



# **Anurag** International

One Step Ahead

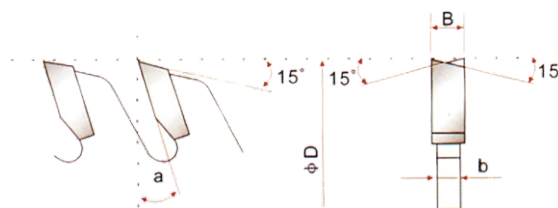


**We Manufacture as below**

1. TCT Saw blade
2. Laminate saw blade
3. Scoring saw
4. panel Saw
5. Hot Saw Blade
6. Friction saw blade
7. Shearing blade / knives
8. Bar cutter
9. Circular knives
10. Paper cutting knives
11. Cold saw blade for ferrous cutting



# T.C.T. Saw Blade to Cut Laminated Panels



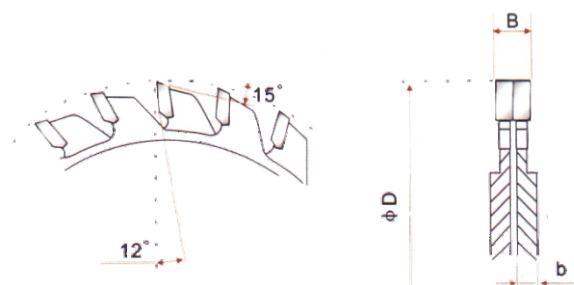
**Tooth Model:**WZ | **Tooth Model:** TF

**Application:** Chipboard, MDF, Melamine, Aluminum, Bilaminated.

**Characters:** This kind of products is suitable for cutting laminated chipboard, MDF, Multi-bard with the thickness of less than 35mm. If for cutting laminated materials, need to together with scoring saw blade.

Diameter	Width	Thick	Hole	Teeth
200	3.2	2.2	30	48
250	3.2	2.2	30	60
300	3.2	2.2	30	60
350	3.5	2.5	30	72
400	3.5	2.5	30	80
250	3.2	2.2	30	80
300	3.2	2.2	30	72
300	3.2	2.2	30	96
350	3.5	2.5	30	84
350	3.5	2.5	30	96
350	3.5	2.5	30	108
400	3.5	2.5	30	96
400	3.5	2.5	30	120

# T.C.T. Adjustable Scoring Saw Blade



**Tooth Model:**F

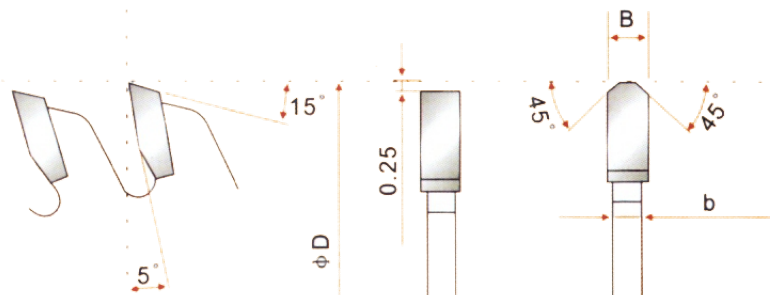
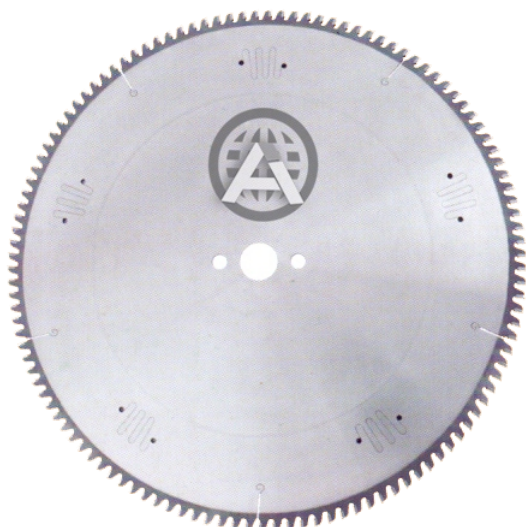
**Application:** To score the coating on laminated panels.

**Characters:** This kind of products is suitable for cutting laminated chipboard, MDF, Multi-bard with the thickness of less than 35mm. If for cutting laminated materials, need to together with scoring saw blade.

Diameter	Width	Thick	Hole	Teeth
80	2.8-3.6	2.0	20	10+10
100	2.8-3.6	2.0	20	12+12
100	2.8-3.6	2.0	22	12+12
120	2.8-3.6	2.0	20	12+12
120	2.8-3.6	2.0	22	12+12
125	2.8-3.6	2.0	20	12+12
125	2.8-3.6	2.5	22	12+12
160	4.0-5.2	2.5	20/60	20+20
180	4.0-5.2	2.5	20/45	20+20
200	4.0-5.2	2.5	20/50	24+24



# T.C.T. Saw Blade to Cut Non-ferrous Metals T.C.T. Panel Sizing Saw Blade



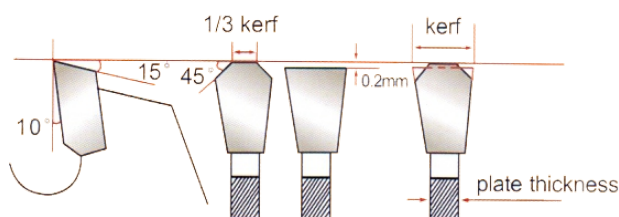
**Tooth Model:** TF

**Application:** Used for 45 degrees cutting of aluminum and aluminum alloy.

**Characters:** Suitable for the cutting of aluminum alloy materials, non-ferrous metals and some other materials with high quality and long cutting life.

