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OPTIMUM®

MASCHINEN - GERMANY

METAL WORKING MACHINERY

THE OPTIMUM IN TERMS OF QUALITY,
PRICE-PERFORMANCE AND SERVICE

MAIN CATALOGUE 2019

The OPTIMUM in terms of quality, price-performance and service

Sales and service Germany in Hallstadt/Bamberg

Dear Customer,

To support any conceivable metalworking application, we have composed an assortment in our OPTIMUM domain catalogue that covers many areas with suitable machines. Each of our products impresses with its quality, precision, long service life and value stability. OPTIMUM offers the right machine for most tasks - from bench-top drills to CNC lathes.

Your requirements are our target
For more than 25 years, we have focused on the design, development and production of OPTIMUM machines, and for more than 10 years on CNC machines. We work unceasingly on continually optimising our machines. One important point here is also production, which is of great importance to us. This is why we made a careful choice of manufacturers to supplement our own production facilities. We set great store by the fact that these manufacturers meet our internal quality requirements. Besides our own manufacturing operations, OPTIMUM exclusively relies on manufacturers who meet our requirements. This means that we can offer you metalworking machines that impress on many scores.

OPTIMUM has built up a good reputation in the course of the years on what is a continually changing and developing tool and machine market. We are proud to say that we combine expertise, experience and a balanced price-performance ratio. Our utmost priority is you as a satisfied customer. With our motivated and expert personnel we strive to complete OPTIMUM's know-how and propagate it to you our customers.

Kilian Stürmer
Managing Directors

YouTube

DISCOVER OUR PRODUCT VIDEOS NOW!

All of our product videos are available for you to watch on our YouTube channel **OPTIMUM Maschinen Germany GmbH**. **Subscribe** to our YouTube channel, to avoid missing any of the new videos.

Dealers and service

Thanks to our comprehensive network of specialist dealers, you always have a local partner with OPTIMUM who guarantees the best possible advice, intensive support, and trouble-free after-sales service. And, of course, our expert staff is there to help you at any time. Please don't hesitate to contact our qualified team if you have any questions. We are happy to help.

Our products

Are you looking for a functional machine that offers a comprehensive feature set at an attractive price? Then you are making the right decision in purchasing an OPTIMUM metalworking machine. Our machines impress with excellent quality, precise manufacturing, and they offer an "OPTIMUM" price-performance ratio. We cater to a comprehensive tool machine and sheet metal working programme and are guaranteed to have the right machine variant for your needs in our assortment. You can rely on OPTIMUM, because we can realise every single one of your requirements in the metalworking environment. This main catalogue will give you an impression of our capabilities and our wide product portfolio.

On-site for you: in Europe and worldwide

For many years, OPTIMUM Maschinen Germany has been synonymous with the development, design and production of metalworking machines and CNC machines characterised by high quality standards. In the course of the years, we have continually expanded our sales and service network.

Today, OPTIMUM Maschinen Germany GmbH, German company, collaborates globally with professional partners from its headquarters in Hallstadt near Bamberg.
You will find OPTIMUM subsidiaries with strong dealers. Our international sales network extends well beyond Germany's borders to many countries all over the world. This helps us to ensure that our customers can rely on the fast, uncomplicated and service-oriented expertise and quality standards of OPTIMUM thanks to our extensive sales organisation. We have established a responsible market position that you can trust in the course of the years!

All OPTIMUM products are produced under high quality requirements.

OPTIMUM plant in Yangzhou, China

Production

Since 2003, OPTIMUM Maschinen Germany GmbH has produced a large share of its metalworking machines in its own factory in Yangzhou China. The quality here is monitored by German quality management officers and production supervisors. A further major part of our OPTIMUM metalworking machines is exclusively produced for OPTIMUM in line with special requirements within the company group.

Production on our own CNC machines

Drilling machine assembly

Quality

OPTIMUM products are produced under high quality requirements. A price comparison with equivalent and comparable products will give you the assurance that our OPTIMUM machines are always products that stand up to any comparison in terms of operating convenience, equipment level, quality, technology and value for money and are thus always a good buy. Check out the robust design and durability for yourself; this is what our machines stand for in a metalworking world.
You can purchase the OPTIMUM brand with confidence, and assure the best possible quality for your operations. There are many products that look identical, or similar, on the market, but which by no means achieve our OPTIMUM quality standards.

Lathe production

Metal-cutting band saw production

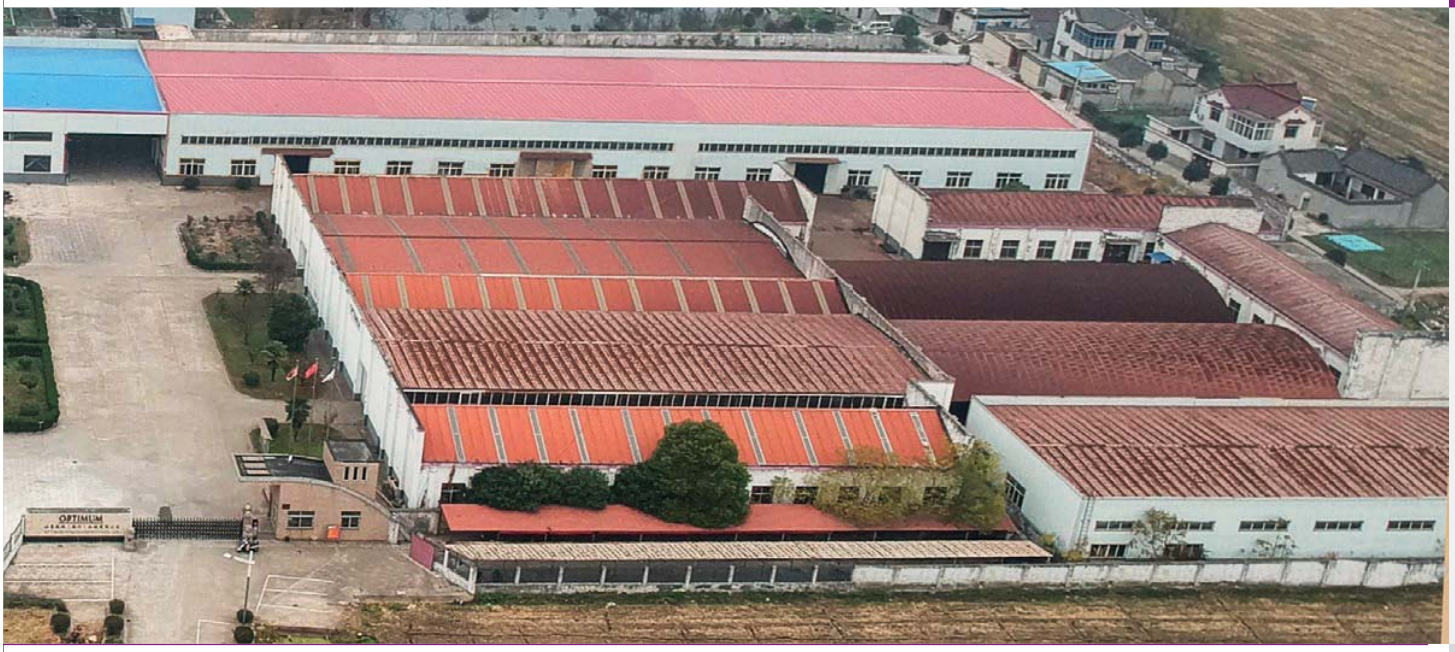
German Quality – made in China

Our production facilities

Optimum Maschinen Germany GmbH has commenced production in 2006 in Touqiao Town near Yangzhou in Jiangsu Province, only about three hours by car from Shanghai, on a total area of 20 000 square meters - a building floor space of 9 000 square meters with 180 employees, including 40 technicians.

Today, we produce our Optimum machine program in three production plants with a total area of 74 000 square meters and a building floor space of 30 000 m^2 with about 230 employees in production.

We permanently meet requirements for precision machining and economic efficiency.
We develop and configure the best solutions for our customers and take responsibility for them.
Our factories carry out strict technical process and quality controls Based on ISO 9001.
With a team of experienced experts and technicians and advanced production facilities, we produce quality products such as small and medium CNC machining centres, CNC lathes, CNC milling machines, milling and drilling machines and lathes for industrial and home use.



DIN EN ISO 9001
Excellent quality

Our factory is DIN EN ISO 9001 certified. This means that all company departments and services are subject to strict quality requirements. And this means consistently high quality for you. The objective of high quality is thrilled customers. And it is this attitude that finally helps to achieve this demanding certification. The key to the long-term success of our enterprise is also a relationship of trust with customers and suppliers. This explains why it is just as important to us as the sustainable quality of our products.

