Arntz

PRODUCT CATALOGUE

BAND SAW BLADES

Valid from
01.2025

HIGH PERFORMANCE BAND SAW BLADES

BI-METAL

CARBIDE TIPPED

CARBON

SAWING TECHNOLOGY IS OUR PASSION

From our manufacturing facilities in Germany and the United States, we supply high-performance bandsaw blades to global markets. Tailored cutting solutions ensure the perfect fit for your applications and requirements.
For more than 230 years, the ARNTZ family has been investing in supplying the cutting tool market while adapting to the new demands and challenges.

With extensive experience in diverse and demanding applications, our sales team and engineers are prepared to meet your sawing challenges. Delivering quality, consistency, and service, our production facilities ensure that every ARNTZ product exceeds expectations. Dedicated customer service and sales professionals are always ready to assist you.

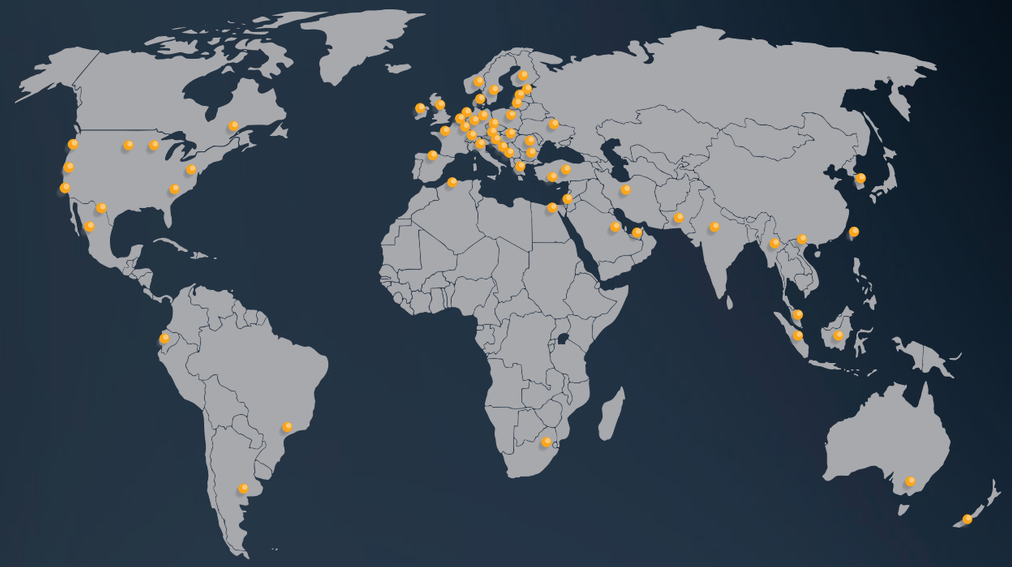
We are inspired by your success.

FACTS AND FIGURES

- Established in 1793 by Johann Wilhelm Arntz
- 7th generation ownership
- Over 230 years of tooling production
- Manufacturer of high-performance Band Saw Blades
- Manufacturing locations in Germany and USA
- Global distribution network covers 80 countries

Jan Wilhelm Arntz
CEO

AT YOUR SIDE WORLDWIDE



Johann Wilhelm Arntz
*1763 † 1834

Johann Ferdinand Arntz
*1806 † 1867

Johann Wilhelm Arntz
*1846 † 1908

Johann Wilhelm Arntz
*1873 † 1932

Johann Wilhelm Arntz
*1908 † 1957

Johann Wilhelm Arntz
*1939 † 2021

1793 Company founded as a hammer mill

1879 Relocation to Lenneper Str., RS

1900 Saw blade production

1944 Production of segmental circular saw blades

1966 Entry Johann Wilhelm Arntz

1978 Production of carbide circular saw blades

1981 Foundation ARNTZ, Inc. in Summerville, USA

1988 Start production of Bi-Metal Band Saw Blades

1990 Foundation of ARNTZ Sägetechnik GmbH Schmölln

1996 Entry Jan Wilhelm Arntz

1999 Foundation ARNTZ Netherlands

2001 Start of Carbide Tipped Band Saw Blade production

2010 Foundation of the welding centre Schmölln

2015 Relocation / site expansion ARNTZ SLN

2017 Expansion of Bi-Metal and carbide production capacity

2022 Capacity expansion to one of the largest welding centres in Europe

2023 230 years ARNTZ

2025 ARNTZ Campus

PRODUCTION

Bi-Metal and Carbide Tipped Band Saw Blades

Our state-of-the-art facility is equipped with cutting-edge technology along with innovative design to optimize efficiency and precision while raising production and service standards. This ensures that every product reflects our craftsmanship, consistency as well as reliability to ensure customer satisfaction.

