

# X97

**PULLMAX**

# BEVELS FOR HIGH QUALITY WELDS



The groundwork for high-quality welded joints is carried out at the preparation stage - when the edges of the workpieces are bevelled. It is important that the bevel is uniform along the full length of the edges to be welded and this is particularly important when using automatic welding where the volume of the weld is constant. Another important factor is that the bevelling must not cause deformation of the pieces to be welded. If they are bent or buckled, it becomes difficult to keep the gap width constant along the whole length of the joint.

If these requirements for dimensional accuracy and freedom from deformation are met, then the conditions are right for making a high-quality weld. Cleanliness of the edges of the work and freedom from chemical action are, of course, also advantageous to the production of good welds.

Pullmax bevelling machines produce a result which meets all these basic requirements.

A good weld means good economics, and that means doing a good job quickly. The Pullmax method is up to five times faster than ordinary gas cutting methods. There is no loss of time in setting-up and starting. And, more than that - the cost of the Pullmax method is normally less than 25% of the cost of gas-cutting.

The low running costs are decisive in the final economics of the job. The Pullmax machine requires little physical effort from the operator - it is very easy to set and to operate and requires only basic operator training. Reliable and accurate bevelling eliminates scrap. All this adds up to good welding economics.

# NO SMOKE OR NOISE WITH X97

Everyone who has used the Pullmax method appreciates its qualities.

The Pullmax method gives much better working and environmental conditions when compared with gas cutting or chiselling.

Noise and sparks are eliminated. The machine works quietly with little noise. Its sound emission, at full load, is maximum 65 dB(A).

Fire hazard and risk of burns by open flame are entirely eliminated, so the operator does normally not require any special protective equipment, such as goggles etc.

Nor is he exposed to troublesome smoke and fumes.



Compared with other methods of beveling, the Pullmax machine is much less harmful to the working environment. This is important, not only to the operator, but also to the surroundings as a whole. The Pullmax method contributes to a reduction of the total noise level in production areas.

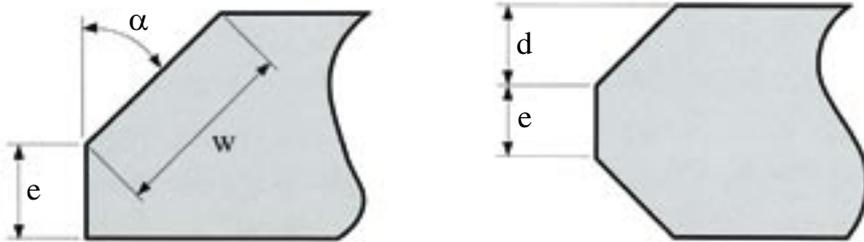
# X97 GIVES HIGHER . . .

The Pullmax bevelling machine functions basically in the same way as roller shears, but using only one cutter. The workpiece is fed automatically through the machine.

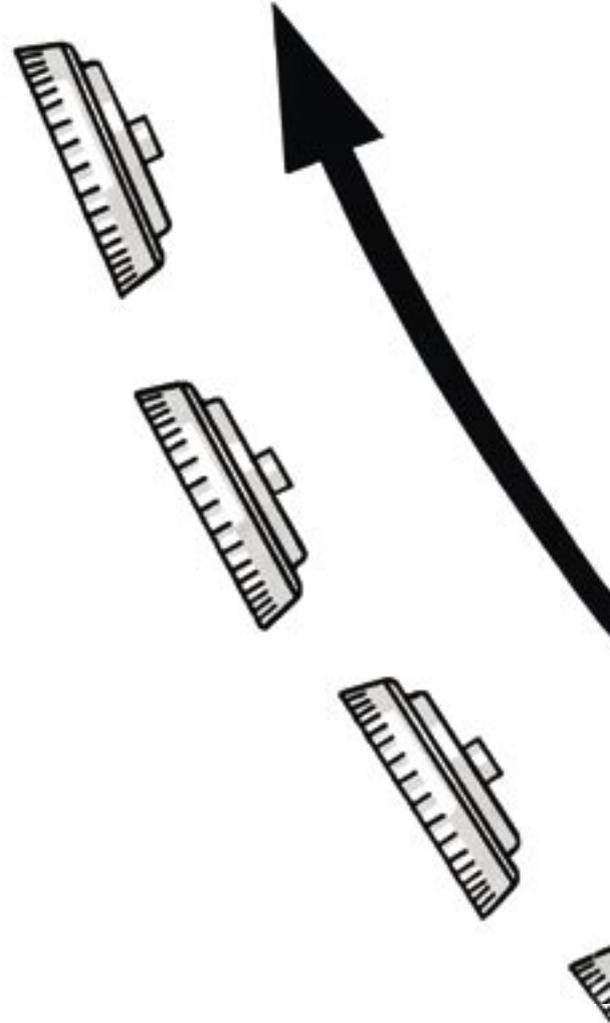
The method can be used for X, V, Y, and K-form joints. The angle of bevel is infinitely variable from 25° to 55°. The angle can be read easily on a graduated scale and can be set with a high degree of accuracy.