Our standards are high. And we strictly adhere to them

Certified quality in our production facilities

The excellence and safety of our products are assured by a system of internal processes, based on regular and frequent inspections in our factories and along the logistics chain. In order to ensure compliance with the strict requirements, each production site is regularly inspected.

Achieving our quality goals is an important management task

At Optimum, development and production are in the same hands, and the company sets high standards in all areas.

This is why our customers get what they expect from Optimum: innovative, well thought-out products with high practical suitability and an exceptionally long service life.

Quality control

Our company has developed a carefully planned quality management system and is certified according to ISO 9001:2008.

This system is an integral part of our operations and no exceptions or compromises are made or entered into with regard to the quality level of the products from production. Our Quality Assurance department is staffed by skilled employees who ensure that only products of impeccable quality are sold

Quality Assurance department

The Quality Assurance department consists of experienced technicians who are supervised by our German technicians, and attach great importance to high quality and impeccable product quality.

Each production step is checked and compared at all times with the available specifications

We want satisfied customers

This explains why our products' compliance with the customer quality requirements described earlier on is our company's top priority.

Production support

Our Engineering department has a well-coordinated team of specialists with excellent engineering qualifications. Their established expertise allows flexible and creative implementation of all requirements posed for our products and services.

A team of employees directly influences the production process on site through regular training and checks. It is only through this intensive support at the production site that we are in a position to achieve the proverbial OPTIMUM.

Quality management
Production
Outbound goods inspection

In addition to adherence to delivery deadlines and service, the quality of our products is extremely important to us. Continuous on-site checks by our quality manager ensure our quality. Our comprehensive incoming goods inspection is performed in line with generally accepted technical guidelines.

Quality management
Incoming goods inspection

Our quality managers from Germany are our first contacts for quality compliance on site. They are responsible for the dimensional accuracy of the components, for monitoring and quality assurance of the manufacturing process; they collaborate closely with our Engineering department at head office in Germany, thus ensuring an optimal symbiosis.

Planning

As early as the planning phase our engineering department manages the development of new products, which are manufactured both our facility and facilities operated by our partners. Major benefits: this ensures that market factors and customer requirements are immediately adopted into our workflow, setting the stage for a successful product design.

Development

Development relies exclusively on state-of-the-art 3D CAD software, which we use to create a virtual model of the machine. Besides ensuring optimum functionality of the machines, our development process also targets re-usability of the data generated during the development phase. These data are not only used for devising production documents and manuals, but are also used for computations, for computer-aided manufacturing, and for visualisation and animations.

Practical testing

Our engineers combine theory and practice. To avoid leaving anything to chance in terms of product satisfaction, all of our machines and tools go through application engineering tests, and we also consistently involve selected customers in this process. This means that each new product is expected to prove itself in the daily grind before it comes a fixed part of our product range. Engineering analysis helps us to discover and eliminate any remaining weak points.

The clearly engineering oriented approach of our staff – in addition to the premium quality of our products, and our expert service – contribute towards constantly high levels of customer satisfaction. And our focus on technically affine employees ensures our market success – today and looking forward!

Technical customer support

Our customers rightly expect our specialists to use their knowledge and experience to their utmost satisfaction. Our product consultants support users with technical information. To allow this to happen, our customers can use our free telephone hotline and our info email address to request qualified information and solutions at short notice.

Safeguarding copyrights

To secure the rewards of our technical development work for both ourselves and our customers, patent and utility model protection is essential for our in-house developments. This helps us permanently keep the technical lead that OPTIMUM products have.
The entire catalogue is protected by copyright. Additionally, to protect our products, we register our rights to our brands, patents and designs where possible in each individual case. We take strong action against any violation of our intellectual property.

Technical documentation and risk analyses

Our technical authors again achieve a high standardised level that meets or even exceeds all requirements. These huge efforts exclusively serve the purpose of facilitating the process of familiarisation with the machine for our customers, and ensuring permanent and safe operations.
Risk mitigation measures are developed to compensate for any safety risks identified in the scope of analysis. Following this, the residual risk is evaluated after implementing the measures.

Supplier management

Regular work meetings between our engineers and suppliers help to transfer our new developments and enhancements into series production at the manufacturing location in a targeted way. This direct support at our production facilities has been indispensable in manufacturing the quality products that our customers have trusted for more than 25 years.

Sales support

The requirements for OPTIMUM machines are equally as diverse as the production requirements of our end customers and the workpieces to be machined. To ensure this, our representatives and retailers have access to the entire application-specific know-how of our engineers in case of queries.
In a qualified and explanatory sales talk, our customers are given the support they need to tune their choice of products to match their needs.

Training

For employees from Engineering, Service and Sales as well as for our customers: Successful use of our products depends and is driven to a decisive extent by the fact that we pass on our technology know-how to our dealers, their sales and service staff and our customers through training sessions. The major benefits: this qualification offers the ability to ensure professionally founded consultancy and problem solving in all dealings with the customer. At our training centre, we offer practically-oriented product training that aim to disseminate professional knowledge in a highly intuitive way.

Supply of spare parts

We know that rapid availability of spare parts is one of the major preconditions for a working, customer-oriented service solution.
The planning, coordination and provisioning of spare parts is tuned at OPTIMUM Maschinen Germany GmbH so that our customers have the greatest possible benefits in terms of economic efficiency and speed.

Siemens cooperation partner for CNC training

Siemens has for many years been the system supplier of the control and drive technology for CNC-controlled lathes and milling machines by OPTIMUM Maschinen Germany GmbH. Due to our long-standing and successful collaboration, a cooperation partnership for CNC training in Bavaria was agreed in June 2012. Target-group specific courses familiarise the participants of the training program with the various Sinumerik controls.

Service support

...after all, good service is important to us!
In service cases, our OPTIMUM technicians are available at any time with their experience to support your workshop operations and ensure fast and targeted repairs.
In close cooperation with the service centre and its internal and external staff, weaknesses are analysed and customer needs registered. These weaknesses and needs are then evaluated from an engineering point of view and set out as tangible requirements or action catalogues.

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Drilling machines

Magnetic drilling machines

Milling machines

Lathes

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Metal-cutting circular saws

Grinding/Polishing machines

Plate rolling, folding, pressing

Machine accessories

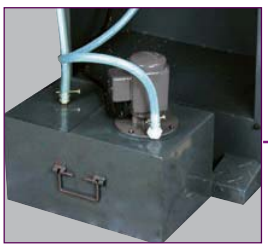
METAL-CUTTING BAND SAWS

Manual metal-cutting circular saws for steel, iron, light alloys, solid materials and sections

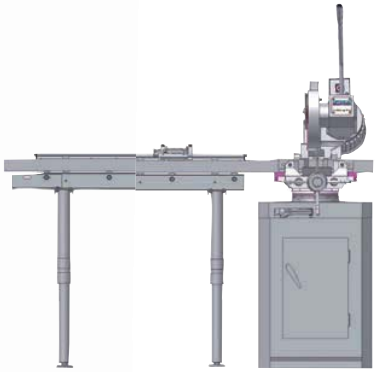
Facts that impress in terms of quality, performance and price

- Swivel range of ±45°
- Easily readable angle scale supports precise work
- Mitre adjustment within seconds
- Protected vice spindle
- Solid machine chassis with drill holes on both sides for attaching the MSR material stand
- Long handle supports sawing without applying excessive force, includes integrated pushbutton (on/off)
- Automatic coolant pump switch-on during sawing
- Functional protection device, closed design, mobile
- Fast opening mechanism for optimal safety during cutting
- Centrically clamping vise, 4x guided with individually adjustable clamping jaws Cut always occurs in optimal position relative to workpiece
- Solid machine chassis
- Protected vice spindle
- Machine chassis sizes:
  - CS 275 - 460 x 515 x 775 mm and
  - CS 315 - 546 x 620 x 801 mm
- The saw is delivered without a circular saw blade (saw blade division freely selectable)