THE RIGHT BREAK-IN
Guarantee for extended blade life

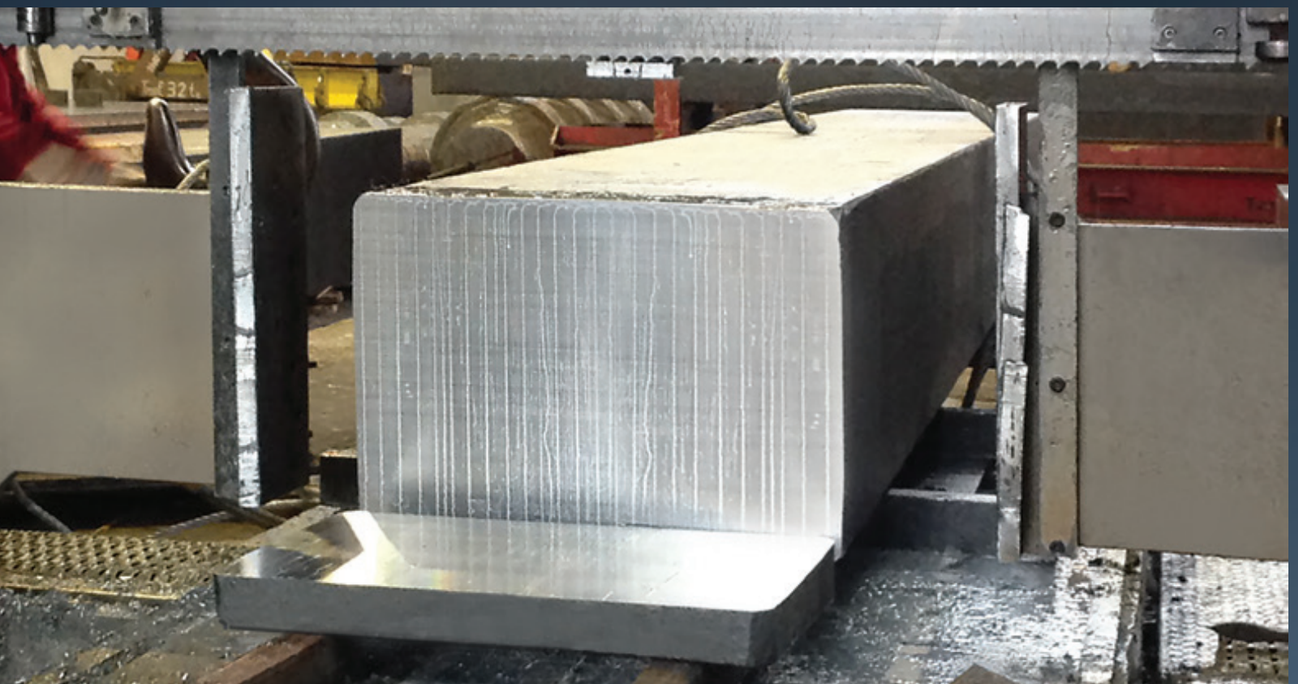
Breaking in a Band Saw Blade is essential to ensure its optimal performance and longevity. This process involves gradually acclimating the blade to tension, temperature, running the machine at slower cutting rates to ensure proper functionality before full operation.

Why is Break-in important?

- New teeth are very sharp and fragile
- Prevents premature tooth edge fracturing
- Break-in improves overall blade life and cut finish

Instructions

- Reduce band speed by 20% (if you have vibration continue to reduce)
- Reduce feed rate by 20% to 50% depending on material machinability (Harder material requires a higher feed rate reduction)
- Small adjustments to blade speed or feed rate may be necessary if noise or vibration occurs
- Gradually increase feed rate until normal cutting rate are achieved



MISSION STATEMENT – THE **ARNTZ 3S**

SIMPLIFY We have a complete product range that offers a competitive and concise solution to the most diverse sector needs on the market

SUPPORT We have a dedicated, skilled and qualified team to support on-site as well as on the phone

SERVICE We are dedicated to offer efficient and consistent service solutions to an increasingly demanding market

R-TEC

Faster, Straighter, Longer!

R-TEC OPTIONAL

Second generation ramping technology with improved design capability to give custom made solutions to the most challenging applications.

Benefits

- Increases tooth penetration without adding more machine feed pressure
- Allows the blade to cut a wider range of dimensions
- Precise edge radius control to reduce backer fatigue and improve blade life
- A fully redesigned machine to support coolant and filtration systems to increase speed, keeping production costs low
- Newly designed propriety software gives us maximum versatility in ramp design

R-TEC

TOOTHING GUIDELINE

Toothing recommendation for thin-walled profiles

Wall thickness	Profile outer diameter in mm						
in mm	20	40	60	80	100	120	150
2	14	14	14	14	14	14	10/14
3	14	14	14	14	10/14	10/14	8/11 | 8/12
4	14	14	10/14	10/14	8/11 | 8/12	8/11 | 8/12	6/10
5	14	10/14	10/14	8/11 | 8/12	8/11 | 8/12	6/10	6/10
6	14	10/14	8/11 | 8/12	8/11 | 8/12	6/10	6/10	5/7 | 5/8
8	14	8/11 | 8/12	6/10	6/10	5/7 | 5/8	5/7 | 5/8	5/7 | 5/8
10	-	6/10	6/10	5/7 | 5/8	5/7 | 5/8	5/7 | 5/8	–

Toothing recommendation for thick-walled profiles

Wall thickness	Profile outer diameter in mm							
in mm	80	100	120	150	200	300	500	750
10	-	-	-	4/6	4/6	4/6	3/4	2/3
15	4/6	4/6	4/6	4/6	4/6	3/4	2/3	2/3
20	4/6	4/6	4/6	4/6	3/4	3/4	2/3	2/3
30	4/6	4/6	4/6	3/4	3/4	2/3	2/3	2/3
50	-	-	3/4	3/4	2/3	2/3	2/3	1,4/2
80	-	-	-	-	2/3	2/3	1,4/2	1,4/2
100	-	-	-	-	-	2/3	1,4/2	1,4/2

Toothing recommendation for solid material

Cross section	Teeth per inch
mm	tpi
from 550	0,75/1,25
380 - 750	1/1,3
250 - 550	1,4/2
120 - 350	2/3
80 - 140	3/4
60 - 110	4/6
40 - 70	5/7 | 5/8
30 - 60	6/10
20 - 40	8/11 | 8/12
to 25	10/14

Quick Tips

- The required tooth pitch depends on the wall thickness and diameter of the profiles tobe cut. The tables apply to single cuts. If two or more profiles are cut next to each other, the tables apply taking into account two times the wall thickness with a single profile outer diameter
- Always ensure at least 3 teeth are in contact with the material for clean cuts and to avoid blade binding
- For wider material, use lower TPI to reduce strain and improve chip clearance
- For smaller materials, use higher TPI to prevent tearing or jagged edges

BI-METAL – WHY SO SUCCESSFUL?

