

# Arntez



## PRODUCT CATALOGUE

**BAND SAW BLADES**

Valid from  
01.2025



# HIGH PERFORMANCE BAND SAW BLADES

Arntz Made in Germany

## BI-METAL

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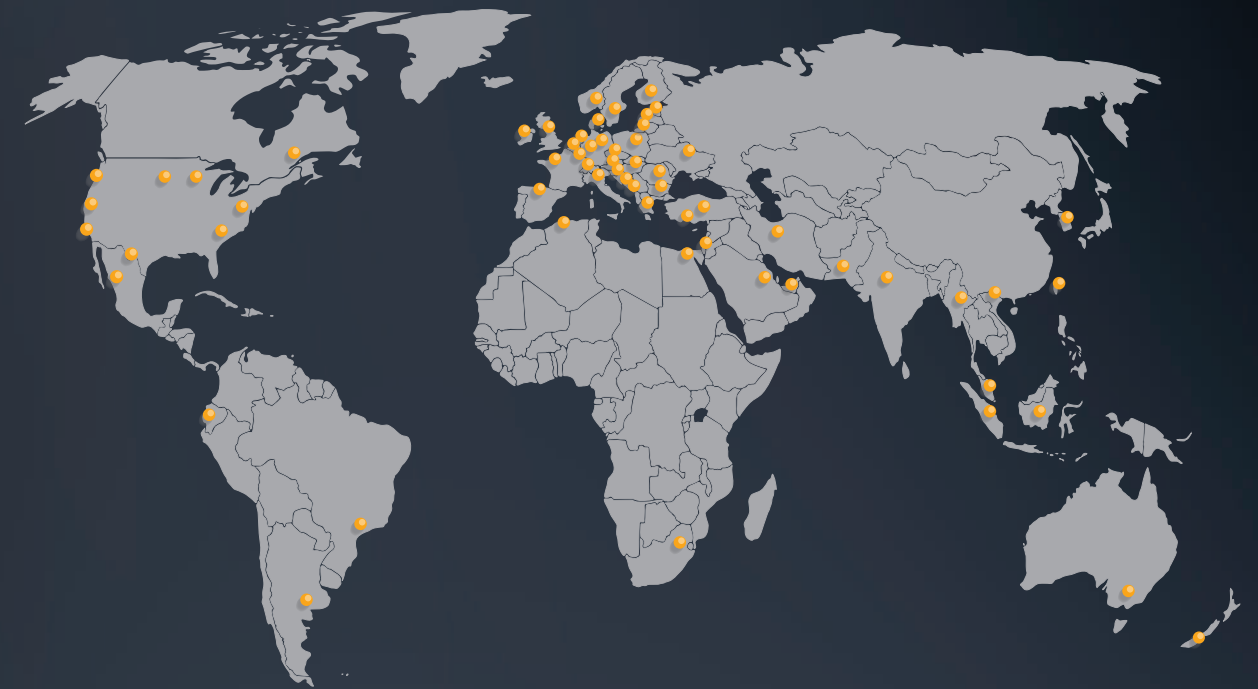
## SAWING TECHNOLOGY IS OUR PASSION

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.