Fig.: CS 315



Coolant pump
› Removable coolant tank
› Integrated powerful pump



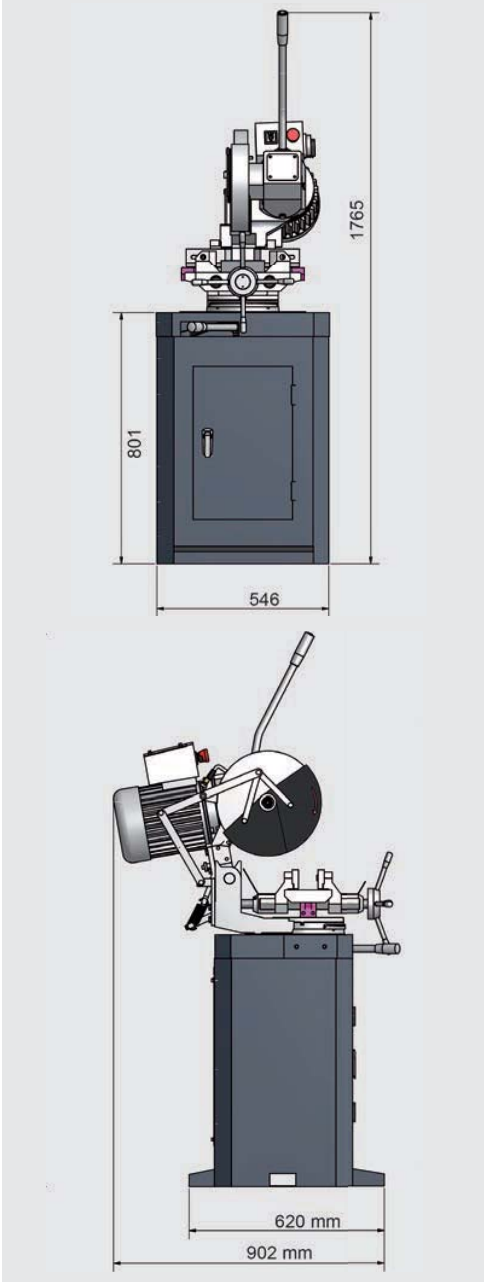
Material supports	Article no.
MSR 4	3357610
MSR 4H	3357001
MSR 7	3357611
MSR 7H	3357002
MSR 10	3357613
MSR 10H	3357003

Information“MSR 4 / MSR 7 / MSR 10“ on page 218

Technical specifications, accessories and dimensions

Model	CS 275	CS 315
Article no.	3302275	3302300
Technical specifications		
Electrical connection	400 V / 3 Ph ~50 Hz	400 V / 3 Ph ~50 Hz
Motor output	1.4 / 2.0 kW	0.75 / 1.5 kW
Coolant pump motor	40 W	
General instructions		
Cutting angle	-45° to +45°	
Cutting angle adjustment	Via rotating bearing block	
Feed	manual	
Cutting speed	41 / 82 rpm	19 / 38 rpm
Saw blade diameter	Ø 275 mm Internal Ø 40 mm	Ø 315 mm Internal Ø 40 mm
Vice jaw width	110 mm	135 mm
Dimensions		
Length	460 mm	560 mm
Width	830 mm	902 mm
Height	1 700 mm	1 765 mm
Weight	175 kg	235 kg

Dimensions



Scope of supply
› Coolant system
› Machine chassis

		Cutting areas		
CS 275	0 °	Ø 60 mm	60 mm	60 x 100 mm
CS 315		Ø 85 mm	85 mm	70 x 130 mm
CS 275	45°	Ø 60 mm	60 mm	60 x 70 mm
CS 315		Ø 85 mm	85 mm	70 x 90 mm

Circular saw blades - information
4 **mm/T:** tube/sections (wall thickness)
› up to 1 mm: Aluminium/Bronze/Copper/Brass
› up to 1.5 mm: steels up to 1 500 N/m²/stainless steels
› up to 2 mm: Steels up to 1 200 N/m²
6 mm/T: tube/sections (wall thickness)
› up to 1.5 mm: Aluminium/Bronze/Copper/Brass
› as of 3 mm: Steels up to 1 800 N/m²
6 **mm/T:** solid materials (cross-section)
› 10-20 mm: Aluminium/Bronze/Copper/Brass
› 20-40 mm: Steels up to 1 800 N/m²/stainless steels
8 mm/T: tube/sections (wall thickness)
› as of 3 mm: Aluminium/Bronze/Copper/Brass
8 mm/T: solid materials (cross-section)
› 20-40 mm: Steels up to 1 800 N/m²: Aluminium/Bronze/Copper
› 40-60 mm: Steels up to 1 200 N/m²/stainless steels

Metal-cutting circular saw blade CS 275			
mm/per tooth	Teeth	Blade width	Article no.
4 mm/T	220 teeth	2.5 mm	3357444
6 mm/T	140 teeth	2.5 mm	3357446
8 mm/T	110 teeth	2.5 mm	3357448
CS 315			
4 mm/T	240 teeth	2.5 mm	3357454
6 mm/T	150 teeth	2.5 mm	3357456
8 mm/T	120 teeth	2.5 mm	3357458

Semi-automatic double mitre metal cutting band saw with inverter Vario drive

Facts that impress in terms of quality, performance and price

- Heavy-duty industrial design
- Low-noise running action
- Manual or semi-automatic operation
- Saw band speed continuously adjustable from 0 to 80 m/min.
- Excellent cutting precision thanks to vibration-free action
- Mitre adjustment to 60° by pivoting the entire saw head
- Equipped as a factory standard with bi-metal saw blade
- End stops adjustable to degree accuracy
- Chip brush
- Microswitch for automatic limit position cut-off
- Roller support adjustable for long and heavy workpieces
- Coolant pump
- Ball bearing borne saw band guide with carbide shims for optimal cutting results
- Easy adjustment of the lowering speed via feed control valve in control panel
- Generously dimensioned, hydraulic quick-action vice, self-closing, adjustable for large cross-sections
- Machine with full equipment set; the user can immediately start productive work

Semi-automatic operating mode

- Vice closes and motor is activated
- Lower the saw head to cut
- Motor stops and saw head returns to original position

Saw band tension

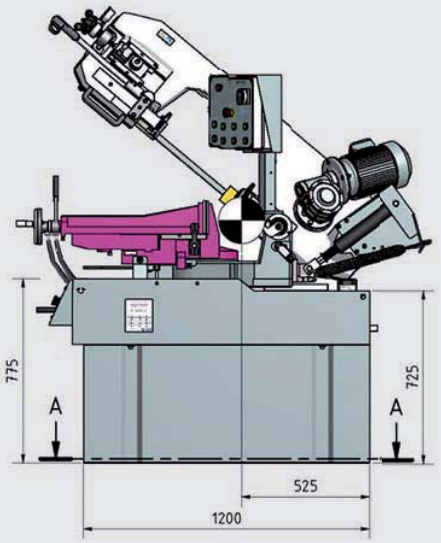
› Easy and correct adjustment of the saw band tension by pressure gauge

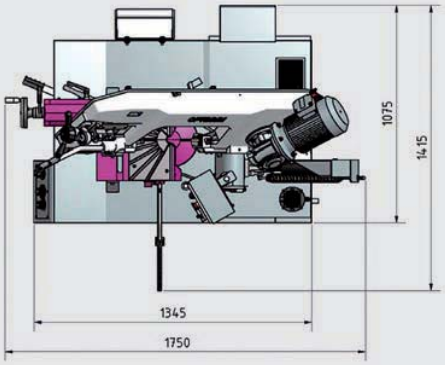
Fig.: SD 350AV

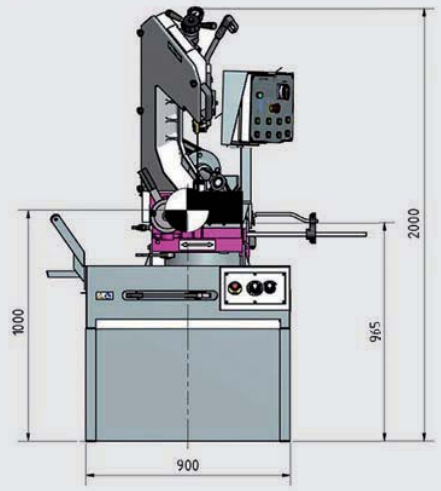
Technical specifications, accessories and dimensions

Model	SD 350AV
Article no.	3292355
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Total rated value	3.8 kW
Saw motor	2.2 kW
Hydraulic pump	1.4 kW
Coolant pump motor	50 W
General instructions	
Lifting the saw head	
› Manual operation	Hydraulic via pushbutton
› Semi-automatic operation	automatic
Feed	continuously variable
Saw band speed	0 - 70 m/min
Saw band dimensions	2 925 x 27 x 0.9 mm
Cutting angle	-45° to 60°
Dimensions	
Length	1 750 mm
Width without/with material stop	1 075 / 1 415 mm
Height bottom/top limit position	1 420 / 2 000 mm
Weight	600 kg

