Pipe Beveling Machine Company, Inc.

# Pipe Cutting And Reveling MACHINES

Each H&M machine is constructed of durable, lightweight, hard-anodized aluminum for easy transportation to any job site for cutting and beveling 2"- to 48"-diameter pipe precisely, quickly and economically, even under the toughest conditions.

Every ring gear and saddle are precisely machined and calibrated to  $\pm$  .025 in concentricity and  $\pm$  .015 in squareness. The standard rear-mounted short saddle aids cutting and beveling in tight locations, while allowing precise back-beveling operations.

H&M's unique "split horseshoe" design permits easy placement over pipe sections. A quick-operating boomer assembly

H&M Model No.

securely locks the machine to the pipe for an entire 360-degree rotation. No repositioning is ever needed! H&M's patented Cuboid Spacer System keeps the spacers on the machine to minimize downtime.

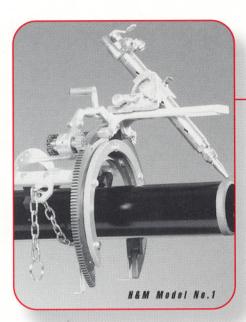
H&M Pipe Beveling Machines save weld prep time and money compared to hand cutting. With easy-to-follow manuals and a few minutes of instruction, any operator can easily make accurate cuts and bevels.

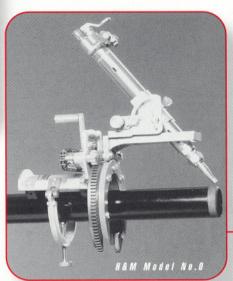
How last? For example when using the No.3 Standard Beveling Machine, a 20"-diameter pipe can be cut and beveled in about four minutes!



H&M Model No.3







## **H&M Standard Beveling Machines**

		Standard Pipe Sizes Inches			N . W	Net Weight Shipping Weight		cı · ·		Cuboid Spacer		
Model No.			imeters		Lb.	Kg	Lb.	Kg Weight	Shipping Dimensions	Manual	Motorized	(Patented)
No. 0	2" 60.32	2.5" 73.02	3" 88.90	4" 114.30	9.50	4.15	12	5.4	9 x 11 x 11	standard	optional	standard
No. 1	3" 88.90	4" 114.30	6" 168.27	8" 219.07	18	8.10	25	10.70	13 x 16 x 17	standard	optional	standard
No. 2	7" 193.67	8" 219.07	10" 273.05	12" 323.85	27	12.25	38	16.75	15 x 22 x 22	standard	optional	standard
No. 3	14" 355.60	16" 406.40	18" 457.20	20" 508.00	55	25.00	75	30.40	13 x 34 x 34	standard	optional	standard
No. 4	20" 508.00	22" 558.80	24" 609.60	26" 660.40	81	36.45	118	53.10	14 x 36 x 45	standard	optional	standard
No. 30	24" 609.60	26" 660.40	28" 711.20	30" 762.00	92	41.40	133	59.85	14 x 38 x 48	standard	optional	standard
No. 5	30" 762.00	32" 812.80	34" 863.60	36" 914.40	145	65.25	250	112.50	16 x 48 x 61	standard	optional	standard
No. 42	36" 914.40	38" 965.20	40" 1,016.00	42" 1,066.80	185	83.25	320	144.00	23 x 53 x 63	standard	optional	standard
No. 6	42" 1,066.80	44" 1,117.60	46" 1,168.40	48" 1,219.20	220	99.00	350	157.50	24 x 55 x 72	standard	optional	standard

Inches = Nominal Pipe Size Millimeters = Pipe OD

 $Spacers \ for \ odd \ pipe \ sizes \ and \ tubing \ can \ be \ special \ ordered.$ 

# Exclusive Standard H&M FEATURES

#### Cub/ofd/Spacer System

Patent No. 5 1 1 0 0 9 5

H&M's patented Cuboid Spacer System relieves frustration and downtime in looking for lost spacers, because the spacers never leave the machine.