The backer of the Bi-Metal Band Saw Blade is made of specially alloyed spring steel. Highly flexible with a strength of approx. 50 HRC.

HARD AND RESISTANT

Tooth tips made from hardenedHSS in qualities M42 and powder metallurgical M51 ensure the highest wear resistance due to an extensive heat treatment.

OPTIMALLY CONNECTED

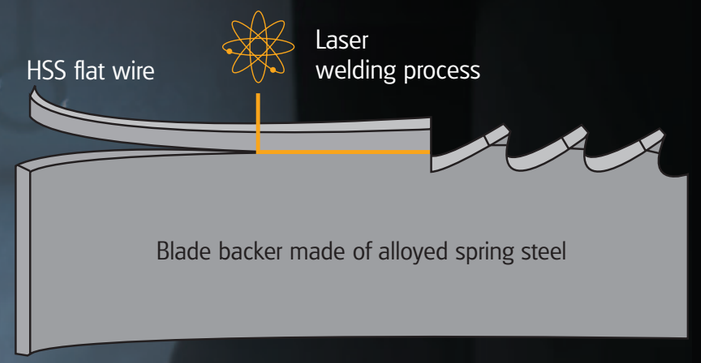
The backer and the HSS flat wire are undetachably welded together by a special electron or laser beamwelding process.

ADVANTAGES

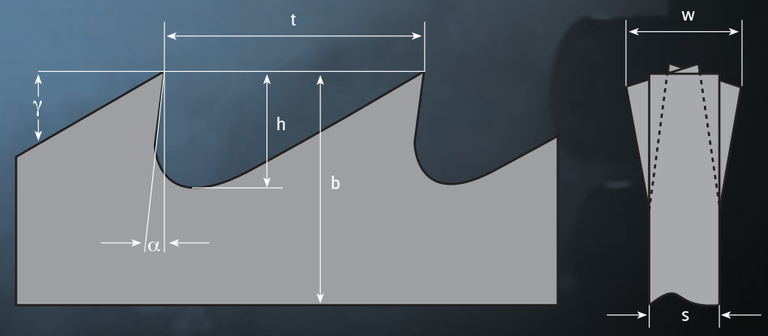
The high-quality Bi-Metal Band Saw Blade combines the flexibility of the spring steel backer with the enormous wear resistance of the high speed steel. Each tooth tip of the finished band is made of hardened HSS, extremely durable for best performance.

M42
Material1.3247
Hardness approx. 68 - 69 HRC

M51
Material 1.3207
Hardness approx. 69 HRC,
with high tungsten and cobalt content.



BAND SAW GEOMETRY – TERMINOLOGY



b = width of blade
s = thickness of blade
h = gullet depth
t = tooth pitch
α = rake angle
γ = clearance angle
w = width of set

MULTIPURPOSE, STEEL MANUFACTURING, RECYCLING/FOUNDRIES

431 SPRINT-PLUS

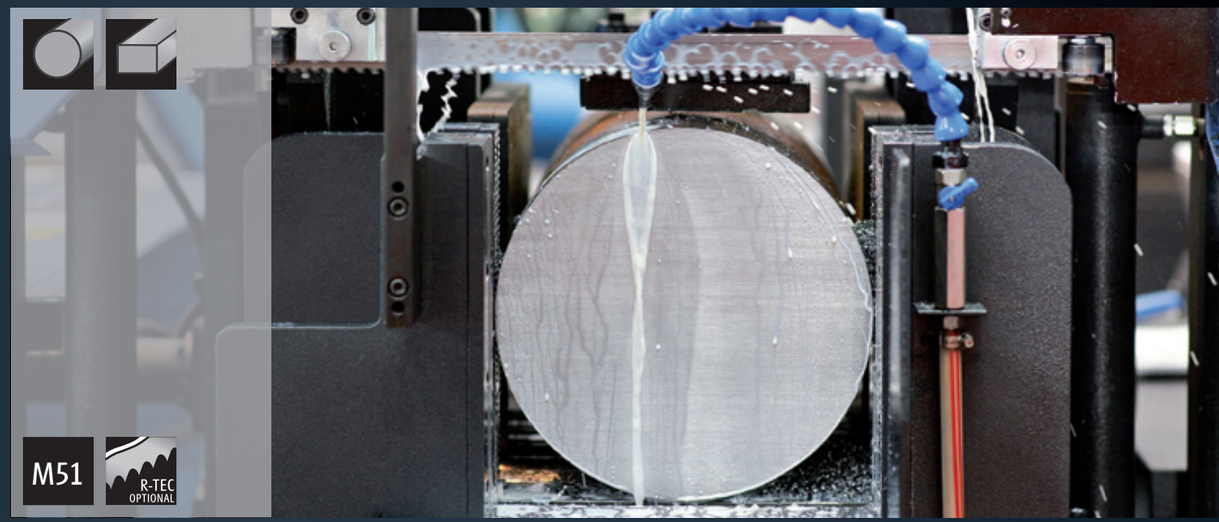
- Classic tooth geometry to suit all your generalpurpose needs
- Variable tooth design for a wider range of material sizes
- M42 HSS tooth tip for long and reliable performance