Dimensions







Cutting areas			
			
0 °	Ø 270 mm	230 mm	230 x 350 mm
45°	Ø 230 mm	200 mm	210 x 220 mm
60°	Ø 140 mm	140 mm	140 x 220 mm
-45°	Ø 230 mm	170 mm	140 x 200 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357541
4 - 6 tpi	**6°**	3357540
6 - 10 tpi	**0°**	3357542
10 - 14 tpi	**0°**	3357543
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 4 - 6 tpi; 6°		3357501

„General saw band information“ on page 220

AQUACUT C1	3530030
› For mixing emulsions, for cooling along the cut	
› 10 litres	

Material supports		Article no.
MSR 4H	L x W 1 000 x 440 mm	3357001
MSR 7H	L x W 2 000 x 440 mm	3357002
MSR 10H	L x W 3 000 x 440 mm	3357003
NEW **Table extension MSR 1**		3357006
PVC rollers for MSR		3357609

Scope of supply
- › Material stop
- › Bi-metal saw band
- › Machine chassis

Important information on „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011:2011-04 standard: class C3

Metal-cutting band saw with double mitre in heavy-duty design

Facts that impress in terms of quality, performance and price

- Heavy-duty industrial design
- Low-noise running action
- Excellent cutting precision thanks to vibration-free action
- Two switchable speeds 36/72 m/min.
- Mitre adjustment to -60° by pivoting the entire saw head
- Generously dimensioned, rugged quick clamping vice, adjustable via hand wheel Workpiece is clamped using a handy quick-clamping lever
- Quick clamping vice movable for large materials
- Easy and accurate adjustment of the saw band tension by pressure gauge
- Equipped as a factory standard with bi-metal saw blade
- End stops adjustable to degree accuracy
- Chip brush
- Ball bearing borne saw band guide with carbide shims for optimal cutting results
- Precise, continuously adjustable saw band movement via hydraulic cylinder
- Coolant pump
- Easy adjustment of the lowering speed via feed control valve in control panel
- Emergency stop button
- Rugged machine chassis
- Microswitch for automatic limit position cut-off
- Roller support adjustable for long and heavy workpieces
- Fully equipped; the user can immediately start productive work after commissioning

Saw band tension

› Easy and correct adjustment of the saw band tension by pressure gauge

Fig.: S 350DG

Technical specifications, accessories and dimensions

Model	S 350DG
Article no.	3290350
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	2.2 kW
Coolant pump motor	50 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	36/72 m/min.
Saw band dimensions	2 925 x 27 x 0.9 mm
Cutting angle	-45° to 60°
Dimensions	
Length	1 750 mm
Width without/with material stop	1 075 / 1 415 mm
Height bottom/top limit position	1 420 / 2 000 mm
Weight	550 kg

Scope of supply

- › Material stop
- › Bi-metal saw band
- › Machine chassis
- › Coolant pump

Cutting areas

			
0 °	Ø 270 mm	230 mm	230 x 350 mm
45°	Ø 230 mm	200 mm	210 x 220 mm
60°	Ø 140 mm	140 mm	140 x 220 mm
-45°	Ø 230 mm	170 mm	140 x 200 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Saw bands HSS bi-metal M 42

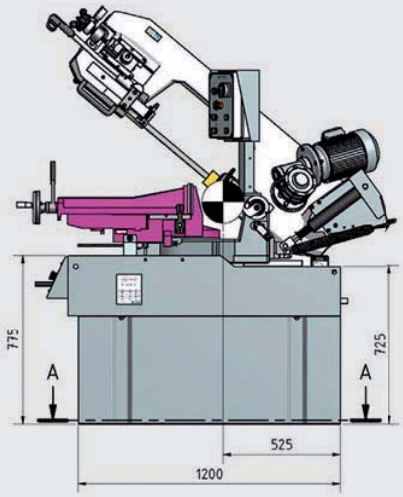
Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357541
4 - 6 tpi	**6°**	3357540
6 - 10 tpi	**0°**	3357542
10 - 14 tpi	**0°**	3357543
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 4 - 6 tpi; 6°		3357501

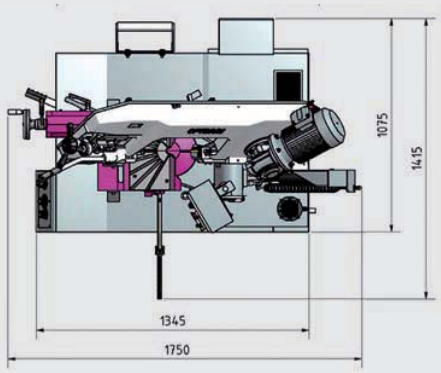
„General saw band information“ on page 220

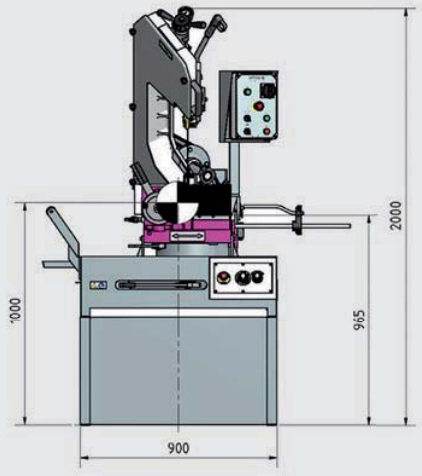
AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Material supports		Article no.
MSR 4H	L x W 1 000 x 440 mm	3357001
MSR 7H	L x W 2 000 x 440 mm	3357002
MSR 10H	L x W 3 000 x 440 mm	3357003
Table extension MSR 1		3357006
PVC rollers for MSR		3357609

Dimensions







Band saw for metal working with pivoting saw head.

S 300DG Vario with continuously adjustable saw band speed

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Heavy cast design
- Excellent cutting precision thanks to vibration-free action
- Ball-bearing borne saw band guide
- Chip brush
- Microswitch for automatic limit position cut-off
- Pushbutton - manual saw band run - on the lever switches the saw band run on and off
- Equipped as a factory standard with bi-metal saw blade
- Material stop with scaling
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- Rugged machine chassis
- End stops adjustable to degree accuracy

S 300DG Vario

- Saw band speed continuously adjustable from 20 to 90 m/min.

Roller support
› For supporting long materials

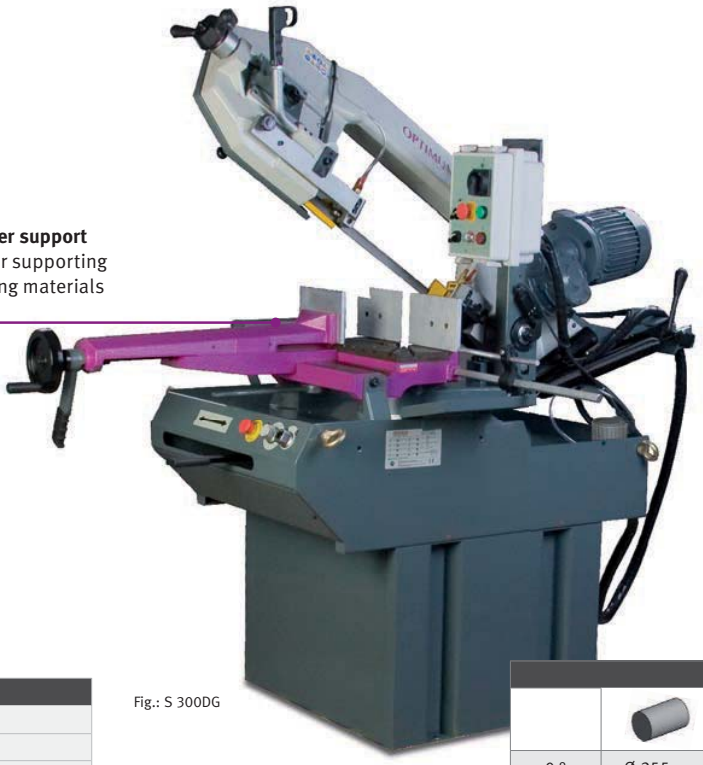


Fig.: S 300DG

Pressure gauge

› Easy and correct adjustment of the saw band tension

Coolant pump

› Powerful
› 100 W

Roller support

› For supporting long
› materials

Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant pump

Model	S 300DG
Article no.	3290290
Model	**S 300DG Vario***
Article no.	3290295

Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	1.5 kW
Coolant pump motor	100 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	35/70 m/min.
Vario saw band speed	20 - 90 m/min
Saw band dimensions	2 750 x 27 x 0.9 mm
Cutting angle	45° to -60°
Dimensions	
Length	1 680 mm
Width without/with material stop	700 / 1 300 mm
Height bottom/top limit position	1 600 / 1 850 mm
Weight	335 kg