The H&M Cuboid is a six-sided form with rectangular sides. Three specific thicknesses conform to different pipe sizes. Only four cuboid spacers are used to quickly set up the machine. In the past 12 spacers were required.

The saddle of each H&M machine and the four cuboids allow four specific pipe sizes to be cut. Each side of every cuboid spacer is clearly stamped to ensure cutting the correct pipe size. When not in use the cuboid spacers are securely housed on the back of the saddle. It's a no-lose proposition in time-saving productivity!



#### Improved Saddle Design

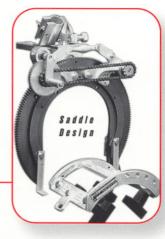
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Snacers

H&M achieves functional and financial advantages for the customer over its competition by designing the precision saddle and ring gear as separate components.

Instead of locating the ring gear in the middle H&M places the saddle behind the ring gear, greatly reducing the risk of warping the saddle while back-beveling.

H&M's Saddle Assembly is less likely to be damaged; however, if a problem occurs, this separate component design is more economical in replacement costs.





#### 7CS Solid Torch Holder

Now standard on all H&M's saddle-type beveling machines, the Model "C" Adjustable Torch Holder, the Model "C" Out-of-Round Attachment and all Shape Cutting Attachments, the 7CS Solid Torch Holder provides greater cutting accuracy, efficiency and strength. A single thumbscrew secures the torch instead of hose clamps. A cotter pin makes the thumbscrew captive to the torch holder, allowing easy removal or replacement of the torch. Precise and simple to use, the 7CS means solid performance.

NOTE: The 7CS is available for retrofitting to H&M's 5C Torch Carrier Assembly. Only two screws are needed for removal and replacement.

#### Master Chain Clamp

H&M introduces its new Master Chain Clamp, a versatile clamping system designed to increase productivity. One person can quickly and safely perform perfect fit-ups of flanges, tees and elbows in minutes. Each Master Chain Clamp works 4"- to 16"- (114 mm to 406 mm) diameter pipe/fittings. Additional chain links and jackbars can be added for larger pipe sizes. The clamp weighs 28 lbs. when fully assembled, but can be streamlined when working smaller-sized pipe.

Set-up, positioning and alignment for welding is now faster, easier and more precise.

WARNING: H&M's Master Chain Clamp is exclusively designed as a precision tool for aligning pipe fittings to pipe and end-to-end alignment of pipe for welding. It is NOT intended to support or lift the entire length of a pipe. Always exercise extreme caution when using this product.

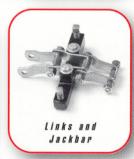














#### Chain Links

- 23 links work 4"- to 16"- (114 mm to 406 mm) diameter pipe/fittings
- 7/16-14 bolts connect each link
- · Links can be quickly added or removed

#### **Jackbars**

- · System includes eight
- · Constructed of cast ductile iron
- · Each fitted with two jacking screws
- · Re-forms pipe up to .375" wall thickness

#### **Latching Handle**

- Includes a 3/4" Acme thread bolt and nut
- · Secures clamp quickly and efficiently to pipe

#### Support Mechanism

- · Fully adjustable
- · Supports large fittings
- · Quickly allows squaring and leveling



H&M

#### General Pipe Dolly

A one-piece body with adjustable rollers easily accommodates for pipe diameter sizes from 3" to 30". When used in pairs, pipe is safely supported and rotated and assists in multiple welding tasks.



#### General Pipe Tongs

Strongly built for rugged pipeline construction conditions, General Pipe Tongs feature grip pads made for safe, positive pipe engagement and are field-replaceable. The tongs automatically release when the lift line slacks off the pipe. General Pipe Tongs are available in sizes 2" to 36" with models for both steel and cast-iron pipe.

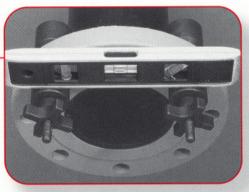


#### Quick-Acting Flange

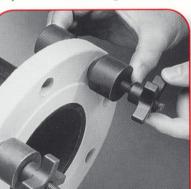
With H&M's Quick-Acting Flange Pins start welding in minutes with very little fit-up time. Endless threading and unthreading of flange pins are now completely eliminated.

