IMET SPA
Località tre fontane, 6 - 24034
Cisano Bergamasco (BG) Italy
Tel +39 035 4387911 | Fax +39 035 787066
imet@imetsaws.com
www.imetsaws.com

MACHINE MODEL

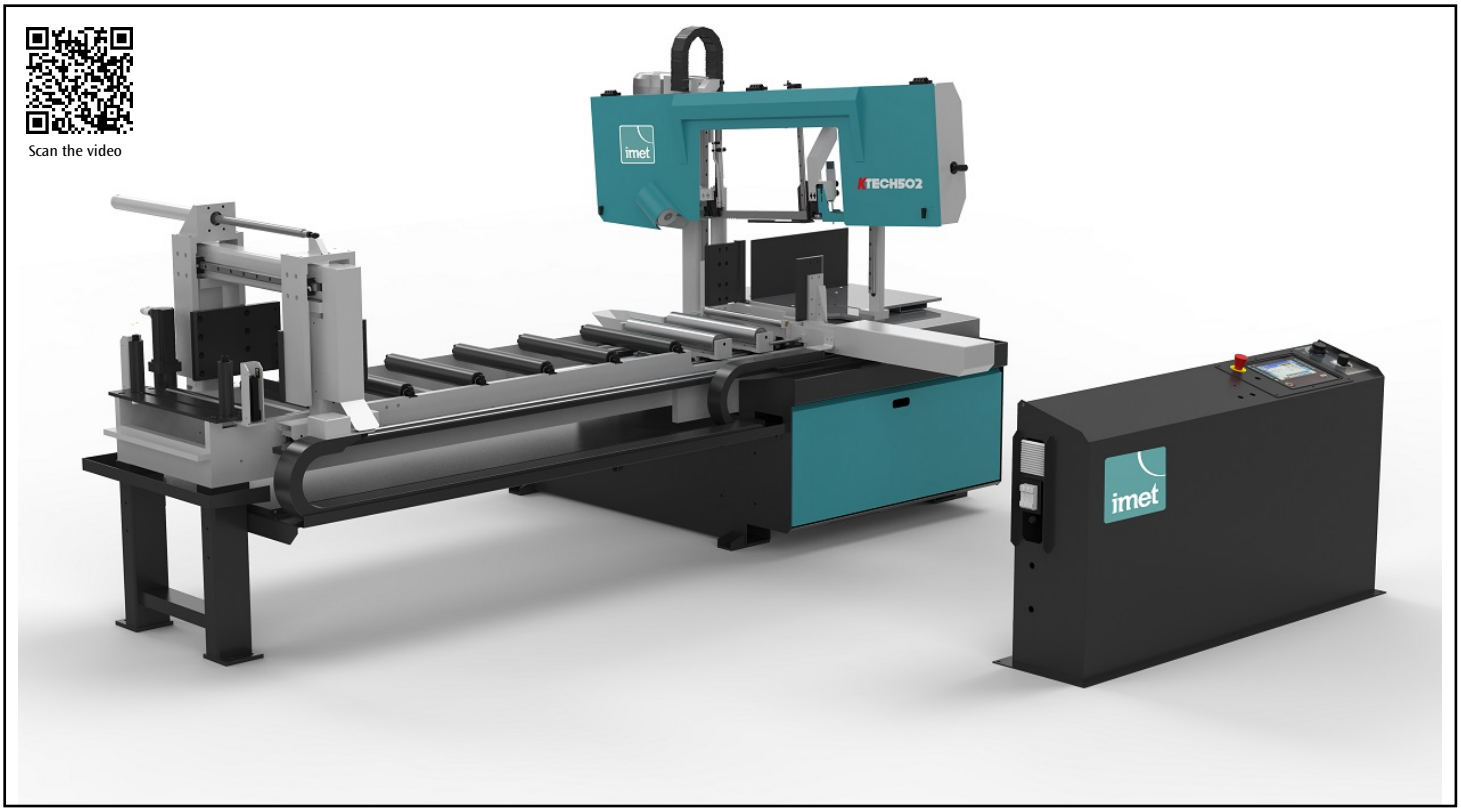
KTECH 502 F2000

Automatic double column bandsaws with CNC control

Short description

KTECH 502 is an automatic double column bandsaw that includes the most advanced technology avilable to cut bars, tubes, solids and profiles up to 60° both letf and right. An automatic sawing machine with CNC managed feeder and sawframe, KTECH has 10" touch screen interface to manage the cutting process and is the perfect working tool for professionals.