Cutting areas

			
0 °	Ø 255 mm	190 mm	190 x 310 mm
45°	Ø 215 mm	190 mm	190 x 200 mm
-60°	Ø 135 mm	135 mm	135 x 135 mm
-45°	Ø 220 mm	190 mm	135 x 190 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357751
5 - 8 tpi	**10°**	3357752
6 - 10 tpi	**0°**	3357753
10 - 14 tpi	**0°**	3357754
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 10°		3357700

„General saw band information“ on page 220

Important information on transport surcharge and „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C3

Metal-cutting band saw with turntable and pivoting saw head for economic and precise work

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Heavy cast design
- Carbide guide
- Excellent cutting precision thanks to vibration-free action
- Saw band speed continuously adjustable via frequency inverter
- Professional inverter technology
- High motor output even at low speeds
- Microswitch for automatic limit position cut-off
- Precise, re-adjustable and durable saw band guide
- End stops adjustable to degree accuracy
- Chip brush
- Coolant pump
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- Rugged machine chassis
- Control unit facilitates machine setup
- Fully equipped; the user can immediately start productive work after commissioning

Pressure gauge

› Easy and accurate adjustment of the saw band tension

Turntable

› Any angle between 45° and -60° can be sawed as the cutting gap pivots with the saw arm
› Easily legible angle scale

Scope of supply

- › Material stop
- › Bi-metal saw band
- › Machine chassis
- › Coolant pump

Cutting areas

			
0 °	Ø 255 mm	255 mm	200 x 270 mm
45°	Ø 190 mm	160 mm	160 x 160 mm
-60°	Ø 110 mm	110 mm	110 x 210 mm
-45°	Ø 190 mm	140 mm	140 x 210 mm

The cutting area was determined for a full section. The cutting range can be larger in case of cut-off sections.

Model	S 310DG Vario
Article no.	3290335
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	1.5 kW
Coolant pump motor	100 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	20 - 90 m/min
Saw band dimensions	2 750 x 27 x 0.9 mm
Cutting angle	45° to -60°
Dimensions	
Length	1 680 mm
Width without/with material stop	700 / 1 330 mm
Height bottom/top limit position	1 600 / 2 000 mm
Weight	380 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357751
5 - 8 tpi	**10°**	3357752
6 - 10 tpi	**0°**	3357753
10 - 14 tpi	**0°**	3357754
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 10°		3357700

„General saw band information“ on page 220

Important information on transport surcharge and „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C3

Metal-cutting band saw with pivoting saw head and continuously adjustable saw band speed

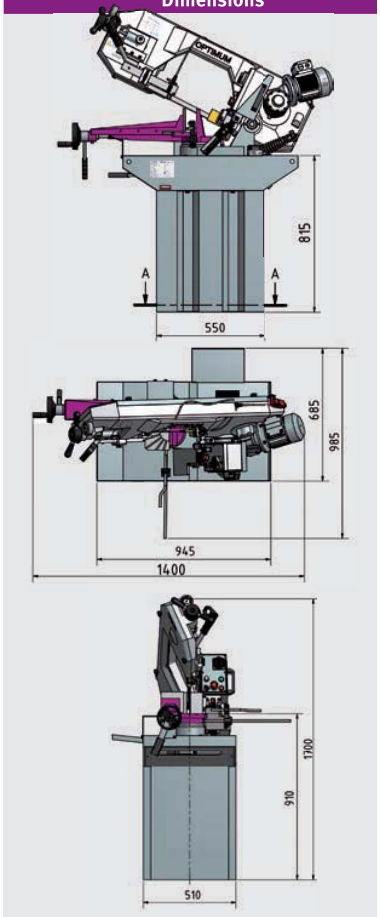
Facts that impress in terms of quality, performance and price

- Low-noise running action
- Rugged cast design
- Excellent cutting precision thanks to vibration-free action
- Variable cutting speeds
- Saw band lowering via hydraulic cylinder continuously adjustable by throttle valve
- Powerful 100 Watt coolant system
- Carbide guide
- Microswitch for automatic limit position cut-off
- Clear-cut keyboard for ease of use
- Ball-bearing borne saw band guide
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- Easily legible scale for adjusting the angle
- Equipped as a factory standard with bi-metal saw blade
- Adjustable material stop for batch work

Pressure gauge
› Easy and accurate adjustment of the saw band tension

Fig.: SD 280V

Dimensions



Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant pump

Cutting areas

0 °	Ø 225 mm	190 mm	150 x 235 mm
45°	Ø 155 mm	155 mm	155 x 210 mm
60°	Ø 90 mm	90 mm	90 x 120 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	SD 280V
Article no.	3300280
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	1.5 kW
Coolant pump motor	100 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	20 - 90 m/min
Saw band dimensions	2 480 x 27 x 0.9 mm
Cutting angle	0° to 60°
Dimensions	
Length	1 400 / 1 700 mm
Width without/with material stop	685 / 985 mm
Height bottom/top limit position	1 300 / 1 700 mm
Weight	185 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42

Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357511
5 - 8 tpi	**6°**	3357512
6 - 10 tpi	**0°**	3357524
10 - 14 tpi	**0°**	3357525
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 6°		3357504

„General saw band information“ on page 220

Important information on „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C3

Metal-cutting band saw with pivoting saw head
for economic and precise work

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Heavy cast design
- Excellent cutting precision thanks to vibration-free action
- Ball-bearing borne saw band guide
- Chip brush
- Automatic saw switch-off after completing the cut
- Rugged machine chassis
- Generously dimensioned control unit
- Equipped as a factory standard with bi-metal saw blade
- Material stop with scaling
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- End stops adjustable to degree accuracy
- Fully equipped; the user can immediately start productive work after commissioning

Fig.: S 285DG

Pressure gauge

› Easy and correct adjustment of the saw band tension

Coolant pump

› Powerful
› 100 W

Roller support

› For supporting long
› materials

Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant pump

Cutting areas

			
0 °	Ø 225 mm	180 mm	150 x 245 mm
45°	Ø 150 mm	150 mm	150 x 190 mm
60°	Ø 90 mm	90 mm	90 x 180 mm
-45°	Ø 150 mm	150 mm	120 x 150 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	S 285DG
Article no.	3300285
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	1.1 kW
Coolant pump motor	100 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	45 / 90 m/min
Saw band dimensions	2 480 x 27 x 0.9 mm
Cutting angle	-45° to 60°
Dimensions	
Length	1 720 mm
Width without/with material stop	870 / 1 270 mm
Height bottom / top limit position	1 280 / 1 800 mm
Weight	295 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42

Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357511
5 - 8 tpi	**6°**	3357512
6 - 10 tpi	**0°**	3357524
10 - 14 tpi	**0°**	3357525
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 6°		3357504

„General saw band information“ on page 220

Metal band saw with pivoting saw head.

S 275NV with continuously adjustable saw band speed

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Rugged cast design
- Excellent cutting precision thanks to vibration-free action
- Saw band lowering via hydraulic cylinder continuously adjustable by throttle valve
- Microswitch for automatic limit position cut-off
- Coolant system
- Equipped as a factory standard with bi-metal saw blade
- Adjustable material stop for batch work
- Rugged machine chassis
- Ball-bearing borne saw band guide
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- Easily legible scale for adjusting the angle
- Overload protection

S 275N

- Motor circuit switch
- Two switchable speeds

S 275NV

- Saw band speed continuously adjustable from 20 to 90 m/min.
- Speed change possible during operation