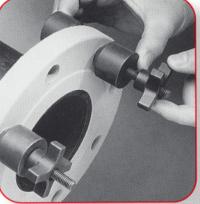
The secret is in the knob. Just tilt the knob to bypass the flange pin threads, then straighten the knob to grip the threads for tight,

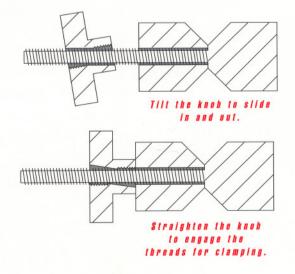
> positive clamping. Removal is just as quick and easy. Loosen the knob, tilt and remove.



These precise, conical flange pins provide perfect centering on 5/8" to 11/2" bolt holes. Try a set of H&M Quick-Acting Flange Pins and experience why they are a "hole" lot better.

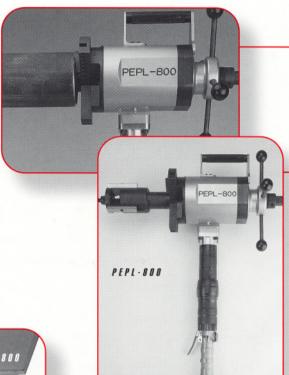






#### PEPL-800

- 2 ½ hp heavy-duty pneumatic motor—70 cfm and 90 psi
- One mandrel fits 3" to 8" pipe
- Adjustable "lock in" torque-accepting mandrel eliminates backlash and chatter
- $\bullet$  Two sets of tool bit holders: one set 3" to 6" and one set 4" to 8"
- · Bevels, faces and counterbores simultaneously
- One 37.5-degree bevel bit (PB-2905) and one facing bit (PB-2904)
- · Heavy-duty storage case
- · Operation manual
- Portable
- · Net weight 58 lbs.







## Optional PEPL ACCESSORIES

Air Fitter/ Lubrication System

The PBM-8920 Small
Mandrel allows the machine
to be used on 1.900"
to 3.00" ID
pipe.

The PBM-AF Air Filter/ Lubrication System protects the air

motor from the harmful effects of moisture and foreign particles in the air line. Operating the machine without a proper air filter/lubrication system will void the warranty.

Small Cutter Head Tool Block

The PBM-6011 Small Cutter Head Tool Block allows the machine to be operated in a confined space as small as 7.500".



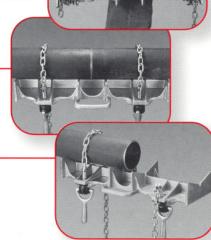


H&M APC-16 Adjustable Pipe Clamp

Here is one great tool that does the work of 12 cage-type clamps. The H&M APC-16 Adjustable Pipe Clamp comes complete and ready to align 2"- to 16"-diameter pipe.

Made of durable, ductile cast iron, the H&M APC-16 features convenient carrying handles and precisely machined V's for perfect pipe alignment every time. At only 31 lbs. it is also lightweight and easily portable to any job site. One person can position the clamp and start welding in about two minutes for most applications and pipe sizes.

Acme 3/4-6" threaded bolts and nuts tighten the pipe chain around the pipe. Each adjusting nut is fitted with its own handle. No extra tools or ratchet handles are needed. The Acme threaded bolts, nuts and chain are captive to the pipe clamp, eliminating any lost or misplaced items.



#### General Pipe Clamps

H&M offers General Pipe Clamps for 2"- to 60"-diameter pipe. Each is hinged for easy positioning around the pipe and available with flat or arched cross bars.

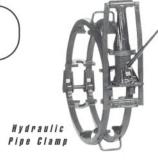
The Standard Pipe Clamp features a lever and a cam for tightening the clamp around both ends of adjoining pipe.



The Hydraulic Pipe Clamp employs an eight-ton hydraulic jack for opening and closing the clamp. This feature is especially important when aligning 16"- to 60"-diameter pipe.

The Ratchet Clamp includes precision-cut Acme thread design for strength and easy operation, plus an enclosed mechanism to prevent mud and dirt contamination. This clamp works on 10"- to 60"-diameter pipe.

