

BEHRINGER

Circular Cold Saws and Systems for every application

Competence in Circular Cold Sawing Technology

EISELE



Vertical Circular Cold Saws Manual, semi-automatic and automatic machines

Robust and durable.

VMS – the Original

Manual + Semi-Automatic.
More than 250,000 machines sold world-wide are the basis for the VMS-series.

The VMS should be part of every shop floor in the metal-working industry and maintenance.

- Easy to handle
- Suitable for any kind of steel
- Material clamping and feeding is possible by manual, pneumatic or hydraulic operation
- Easy mitering with fixed stops
- Large-dimensioned gear unit with the unique EISELE rotation compensation feature for a long service-life of the saw blade



EISELE VMS 350



EISELE VMS 400 H

VMS 400 H Hydraulically-operated semi-automatic saw

- Hydraulic quick-clamping devices with clamping pressure regulation feature for even higher cutting performance and increased saw blade life
- Fully hydraulic operated, continuously variable saw feed
- Easy stroke adjustment on saw unit
- Easy saw blade changing
- Combines high output with low space requirement (less than 1 m²)

VMS-Automatic Saw

Easy operating features and a robust design for precise cuts make this saw a must-have when it comes to serial cutting of medium or large lot sizes.

- Material feed with flat guide and ball screw spindle for high-precision positioning
- Large-dimensioned cover hoods meet highest safety standards
- Easy to operate in automatic and manual operating mode
- Can be combined with roller conveyors



EISELE VMS 370 A

Technical data VMS

Model		VMS 300	VMS 350	VMS 370	VMS 370 A	VMS 400 H	VMS 400 A
Cutting range							
Flat	90°	4.7" x 2.9"	6.7" x 3.9"	7.8" x 3.9"	7.8" x 3.9"	7.8" x 3.9"	7.8" x 3.9"
Flat	45°	3.1" x 2.9"	3.7" x 3.9"	5.5" x 3.9"	5.5" x 3.9"	5.5" x 3.9"	5.5" x 3.9"
Flat	30°	2.3" x 2.9" ¹⁾	2.5" x 3.9" ¹⁾	2.5" x 3.9" ¹⁾	2.5" x 3.9" ¹⁾	2.5" x 3.9" ¹⁾	2.5" x 3.9" ¹⁾
Square	90°	2.9"	3.9"	4.7"	4.7"	4.7"	4.7"
Square	45°	2.9"	3.7"	3.9"	3.9"	4.7"	4.7"
Square	30°	2.3" ¹⁾	3.3" ¹⁾	3.5" ¹⁾	3.5" ¹⁾	3.9" ¹⁾	3.9" ¹⁾
Round	90°	3.5"	4.7"	5.1"	5.1"	5.5"	5.5"
Round	45°	3.5"	4.7"	5.1"	5.1"	5.5"	5.5"
Round	30°	2.7" ¹⁾	3.9" ¹⁾	4.1" ¹⁾	4.1" ¹⁾	4.3" ¹⁾	4.3" ¹⁾
Saw blade diameter		10.8"	13.7"	14.5"	14.5"	15.75"	15.75"
Drive power		[hp]	1.34 / 1.6	1.8 / 2.5	2.6 / 3.4	2.6 / 3.4	2.6 / 3.4
RPM standard		[rpm]	40 / 80	17 / 34 - 34 / 68	17 / 34 - 34 / 68	8 / 16 / 32 / 64	17 / 34 - 34 / 68
RPM optional		[rpm]		10 / 20 / 40 / 80	8 / 16 / 32 / 64		8 / 16 / 32 / 64
Weight approx.		[lbs]	420	730	1,010	1,320	1,630

¹⁾ Only right

Miter Circular Cold Saws PSU Semi-Automatic

Flexible and universal.

PSU 450 GS

Production High-Performance Circular Saw, especially designed for cutting bent tubes.