Scan the video



Cutting capacity at 0°	Round: 350mm - Quadrato: 330mm - Rectangular: 500x310mm
Cutting capacity ata 45° (sx)	Round: 300mm - Quadrato: 300mm - Rectangular: 300x300m
Cutting capacity ata 45° (dx)	Round: 300mm - Quadrato: 300mm - Rectangular: 300x300mm
Cutting capacity ata 60° (sx)	Round: 150mm - Quadrato: 150mm - Rectangular: 150x320mm
Cutting capacity ata 60° (dx)	Round: 150mm - Quadrato: 150mm - Rectangular: 150x320mm
Cutting capacity bundle / scrap-end	Max: 500x250mm - Min: 130x20mm - Scrap-end: 255mm
Cutting capacity at 0° solids (C45)	250mm
Minimum cutting diameter	10mm
Minimum cutting length	25mm
Minumum scrap-end	240mm (single cut at 0°)
Blade size	4250x34x1.1mm
Blade speed	From 18 to 100 m/min
Blade motor	2.2KW
Blade tension	1900kgf/cm2
Feeder length	2000mm (option F3000/6000mm)
Feeder motor power	Brushless BMH 2.5 N-m

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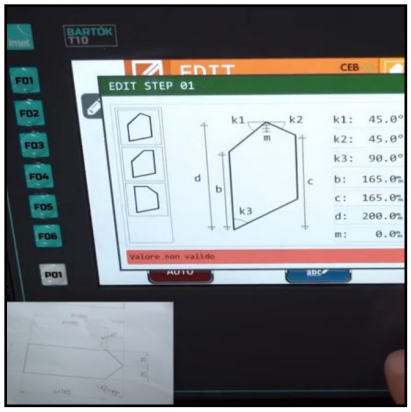
Max load on feeder	2000kg
Sawframe rotation power	0,55Kw
Hydraulic unit power	0,55Kw
Size - Working plate height - weight	3700x2300x2180mm / 845mm / 2250kg

Features

10" touch screen display

KTECH 502 has an easy and intuitive interface dedicate to optimize the user-experience: thanks the CNC system and 10" touch screen display the user can manage all the machine operative function, set up 99 cutting program and multiple cutting length on the same bar, set the number of feeder stroke, the number of pieces and blade speed. It's also possibile to do an autodiagnostic to detect errors.



Create a program for edge cut

Among Ktech main features there's the possibility to create a program via touch screen for edge cut. From the menu AUTO, the user select the required setting for the cutting process (blade and feeder speed), then he can report all the data of its technical drawing and layout on the touch screen, recreating the exact measuments of the bar to proceed with desiderd cut.

Expulsion system

The operator can select, through the machine parameters, to set the automatic expulsion of the cut pieces in 3 different ways: 0 - no expulsion; 1 - expulsion only for trim-cut; 2 - expulsion for all cut pieces. It's possibile to set the expulsion length from machine parameters.

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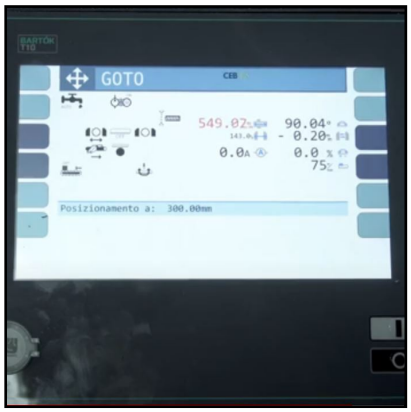
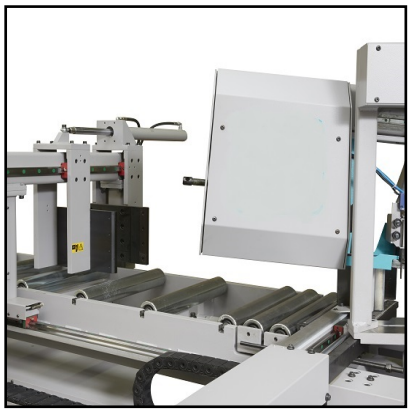