Dimensions		Tooth										
mm	inch	0,75/1,25	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14	14	18
20 x 0,90	3/4 x .035					■	■	■	■	■	■	■
27 x 0,90	1 x .035			■	■	■	■	■	■	■	■	
34 x 1,10	1 1/4 x .042		■	■	■	■	■	■	■	■		
41 x 1,30	1 1/2 x .050		■	■	■	■	■					
54 x 1,30	2 x .050	■	■	■								
54 x 1,60	2 x .063	■	■	■								
67 x 1,60	2 5/8 x .063		■									
80 x 1,60	3 x .063	■	■									

431 STAY INFORMED

STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

531 SPRINT-PRO



- Classic tooth geometry to suit all your generalpurpose needs
- Variable tooth design for a wider range of material sizes
- M51 HSS tooth tip for improved wear resistance

Dimensions		Tooth					
mm	inch	0,75/1,25	1,4/2	2/3	3/4	4/6	5/8
27 x 0,90	1 x .035			■	■	■	■
34 x 1,10	1 1/4 x .042		■	■	■	■	
41 x 1,30	1 1/2 x .050		■	■	■		
54 x 1,60	2 x .063	■	■	■			
67 x 1,60	2 5/8 x .063		■				
80 x 1,60	3 x .063	■	■				

STAY INFORMED 531

STEEL CONSTRUCTION, GENERAL FABRICATION

457 X-FIT

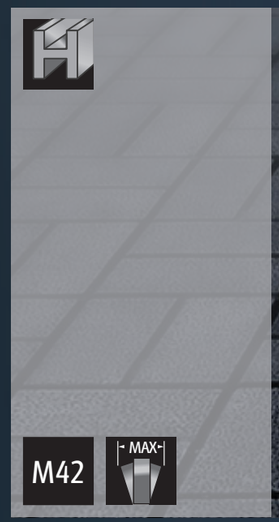
- Robust tooth geometry that provides excellent shock resistance
- Modified guilt design to reduce vibration
- Progressive tooth set produces a smooth work-piece surface and a cut with little burr

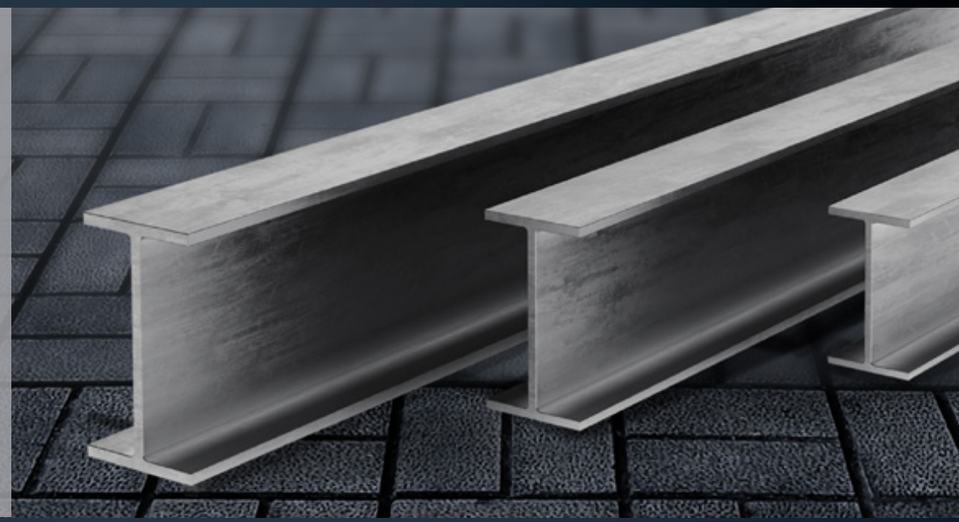
Dimensions		Tooth				
mm	inch	2/3	3/4	4/6	5/7	8/11
20 x 0,90	3/4 x .035			■	■	■
27 x 0,90	1 x .035		■	■	■	■
34 x 1,10	1 1/4 x .042	■	■	■	■	
41 x 1,30	1 1/2 x .050	■	■	■		
54 x 1,30	2 x .050	■	■	■		
54 x 1,60	2 x .063	■	■			
67 x 1,60	2 5/8 x .063	■	■			

457 STAY INFORMED

STEEL CONSTRUCTION

458 X-FIT MAX





- The powerhouse for machining large profiles and beams
- Extended blade life due to robust tooth design even in bundle cutting with chip nests
- Extra wide set prevents jamming in materials with high residual stress

Dimensions		Tooth	
mm	inch	2/3	3/4
54 x 1,60	2 x .063	■	■
67 x 1,60	2 5/8 x .063	■	■

STAY INFORMED 458

STEEL CONSTRUCTION

557 X-PRO

- Enhanced Wear Resistance due the M51 edge creates exceptional hardness and wear resistance
- The M51 used In X-PRO maintains its hardness even at higher cutting temperatures to prevent premature tip dulling
- Improved Edge Retention allows for consistent, high-quality cuts over extended periods

Dimensions		Tooth	
mm	inch	2/3	3/4
41 x 1,30	1 1/2 x .050	■	■
54 x 1,30	2 x .050	■	■
54 x 1,60	2 x .063	■	■
67 x 1,60	2 5/8 x .063	■	■

557 STAY INFORMED

STEEL CONSTRUCTION

558 X-PRO MAX

- The extra-heavy set design, combined with M51' s hardness, enhances the blade's ability to withstand higher stresses and resist wear
- Superior Heat Resistance for Heavy-Duty Cuts due to the M51 steel' s high-temperature performance
- The X-PRO extra-heavy set allows for a more aggressive cutting action, providing better chip removal and reducing the risk of pinching

