

# Metal-cutting band saws

**MBS – Mitre metal bandsaws - particularly quiet and precise.**  
Ideal for use on construction sites and during assembly

- ▶ Ideal for sawing steel, aluminium, copper, PVC and Teflon
- ▶ Stepless, electronic speed control from 30 - 80 m/min
- ▶ Particularly quiet – up to 60% quieter than comparable metal band saws
- ▶ Low vibration and wear thanks to special gearbox with two large hardened steel gears
- ▶ Guaranteed cutting accuracy of max. 0.3 mm gradient over 100 mm cutting length
- ▶ Each machine individually tested for precision in Italy
- ▶ Low-speed DC drive motor with carbon brushes for up to 10 times longer service life
- ▶ Electronic temperature and amperage monitoring to prevent overload
- ▶ Cast band wheels with ground running surface without rubber pads, making them suitable for dry and wet cutting
- ▶ Solid saw frame made of die-cast aluminium (readjustable from MBS 125) and with sturdy transport lock
- ▶ Two movable, adjustable saw band guides with metal chip scraper
- ▶ Particularly stable base plate with non-slip feet
- ▶ Very service-friendly, as components are easily accessible

**MBS 155 K:**  
▶ With 60 % duty cycle



MBS 105



MBS 125



MBS 150

manual

**Scope of delivery MBS 105/125/150:**

- › Bi-metal saw band M42 Z6-10
- › Material stop

**Cutting areas MBS 105**

	○	●	▭	▮
90°	105	73.5	110 x 60	100 x 105
45°	70	49	65 x 75	70 x 50
60°	-	-	-	-

**Cutting areas MBS 125**

	○	●	▭	▮
90°	125	87.5	125 x 120	120 x 125
45°	80	56	70 x 110	70 x 110
60°	45	31.5	40 x 70	40 x 70

**Cutting areas MBS 150**

	○	●	▭	▮
90°	150	105	140 x 150	150 x 130
45°	100	70	120 x 90	90 x 130
60°	55	38.5	55 x 70	55 x 70

**Cutting areas MBS 155 K**

	○	●	▭	▮
90°	150	105	140 x 150	160 x 85
45°	95	66.5	90 x 105	75 x 130
60°	60	42	60 x 65	65 x 60

Technical data	MBS 105	MBS 125	MBS 150	MBS 155 K
Art. no.	3630105	3630125	3630150	3630152
<b>Technical data</b>				
Saw band speed	30 – 80 m/min	30 – 80 m/min	30 – 80 m/min	30 – 80 m/min
Saw blade dimensions	1335 x 13 x 0.65 mm	1440 x 13 x 0.65 mm	1735 x 13 x 0.9 mm	1735 x 13 x 0.9 mm
Motor power consumption	1010 W	1010 W	2000 W	2000 W
Motor power output 230 V ~50 Hz	0.91 kW	0.91 kW	1.8 kW	1.8 kW
Dimensions (L x W x H) approx.	630 x 300 x 410 mm	700 x 350 x 410 mm	875 x 420 x 465 mm	1010 x 420 x 1335 mm
Weight approx.	20.5 kg	23.5 kg	35 kg	91 kg



▶ Two large gear wheels made of hardened steel for maximum service life

Besonders geräuscharm - Bis zu 60% leiser als vergleichbare Standard-Elektromotoren

**Impressively quiet!**

Maximum service life  
Stepless 30- 80 m/min  
Use of coolant possible for all models