## AT YOUR SIDE WORLDWIDE



## 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



Johann Wilhelm Arntz  
\*1763 † 1834



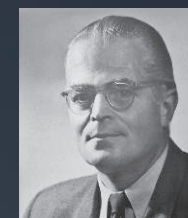
Johann Ferdinand Arntz  
\*1806 † 1867



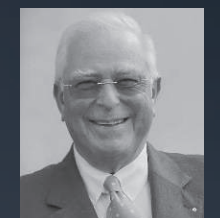
Johann Wilhelm Arntz  
\*1846 † 1908



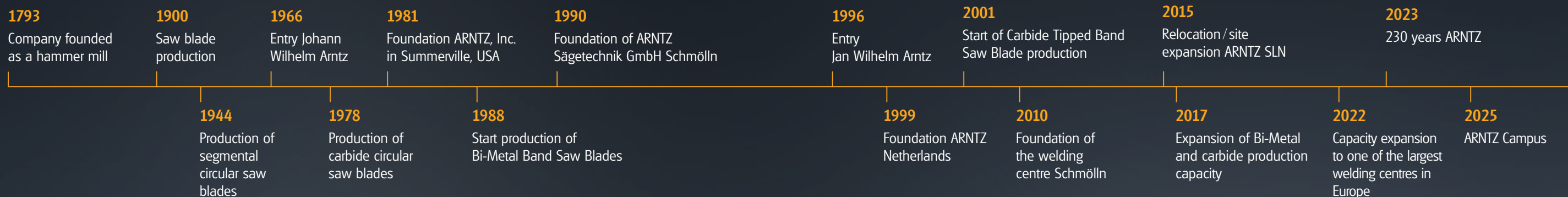
Johann Wilhelm Arntz  
\*1873 † 1932



Johann Wilhelm Arntz  
\*1908 † 1957



Johann Wilhelm Arntz  
\*1939 † 2021





# 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

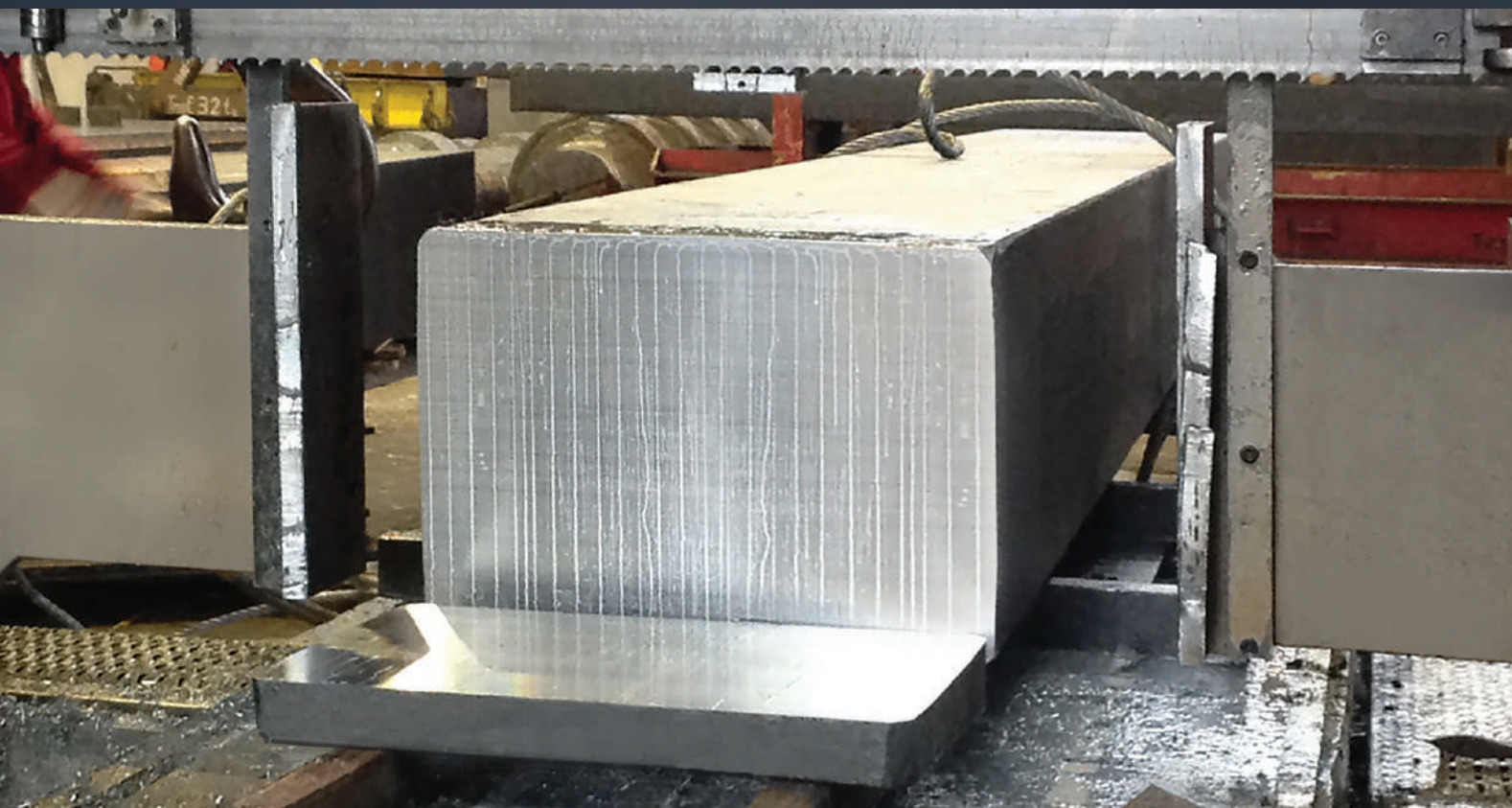
Breaking in a Band Saw Blade is essential to ensure its optimal performance and longevity. This process involves gradually acclimating the blade to tension, temperature, running the machine at slower cutting rates to ensure proper functionality before full operation.

### 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!



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



# TOOTHING GUIDELINE

## Toothing recommendation for thin-walled profiles

Wall thickness in mm	Profile outer diameter 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 in mm	Profile outer diameter 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 mm	Teeth per inch 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 to be 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 hardened HSS 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 beam welding process.