Dimensions		Tooth	
mm	inch	2/3	3/4
54 x 1,60	2 x .063	■	■
67 x 1,60	2 5/8 x .063	■	■

STAY INFORMED 558

STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

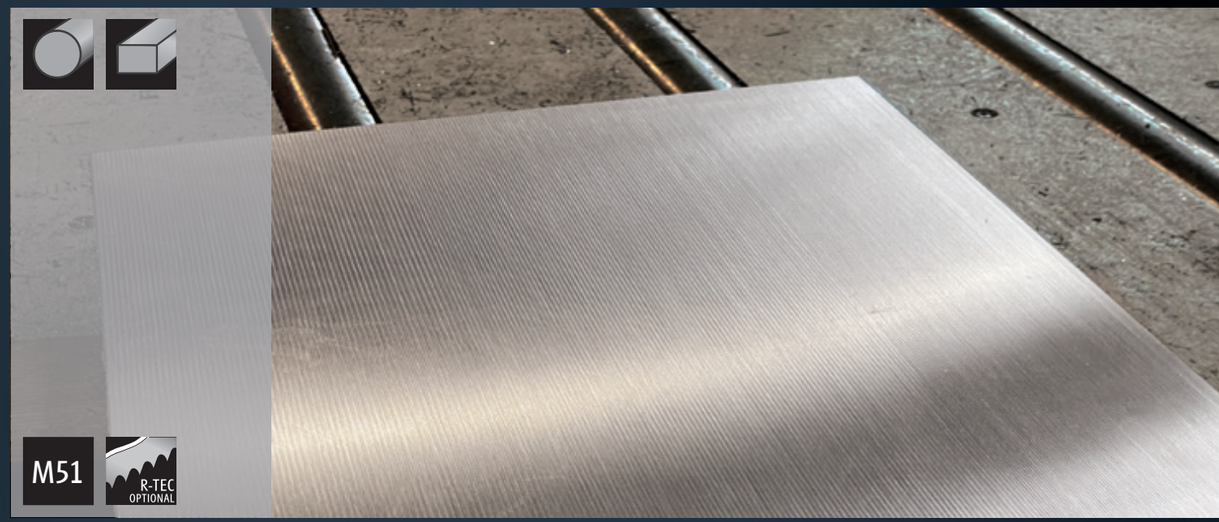
440 X-CELL

- Aggressive tooth geometry to improve penetration in work-hardening applications
- Variable set and high-low tooth pattern for added penetration while reducing vibration
- High Chrome premium backer for a long blade life

Dimensions		Tooth				
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4
34 x 1,10	1 1/4 x .042				■	■
41 x 1,30	1 1/2 x .050			■	■	■
54 x 1,30	2 x .050		■	■	■	■
54 x 1,60	2 x .063		■	■	■	■
67 x 1,60	2 5/8 x .063	■	■	■		
80 x 1,60	3 x .063	■	■	■		

440 STAY INFORMED

540 X-CELL PRO



- Aggressive tooth geometry to improve penetration in work-hardening applications
- Variable set and high-low tooth pattern for added penetration while reducing vibration
- M51 HSS tooth tip for improved wear resistance

Dimensions		Tooth				
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4
41 x 1,30	1 1/2 x .050			■	■	■
54 x 1,30	2 x .050		■	■	■	■
54 x 1,60	2 x .063		■	■	■	■
67 x 1,60	2 5/8 x .063	■	■	■		
80 x 1,60	3 x .063	■	■	■		

STAY INFORMED 540

MULTIPURPOSE, STEEL MANUFACTURING, RECYCLING/FOUNDRIES

401 VL-PLUS

- The budget-friendly choice with a wide range of tooth profiles
- Versatile application for thin-walled profiles up to large solid material workpieces

Dimensions		Tooth							
mm	inch	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14
6 x 0,90	1/4 x .035								■
10 x 0,90	3/8 x .035								■
13 x 0,65	1/2 x .025					■	■	■	■
13 x 0,90	1/2 x .035						■	■	■
20 x 0,90	3/4 x .035				■	■	■	■	■
27 x 0,90	1 x .035		■	■	■	■	■	■	■
34 x 1,10	1 1/4 x .042		■	■	■	■	■	■	■
41 x 1,30	1 1/2 x .050	■	■	■	■				
54 x 1,30	2 x .050			■	■				
54 x 1,60	2 x .063	■	■	■	■				
67 x 1,60	2 5/8 x .063	■	■						

401 STAY INFORMED

GENERAL FABRICATION, STEEL CONSTRUCTION

402 VL-GP

- The budget-friendly multitool with a robust tooth design for varying cutting tasks
- Saves inventory costs with extended tool life in mixed operations
- Reduced blade change

Dimensions		Tooth					
mm	inch	2/3	3/4	4/6	5/7	8/11	12/16
20 x 0,90	3/4 x .035				■	■	■
27 x 0,90	1 x .035		■	■	■	■	■
34 x 1,10	1 1/4 x .042		■	■	■		
41 x 1,30	1 1/2 x .050		■	■			
54 x 1,60	2 x .063	■	■				
67 x 1,60	2 5/8 x .063	■	■				

STAY INFORMED 402

Produktübersicht

SPECIAL APPLICATIONS

490 PAL-CUT

- The rustic for repair and dismantling of wooden pallets
- Special tooth geometry guarantees constant performance while sawing through nails and staples

Dimensions		Tooth
mm	inch	5/8
34 x 1,10	1 1/4 x .042	■

Produktübersicht

STAY INFORMED 490

CARBIDE – WHY SO SUCCESSFUL?