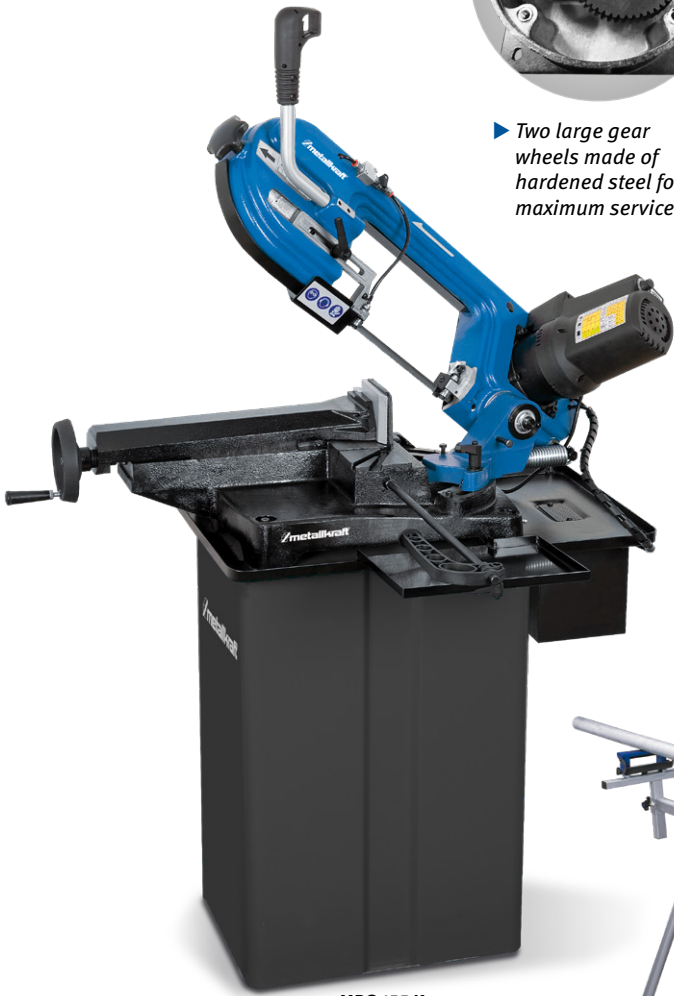
Low-speed DC drive motor with carbon brushes for up to 10 times longer service life



Cast wheels with ground running surfaces and tapered roller bearings  
Without rubber pads, therefore suitable for cutting with coolant (saw band does not slip)  
Saw band tensioning at front, adjustable via handwheel



Two adjustable saw band guides  
Chip scraper made of metal instead of felt, therefore no wear and tear



MBS 155 K



MBS 150 on universal workbench UWT 3200 (Art.no.: 5900020) with clamped workpiece

**Scope of delivery MBS 155 K:**

- > Bi-metal saw band M42 Z6-10
- > Material stop
- > Machine base
- > Coolant system
- > Coolant baffle

Saw bands MBS 105			Art. no.
Bi-metal 1335 x 13 x 0.65 mm	M 42	Z 6-10	3650011
Bi-metal 1335 x 13 x 0.65 mm	M 42	Z 10-14	3650012

Saw bands MBS 150/MBS 155 K			Art. no.
Bi-metal 1735 x 13 x 0.9 mm	M 42	Z 6-10	3650017
Bi-metal 1735 x 13 x 0.9 mm	M 42	Z 10-14	3650018

Saw bands MBS 125			Art. no.
Bi-metal 1440 x 13 x 0.65 mm	M 42	Z 6-10	3650014
Bi-metal 1440 x 13 x 0.65 mm	M 42	Z 10-14	3650015

Accessory	Art. no.
Universal workbench UWT 3200 <sup>(1)</sup>	5900020
High-performance spray "Mecutspray" 500ml	38760.1150
Magnetic Chipmag (Chip lifter)	3850015

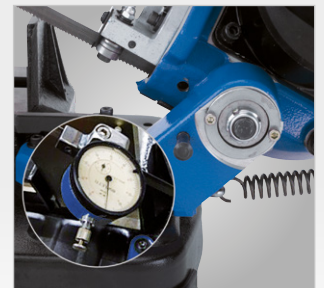
(1) suitable without mounting adapter only for MBS 150, for mounting MBS 125

**Band saw sets**

for MBS 105	Art. no.
consist of: 1 x saw band BI-M 1335 x 13 x 0.65 Z6∠10° 1 x saw band BI-M 1335 x 13 x 0.65 Z6-10 1 x saw band BI-M 1335 x 13 x 0.65 Z10-14	3650020

for MBS 125	Art. no.
consist of: 1 x saw band BI-M 1440 x 13 x 0.65 Z6∠10° 1 x saw band BI-M 1440 x 13 x 0.65 Z6-10 1 x saw band BI-M 1440 x 13 x 0.65 Z10-14	3650021

MBS 150/155K	Art. no.
consist of: 1 x saw band BI-M 1735 x 13 x 0.9 Z6∠10° 1 x saw band BI-M 1735 x 13 x 0.9 Z6-10 1 x saw band BI-M 1735 x 13 x 0.9 Z10-14	3650022



Adjustable saw arm from MBS 125

# ***SWING FRAME METAL BANDSAWS***



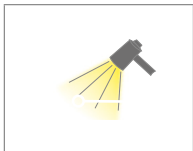
# The various operating concepts for heavy-duty industrial metal band saws - user-friendly and clearly arranged