The capacity of the machine covers up to 25 mm of bevel in normal steel plate, 390 N/mm<sup>2</sup>. The speed of bevelling is between 1.5 and 3.1 m/min, depending on the width of the bevel being produced.

Since the bevelling is carried out without heat, the cut surface is clean and unaffected by chemicals. This makes the Pullmax machine suitable for stainless steel and also aluminium.



α.Bevel angle   d.Bevel depth   e.Unbevelled edge   w.Bevel width



## Choose the type of cutter to suit your own type of work.

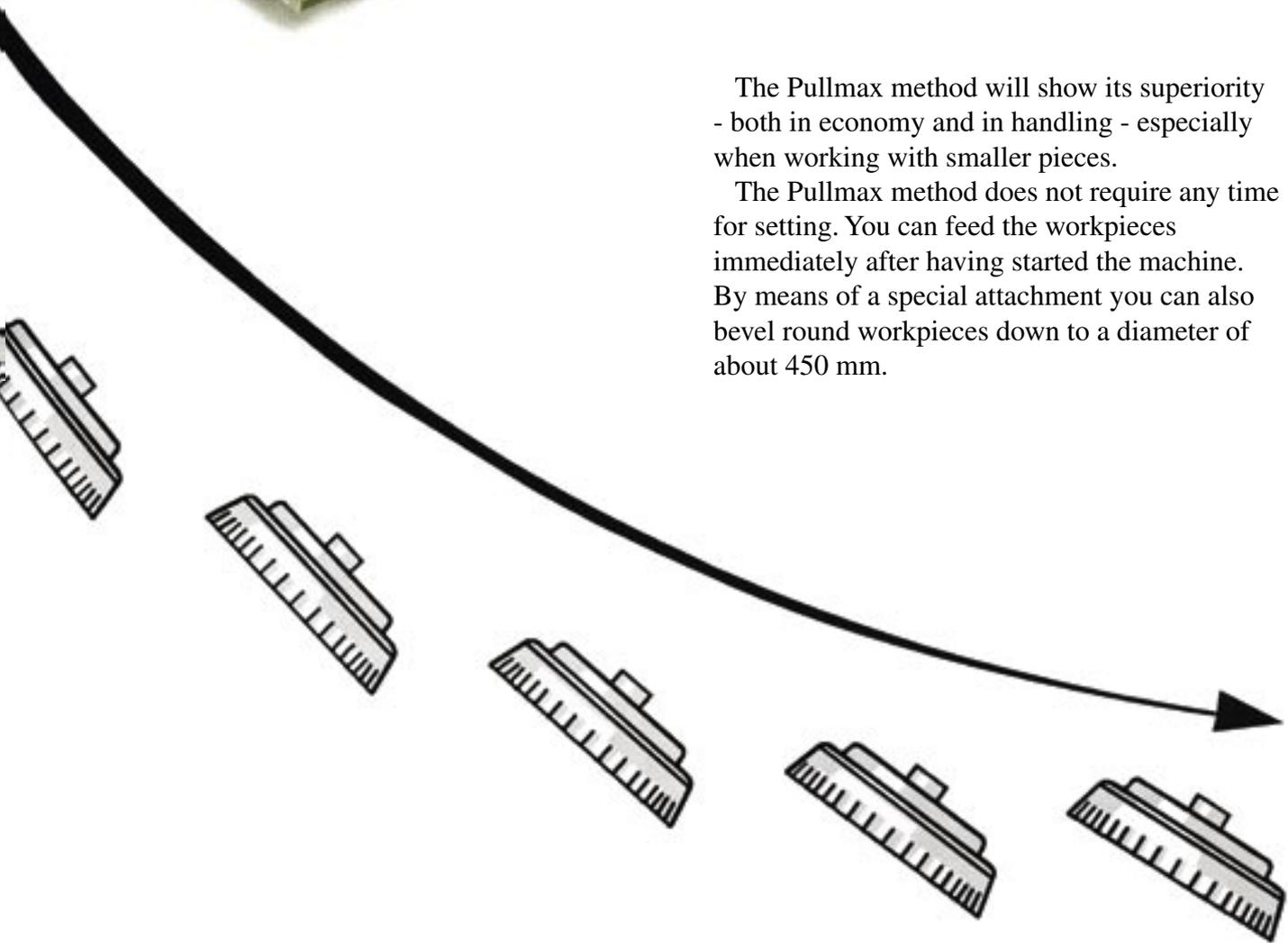
The standard toothed cutter can be used for most jobs, but the machine can be fitted with coarse- or fine-toothed cutters as required. Coarser teeth are used for larger bevel widths in heavy material and fine teeth are intended for use in lighter work with smaller bevel widths up to 15 mm. Cutters are made from hardened alloy tool steel.