Our Carbide Tipped Band Saw Blades are true high-performance professionals, developed for absolutely clean and smooth results under extreme cutting conditions.

FLEXIBLE

The blade backer consists of a specially alloyed spring steel and forms the optimal foundation for high-performance cutting.

PRECISELY GROUND

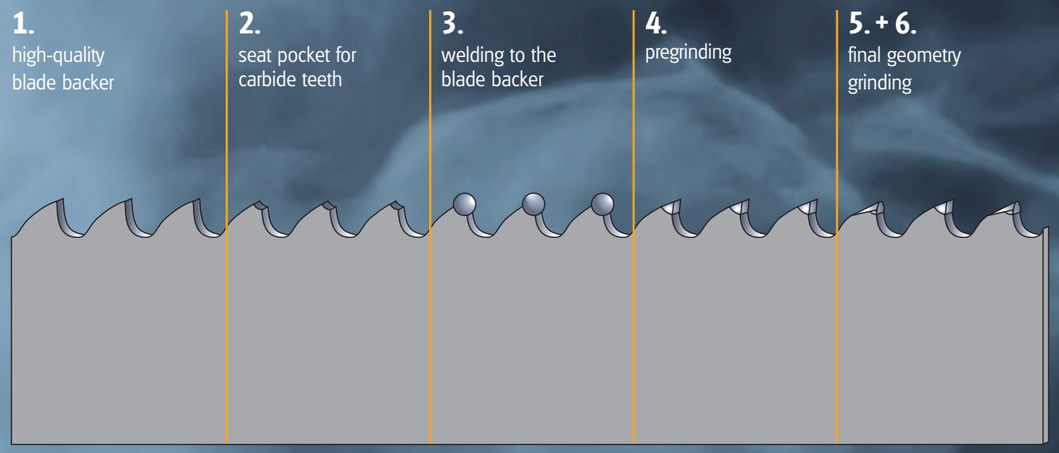
The subsequent grinding processes are crucial to ensure the correct tooth geometry and excellent performance.

PERFECTLY CONNECTED

Each ARNTZ Band Saw Blade undergoes a specialized process in which the highly wear-resistant carbide teeth are securely bonded to the backing strip through welding techniques.

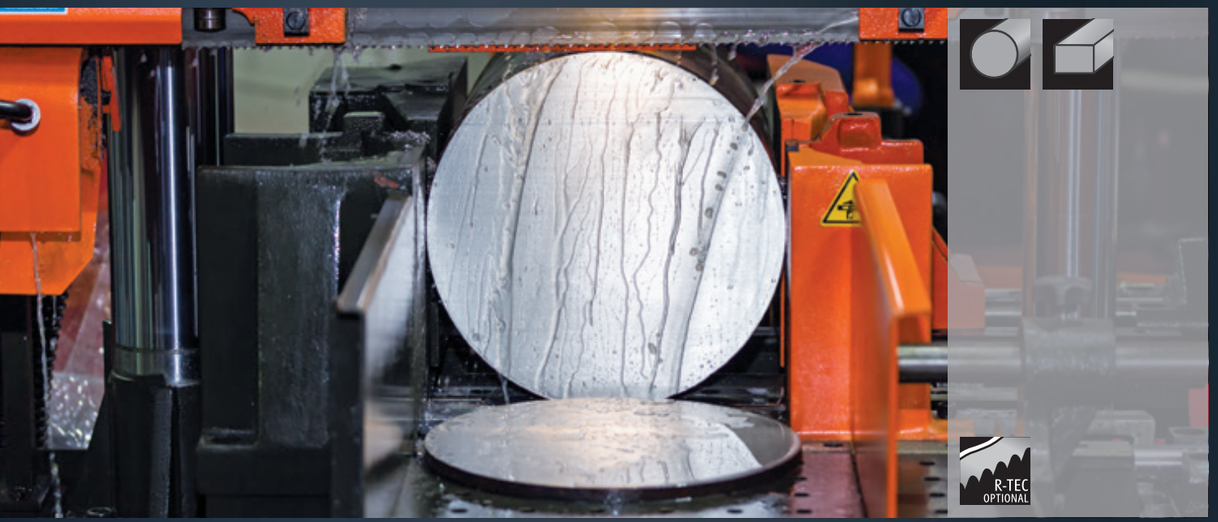
TARGETED

The carbide tipped tooth tips work highly efficiently and achieve up to 3 times higher cutting performance in low-vibration cuts.



AEROSPACE/PRECISION METAL WORKING

626 BLACK-LINE TC



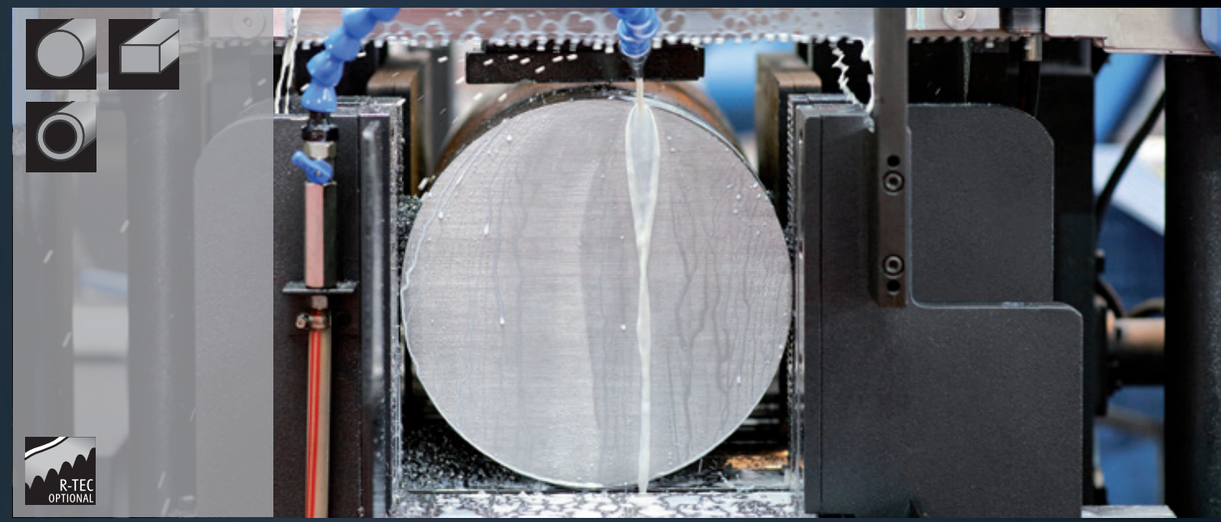
- Robust Triple chip geometry for consistent performance
- Positive tooth angle with high-low tooth design for increased penetration
- Carbide grade with high resistance