## MODEL NAMES:

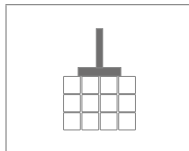
- BMBS** Swing frame metal band saw
- HMBS** Horizontal metal band saw
- G** Machine cuts simple mitre
- DG** Machine cuts double mitre
- H** Saw with partially hydraulically controlled functions
- HA** Semi-automatic machine
- NC** Semi-automatic NC operation
- CNC** automatic CNC operation
- X** advanced electronics taking into account the material properties



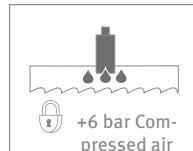
## EQUIPMENT AND ACCESSORY DETAILS:



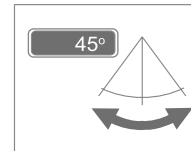
Workplace lighting



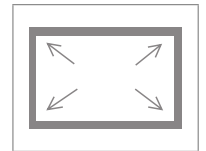
hydraulic bundle tensioning device



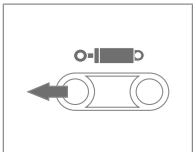
Micro spray system



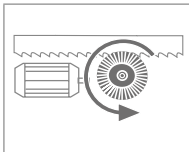
Digital angle display of the saw arm



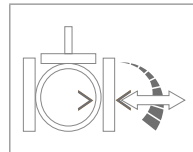
Control display magnification



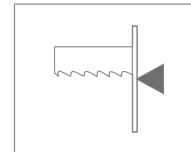
Hydraulic band tensioning device



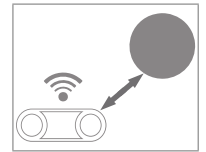
Motorised chip brush



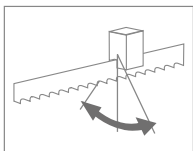
Vice pressure reducer



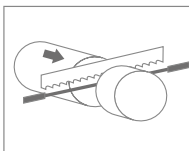
Display for lowering speed on the control panel (mm/min)



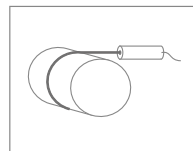
Interface for remote maintenance



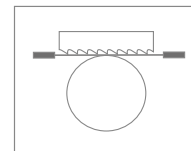
Cutting process control



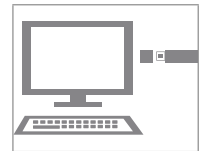
Material start detection



Cutting line laser



Automatic, contactless adjustment of the upper working position



Annual licence for external machine programming

## Commissioning & professional instruction

When purchasing a Metalkraft machine, we recommend that our customers have it commissioned and instructed by our specialists on site.

Commissioning and instruction of standard machines	Art. no.
Instruction & training in CNC controls	EINWMET
Commissioning and instruction from special machines*	EINWCNCMET
	EINWGBP MET

\* DBM, MBBS, FSM, HTBS, MSBM Pro, controlled PRM and MRB, GBP, LMS 400A and metal band saws with X control

### Commissioning includes:

- Machine setup
- (The customer is responsible for unloading, transporting and installing the machines at the installation site, as well as providing electrical and pneumatic connections, ground anchors and mounting plates.)
- Cleaning, preparation, and alignment
- Testing of all functions

### The instruction on the machine includes

- a detailed explanation of the operation
- an explanation of the individual functions
- Setting and explanation of the basic parameters
- Explanation of the safety instructions in accordance with the relevant directives

### For models with programming additionally:

- a detailed explanation of the operation
- an explanation of the individual functions
- Setting and explanation of the basic parameters
- Explanation of the safety instructions in accordance with the relevant directives

Duration of commissioning and instruction: 8 hours per day, including travel time to and from the location, plus travel expenses of €0.69 per kilometre, plus any accommodation costs that may arise.

If the instruction alone is to last 8 hours, the travel time will be charged at €48/hour.

The same applies to additional and deviating services, which must be ordered separately on site and charged according to expenditure.

If the installation and connection of the machine is necessary and desired, the customer must assist our technician to the best of their ability, providing any necessary assistance, tools and equipment at their own expense.

# Metal band saw controls

## The control panel of the H models

### Functionality of the H-models:

The H version saws have a hydraulic cylinder that controls the lowering of the saw arm. A selector switch can be used to switch between manual mode and gravity mode. In manual mode, the saw arm is lowered by manual operation. In gravity mode, the sawing process is initiated by

pressing a pressure switch, after which the saw arm lowers under its own weight. The speed of this descent can be regulated using the throttle valve located under the control panel.