- Allows for individual clamping concepts thanks to standardized holding fixtures
- Upper and lower saw stroke reversing points can be adjusted
- Extremely sturdy clamping bridge ensures reliable work-piece clamping
- Long stroke cylinder with stroke length 160 mm
- Variable clamping pressure regulation
- Micro-spraying device
- Two-hand safety control
- Piece counter



EISELE PSU 450 GS



EISELE PSU 450 GS Dynamic

PSU 450 GS Dynamic

Designed on the basis of the PSU 450 GS and enhanced by the following features:

- Servo-motorized saw unit
- Automatic cutting feed control by means of a proportional valve
- The easy-to-operate control unit allows for memorizing profile and job data
- Dynamic sawing: dynamic regulation of the saw feed movement for low-burr cutting of thin-walled tubes and profiles

Technical Data PSU

Model		PSU 450 H	PSU 450 GS	PSU 450 GS Dynamic
Cutting range				
Flat	90°	9.4" x 2.7"	Based on application	Based on application
Flat	45°	6.6" x 2.7"		
Flat	30°	4.7" x 2.7"		
Square	90°	5.5"		
Square	45°	4.9"		
Square	30°	3.9"		
Round	90°	5.9"		
Round	45°	5.7"		
Round	30°	4.7"		
Saw blade diameter		17.7"	17.7"	17.7"
Drive power		[hp]	4.0 / 4.8	9.3
RPM standard		[rpm]	6 / 12 / 24 / 48	6 - 70
RPM optional		[rpm]	12 / 24 / 48 / 96	
Weight approx.		[lbs]	2,640	2,420



EISELE PSU 450 H

PSU 450 H

Universal Miter Cutting Circular Saw

- Outstanding cutting performance and long saw blade life due to:
 - the robust and sturdy machine base which helps reduce vibration and noise during the sawing operation
 - worm gear box with the unique rotation compensation feature developed by Eisele
- Easy mitering with fixed stops at 30°, 45° und 90°
- Hydraulic clamping device
- Standard clamping pressure regulation for cutting thin-walled profiles
- Saw blade feed continuously variable by means of current control valve

Miter Circular Cold Saws PSU Automatic

Flexible and universal.

PSU 450 A

The flexible PC-controlled High-Performance Circular Sawing Centre for utmost cost-effective production of small and large quantity.

- Servo-driven axis for precise material length positioning, miter angle adjustment and outfeed gripper
- The disposal device clamps the piece during the cut and takes the cut piece out of the machine in axial direction to freely programmable positions
- Additional outfeed gripper operation for material positioning allows for multiple cuts, and double miter cuts at the end of a bar

- Short rest piece length
- High-performance and load-independent positioning drives help reduce cycle times
- Servo-technology of the saw drive and automatic cutting feed control by means of a proportional valve as a standard

Behringer Eisele PSU 450 M Automatic Miter Circular Cold Saw

- The newly developed control system is very simple to operate and programming. Repeating saw jobs, cutting lengths, quantities and miter angles is as easy to operate as the semi-automatic saw
- The servo-driven axis allow for precise and quick material length positioning movements as well as miter angle adjustment
- Can be combined with the chain loading magazine and the disposal conveyor belt with hydraulic outfeed grippers

The convenience package

- Servo-drive 7.1 kW including saw blade feed control via proportional valve
- PC-control unit for flexible operation
- Double front miter cuts

Technical data PSU

Model		PSU 450 M	PSU 450 A
Cutting range			
Flat	90°	8.6" x 2.7"	9.4" x 2.7"
Flat	45°	7.0" x 1.9"	6.6" x 1.9"
Flat	30°	4.7" x 1.9"	4.7" x 1.9"
Square	90°	.39" x 5.5"	.39" x 5.5"
Square	45°	.39" x 4.9"	.39" x 4.9"
Square	30°	.39" x 3.9"	.39" x 3.9"
Round	90°	.39" x 5.9"	.39" x 5.9"
Round	45°	.39" x 5.7"	.39" x 5.7"
Round	30°	.39" x 4.7"	.39" x 4.7"
Saw blade diameter		17.7"	17.7"
Drive power		[hp] 4.0 / 4.8 ¹⁾	9.5
RPM standard		[rpm] 6 / 12 / 24 / 48	6 - 40
RPM optional		[rpm] 12 / 24 / 48 / 96	
RPM optional		[rpm] 6 - 40 ¹⁾	
Feeding length single stroke		59"	58.2"
Feeding rate		19.6"/sec	19.6"/sec
Weight approx.		[lbs] 5,170	5,720

¹⁾ PSU 450 M with convenience package 9.5 hp

EISELE PSU 450 A



EISELE PSU 450 M

Mass Cutting Professionals VA-L and HCS

Aggressive and precise.

VA-L 350 / VA-L 560

Designed specifically for aluminum and NF metals, the VA-L fully automatic straight cutting saw series has totally redefined the standard when it comes to volume sawing of solid material, pipes and profiles with complex cross-sections.

Their consistently high yield makes them a valued mainstay for renowned aluminum processing firms and producers the world over.

- Advanced drive technology in material feeding axis, saw drive and extremely rigid saw spindle bearing for most precise cuts in a matter of seconds
- The servo-driven feeding gripper unit provides for a consistent high-precision cutting process and piece length

- Either pneumatic clamping device for gentle clamping of profiles or hydraulic clamping device providing more power for solid material
- Lift-and-Shift Device feature avoids damage on the surface of the material
- The standard widening of kerf channel feature ensures a long life of the saw blade
- Servo-downfeed system available as an option



EISELE VA-L 560

Integration in the overall process

Make use of the opportunity to connect VA-L systems to the following work steps:

- Chamfering
- Drilling
- Deburring
- Punching
- Measurement
- Marking
- Weighing
- Order picking

We will be pleased to offer you the benefit of our advice.

HCS 70/90 E 100/130/160/180

The steel-cutting high-performance automatic circular cold saws of the HCS series offer flexible solutions for the most varied sawing requirements – from the very basic model up to the complex system with Multi-Fluid package. No matter which type – each HCS saw stands for top cutting performance and premium quality, paying off quickly in multi-shift operation.

- Extremely rigid machine construction for reduced vibration
- Optimized sawing geometry for optimized chip removal
- Sturdy saw unit with pretensioned linear guides, free of play. A combination with the high-precision ball screw spindle and a fast servo drive ensures a smooth feeding movement, thus providing an excellent basis for a long saw blade life, short cycle times and smallest tolerances
- Extremely short set-up times and non-productive times due to good accessibility



EISELE HCS 160

Technical data VA-L and HCS

Model	VA-L 350	VA-L 560	HCS 70	HCS 90 E	HCS 100	HCS 130	HCS 160	HCS 180
Cutting range								
Flat 90°	7.8" x 2.7"	11.8" x 5.9"						
Square 90°	4.1"	6.6"	2.3"	2.5"	3.5"	4.3"	5.5"	5.9"
Round 90°	4.5"	7.8"	.39" - 2.9"	.47" - 3.5"	.47" - 4.1"	.78" - 5.1"	.78" - 6.2"	1.5" - 7.0"
Saw blade diameter	13.7"	22.0"	9.84"/11.2"/12.4"	9.84"/11.2"/12.4"	11.2"/12.4"/14.1"	11.2"/12.4"/14.1"	14.1"/16.5"/18.1"/18.8"	18.8"/20.4"
Drive power [hp]	20.1	32.1	10.7	10.7	20.1	20.1	20.1	34.8
RPM standard [rpm]	800 - 4,200	800 - 3,200	25 - 215	25 - 215	20 - 250	20 - 250	20 - 250	20 - 200
Feeding length single stroke	39.4"	39.4"	39.4"	39.4"	39.4"	39.4"	39.4"	39.4"
Feeding rate	31.5"/sec	31.5"/sec	49.2"/sec	39.4"/sec	39.4"/sec	39.4"/sec	39.4"/sec	39.4"/sec
Weight approx. [lbs]	3,410	4,620	6,173	7,054	12,125	12,125	12,125	13,227

Loading Magazines

The demand for even shorter cycle times puts high demands on the material handling process. BEHRINGER EISELE provides the solutions – in a systematic way.



Bar loading magazine SM

- Automatic loading of round bars
- Robust design, virtually maintenance-free
- Quick and simple loading process



Bundle loading magazine BM

- Large loading capacity
- Simple handling
- Automatic separation of bar bundles
- Suitable for round material



Flat magazine FM

- Handling of almost every profile shape
- Flexible loading system for various materials
- Handling of rest pieces is possible from the infeed side
- Flat loading magazine with active back-storing feature (optional)



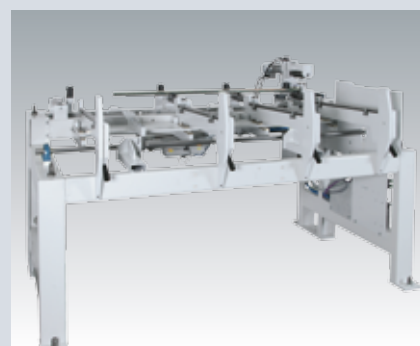
Universal bar loading magazine USM

- Automatic loading of round material
- Loading of rectangular profiles is possible as an option
- Robust construction, virtually maintenance-free
- Quick and simple loading process



Chain loading magazine KLM

- Large loading capacity
- Simple handling
- Automatic feed of wide-ranging different profile shapes
- Optimum handling of material with sensitive surface



Bar loading magazine SM 90 for the HCS 90 E

- Automatic loading of round bars
- Quick and simple loading process



Disposal gripper

- Hydraulically-powered or with servo motor
- Removes the pieces from the cutting area in a smooth and reliable way
- Transfer to roller conveyor or belt conveyor



Outfeed portal with inclined roller conveyor

- Reliable removal of the cut pieces from the cutting area
- Disposal and transport of cut pieces to defined positions with servo drive
- Collection in boxes on both sides



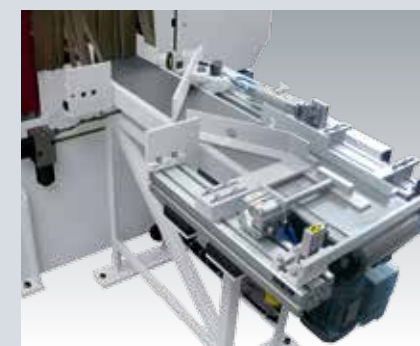
Powered roller conveyor

- Smooth evacuation and transport of cut pieces (medium and long)
- The pieces are pushed into boxes or pillars from where they can be removed easily



Verification scale

The scale allows for a quick weight check. Reaching a customer's specified limit, the saw control will be informed via interface. The saw will then adjust the length of the cut parts accordingly.



Disposal belt

- For VA-L with a single or multiple transfer stations
- Optional transfer to subsequent work stations:
 - Deburring
 - Marking
 - Stamping



Cross conveyor belt

- With a stopper/pusher unit to push good parts on to the disposal table
- With different operating modes:
 - Collation
 - Bulk material
 - Buffer

Disposal Devices

If you talk about the sawing process, you must also think about the disposal process. Whether merely evacuating the cut pieces or feeding them to subsequent processing stations – we can handle your cut pieces and guide them to wherever you like.

BEHRINGER



The BEHRINGER EISELE Product Range

- Vertical circular cold saws VMS
- Up stroking miter circular cold saws PSU
- Fully-automatic Aluminum-cutting circular cold saw VA-L
- Fully-automatic steel-cutting circular cold saw HCS
- Loading magazines, disposal devices and material handling systems
- Complete sawing systems – overall concepts
- Integration into existing processes



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