Pressure gauge
› Easy and accurate adjustment of the saw band tension

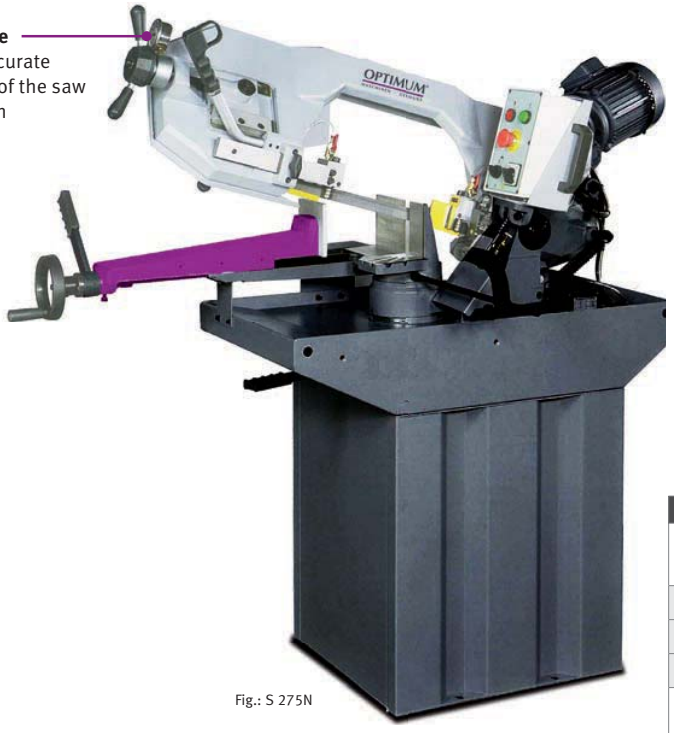
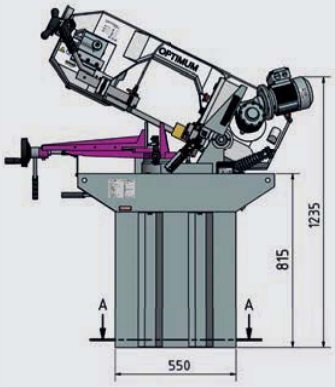
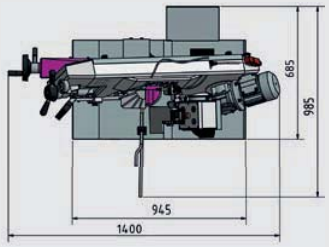


Fig.: S 275N

Dimensions





Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant pump

Cutting areas

			
0 °	Ø 225 mm	170 mm	150 x 245 mm
45°	Ø 145 mm	145 mm	145 x 180 mm
60°	Ø 90 mm	90 mm	90 x 120 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	S 275N	S 275NV
Article no.	3300260	3300265
Technical specifications		
Electrical connection	400 V / 3 Ph ~50 Hz	230 V / 1 Ph ~50 Hz
Motor output	1.1 kW	1.5 kW
Coolant pump motor	90 W	
General instructions		
Lifting the saw head	manual	
Feed	continuously variable	
Saw band speed	45 / 90 m/min	20 - 90 m/min
Saw band dimensions	2 480 x 27 x 0.9 mm	
Cutting angle	0° to 60°	
Dimensions		
Length	1 400 mm	
Width without/with material stop	685 mm / 985 mm	
Height bottom/top limit position	1 235 mm / 1 700 mm	
Weight	185 kg	

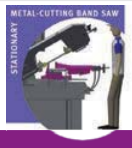
AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Art.no.
5 - 8 tpi	**0°**	3357511
5 - 8 tpi	**6°**	3357512
6 - 10 tpi	**0°**	3357524
6 - 10 tpi	**6°**	3357510
10 - 14 tpi	**0°**	3357525
Saw band set HSS bi-metal M 42 1 pc. Saw band 6 - 10 tpi; 6° 1 pc. Saw band 5 - 8 tpi; 0° 1 pc. Saw band 5 - 8 tpi; 6°		3357504

„General saw band information“ on page 220

Important information on „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C3

Metal-cutting band saw with pivoting saw head
and two saw band speeds

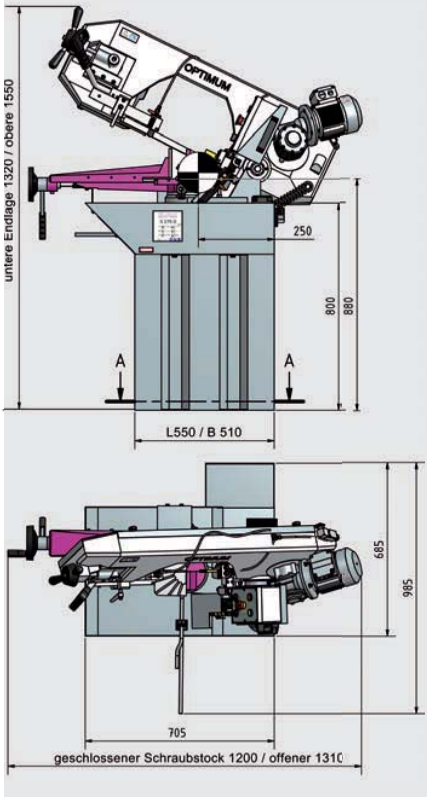


Facts that impress in terms of quality, performance and price

- Low-noise running action
- Rugged cast design
- Excellent cutting precision thanks to vibration-free action
- Two switchable speeds
- Saw band lowering via hydraulic cylinder continuously adjustable by throttle valve
- Microswitch for automatic limit position cut-off
- Easily legible scale for adjusting the angle
- Coolant system
- Rugged machine chassis
- Ball-bearing borne saw band guide
- Quick clamping vice, adjustable via hand wheel. Workpiece is clamped using a handy quick-clamping lever
- Equipped as a factory standard with bi-metal saw blade
- Adjustable material stop for batch work
- Fully equipped; the user can immediately start productive work after commissioning

Fig. S 210

Dimensions



Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant pump

Cutting areas

			
0 °	Ø 170 mm	140 mm	140 x 190 mm
45°	Ø 125 mm	125 mm	95 x 140 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	S 210G
Article no.	3300210
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	750 W
Coolant pump motor	90 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	40 / 80 m/min
Saw band dimensions	2 080 x 20 x 0.9 mm
Cutting angle	0° to 45°
Dimensions	
Length of closed/open vise	1 200 / 1 310 mm
Width without/with material stop	685 / 985 mm
Height bottom/top limit position	1 320 / 1 550 mm
Weight	152 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42

Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357503
5 - 8 tpi	**6°**	3357505
6 - 10 tpi	**0°**	3357514
10 - 14 tpi	**0°**	3357515
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 10°		3357502

„General saw band information“ on page 220

The metal-cutting band saw for challenging sawing tasks.
With drive belt and 4 sawing speeds

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Rugged cast design
- Saw band lowering via hydraulic cylinder continuously adjustable by throttle valve
- Microswitch for automatic limit position cut-off
- Easily legible scale for adjusting the angle
- Equipped as a factory standard with bi-metal saw blade
- Saw band tensioning at front, adjustable via handwheel
- Ball-bearing borne saw band guide
- Rugged machine chassis with large wheels and handy transport bar allows trouble-free relocation of the machine
- Adjustable material stop for batch work
- Circuit breaker for belt cover
- Fully equipped; the user can immediately start productive work after commissioning

Belt

› Four speeds
› Adjustable by shifting the drive belt

Quick clamping vice

› Clamping jaws adjustable from 0° to 45° for mitre cuts

Coolant equipment

› Integrated in chassis
› Tank capacity 11 litres

Scope of supply

› Material stop
› Bi-metal saw band
› Machine chassis

Model	S 181
Article no.	3300181
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	750 W
Coolant pump motor	90 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	21 / 33.5 / 45 / 50 m/min
Saw band dimensions	2 362 x 19 x 0.9 mm
Cutting angle	0° to 45°
Dimensions	
Length	1 295 mm
Width	
Without material stop	450 mm
With material stop	600 mm
Height	
Saw head bottom limit position	1 060 mm
Saw head top limit position	1 550 mm
Weight	130 kg

Cutting areas

			
0 °	Ø 180 mm	180 mm	180 x 240 mm 50 x 300 mm
45°	Ø 110 mm	150 mm	110 x 170 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357522
5 - 8 tpi	**6°**	3357516
6 - 10 tpi	**0°**	3357521
10 - 14 tpi	**0°**	3357520
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 6°		3357500

„General saw band information“ on page 220

The metal-cutting band saw for challenging sawing tasks.