The cut is performed at the selected band speed and the saw band stops automatically when the sawing process is complete. The saw arm is raised manually. When the upper end position is reached, the lowering cylinder locks automatically.

**Standard**

- ▶ Test lamp for the saw band tension and indicator lamp: - lights up green when the band tension is correct and the saw band cover is closed
- ▶ Stop switch - switches the machine off during a cycle
- ▶ Start of the cycle - pressing the button starts the sawing process
- ▶ Lowering the saw arm (while the saw band is stationary)
- ▶ Switch for selecting the band speed in 2 stages, e.g.: Position 1: 35 m/min, position 2: 70 m/min
- ▶ This switch is also the main switch
- ▶ Indicator light shows whether the machine is switched on at the main switch
- ▶ Emergency stop switch - switches off the machine during a cycle

**BMBS 300 x 320 H-DG**

- ▶ Switch for selecting the band speed in 3 stages: Position 1: 42 m/min. Position 2: 85 m/min. Position 0: the machine is off
- ▶ Indicator lamp: The machine is ready for operation
- ▶ Test lamp for saw band tension and saw band guard cover
- ▶ RESET button to set the machine to "Ready for operation"
- ▶ Coolant pump
- ▶ Start of the cycle - pressing the button starts the sawing process.
- ▶ Stop switch - switches the machine off during a cycle
- ▶ Emergency stop switch
- ▶ Lowering the saw arm. The lowering speed can be controlled with a throttle valve

## The control panel of the semi-automatic HA

How the semi-automatic machine works:

The HA version sawing machines have hydraulic functions that enable semi-automatic operation. Once the machine has started, the vice clamps the workpiece automatically. The saw cut is performed at the selected band speed. In the lower end posi-

tion, the lowering movement stops automatically and the saw arm returns to its upper end position. The vice opens automatically so that the operator only has to move the material.

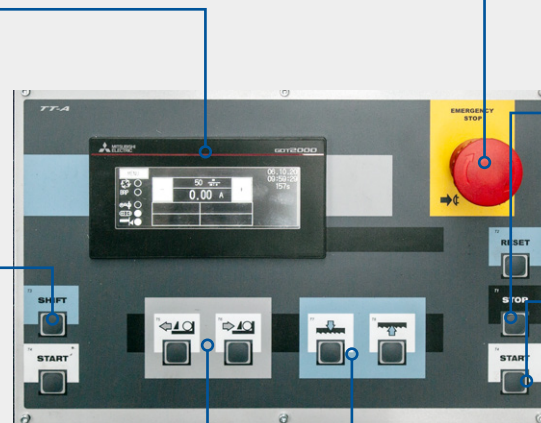
The sawing process can be interrupted at any time by activating the stop function. The band moves

freely and the saw arm moves out of the cutting channel without the clamping vice opening or the machine being switched off.

- ▶ Large digital display with functions such as
  1. MENU button for selecting the various menu items displayed on the screen
  2. Workpiece cutting counter
  3. BRP - Saw band monitoring\*
  4. Display of the status of the hydraulic system
  5. Display of the tension of the saw band
  6. Display of the position of the saw arm (optional)
  7. Display for the saw band speed
  8. Angle display

- ▶ Start of cycle - pressing the buttons starts the saw's machining cycle. The saw arm must be in the upper end position.
- ▶ Vice control - if the vice is still open before the cycle starts, the control automatically closes it after the cycle starts and opens it after the work step is completed.

- ▶ Saw arm control - control of the up and down movement of the saw arm



- ▶ Emergency stop button - switches off the machine during a cycle

### Control field

#### STOP

- ▶ interrupts the cut in any position
- ▶ the cycle is continued after pressing the start button

#### START

- ▶ in the semi-automatic mode to start the cuts
- ▶ for safety reasons, both start buttons must be pressed simultaneously

#### \*BRP - Saw blade monitoring

BRP display is activated when a user-defined maximum value of the band saw motor in amperes is exceeded. The saw frame stops the feed movement while the saw band continues to run, conveying the chips out of the cutting channel. Once the load on the saw blade has been minimised, the sawing process continues as normal.

## The control panel of the semi-automatic and fully automatic CNC types

The saws with CNC control can be operated in semi-automatic and fully automatic mode.