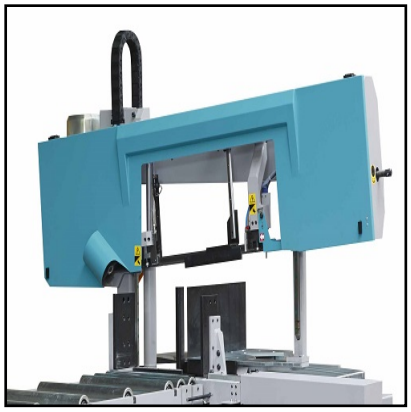
Feeder as length stop

It's possible to use the feeder as length stop when the machine is cutting in semiautomatic cycle by taking the feeder to the required length (minimum 270 mm, maximum distance between blade and feeder) using the GO TO option; in this case the bar will be loaded by the unloading side. Feeder vice is completely closed to be used as length stop.



4 controlled axes

KTECH line automatic bandsaws have an innovative 4 controlled axis system (laterial movement and closing of the vice, material feeding and sawframe rotation), all managed by numeric control. All the machine movement and setting can be controlled and modified via touch screen display.



Rigid sawframe with tubolar section

KTECH 502 sawframe is electrowelded with rigid structure and big thickness. The massive structure helps reduce vibrations, binding or slowing during the cutting process, saving sawblade life and durability. High cutting performances even on the biggest sections and full materials are provided by the canted blade.

Sawframe rotation

The automatic sawframe rotation is managed by motor reducer and inverter. An hyraulic piston lock the bow once it reached the set position. To keep clean and allows perfect rotation, an air-cleaning system is working during the rotation. Bow rotation power is 0.55KW.

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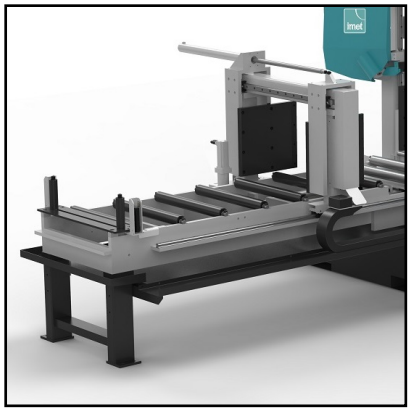
Blade

KTECH's blade is equipped with electronic inverter to expand the blade speed range (from 18 to 100 m/min) so that the cut is optimized on a wide range of materials, saving also the blade life. To operate even on wider section and full material without having strain on the band, the blade has a high tension.

Material detech system

Mechanical material detection system automatically detech the first point point, allowing the fast approach of the bow to the material. The end-cutting process is managed by a microswitch placed on the mobile blade guides that automatically detech when the cutting process ends.



Feeder

The machine is equipped with a 2000mm feeder (it's available a 3000mm feeder) with integrated roller table. The movement (which is managed by the touch screen interface) is provided by a brushless BMH 2.5 N-m motor with rack and pinion. Minimal scrap-end is 250 mm while the minimum cutting length is 10mm.

High cutting precision

KTECH line bandsaws have an automatic control of the pieces size thanks to the infinitesimal encoder and the automatic correction of the cutting lengths. Thanks to the innovative angle measurement system (angle reading is set outside the machine center), the machine has an high positioning accuracy and the best cutting precision.