With manual gearing and 3 sawing speeds

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Rugged cast design
- Saw band lowering via hydraulic cylinder continuously adjustable by throttle valve
- Microswitch for automatic limit position cut-off
- Easily legible scale for adjusting the angle
- Equipped as a factory standard with bi-metal saw blade
- Ball-bearing borne saw band guide
- Rugged machine chassis with large wheels and handy transport bar allows trouble-free relocation of the machine
- Saw band tensioning at front, adjustable via handwheel
- Adjustable material stop for batch work
- Fully equipped; the user can immediately start productive work after commissioning

Gear

› Three speeds
› Switchable via gearbox

Quick clamping vice

› Clamping jaws adjustable from 0° to 45° for mitre cuts

Coolant equipment

› Integrated in chassis
› Tank capacity 11 litres

Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis

Cutting areas

			
0 °	Ø 180 mm	180 mm	180 x 240 mm 65 x 300 mm
45°	Ø 110 mm	150 mm	110 x 170 mm

The cutting area was determined for a full section. The cutting range can be larger in case of cut-off sections.

Model	S 181G
Article no.	3300182
Technical specifications	
Electrical connection	400 V / 3 Ph ~50 Hz
Motor output	750 W
Coolant pump motor	90 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	45 / 67 / 77 m/min
Saw band dimensions	2 362 x 19 x 0.9 mm
Cutting angle	0° to 45°
Dimensions	
Length	1 200 mm
Width	
Without material stop	450 mm
With material stop	600 mm
Height	
Saw head bottom limit position	1 060 mm
Saw head top limit position	1 550 mm
Weight	130 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42

Teeth per inch	Tooth angle	Article no.
5 - 8 tpi	**0°**	3357522
5 - 8 tpi	**6°**	3357516
6 - 10 tpi	**0°**	3357521
10 - 14 tpi	**0°**	3357520
Saw band set HSS bi-metal M 42 1 pc. saw band 6 - 10 tpi; 0 1 pc. saw band 5 - 8 tpi; 0° 1 pc. saw band 5 - 8 tpi; 6°		3357500

„General saw band information“ on page 220

Band saw for metal working with mitre-pivoting saw head and continuously adjustable saw band speed

Facts that impress in terms of quality, performance and price

- Low-noise running action
- Grey cast base plate and saw head
- Stable saw frame for smooth, low-vibration action
- Easily legible scale for adjusting the angle
- Equipped as a factory standard with bi-metal saw blade
- Saw band tensioning at front, adjustable via handwheel
- Adjustable material stop for batch work
- Fast workpiece clamping thanks to quick clamping vice
- Fully equipped; the user can immediately start productive work after commissioning

Control unit

› Generously dimensioned
› Emergency stop button
› Coolant pump switch
› Potentiometer

Vario drive

› Continuously variable saw band speed

Scope of supply
› Material stop
› Bi-metal saw band
› Machine chassis
› Coolant system

Cutting areas

			
0 °	Ø 150 mm	160 mm	150 x 160 mm
45°	Ø 105 mm	105 mm	105 x 130 mm
60°	Ø 65 mm	65 mm	65 x 65 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	S 150G Vario
Article no.	3300150
Technical specifications	
Electrical connection	230 V / 1 Ph ~ 50 Hz
Motor output	1.1 kW
Coolant pump motor	50 W
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	20 - 65 m/min
Number of speeds	Continuously variable
Saw band dimensions	1 735 x 12.7 x 0.9 mm
Cutting angle	0° to 60°
Dimensions	
Length of vice open/closed	1 120 / 930 mm
Width without/with material stop	510 / 720 mm
Height of saw head bottom/top limit position	1 240 / 1 590 mm
Weight	100 kg

AQUACUT C1	3530030
› For cooling the cut	
› 10 litres	

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
6 tpi	**10°**	3351521
6 - 10 tpi	**0°**	3351522
10 - 14 tpi	**0°**	3351538
Saw band set HSS bi-metal M 42 1 pc. saw band 6 tpi; 10° 1 pc. saw band 6 - 10 tpi; 0° 1 pc. saw band 10 - 14 tpi; 0°		3351501

„General saw band information“ on page 220

Important information on „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C3

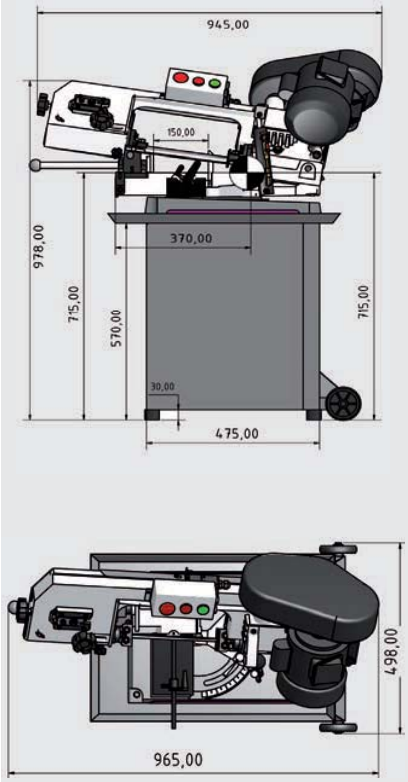
Metal-cutting band saw ideal for light sawing work.

Mitre cutting from -45° to 60° via pivoting saw head

Facts that impress in terms of quality, performance and price

- Circuit breaker for belt cover and saw band cover, low-voltage version
- Separate emergency stop button
- Low-voltage electronics 24 V
- Low-noise running action
- Mobile machine chassis
- Ball-bearing borne saw band guide
- Three gears for a wide choice of materials
- Microswitch for automatic limit position cut-off
- Easily legible scale for adjusting the angle
- Equipped as a factory standard with bi-metal saw blade
- Saw band tensioning at front, adjustable via handwheel
- Adjustable material stop for batch work
- Quick clamping vice for fast workpiece clamping

Dimensions



Saw head

› Grey cast iron
› Both sides swivel from -45° to +60

Fig.: S 131GH

Scope of supply

› Material stop
› Bi-metal saw band
› Machine chassis

Cutting areas

		
0 °	Ø 128 mm	145 mm
45°	Ø 90 mm	100 mm
60°	Ø 45 mm	45 mm
-45°	Ø 90 mm	100 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Model	S 131GH
Article no.	3300131
Technical specifications	
Electrical connection	230 V / 1 Ph ~50 Hz
Motor output	1.1 kW
General instructions	
Lifting the saw head	manual
Feed	continuously variable
Saw band speed	22 / 31 / 55 m/min
Saw band dimensions	1 638 x 13 x 0.65 mm
Cutting angle	-45° to 60°
Weight	78 kg

Saw bands HSS bi-metal M 42

Teeth per inch	Tooth angle	Article no.
6 - 10 tpi	**0°**	3351512
8 - 12 tpi	**0°**	3351517
10 - 14 tpi	**0°**	3351518
6 tpi	**10°**	3351511
Saw band set HSS bi-metal M 42 1 pcs. Saw band 10 - 14 tpi; 0° 1 pc. Saw band 6 tpi; 0° 1 pc. Saw band 6 - 10 tpi; 6°		3351500

„General saw band information“ on page 220

Light and handy metal band saw. Ideal for universal deployment on construction sites, on jobs, in customer service vehicles, workshops, hobby workshops and in agriculture

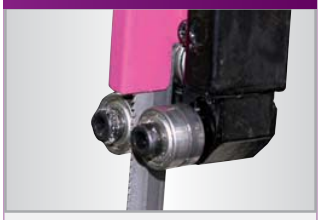
Facts that impress in terms of quality, performance and price

- Quick clamping vice for fast workpiece clamping
- Saw head swivels from 0° to 45° to allow angled sawing
- Easily legible scale for adjusting the angle
- Microswitch for automatic limit position cut-off
- Automatic lowering of the saw head via three-stage adjustable saw head lowering pressure
- Equipped as a factory standard with bi-metal saw blade
- Large, handy handle and light weight allow for trouble-free transport to the construction site
- Adjustable material stop for batch work
- Fully equipped; the user can immediately start productive work after commissioning
- Transportation lock

Automatic limit switch cut-off

› Switches the saw band off at the bottom stop

Saw band guide



› Ball-bearing borne 3-point guide

Transport

› Large, handy handle and light weight allow for trouble-free transport to the construction site

Fig.: S 100 G

Optional accessory
Machine chassis MUG 1
› Stable, space-saving, folding, easy to transport
› Dimensions L x W x H: 500 x 470 x 780 mm
Art. no. 3630000

Scope of supply
› Material stop
› Operating tool
› Bi-metal saw band

Model	S 100G
Article no.	3300100
Technical specifications	
Electrical connection	230 V / 1 Ph ~ 50 Hz
Motor output	370 W
General instructions	
Saw band speed	45 m/min
Saw band dimensions	1 470 x 13 x 0.65 mm
Cutting angle	0° to 45°
Dimensions	
Length of vice open / closed	950 / 850 mm
Width without/with material stop	300 / 660 mm
Height bottom/top limit position	680 / 820 mm
Weight	23 kg

Cutting areas

			
0 °	Ø 100 mm	100 mm	100 x 150 mm
45°	Ø 65 mm	60 mm	60 x 100 mm

The cutting area was determined for a full section.
The cutting range can be larger in case of cut-off sections.