NOTE: The H&M Adjustable Pipe Clamp and General Pipe Clamps are ONLY designed for aligning pipe ends while welding. DO NOT use these clamps to support the weight of a pipe being lifted or moved, and DO NOT use these clamps with shims, wedges or cheaters.



Ratchet Pipe Clamp



Sta	ndard
Pipe	Clamp



Model		Pipe Sizes
Standard		2" to 60"
Standard No Tack		3" to 60"
Hydraulic		16" to 60"
Hydraulic No Tack		16" to 60"
Ratchet		10" to 60"
Ratchet No Tack	£0_	14" to 60"

#### 2DH Boomer Strap Eye Assembly

Forget cotter pins and S-hooks. H&M offers a safer, more dependable 2DH Boomer Strap Eye Assembly. The 2DH allows the chain on the boomer assembly to quickly adjust and securely lock the machine to its respective pipe size. The boomer assembly is now a captive member of the machine.

#### Quality Control

Every H&M machine is manufactured through a rigid system of quality controls, calibrated to  $\pm$  .025 in concentricity and  $\pm$  .015 in squareness during final assembly and then re-checked one last time before distribution.

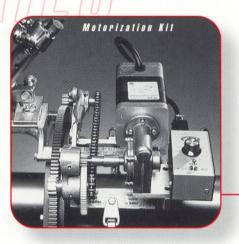


# Optional H&M ACCESSORIES

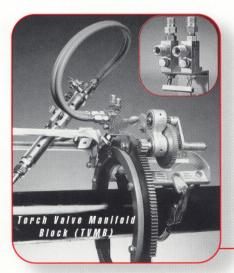
#### Motorization Kits

For large pipe work or fabrication H&M highly recommends its motorization kits when 115 AC is available.

H&M's Motorization Kits achieve precise torch speed, increased production and consistent, high-quality beveled edges with every cutting and beveling operation. Speed ranges are sufficient for most plasma cutting applications.





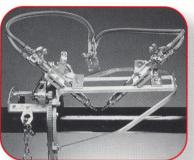


#### Torch Valve Manifold Block (TVMB)

H&M's Torch Valve Manifold Block saves time and energy in accurate torch settings without wasting oxygen and fuel gas.

With the TVMB just adjust the torch once. A lever turns the torch on and off without altering the flame setting. Consistent, uniform, high-quality flame-cut bevels from end to end are achieved every time! The TVMB also eliminates hose drag for even greater accuracy and productivity.

#### Double Torch Holder



Increase production by 100% with H&M's Double Torch Holder!

It consists of one 18" torch arm with two 5C Torch Carrier Assemblies. After positioning the torch holders at a specific bevel angle, two beveled cuts can be made in one revolution.

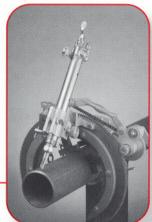
NOTE: For ultimate precision and control, use of the Double Torch Holder in conjunction with the optional TVMB is strongly advised.

#### Storage Boxes

The best protection for your H&M machine during transportation and storage is the lightweight aluminum storage box. Storage boxes for all H&M Models No. 0 through No. 6 Standard Beveling Machines are available.



#### C" Adjustable Torch Holder



Both horizontal and vertical torch movements are easily made by the Model "C" Adjustable Torch Holder with its two rack-and-pinion-driven, dove-tailed slide assemblies. Smooth, accurate torch adjustments eliminate blow holes. Even the torch height can be changed while the cutting torch is in motion.

No special modifications are needed with most torch lengths. A built-in protractor provides precise bevel angles every time. The Model "C" fits all Standard H&M Beveling Machines, except the Model No. 0, which requires a special adapter plate.

#### 0 u t - 0 f -Attachment

Cut and bevel imperfect pipe and create square ends without a problem with H&M's Model "C" Out-of-Round Attachment.

Riding on the outside diameter of the pipe, the Model "C" compensates for errors in roundness by using a spring-loaded, dovetailed slide.