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Minimal lubrification system

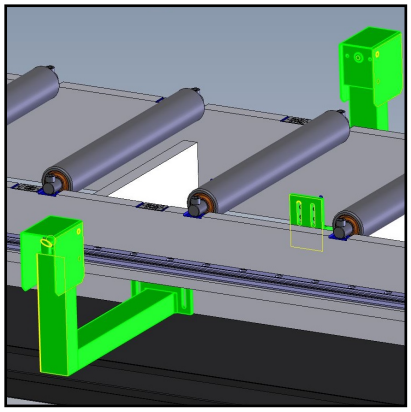
Minimal lubrification system is standard to avoid any coolant dispersion, keeping working area perfectly clean so that the machine can always work in the most efficient way; it works thanks to automatic switch and it has 2 nozzle and 1.3 l tank capacity.

Washing gun

Premium Line automatic bandsaws and semiautomatic and automatic Maxi Line bandsaws are standardly equipped with a washing gun dedicated to keep clean the working area and remove any residuals and remainings, allowinga to keep the highest efficiency of the machine.

Blade deviation control OPTIONAL

It allows to always have cutting process with the right tollerance. It's possibile to set the preferred tollerance based on the needs for a specific material or cutting angle (maximum tollerance: 0.2mm).



SMART START System OPTIONAL

The SMART START system is available for performing end trimming with two different options: in the first option, the operator selects the size to be trimmed and the machine automatically positions the material; if the material does not require trimming, the machine automatically performs the first cut as per the set program.

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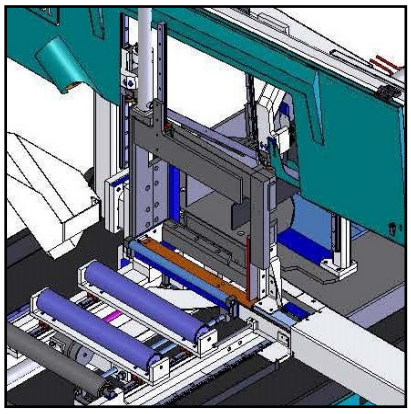
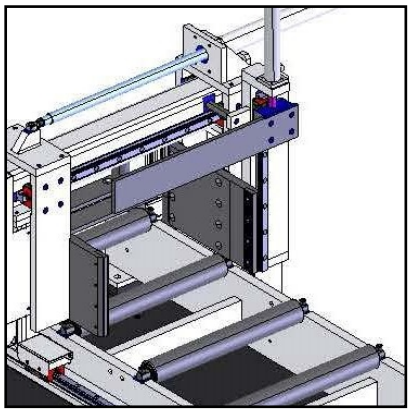


Bundle cutting device OPTIONAL

Hydraulic bundle cutting device which maximum cutting capacity is 500x250 while minimum capacity is 130x20mm. Minimum scrap-end with bundle cutting is 200mm. it's possibile to use the machine for mitre cutting just by disassembling the pressure device.



Bundle cutting device OPTIONAL

Together with the pressure placed next to the vice, the bundle cutting is made also by a supplementary device placed on the integrated feeder on outer part of feeder's jaws. This device must not be removed to use mitre cutting.

Laser ray OPTIONAL

To ease the working process, it's possibile to require di special laser ray that points the cutting line on the material before starting to operate.

Industry 4.0 Ready - SAWFACTORY OPTIONAL

IMET automatic machines can be connected to the company network and be used remotely thanks SAWFACTORY and modem. SAWFACTORY is a dedicated software which allows to manage the cutting process from the office desk by setting cutting programs and monitoring the workflow thanks to the dedicated web app. The software also allows to also receive assistance by our technicians remotely. Discover SAWFACTORY: https://bit.ly/2RuxHuX

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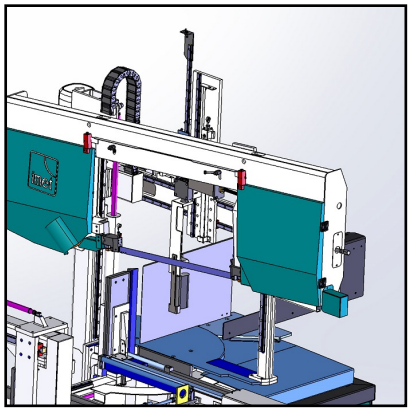
Industry 4.0 Ready - OneLoad for MES OPTIONAL

The kit allows to load from the company office/MES to the machine software a cutting list/program to optimize the internal workflow while avoiding possible mistakes made by the machine operator. It's necessary, for the customer, to have an FTP server on te same LAN where both SAWprogram software and cutting program are installed. A "shortcut" is enabled on the machine control to load the cutting lists and start the cycle (the kit is available only if the "Industry 4.0 Ready" package is already installed).