Saw bands HSS bi-metal M 42		
Teeth per inch	Tooth angle	Article no.
10 - 14 tpi	**0°**	3351110
6 tpi	**10°**	3351109
Saw band set HSS bi-metal M 42 1 pcs. Saw band 10 - 14 tpi; 0° 2 pcs. Saw band 6 tpi; 10°		3351100

„General saw band information“ on page 220

Transportable mitre bandsaws with excellent cutting precision, extremely low-noise.
With continuously adjustable saw band speed

Facts that impress in terms of quality, performance and price

- Equipped as a factory standard with bi-metal saw blade
- Adjustable material stop for batch work
- Pushbutton for saw band run switches the saw band run on and off
- Base plate with anti-slip feet
- Low vibration and wear thanks to special gearbox with two hardened steel gears
- Vario drive motor with low speed and carbon brushes for up to 10x longer service life

SP 11V
- Saw head swivels from 0° to +45° to allow angled sawing

SP 13V
- Saw head swivels from 0° to +60° to allow angled sawing

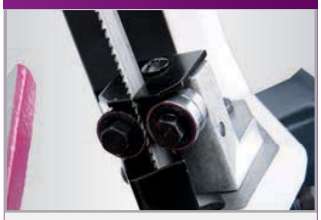
Fig.: SP13V

optional accessory
Machine chassis MUG 1
Stable, space-saving, folding, easy to transport
› Dimensions L x W x H: 500 x 470 x 780 mm
Art. no. 3630000

Mitre square

› Easily legible scale for adjusting the angle

Saw band guide



› Ball-bearing borne; for an excellent band run and thus optimal cutting

Vario drive

› Continuously adjustable saw band speed from 30 - 80 m/min.

Scope of supply
› Material stop
› Bi-metal saw band

Model	SP 11V	SP 13V
Article no.	3300070	3300075
Technical specifications		
Electrical connection	230 V / 1 Ph ~50 Hz	230 V / 1 Ph ~50 Hz
Motor output	850 W	1 kW
General instructions		
Saw band speed	30 - 80 m/min	30 - 80 m/min
Saw band dimensions	1 335 x 13 x 0.65 mm	1 440 x 13 x 0.65 mm
Cutting angle	0° - 45°	0° - 60°
Dimensions		
Length	650 mm	720 mm
Width without/with material stop	290 / 670 mm	300 / 650 mm
Height bottom/top limit position	450 / 630 mm	420 / 680 mm
Weight	19 kg	19.5 kg

Cutting areas

SP 11V	0 °	Ø 105 mm	100 mm	100 x 100 mm
SP 13V		Ø 125 mm	125 mm	125 x 125 mm
SP 11V	45°	Ø 65 mm	60 mm	60 x 65 mm
SP 13V		Ø 85 mm	85 mm	85 x 85 mm
SP 13V	60°	Ø 45 mm	45 mm	45 x 50 mm

The cutting area was determined for a full section. The cutting range can be larger in case of cut-off sections.

Saw bands HSS bi-metal M 42

	Teeth per inch	Tooth angle	Article no.
SP 11V	**6 - 10 tpi**	**0°**	3351542
	10 - 14 tpi	**0°**	3351543
SP 13V	**6 - 10 tpi**	**0°**	3351546
	10 - 14 tpi	**0°**	3351547

„General saw band information“ on page 220

Important information on „Operation of machines with frequency converters“ on page 253
The metal-cutting bandsaw (frequency converter) complies with the DIN EN 55011 standard: class C2

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 10

Fig.: MSR 7

Fig.: MSR 4

PVC rollers

› Item No. 3357009
› Additionally attachable
› Made of non-slip PVC
› To avoid scratches
› Simply slot the rollers into the holder provided
› With practical wall-mount

Tischverlängerung MSR 1

› Item No. 3357006
› Additionally attachable
› Can be fitted in both directions

Anschlussplatte

› Item No. 3357005
› Additionally attachable
› With add-on parts right and left
› Slots

Scope of supply
› Fastening material for extension

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

Technical specifications			
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			
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
Weight	30/33 kg	58/61 kg	78/83 kg

Accessories	PVC rollers 3 pcs.	Table extension MSR 1	Connecting plate
Article no.	3357609	3357006	3357005

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: ±(0.025 + 0.02 x measuring length [m])
- ▶ Battery life of up to 10 years

- › Display: LCD
- › Switching functions:
- › Display reset
- › Reset
- › Directional display ±
- › Absolute dimension and chain dimension function
- › Right and left stop

Slide

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

Linear guide

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

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

Model	LMS 10	LMS 20	LMS 30	LMS 40
Article no.	3383851	3383852	3383853	3383854
Technical specifications				
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

Manuel trimming and length measuring systems LMS 1M / LMS 2M for attaching to MSR material stand.

NEU

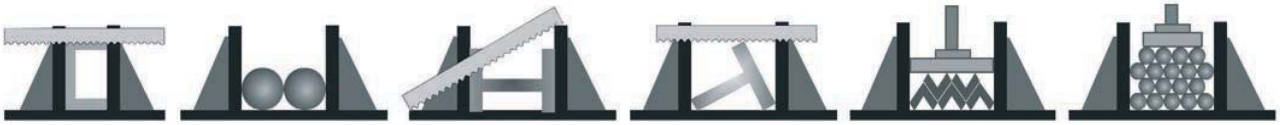
- ▶ For perfect length measurement and precise positioning
- ▶ For recurring measuring tasks with high precision

trimming and length measuring system	Article no.
LMS 1M (1 000 mm)	3383841
LMS 2M (2 000 mm)	3383842

Digital displayDRO1	Article no.
Mounting kit for LMS 1M / 2M	3383845

General saw band information

Workpiece
The workpiece to be machined must be firmly clamped so that it cannot vibrate or twist. 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. To 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					
‹ 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

Please note

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Warranty conditions

› Independently of your legal warranty entitlement, OPTIMUM provides a guarantee on the basis of the following provisions for the period as stated in the catalogue for the respective machine; the guarantee period starts on the date of sale of the machine to the end customer. OPTIMUM offers a guarantee on catalogue products where a guarantee is specifically indicated. The guarantee exclusively covers defects resulting from material or manufacturing errors. The warranty exclusively covers spare parts but not the transport and installation costs or labour and ancillary services necessary for eliminating defects. The guarantee excludes unintended use or improper application such as overloading of the machine or the use of non-approved and unsuitable tools, use of force, damage caused by external influences or by foreign bodies, e.g., dust, chips or stones, damage caused by failure to observe the Operating Instructions, e.g., connection to the wrong mains voltage or current, failure to observe assembly instructions, conversions and extensions carried out by the customer, as well as normal wear. The guarantee also excludes partially or fully disassembled machines and machine tools. When claiming against guarantee/warranty, you must submit the original sales receipt showing the date of purchase. Repairs under guarantee/warranty may be performed by authorised partners only who will be named by the guarantee/warranty provider. The guarantee/warranty is restricted to the end customer of the new machine and is not transferrable.

General notes on operating our machines

› Our machines must be supervised at all times during operation. Leaving the machine during operations constitutes gross negligence.
› The details on machine precision are found in the technical data of the catalogue pages. If you do not find any values here, please contact info@optimum-maschinen.de for more detailed information.
› The stated precisions are achieved under standardised conditions (correct installation of the machine and ambient temperature of 20 °C). The machines are not designed for continuous operation.

› Please note that operators are required to make conversions in the event of installing third-party chucks or flanged chucks to reach the stated, technically possible rotating diameter.

Operation of machines with frequency converters

› **Electrical connection only by a qualified electrician**
Machines with frequency inverters or inverters must not be operated via an ordinary plug. A permanent connection is required. The drive components conduct a high leakage current via the protective conductor. Touching conductive parts when the protective conductor is interrupted can result in death or serious injury.

› **Building electrics:**
In order to avoid tripping of residual current circuit breakers - if present in the building electrics - an all-current-sensitive residual current circuit breaker type B is required.
AC - sensitive AC type RCDs (AC only) are not suitable for frequency inverters. AC sensitive earth-leakage circuit breakers of type AC are no longer in use and are no longer permitted in Germany.

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