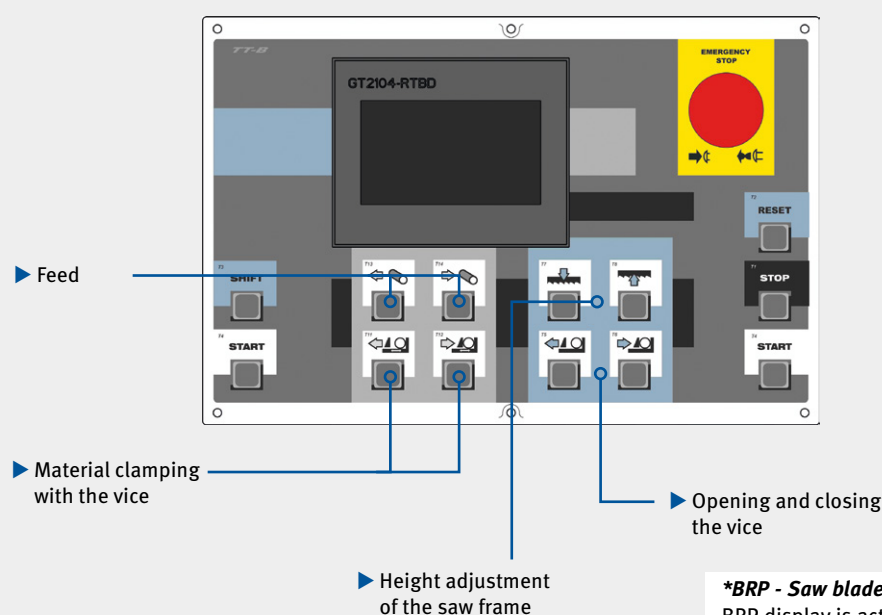
How the semi-automatic machine works:

In semi-automatic mode, the saw operates as described under Semi-automatic mode.

How the fully automatic machine works:

With the fully automatic CNC version, it is possible to programme nine different tasks. The programme contains the number of cuts and the cut lengths for each task.

The work steps for material feed are calculated automatically by a processor. It is possible to call up different cutting sequences and automatically run programmes with different cutting lengths one after the other.



- ▶ Feed

- ▶ Material clamping with the vice

- ▶ Height adjustment of the saw frame

- ▶ Opening and closing the vice

### Large display

- ▶ The values selected in the information display are shown here.
- ▶ Control field

#### START

- ▶ in semi-automatic mode to start the cut
- ▶ for safety reasons, both start buttons must be pressed simultaneously