### ADVANTAGES

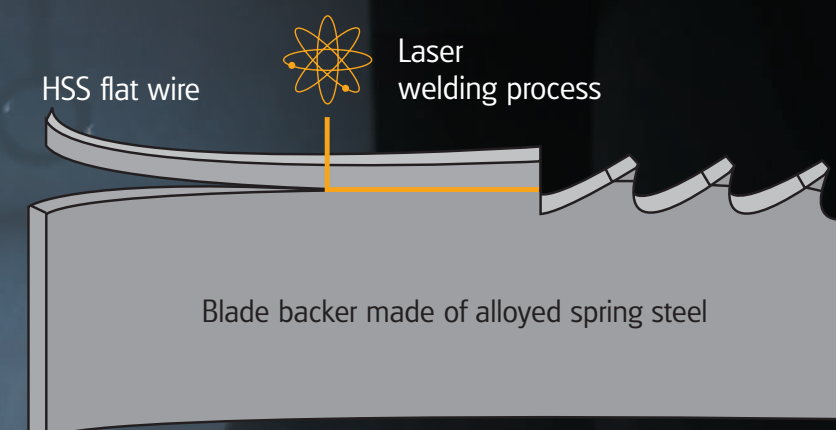
The high-quality Bi-Metal Band Saw Blade combines the flexibility of the spring steel backer with the enormous wear resistance of the high speed steel. Each tooth tip of the finished band is made of hardened HSS, extremely durable for best performance.

#### M42

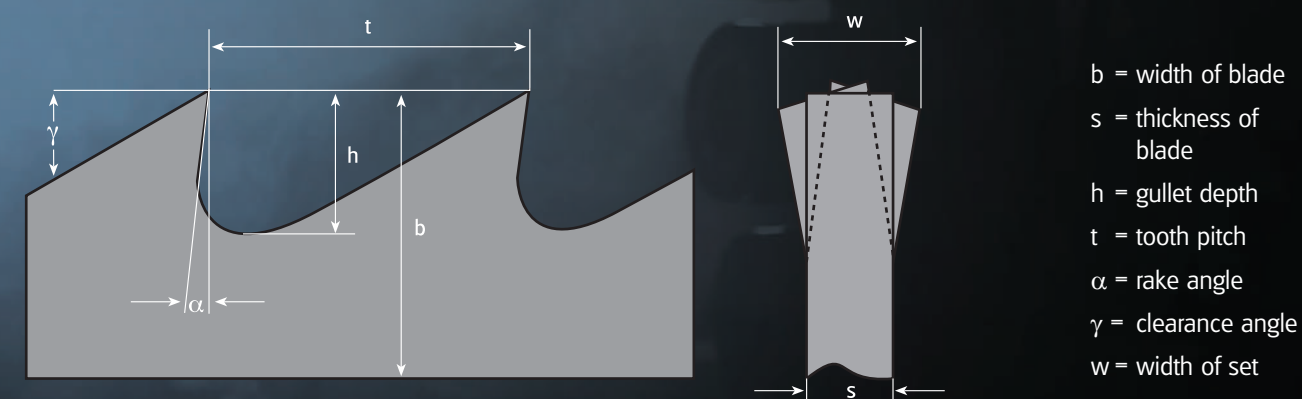
Material 1.3247  
Hardness approx. 68 - 69 HRC