Dimensions		Tooth				
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4
27 x 0,90	1 x .035				■	■
34 x 1,10	1 1/4 x .042				■	■
41 x 1,30	1 1/2 x .050			■	■	
54 x 1,30	2 x .050			■	■	■
54 x 1,60	2 x .063		■	■	■	■
67 x 1,60	2 5/8 x .063	■	■			
80 x 1,60	3 x .063	■	■			

626 STAY INFORMED

AEROSPACE/PRECISION METAL WORKING, STEEL MANUFACTURING

622 BLACK-LINE S



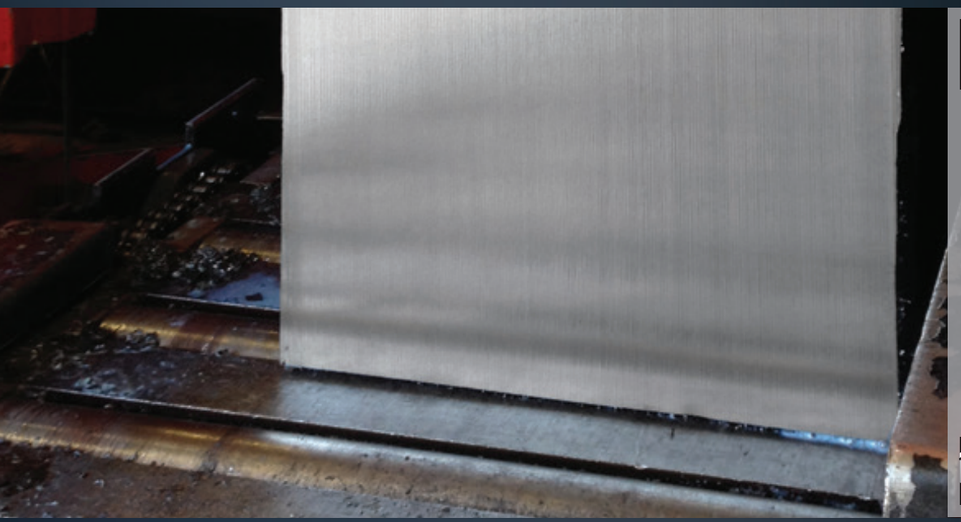
- Modified triple chip geometry combined with set teeth
- Wide kerf to create excellent cut stability
- Robust performance in all machine types

Dimensions		Tooth			
mm	inch	1,4/2	2/3	3	3/4
20 x 0,90	3/4 x .035			■	
27 x 0,90	1 x .035		■	■	■
34 x 1,10	1 1/4 x .042		■		■
41 x 1,30	1 1/2 x .050	■	■		
54 x 1,60	2 x .063	■	■		
67 x 1,60	2 5/8 x .063	■	■		

STAY INFORMED 622

STEEL MANUFACTURING

650 SILVER-LINE



- Multi-chip design
- Developed for fast band speeds
- High positive rake angle to increase penetration

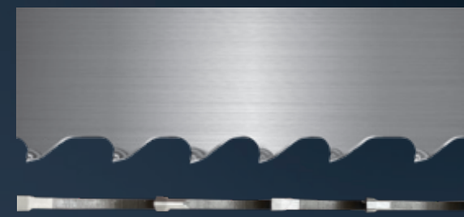
Dimensions		Tooth			
mm	inch	1/1,3	1,4/2	2/3	3/4
34 x 1,10	1 1/4 x .042			■	■
41 x 1,30	1 1/2 x .050		■	■	■
54 x 1,30	2 x .050			■	■
54 x 1,60	2 x .063		■	■	■
67 x 1,60	2 5/8 x .063	■	■		
80 x 1,60	3 x .063		■		

650 STAY INFORMED

STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

660 SL-9

- High performance chrome backer with enhanced carbide grade for maximum performance
- Multi-chip geometry to provide faster cutting times
- High positive rake angle to increase penetration