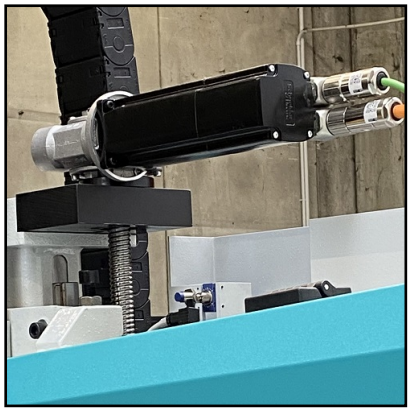
Industry 4.0 Ready - RealTime for MES OPTIONAL

The kit allows to send directly from the machine to the MES information in real time about: machine status, cut pieces situation, automatic cycle progession. The connection is provided via a Web service made available by the user on his own LAN; the webservice will act as a filter between the bandsaw and the internal MES (the kit is available only if the "Industry 4.0 Ready" package is already installed)



Marking system OPTIONAL

It's available for KTECH 502-652 models the automatic ink marking system that allows to impress a code on cut pieces to ease the material seleciton after the cut: the marking systems works before the cut and its programmaing is integrated with the machine CNC (allowing to create a unique program via KTECH touch screen) but it's equipped with its own independent touch screen display.



Sawframe downfeed with ballscrew OPTIONAL

It's available upon request the sawframe downfeed descent by ballscrew and servomotor. Adding this features, the user can access to the automatic parmeters system and internal material library that he can also expand with its customized parameters. The option also include the controlled movement of the blade guide and the possibility to control the unloading device.

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Metal protection barriers — OPTIONAL

According to CE law, it's also available the protection safety system made by metallic barriers that covers the machine on the 4 side with CNC managed access doors to regulate and control the operator access to the . working area.

Safety photocells — OPTIONAL

It's possible, if the user doesn't want a full metallic barriers protection system, to install a pair ofl photocells instead of one of the metallic side.

Loading/unloading roller table — OPTIONAL

Loading and unloading roller table. The module is composed by a 1.5m element with 1 leg and 1500kg maximum capacity. It's also available a connection element to adapt it to the machine for the unloading side.

Vertical rolls — OPTIONAL

Pair of vertical containment rolls made in steel. Max 2 pairs every 1.5 element.

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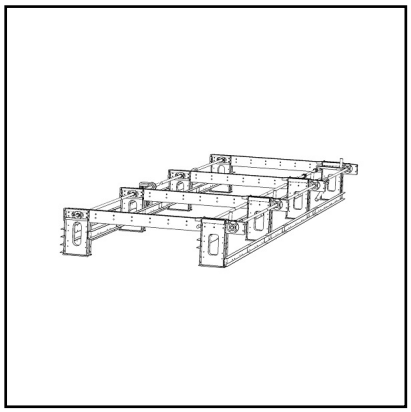
Single vertical roller OPTIONAL

Single vertical roll to prevent fails Height 300mm. Max 2 pairs for each 1.5m element.



Automatic loading system OPTIONAL

Automatic bar loader driven by the saw control software where the bars are automatically fed, consisting of supporting surfaces with a drag chain and loading stations (from 5 to 15). The supporting surfaces can be easily moved thanks to a modular structure. The feeder is provided with a system of blockage of the bar and with vertical aligning rollers and gearboxes to move the drag chains. The system is driven by the software of the saw to which it is connected.

Automatic unloading system OPTIONAL

Upon request it's available a customized material unloading system with bar warehouse developed based on the customer requests and needs.