#### M51

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



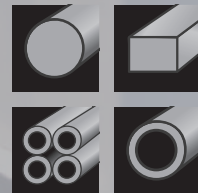
### BAND SAW GEOMETRY – TERMINOLOGY





## MULTIPURPOSE, STEEL MANUFACTURING, RECYCLING/FOUNDRIES

### 431 SPRINT-PLUS



M42



- › 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	■	■									

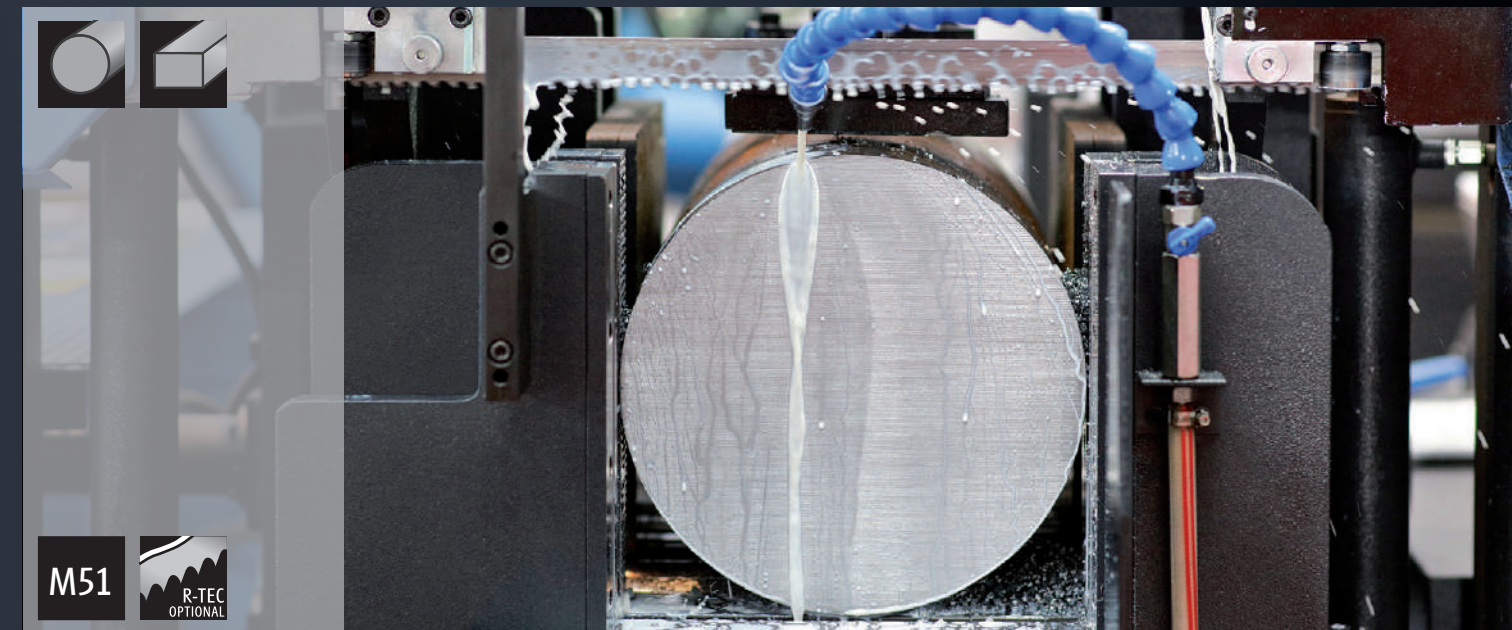


431

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## STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

### 531 SPRINT-PRO



M51



- › 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	■	■				



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531



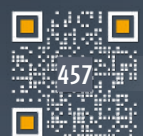
## STEEL CONSTRUCTION, GENERAL FABRICATION

### 457 X-FIT



- › Robust tooth geometry that provides excellent shock resistance
- › Modified gullet 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	$\frac{3}{4}$ x .035			■	■	■
27 x 0,90	1 x .035		■	■	■	■
34 x 1,10	$1 \frac{1}{4}$ x .042	■	■	■	■	
41 x 1,30	$1 \frac{1}{2}$ x .050	■	■	■		
54 x 1,30	2 x .050	■	■	■		
54 x 1,60	2 x .063	■	■			
67 x 1,60	$2 \frac{5}{8}$ x .063	■	■			

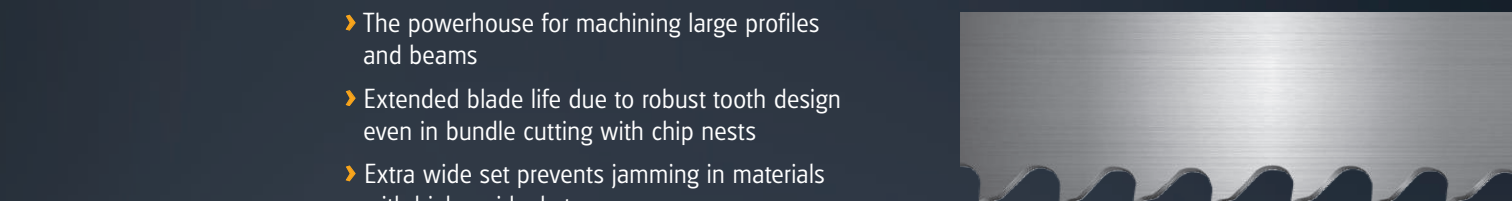


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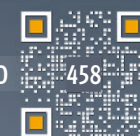
## STEEL CONSTRUCTION