# ... PERFORMANCE WELDS

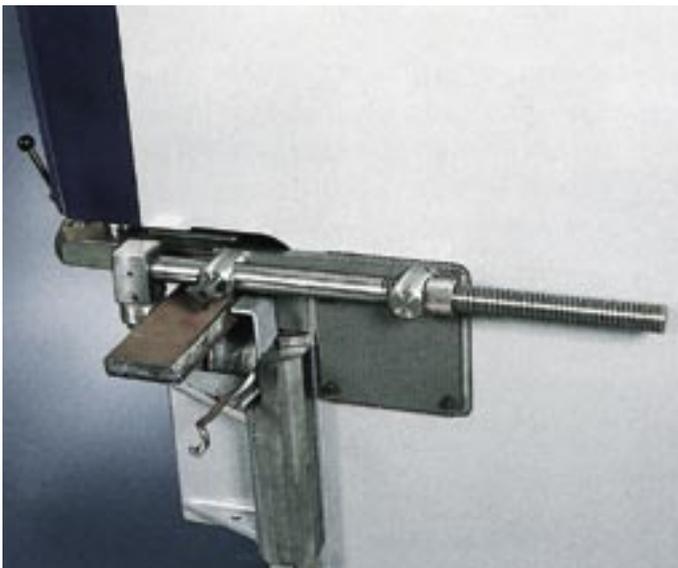


The Pullmax method will show its superiority - both in economy and in handling - especially when working with smaller pieces.

The Pullmax method does not require any time for setting. You can feed the workpieces immediately after having started the machine. By means of a special attachment you can also bevel round workpieces down to a diameter of about 450 mm.



# ACCESSORIES



## Guide for beveling narrow steel strips

When narrow steel strips and flat bar, or similar material is to be bevelled, there is sometimes a tendency for the width of the bevel to increase towards the end. A guide can be provided for use with the X97 on workpieces with parallel edges.



## Beveling circular discs

When fitted with a circular control device the machine can be used for external beveling of circular work-pieces, with diameters down to 450 mm. The device consists of a guide roller and adjuster. Settings are made on a graduated scale.

## Pullmax spray lubrication

Lubrication of the beveling area prolongs the life of the cutting wheel. Pullmax has therefore developed a spray lubrication unit that can be fitted on

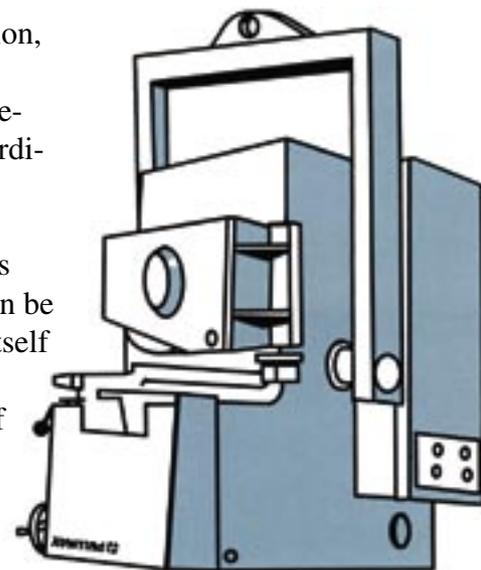
Pullmax Beveling Machines. The lubrication is automatic and is only active when there is material in the machine.



## The Pullmax machine adapts itself to the workpiece

The position of the machine can be adjusted to suit the shape, size and weight of the workpiece.

It can stand in a stationary position, or it can be suspended for movement either in ordinary position or upside-down. If the machine is suspended, it can be made to move itself along the work-piece, instead of feeding the workpiece through the machine.



# TECHNICAL DATA

Feed rate, m/min (depending on bevel width and tensile strength)	1.5-3.1
Bevelling angle ( $\alpha$ ), degrees	25-55
Min. unbevelled edge (e), mm	3
Max. plate thickness, mm	50*
Overall height, mm	1510
Overall length, mm	1360
Overall width, mm	1110
Motor output, kW	4/3
Sound level, full load, dB (A)	65
Weight, kg	1300

\*) In the case of very large plates, capacity may be limited by practical scope for handling and feeding material into the machine.

$\alpha$	Tensile strength N/mm <sup>2</sup>							
	< 390		390-490		490-590		590-690	
	w	d	w	d	w	d	w	d
25	25	22.7	19	17.2	15	13.6	13	11.8
30	25	21.7	19	16.5	15	13.0	13	11.3
35	25	20.5	19	15.6	15	12.3	13	10.7
40	25	19.2	19	14.6	15	11.5	13	10.0
45	25	17.7	19	13.4	15	10.6	13	9.2
50	25	16.1	19	12.2	15	9.6	13	8.4
55	25	14.3	19	10.9	15	8.6	13	7.5

$\alpha$  = Bevel angle      w = Bevel width      d = Bevel depth

We reserve the right to make alterations to the above specifications without notice.

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