Like the Model "C" Torch Holder, the Out-of-Round features the same precise assemblies for independent horizontal and vertical torch movements. A built-in protractor provides precise forward- or back-beveling angle settings.

The Model "C" Out-of-Round Attachment fits all H&M Standard Beveling Machines that cut and bevel 3" to 48" pipe. The Model No. 0 requires a special adapter when working 2" to 4" pipe.





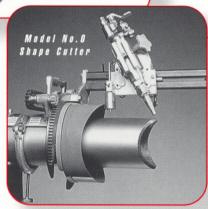
### Shape Cutting Attachments And Templates

Even novices to pipe cutting and beveling can achieve superior-quality craftsmanship in making saddles, Y's, T's, miters and various angle cuts on all H&M machines with shape cutting attachments and templates.

Each custom-made, H&M prefabricated metal template is bolted to the face of the ring gear. The torch is spring-loaded against the template. While the machine rotates around the pipe, the torch moves along the same

path as the template. The triangular design of hardanodized travel tubes and carriage rollers ensures
lateral torch stability and smooth, consistent,
horizontal torch travel during a complete
revolution. Achieve accurate cuts from proven
patterns every time, even when cutting miters
up to 45 degrees.







Examples of Custom-Made Templates from H&M

# **H&M Standard Shape Cutting Attachments**

	Net V	Veight	
Model No.	Lb.	Kg	Recommended Usage
Model No. 0	7	3.15	Model No. O
Standard 24"	11	4.95	Model Nos. 1 and 2
Standard 36"	13	5.85	Model Nos. 3 and 4

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# The LEADER OF THE BAND

## Band-Type Pipe Cutting And Beveling Machine

H&M is the leader with its Band-Type Pipe Cutting and Beveling Machine for speed, accuracy and versatile operations on large-diameter pipe. The H&M Motorized Beveling Head is constructed of cast aluminum. Its lightweight, compact design allows for easy one-man setup and operation. Seventeen different stainless steel bands provide a cutting range of 10"- to 96"-diameter pipe, plus special bands are

available to cut pipe diameters up to 20 feet. In about five minutes a single operator can position the band and beveling machine head on 48"-diameter pipe and begin the cutting process. H&M's machine has the following features:

#### H&M Stainless Steel Bands

- Economical-each band overlaps numerous pipe sizes
- · Automatically compensates for over- and under-sized pipe
- Unaffected by dope or coating on the pipe
- Assures accuracy—overlapping squares up the band
- · Flexibly conforms to out-of-round pipe





#### H&M Motorized Beveling Machine Head

- · Rugged, lightweight cast aluminum chassis
- · Easily portable at only 18 lbs.
- Works with all H&M stainless steel bands
- · Variable speed control box with forward and reverse capabilities
- Standard 90-volt DC motor
- · Speed ranges-2 ipm to 24 ipm
- · 220-volt optional
- Plasma speeds optional



NOTE: The optional H&M Band-Type Machine Storage Box is ruggedly constructed, making it a safe storage place for one beveling machine head and several bands, plus torches, cutting tips, strikers, tip cleaners and more.

## Band-Type Pipe Cutting And Beveling Machine

		Shippin	g Weight	Shipping Dimensions	
Model	Part No.	Lb.	Kg	Inches	Millimeters
Beveling Machine Head	ВМН	20	9.05	18x12x10	450x300x250
Storage Box	BANDBOX	38	17.25	24x24x10	600x600x250

NOTE: Head includes a 115-volt AC control box, DC reversible motor, torch holder and works with all band sizes (cutting torch and tip not included).

NOTE: Box provides storage for one beveling machine head and multiple bands.