### 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	$2 \frac{5}{8}$ x .063	■	■



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458



## STEEL CONSTRUCTION

## 557 X-PRO



M51

- 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

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## STEEL CONSTRUCTION

## 558 X-PRO MAX



M51



- 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	■	■



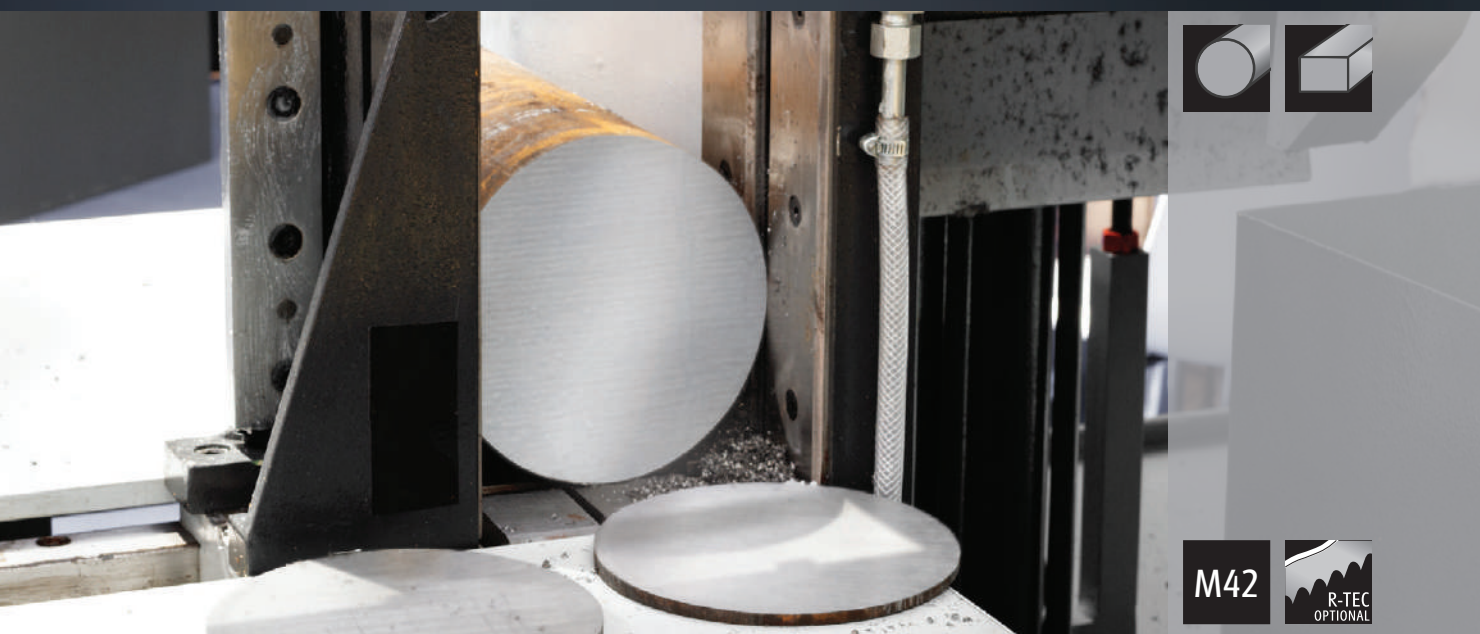
STAY INFORMED

558



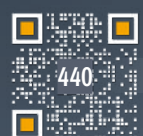
# STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

## 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

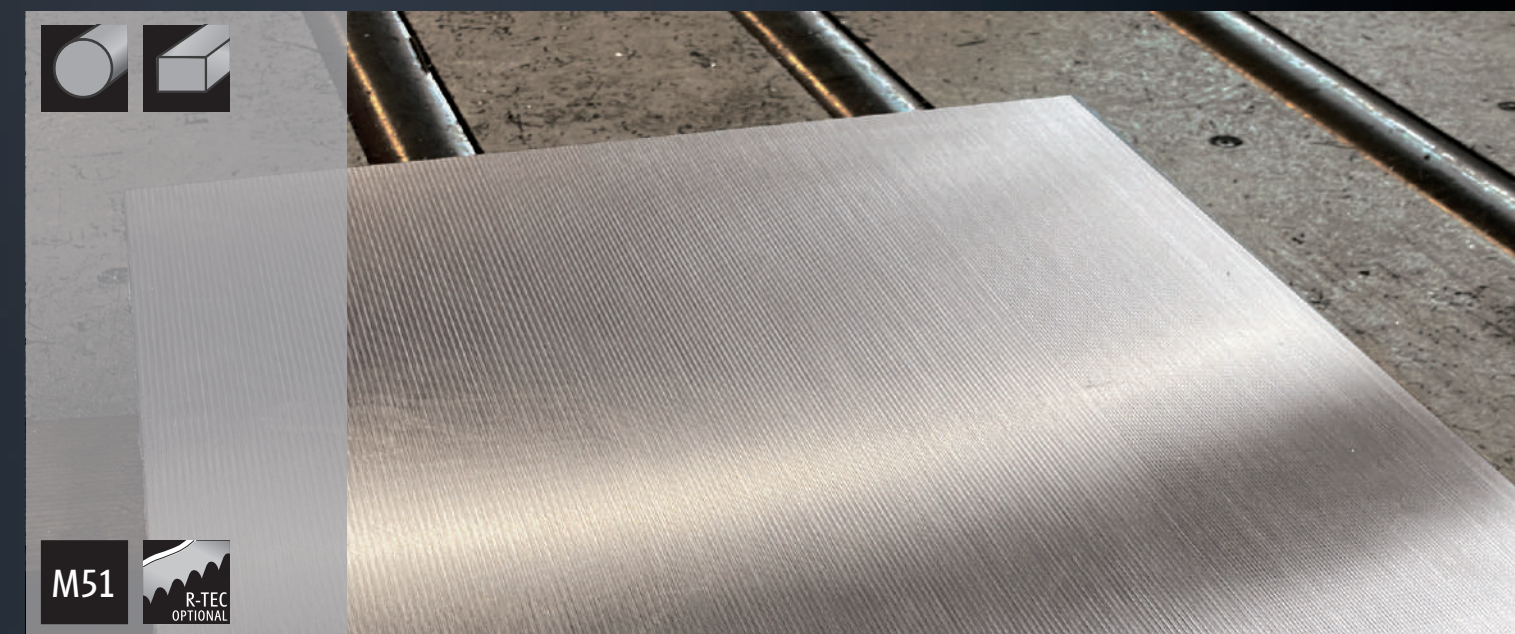
Dimensions		Tooth				
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4
34 x 1,10	1 1/4 x .042				■	■
41 x 1,30	1 1/2 x .050			■	■	■
54 x 1,30	2 x .050		■	■	■	■
54 x 1,60	2 x .063		■	■	■	■
67 x 1,60	2 5/8 x .063	■	■	■		
80 x 1,60	3 x .063	■	■	■		



