

# The Pull-Down Band Saw

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In the past, when one thought of a pull-down band saw it automatically brought to mind a cheap, flimsy machine that would never be suitable for any production operation. Well, times have changed. However, to better understand the pull-down it is better to define this type of machine. Simply put, these machines are typically smaller band saws that sit up on a pedestal base and usually mitre and often mitre both left and right. The pull-down means that rather than have a feed cylinder these band saws are pulled through the cut by means of physical force. That is, the operator literally pulls the head down through the material.



The new European models, such as the DM line being imported from MEP by Hyd-Mech Group Limited, offer a robust production-oriented solution. While these tend to be smaller capacity machines, usually under ten inches, they make up for their diminutive size with design and components. Features such as all cast iron heads and vises and table bases make the Euro pull-down band saws very rigid and robust. The other differentiating factor with these particular band saws is that they use carbide pads to ensure blade alignment through the cut. This means that the blade is held tightly and avoids deflection when cutting.

In the more traditional machines, the blade is aligned through round bearings. These do not offer the support that carbides do and also tend to wear faster. The by-product of this is sloppy tolerances and bad production results. One other feature that also assists in the cutting process is the presence of cutting fluid. The majority of these Euro pull-downs come with a flood coolant system.

The European pull-down saws maintain an incredible tolerance; 0.001" per linear inch of cut from side to side and top to bottom. In other words they hold as tight or tighter tolerances than most of their larger brethren. As a result, many of these saws are capable of being used in demanding production environments.

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In terms of usage they are quite varied. However, some typical environments include fabrication where the pieces are varied and require different angles. These pull-down saws lend themselves quite well to the fabrication shops as they can be easily set up and the operator can regulate the speed of the cut by pulling down on the head. The head is balanced such that upon completion of the cut it will return.

Pull-down band saws have been the staple in Europe for decades and they are just now starting to be used in North America. With the pull-down feature it makes for easy set up of various sized materials. One need not adjust the head height for every material. Rather, the

operator self-regulates the height by simply lifting the head to the required level.

Some may think that this type of machine would be fine for a job that requires a number of various sized components but that if one needs to perform straight production of one material it could become fatiguing. This is quickly remedied by the optional gravity feed. With the gravity feed option the machines are able to cut material without the operator having to pull the head down. What this demonstrates, once again, is the flexibility of these types of machines. In fact, these machines are readily available even in single-phase configuration. This means that they are able to operate even in remote areas or even in the handyman's garage. The current models being sold by Hyd-Mech Group Limited offer a full range of the pull-down saws with these capabilities and more.

These pull-down saws are becoming more prevalent within North America. As more of these unique band saws are distributed throughout North America, the benefits of this type of machine will become more evident. ❖



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