#### Stainless Steel Bands

		Pip	e Sizes	Shipping Weight		Shipping Dimensions	
Model No.	Part No.	Inches	Millimeters	Lb.	Kg	Inches	Millimeters
14" Band	BAND14	10 to 14	250 to 350	6	2.71	12x12x10	300x300x250
20" Band	BAND20	14 to 20	350 to 500	8	3.62	12x12x10	300x300x250
26" Band	BAND26	20 to 26	500 to 650	9	4.07	12x12x10	300x300x250
30" Band	BAND30	26 to 30	650 to 750	10	4.52	12x12x10	300x300x250
36" Band	BAND36	30 to 36	750 to 900	12	5.43	20x20x13	500x500x325
42" Band	BAND42	36 to 42	900 to 1,050	14	6.33	20x20x13	500x500x325
48" Band	BAND48	42 to 48	1,050 to 1,200	15	6.79	20x20x13	500x500x325
56" Band	BAND56	48 to 56	1,200 to 1,400	16	7.24	20x20x13	500x500x325
60" Band	BANDGO	56 to 60	1,400 to 1,500	17	7.69	20x20x13	500x500x325
64" Band	BAND64	60 to 64	1,500 to 1,600	18	8.14	20x20x13	500x500x325
68" Band	BAND68	64 to 68	1,600 to 1,700	19	8.60	20x20x13	500x500x325
72" Band	BAND72	68 to 72	1,700 to 1,800	20	9.05	20x20x13	500x500x325
76" Band	BAND76	72 to 76	1,800 to 1,900	21	9.50	20x20x13	500x500x325
80" Band	BAND80	76 to 80	1,900 to 2,000	22	9.95	20x20x13	500x500x325
84" Band	BAND84	80 to 84	2,000 to 2,100	23	10.40	20x20x13	500x500x325
90" Band	BAND90	84 to 90	2,100 to 2,250	24	10.86	20x20x13	500x500x325
96" Band	BAND96	90 to 96	2,250 to 2,400	25	11.81	20x20x13	500x500x325

Larger bands quoted upon request.

NOTE: Each band includes a drive chain and a coupling.

#### **H&M Manual Beveling Machine Head**

- Rugged, lightweight cast aluminum chassis
- · Easily portable at only 20 lbs.
- Works with all H&M stainless steel bands
- Fitted with an 8.5' flexible drive cable and crank handle
- · No electricity required

NOTE: To order H&M's Manual Beveling Machine Head use Part No. BMH-C. The shipping weight is 22 lbs./10 kg. The shipping dimensions are  $18" \times 12" \times 10"/450 \text{ mm} \times 300 \text{ mm} \times 250 \text{ mm}$ .



HAM

# PRODUCTIVITY TOOLS H & M Pipe-End-Prep Lathes

H&M presents the perfect tools for beveling, facing and counterboring, the H&M Pipe-End-Prep Lathe PEPL-400 for 1" to 4" pipe or tube and the PEPL-800 for 3" to 8" pipe or tube.

Both tools place bevels, lands and counterbore on ferrous and nonferrous materials up to SCH 160. Special tooling is available for heavier wall thicknesses. They are pneumatic-driven, lightweight, portable and come complete with the following features and specifications:

#### PEPL-400

- 1" to 4" pipe capacity 1" SCH 40 (1.049 ID) to 4" SCH 40 (4.02 ID)
- 15/8 hp heavy-duty pneumatic motor—55 cfm and 90 psi
- One mandrel fits 1" to 4" pipe
- Adjustable "lock in" torque-accepting mandrel eliminates backlash and chatter
- · 4" cutter head
- · Bevels, faces and counterbores simultaneously
- 2" cutter head available for confined spaces
- One 37.5-degree bevel bit (PB-0333) and one facing bit (PB-0258)
- · Heavy-duty storage case
- · Operation manual
- Portable

PEPL-400

Net weight 24 lbs.



## Optional PEPL ACCESSORIES

00 Mandrel Air Filter/Lubrication Syst

The PBM-4915 Small Mandrel allows the machine to be used on 0.83" to 1.00" ID pipe.

The PBM-AF Air Filter/Lubrication
System protects the air motor from the harmful effects of moisture and foreign particles in the air line. Operating the machine without a proper air filter/lubrication system will void the warranty.

The PBM-4370A Ratchet Handle allows the machine to be operated in confined spaces.

#### Small Cutter Head

The PBM-4700 Small Cutter Head allows the machine to be operated in a confined space as small as

space as small as 2.875".