440 STAY INFORMED

# STEEL MANUFACTURING, AEROSPACE/PRECISION METAL WORKING

## 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	■	■	■		

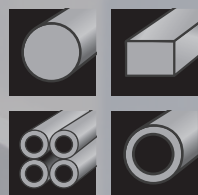


STAY INFORMED 540



## MULTIPURPOSE, STEEL MANUFACTURING, RECYCLING/FOUNDRIES

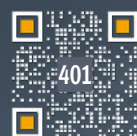
### 401 VL-PLUS



M42

- › 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	■	■						

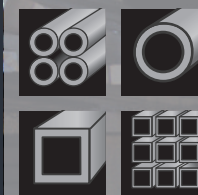


401

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## GENERAL FABRICATION, STEEL CONSTRUCTION

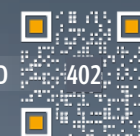
### 402 VL-GP



M42

- › 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	■	■				



402

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## SPECIAL APPLICATIONS

## 490 PAL-CUT



M42



- ▶ 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	■

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.

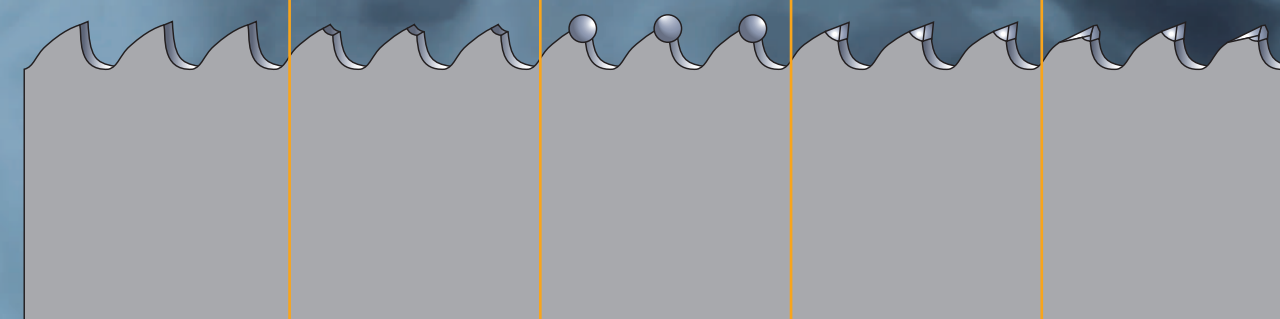
**1.**  
high-quality  
blade backer

**2.**  
seat pocket for  
carbide teeth

**3.**  
welding to the  
blade backer

**4.**  
pregrinding

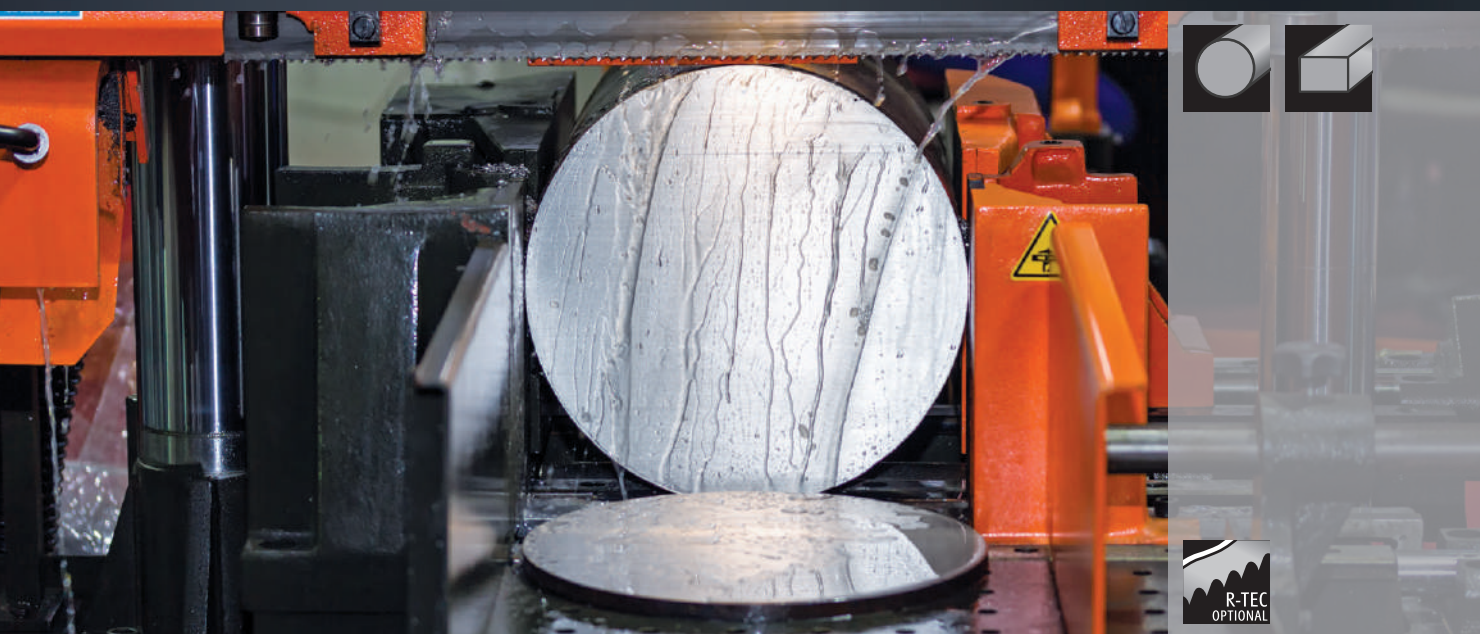
**5. + 6.**  
final geometry  
grinding





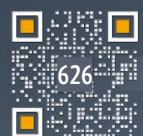
## AEROSPACE/PRECISION METAL WORKING

## 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

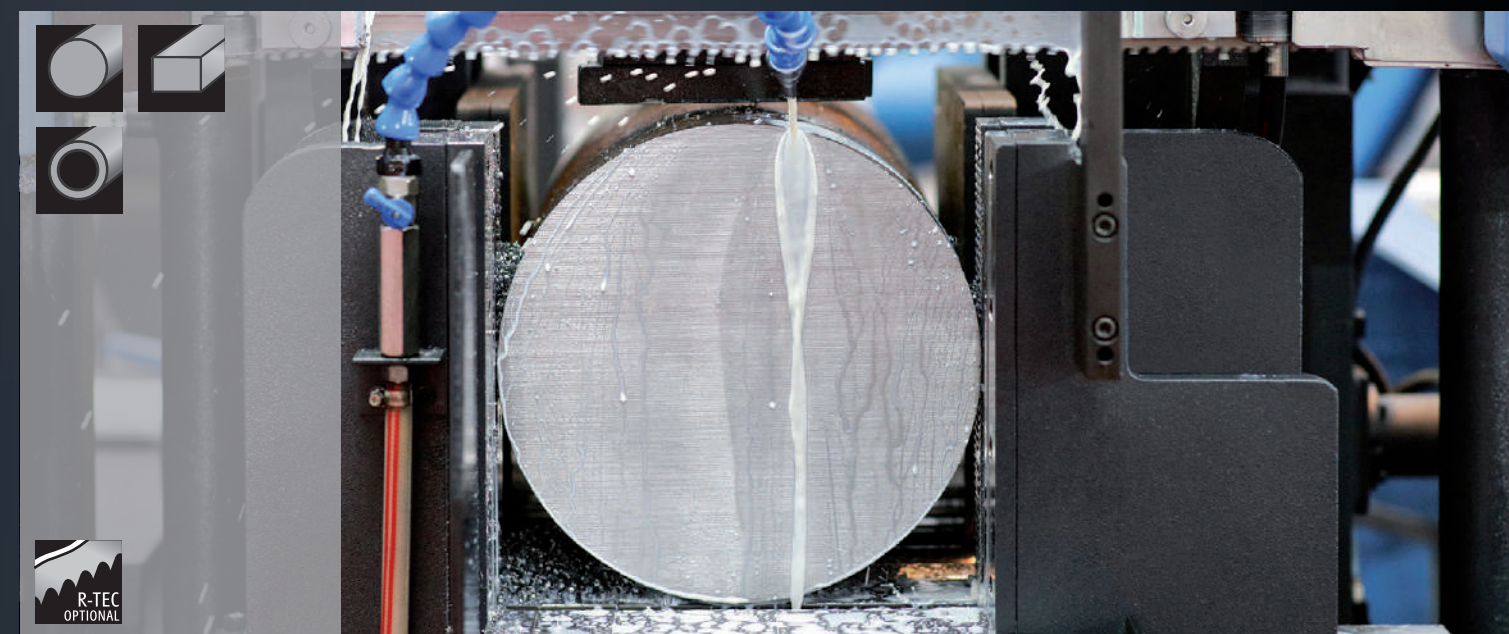
Dimensions		Tooth				
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4
27 x 0,90	1 x .035				■	■
34 x 1,10	1 1/4 x .042				■	■
41 x 1,30	1 1/2 x .050			■	■	
54 x 1,30	2 x .050			■	■	■
54 x 1,60	2 x .063		■	■	■	■
67 x 1,60	2 5/8 x .063	■	■			
80 x 1,60	3 x .063	■	■			



626 STAY INFORMED

AEROSPACE/PRECISION METAL WORKING,  
STEEL MANUFACTURING

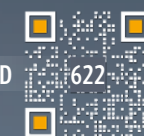
## 622 BLACK-LINE S



- ▶ 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

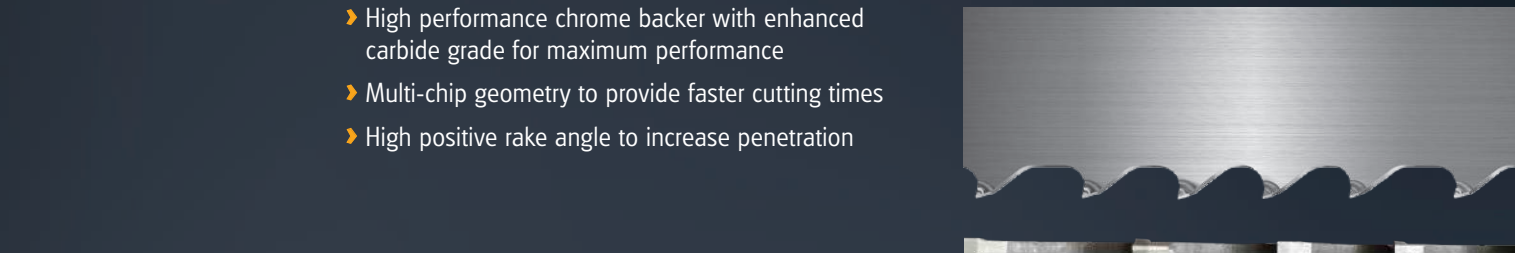


- › Multi-chip design
- › Developed for fast band speeds
- › High positive rake angle to increase penetration

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		■		

STEEL MANUFACTURING,  
AEROSPACE/PRECISION METAL WORKING

## 660 SL-9

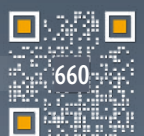


- › High performance chrome backer with enhanced carbide grade for maximum performance
- › Multi-chip geometry to provide faster cutting times
- › High positive rake angle to increase penetration

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	■	■		



650 STAY INFORMED



STAY INFORMED 660



## SPECIAL APPLICATIONS

## 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	■	■

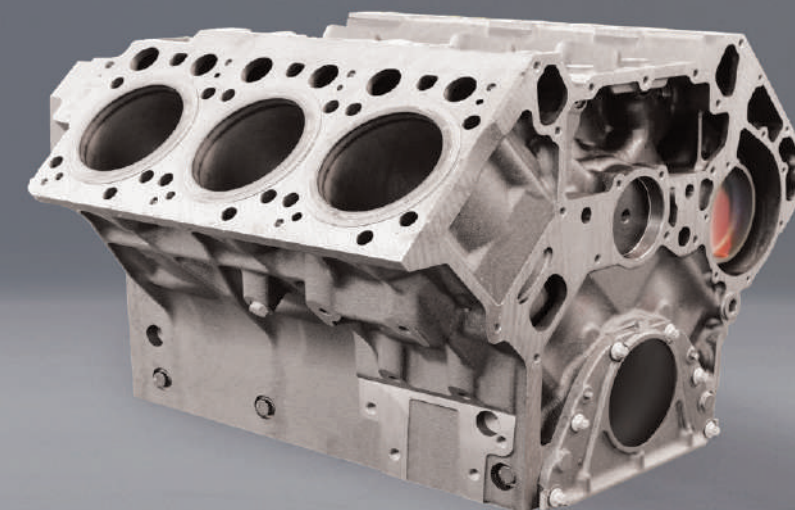


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RECYCLING/FOUNDRIES,  
AUTOMOTIVE/TRANSPORTATION

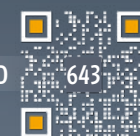
## 643 ALU-LINE



- › 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	■	■				



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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



## 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.

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.





# Arntz

## HEAD OFFICE



ARNTZ GmbH + Co. KG  
Lenneper Straße 35  
42855 Remscheid  
GERMANY

Tel. +49(0)2191.9986 - 01  
Fax +49(0)2191.9986 - 199

info@arntz.de  
www.arntz.de



ARNTZ, Inc.  
320 International Circle  
Summerville, SC 29483  
USA

Tel. +1 843.873 - 7850  
Fax +1 843.873 - 7890

sales-usa@arntz.de  
www.arntz.us

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LinkedIn



www.arntz.de

