #	Size	Part #	Per Head	Part #	Per Lock
G-206	1.500	G-204	.500"	G-22	2	G-21	1
G-23	1.500	G-20	.625"	G-22	2	G-21	1
G-24	2.000	G-20	.625"	G-22A	2	G-21	1
G-25	2.250	G-20	.625"	G-22	4	G-21	1



Cutterheads feature the EscoLock Blade Lock System that hold the Cutter Blade rigidly, reduce vibration and heat resulting in superior Cutter Blade life without cutting oils.



Blade Locks and Screw
G-22, G-22A & G-21

Ground Membrane Removal Heads

Membrane Head		Base Head		Inserts	
Size	Part #	Part #	Part #	Qty	
.875	MO-100	GB-100	MRB-8	3	
1.000	MO-101	GB-101	MRB-8	4	
1.125	MO-102	GB-102	MRB-8	4	
1.187	MO-103	GB-103	MRB-8	4	
1.250	MO-104	GB-102	MRB-8	4	



Membrane removal heads fit over the tube O.D. and remove the membrane from between boiler waterwall tubes while not derogating the tube O.D.



Both Membrane and Membrane/Overlay heads are mounted to a Base Head that can also hold a bevel blade.



Membrane/Overlay Heads remove membrane from between tubes and also weld overlay from the tube O.D.

The ESCO patented Membrane and Overlay Removal Heads use round inserts with a tapered shank that install with a tap from a hammer. They easily remove and rotate for extended use.

Ground Overlay Removal Heads

Overlay Head		Base Head		Inserts	
Size	Part #	Part #	Part #	Qty	
.875	MO-200	GB-100	MRB-8	3	
1.000	MO-201	GB-101	MRB-8	4	
1.125	MO-202	GB-102	MRB-8	4	
1.187	MO-203	GB-103	MRB-8	4	
1.250	MO-204	GB-102	MRB-8	4	



Specifications: Ground MILLHOG®

Working Range		.5in (12.7 mm) I.D. to 2.25in (57.15 mm) O.D.			
Motor		Pneumatic	Air Clamp	Electric	Battery / *Charger
		1.07 hp (800 W) 90 psi (6.2 bar) 35 cfm (990 lt/min) 125 rpm	1.07 hp (800 W) 90 psi 6.2 bar 35 cfm 990 lt/min 125 rpm	120 V 8.5 A 50/60 Hz 950 W, or 220 - 240 V 4.4 A 50/60 Hz 950 W	18V Li-Ion - up to 5.2 Ah *115V / 60 Hz, or *220 - 240 V 50-60 Hz 49 rpm
Speed				12 rpm - 63 rpm	
Minimum Width Clearance					
With 1.5in Cutterhead		1.5in (38.1 mm)	3.625in (92.1 mm)	1.5in (38.1 mm)	1.5in (38.1 mm)
Membrane and Overlay heads		1.875in (47.6 mm)	3.625in (92.1 mm)	1.875in (47.6 mm)	1.875in (47.6 mm)
Head Length		14in (355.6 mm)	16in (406.4 mm)	14in (355.6 mm)	14in (355.6 mm)
Working Weight		12.7 lbs (5.8 kg)	15.05 lbs (6.8 kg)	14.1 lbs (6.4 kg)	14.6 lbs (6.6 kg)
Shipping Weight		40 lbs (18.1 kg)	45 lbs (20.1 kg)	42 lbs (19.1 kg)	42 lbs (19.1 kg)
Shipping Dimensions		20in x 18in x 5 in 508 mm x 457 mm x 127 mm	24in x 20in x 7in 610 mm x 508 mm x 178 mm	24in x 20in x 6in 610 mm x 508 mm x 152 mm	24in x 20in x 6in 610 mm x 508 mm x 152 mm

Formed Cutter Blades are made from T-15 Tool steel and are available in many sizes and for all pipe and tube bevel angles.