#### STOP

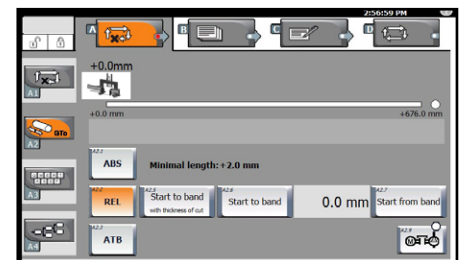
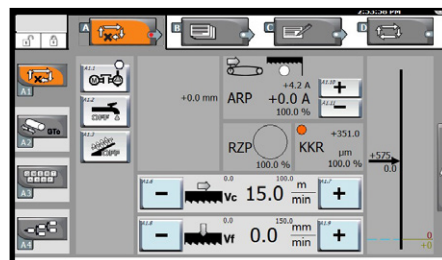
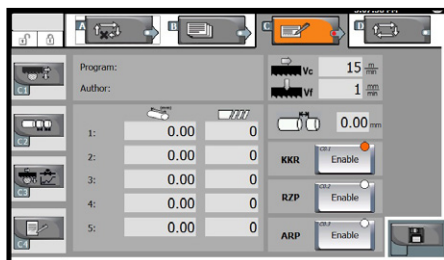
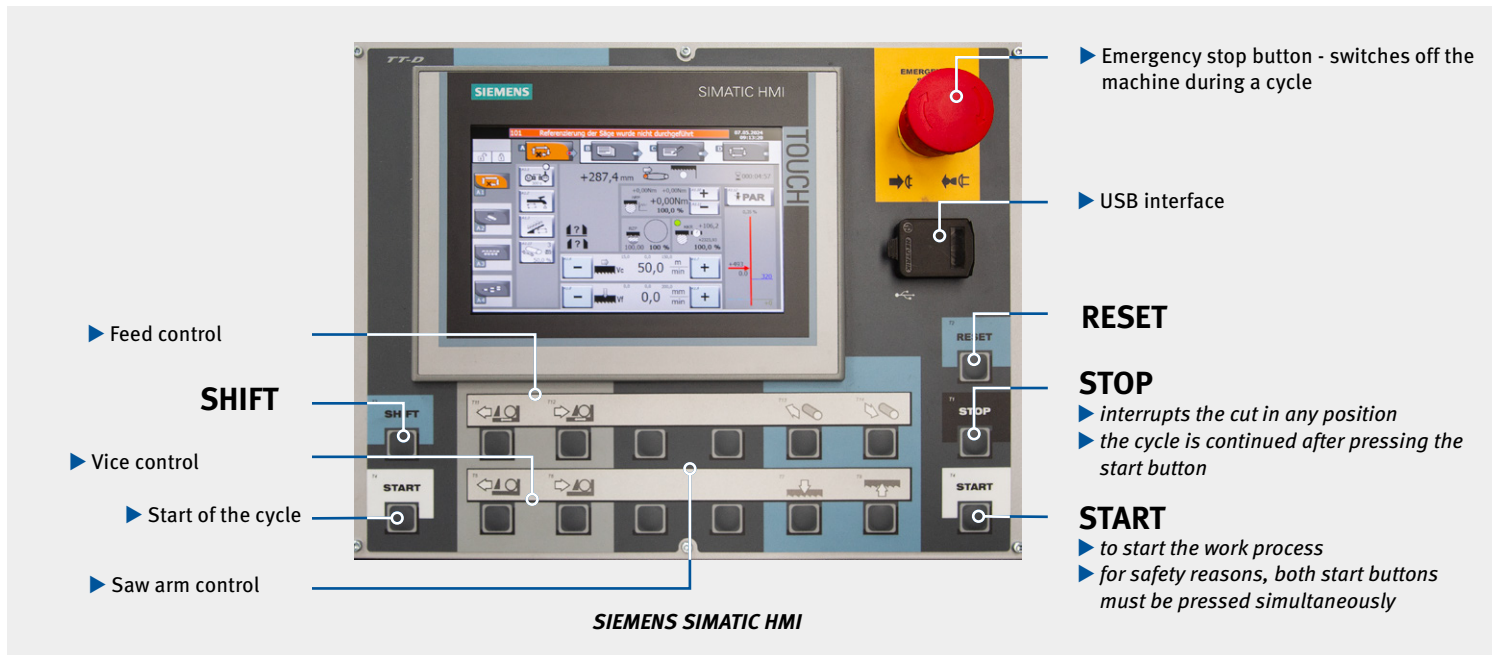
- ▶ interrupts the cut in any position
- ▶ the cycle is continued after pressing the start button

#### \*BRP - Saw blade monitoring

BRP display is activated when a user-defined maximum value of the band saw motor in amperes is exceeded. The saw frame stops the feed movement while the saw band continues to run, conveying the chips out of the cutting channel. Once the load on the saw blade has been minimised, the sawing process continues as normal.

# Metal band saw controls

## The control panel of the HA-X semi-automatic models



### User-friendly environment:

- ▶ The control system communicates with the machine operator in the operator's native language
- ▶ Graphic touchscreen with intuitive operation and easy-to-understand pictograms
- ▶ Four windows for optimising the desired parameters for a quick start to operation

### Technical description:

- ▶ Data transfer via USB interface possible
- ▶ Multiple access levels with the help of user accounts
- ▶ Easy upload of new software versions

### Functional description:

- ▶ The control system makes it possible to create up to 1000 programmes with cutting parameters. Each programme can be found quickly using the search filter (by material quality, order number, number of pieces, cutting lengths, cutting data and much more).
- ▶ **KKR mode (option)**
- ▶ **ARP mode**
- ▶ **RZP mode**

### Setting the material feed:

- ▶ Normal, incremental, TOF (= incremental), CMU (= feed with automatic opening of the cutting zone)

### Improved GTO mode:

- ▶ Feed to the selected position. Functions: ABS, REL, ATB

### ATB mode:

- ▶ Automatic movement of the material into the cutting zone without having to perform a head cut when a new material is inserted into the machine.

! Optionally available ex works for the models HMBS 300 x 300 CNC, HMBS 400 x 400 CNC, HMBS 510 x 510 CNC, HMBS 700 x 750 CNC, HMBS 850 x 1000 CNC:

