

SAWING ACCESSORIES



Compatibility overview accessories for metal-cutting band saws

Saw accessories		SQ-V10	SQ-V13	SP 11V	SP 13V	S 100G	S 131GH	S 150G Vario	S 181	S 181G	SD 200G	S 210G	S 275N	S 275NV	SD 281V	S 285DG	S 300DG	SD 300V	SD 310V	S 350DG	S 350DG	SD 351AV	SD 500	SD 500AV	
Material stand MSR 4 - 10	3357610-13							●				●	●	●	●	●									
Material stand MSR 4H - 10H	3357001-3																●	●	●	●	●	●	○	○	
PVC rollers	3357609							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
Table extension MSR 1	3357006							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
Connecting plate	3357005							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
Trimming and length measuring system LMS 10 - 40	3383851-4							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
Trimming and length measuring system LMS 1M	3383841							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
Trimming and length measuring system LMS 2M	3383842							●				●	●	●	●	●	●	●	●	●	●	●	○	○	
AQUACUT C1	3530030							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Levelling platen SE 1	3381012							●				●													
Levelling platen SE 2	3381016												●	●	●	●	●	●	●	●	●	●	●	●	

● Recommended

○ Recommended - restrictions apply

Saw bands HSS bi-metal M 42

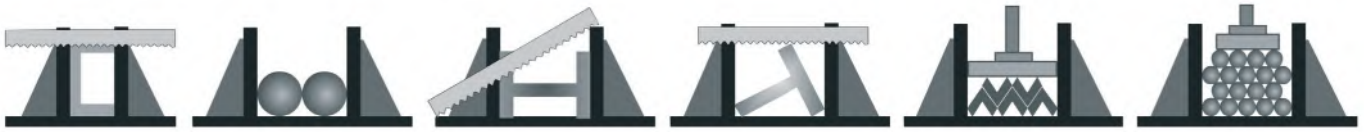
for sections and pipes, as well as solid material

Band dimensions:	Tooth angle	Art. no.	Fits:
1,140 x 13 x 0.65 mm	10 - 14 tpi	3357548	Manual metal-cutting band saw SQ-V10
1 335 x 13 x 0.65 mm	6 - 10 tpi	3351542	Metal-cutting band saw SP 11V
1 335 x 13 x 0.65 mm	10 - 14 tpi	3351543	
1 440 x 13 x 0.65 mm	6 - 10 tpi	3351546	Metal-cutting band saw SP 13V
1 440 x 13 x 0.65 mm	10 - 14 tpi	3351547	Metal-cutting band saw SQ-V13
1 470 x 13 x 0.65 mm	6 tpi	3351109	Metal-cutting band saw S100G
1 470 x 13 x 0.65 mm	10 - 14 tpi	3351110	
1 638 x 13 x 0.65 mm	6 tpi	3351511	Metal-cutting band saw S 131GH
1 638 x 13 x 0.65 mm	6 - 10 tpi	3351512	
1 638 x 13 x 0.65 mm	8 - 12 tpi	3351517	
1 638 x 13 x 0.65 mm	10 - 14 tpi	3351518	
1 735 x 12.7 x 0.9 mm	6 tpi	3351521	Metal-cutting band saw S 150G Vario
1 735 x 12.7 x 0.9 mm	6 - 10 tpi	3351522	
1 735 x 12.7 x 0.9 mm	10 - 14 tpi	3351538	
2 080 x 20 x 0.9 mm	5 - 8 tpi	3357503	Metal-cutting band saw S 210G
2 080 x 20 x 0.9 mm	5 - 8 tpi	3357505	
2 080 x 20 x 0.9 mm	6 - 10 tpi	3357514	
2 080 x 20 x 0.9 mm	10 - 14 tpi	3357515	
2 362 x 19 x 0.9 mm	5 - 8 tpi	3357522	Metal-cutting band saw S 181 Metal-cutting band saw S 181G Metal-cutting band saw SD 200G
2 362 x 19 x 0.9 mm	5 - 8 tpi	3357516	
2 362 x 19 x 0.9 mm	6 - 10 tpi	3357521	
2 362 x 19 x 0.9 mm	10 - 14 tpi	3357520	
2 480 x 27 x 0.9 mm	5 - 8 tpi	3357511	Metal-cutting band saw S 275N Metal-cutting band saw S 275NV Metal-cutting band saw SD 281V Metal-cutting band saw S 285DG
2 480 x 27 x 0.9 mm	5 - 8 tpi	3357512	
2 480 x 27 x 0.9 mm	6 - 10 tpi	3357524	
2 480 x 27 x 0.9 mm	6 - 10 tpi	3357510	
2 480 x 27 x 0.9 mm	10 - 14 tpi	3357525	
2 750 x 27 x 0.9 mm	5 - 8 tpi	3357751	Metal-cutting band saw SD 300V Metal-cutting band saw S 300DG Metal-cutting band saw SD 310V
2 750 x 27 x 0.9 mm	5 - 8 tpi	3357752	
2 750 x 27 x 0.9 mm	6 - 10 tpi	3357753	
2 750 x 27 x 0.9 mm	10 - 14 tpi	3357754	
2 925 x 27 x 0.9 mm	5 - 8 tpi	3357541	Metal-cutting band saw S 350DG Metal-cutting band saw SD 351AV
2 925 x 27 x 0.9 mm	4 - 6 tpi	3357540	
2 925 x 27 x 0.9 mm	6 - 10 tpi	3357542	
2 925 x 27 x 0.9 mm	10 - 14 tpi	3357543	
3 770 x 34 x 1.1 mm	5 - 8 tpi	3357590	Metal-cutting band saw SD 500
3 770 x 34 x 1.1 mm	6 - 10 tpi	3357591	Metal-cutting band saw SD 500AV



Workpiece

The workpiece to be machined must be firmly clamped so that it cannot vibrate or rotate. Do not use damaged, bent or severely deformed workpieces. The closer the band saw guides are fixed relative to the workpiece, the more precise the cut becomes.



Teeth per inch

This figure describes the number of teeth per inch (25.4 mm).

As a general rule:

The shorter the cut length (e.g., sections), the finer the tpi you need to select. The greater the material attack (e.g., solid material), the coarser the tpi value used.

Too large a tpi value can cause the cut to run out as chips clog the gullet thus forcing the saw band out of its cutting line. Too small a tpi value can cause teeth to break out as the cutting pressure on the individual tooth becomes too great. At least 3 teeth need to be engaged to achieve economical results.

Running in saw bands

- ▶ Correct running in guarantees a long service life.
- ▶ Sharp cutting edges with extremely small edge radii are the precondition for high cutting capacity of the saw bands.
- ▶ To achieve an optimal service life, we recommend running in the saw band appropriately.
- ▶ Depending on the material and the dimension of the material you are cutting, determine the correct cutting speed (m/min.) and feed rate (mm/min.).
- ▶ The important thing is that the new saw band should be deployed at approx. 50 % of the determined feed rate only. The idea is to avoid the extremely sharp cutting edges on the teeth being damaged by micro fracturing in case of large chip thicknesses.
- ▶ New saw bands can tend to vibrate and cause vibration noise initially. If this happens, reduce the cutting speed slightly. In case of small workpiece dimensions, the run-in should be over approx. 300 - 500 cm² of the material you are cutting.
- ▶ If you are processing large workpiece dimensions, we recommend running in for a period of approx. 15 min. After running in, gradually increase the feed rate to the target value determined previously.

Optimal chip formation

- › Chips are the best indicator of a correctly adjusted feed and the correct saw band speed. Take a look at the chips you generate and set the feed correctly.

Thin chips that look like powder

- › Increase the feed rate or reduce the saw band speed.



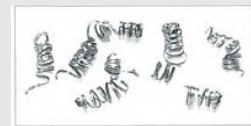
Burnt, heavy chips

- › Reduce the feed rate and/or the saw band speed



Crinkly, silver and warm chips

- › Optimal feed rate and sawing speed



Materials	Cutting speed (M42)
Construction steel/Machining steel	80 - 90 m/min
Case-hardened steels/Heat-treated steels	45 - 75 m/min
Unalloyed tool steels/Rolled steels	40 - 60 m/min
Alloyed tool steels/high-speed steels	30 - 40 m/min
Stainless steels	20 - 35 m/min
Heat resistant steels/Highly heat-resistant alloys	15 - 25 m/min

Teeth per inch when using HSS bi-metal bands

Standard tpi		Combined tpi		Sawing tubes and sections						
Section cross section	Number of teeth per inch	Section cross section	Number of teeth per inch	Diameter	Ø 40	Ø 80	Ø 100	Ø 150	Ø 200	Ø 300
				Wall thickness	Teeth per inch (TPI)					
< 12 mm	14 tpi	< 25 mm	10 - 14 tpi	3 mm	8 - 12	8 - 12	8 - 12	8 - 12	6 - 10	6 - 10
12 - 30 mm	10 tpi	20 - 40 mm	8 - 12 tpi	8 mm	8 - 12	6 - 10	6 - 10	5 - 8	4 - 6	4 - 6
30 - 50 mm	8 tpi	25 - 70 mm	6 - 10 tpi	12 mm	6 - 10	5 - 8	5 - 8	4 - 6	4 - 6	4 - 6
50 - 80 mm	6 tpi	35 - 90 mm	5 - 8 tpi	15 mm	5 - 8	4 - 6	4 - 6	4 - 6	3 - 4	3 - 4
80 - 100 mm	4 tpi	50 - 100 mm	4 - 6 tpi	20 mm	-	4 - 6	4 - 6	4 - 5	4 - 5	4 - 5

Teeth per inch 4 - 5 TPI not available from Optimum

Height-adjustable MSR material stand as a manual aid for supporting and moving workpieces on metal-cutting saws. H version variably adjustable up to 1 050 mm

Facts that impress in terms of quality, performance and price

- ▶ Trouble-free and material transport when feeding and unloading workpieces
- ▶ Universally deployable for metal-cutting band saws, circular saws, etc.
- ▶ Roller support, continuously adjustable
- ▶ Safe workpiece support due to solid steel rollers with high load-bearing capacity
- ▶ Infinitely extensible
- ▶ Extension options for LMS length measuring systems
- ▶ Stable frame design with strong custom profile
- ▶ Steel bearing rollers, ball-bearing borne on both sides



Fig.: MSR 4

Fig.: MSR 10



Fig.: Typical application: OPTIsaw S 275N, material stand MSR 4, measuring system LMS 1, digit position display DRO 1; table extension MSR 1, connecting plates

PVC rollers

Article no. 3357609



- › Additionally attachable
- › Made of non-slip PVC
- › To avoid scratches
- › Simply slot the rollers into the holder provided
- › With practical wall-mount

Table extension MSR 1

Article no. 3357006



- › for MSR roller conveyors
- › Removable rollers
- › Additionally attachable
- › Can be fitted in both directions

Connecting

Article no. 3357005



- › Additionally attachable
- › With add-on parts right and left
- › Slots

Model	MSR 4	MSR 7	MSR 10
Article no.	3357610	3357611	3357613
Model	MSR 4H	MSR 7H	MSR 10H
Article no.	3357001	3357002	3357003

Idler roller diameter	60 mm	60 mm	60 mm
Idler roller width	360 mm	360 mm	360 mm
Static table load	500 kg	700 kg	700 kg
Dimensions and weight			
Length x width	1 000 x 440 mm	2 000 x 440 mm	3 000 x 440 mm
height	650 - 950 mm	650 - 950 mm	650 - 950 mm
Height H version	660 - 1 050 mm	660 - 1 050 mm	660 - 1 050 mm
Net weight	30 kg / 33 kg	58 kg / 61 kg	78 kg / 83 kg

Contents of package

- › Fastening material for extension

Digital trimming and length measuring systems for attaching to MSR material stand.
For perfect length measurement and precise positioning

Facts that impress in terms of quality, performance and price

- ▶ Magnetic measuring system with magnetic strip
- ▶ For recurring measuring tasks with high precision 0.05 mm
- ▶ Automatic display switch-on
- ▶ Material stop for small pieces with extension
- ▶ Positioning slide right- and left-hand, folds up
- ▶ In case of longer breaks, the measuring system switches off and keeps the last stored dimension
- ▶ Measuring precision: $\pm(0.025 + 0.02 \times \text{measuring length [m]})$



Fig.: MSR 4 material stand with LMS 10 length measuring system

Linear guide

- › Lubrication-free
- › Very quiet action
- › Wear resistant
- › Corrosion-resistant
- › Low friction values
- › High static load bearing capacity

Slide

- › Easily movable
- › Precisely guided
- › Replaceable, long-life dry plain bearings
- › Easy self-assembly

Digital display

- › LCD

Switching functions:

- › Metric / inch / angle
- › absolute position or incremental position
- › Zeroing
- › ABS mode, fast calibration

Model	LMS 10	LMS 20	LMS 30	LMS 40
Article no.	3383851	3383852	3383853	3383854
Technical data				
Rail length	1 000 mm	2 000 mm	3 000 mm	4 000 mm
Travel	830 mm	1 830 mm	2 830 mm	3 830 mm

Other lengths on request

LMS 1M / LMS 2M

Manual trimming and length measuring systems LMS 1M/LMS 2M for attaching to MSR material stand. For perfect length measurement and precise positioning

Facts that impress in terms of quality, performance and price

- ▶ Modular system
- ▶ For perfect length measurement and precise positioning
- ▶ For recurring measuring tasks with high precision



Trimming and length measuring systems	Art. no.
› Sliding carriage with stop	
LMS 1M guide rail 1 300 mm	3383841
› Includes 1 metre rule	
LMS 2M guide rail 2 300 mm	3383842
› Includes 2 metre rule	

Magnetic strip	Art. no.
Length 1 600 mm for LMS 1M	3383876
Length 2 600 mm for LMS 2M	3383877
Yard goods (price per metre)	3383878

Extension rail	Art. no.
› only in combination with DRO1	
Length 1 300 mm for LMS-1M/2M	3383843
Length 2 600 mm for LMS-1M/2M	3383844

Digital display DRO1	Art. no.
› With extension kit for LMS 1M / 2M	3383845
▶ Radius/diameter mode	measurement
▶ Parameter memory	▶ Absolute/incremental
▶ Inch/metric adaptation	▶ 8-digit LCD display
▶ Multifunctional LCD display	▶ Coordinate conversion
▶ Adjustable angular	



AQUACUT C1	Art. no.
› 10 litre cannister	3530030
› For mixing emulsions	
› Drilling and cooling emulsion	
› High-pressure resistant and containing mineral oil, for long tool life and clean surfaces	
› Emulsifiable with water, microbe-resistant and kind to the skin	



Levelling platen	Art. no.
› The machines and equipment can be installed without anchors and precisely levelled using the height adjustment system.	
› non-slip rubberised	
SE 1	3381012
SE 2	3381016