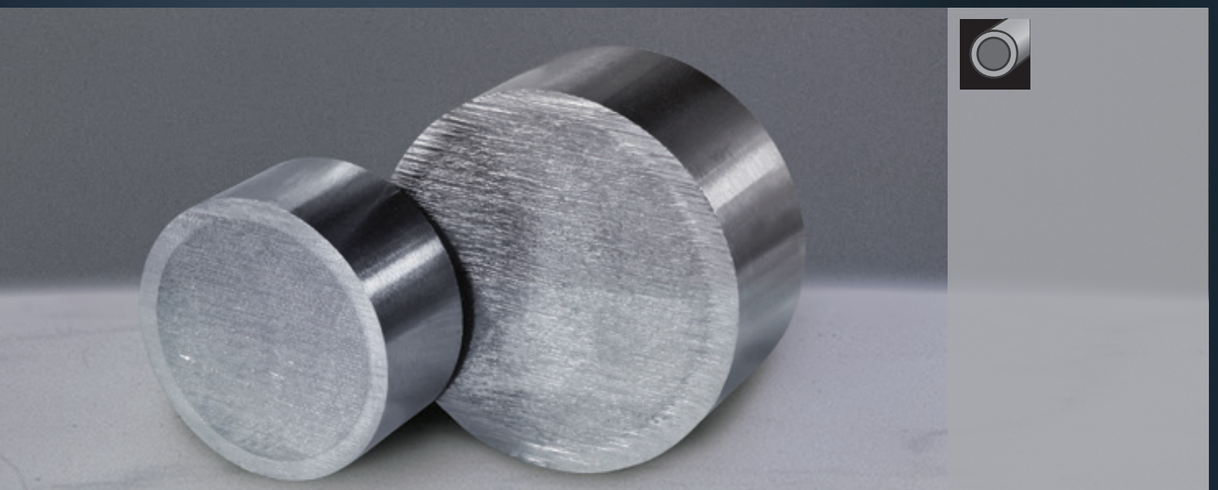
Dimensions		Tooth			
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3
41 x 1,30	1 1/2 x .050			■	■
54 x 1,60	2 x .063		■	■	■
67 x 1,60	2 5/8 x .063	■	■	■	
80 x 1,60	3 x .063	■	■		

STAY INFORMED 660

SPECIAL APPLICATIONS

RECYCLING/FOUNDRIES, AUTOMOTIVE/TRANSPORTATION

651 SILVER-LINE N

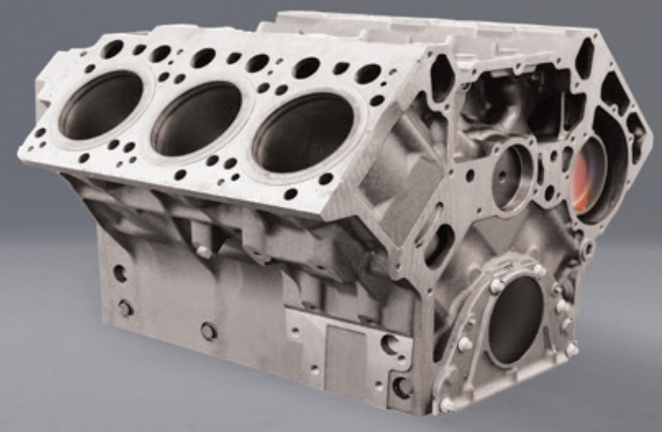


- The expert for surface hardened workpieces
- Special blade with negative rake angle
- Multi chip geometry for highest cutting performance

Dimensions		Tooth	
mm	inch	2/3	3/4
27 x 0,90	1 x .035		■
34 x 1,10	1 1/4 x .042		■
41 x 1,30	1 1/2 x .050	■	■

651 STAY INFORMED

643 ALU-LINE



- Triple chip design
- Carbide grade designed for high abrasion
- Developed for high-speed nonferrous applications

Dimensions		Tooth					
mm	inch	0,65/0,95	0,75/1,25	1,4/2	2/3	3	3/4
20 x 0,90	3/4 x .035					■	
27 x 0,90	1 x .035				■	■	■
34 x 1,10	1 1/4 x .042			■	■		■
41 x 1,30	1 1/2 x .050			■	■		
54 x 1,30	2 x .050			■	■		
54 x 1,60	2 x .063		■	■			
67 x 1,60	2 5/8 x .063		■	■			
80 x 1,60	3 x .063	■	■				

STAY INFORMED 643

100 CS-1

CARBON

Dimensions		Tooth								
mm	inch	3	4	6	6	8	10	14	18	24
6 x 0,65	1/4 x .025		■		■		■	■		
10 x 0,65	3/8 x .025	■	■	■	■		■	■		
13 x 0,65	1/2 x .025		■	■		■	■	■	■	■
16 x 0,80	5/8 x .032			■		■				
20 x 0,80	3/4 x .032						■			
25 x 0,90	1 x .035	■					■			

■ Neutral rake angle ■ Positive rake angle

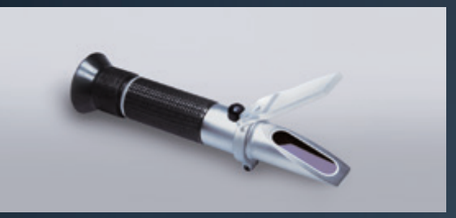
- Flexible band back with hardened teeth
- Suitable for everyday workshop purposes

CS-1

PROFESSIONAL ACCESSORIES

Tension measuring device

Wrong tension of band can be the reason for crooked cuts or can cause blade breakage. Therefore, the band tension should be checked frequently.
Detailed instructions explain how to select and control the right tension of the band saw blade.



Refractometer

The correct concentration of cooling liquid is important for optimum life time of ARNTZ Band Saw Blades. To check the right concentration of liquid while operating it is recommended to use the ARNTZ Refractometer.

Application toolkit

Making sure your blade runs under perfect conditions.
Featuring: Tension measuring device, refractometer, tacho-meter, accessories and more.

PA

HIGH-PERFORMANCE CIRCULAR SAW BLADES
for Industry and Craft

Our high-quality Circular Saw Blades are precision tools and are characterized by particularly smooth running, high cutting accuracy and a long service life. Rely on quality and efficiency for cuts that make the difference.

CSB

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