**Tooth Model:** TF,FT

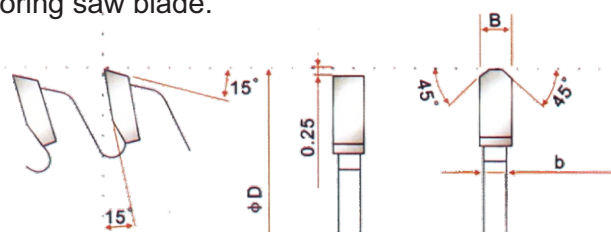
**Application:** for cutting aluminum blade/stick which the thickness less than 1/3 diameter of saw blade; and also can be used to cut plastic.



**Tooth Model:**WZ

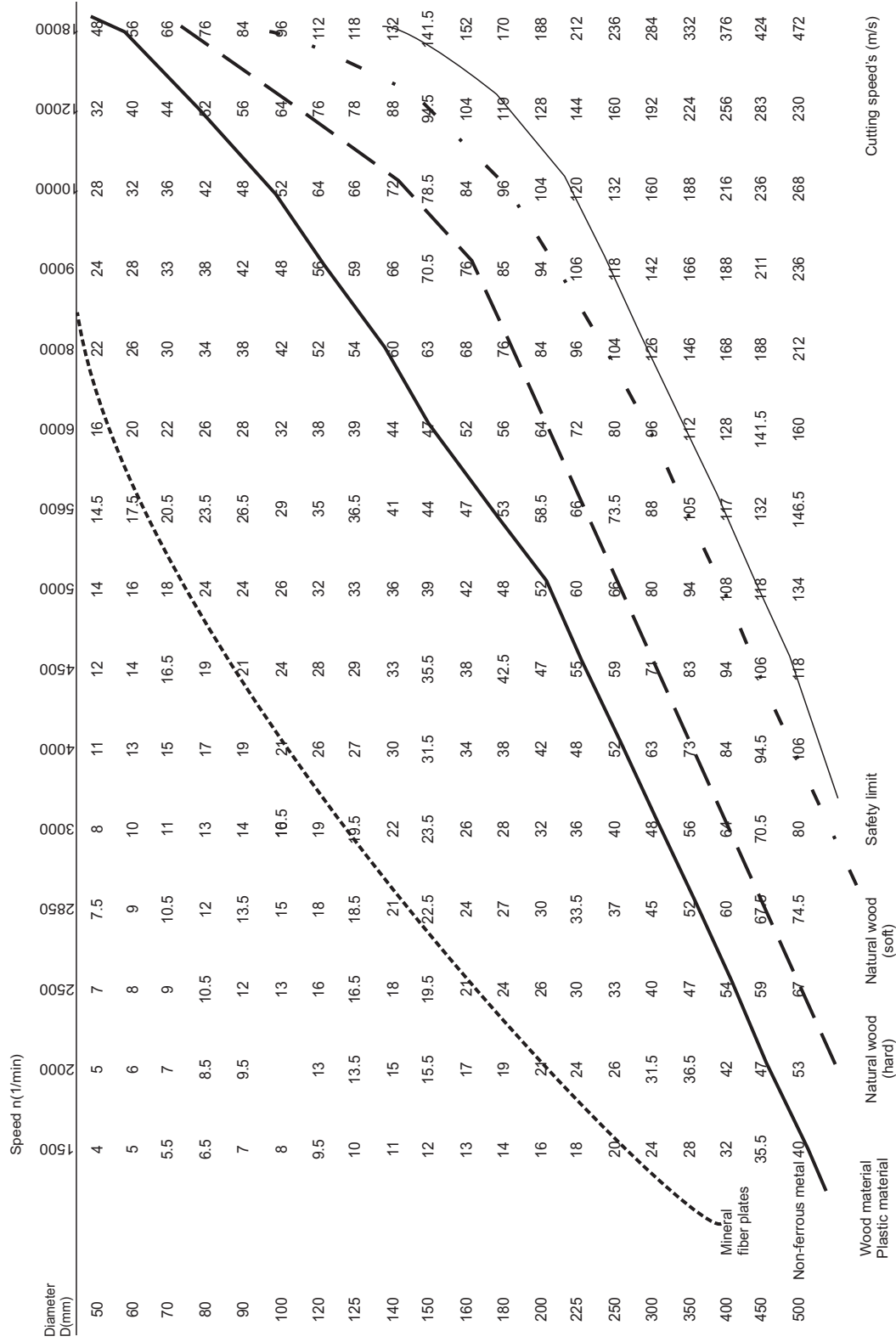
**Application:** Chipboard, MDF, Melamine, Aluminum.

**Characters:** This kind of products is suitable for cutting laminated chipboard, MDF, Multi-board with the thickness of less than 35mm. If for cutting laminated materials, need to together with scoring saw blade.



Diameter	Width	Thick	Hole	Teeth
205	2.0	1.4	25.4	80
205	2.8	2.2	25.4	80
205	2.0	1.4	25.4	100
205	2.8	2.2	25.4	100
250	3.0	2.4	25.4	80
250	2.6	2.0	25.4	100
250	3.0	2.4	25.4	100
250	2.6	2.0	25.4	120
250	3.0	2.4	25.4	120
300	2.6	2.0	25.4	100
300	3.0	2.4	25.4	100
350	3.0	2.4	25.4	100
350	3.6	3.0	25.4	100
400	3.0	2.4	25.4	100
400	3.6	3.0	25.4	100
400	3.0	2.4	25.4	120
400	3.6	3.0	25.4	120
450	3.6	3.0	25.4	120
450	4.0	3.4	25.4	120
500	4.6	4.0	25.4	100
500	4.6	4.0	25.4	120
550	4.8	4.0	25.4	120
600	4.8	4.0	25.4	144
700	5.2	4.0	25.4	144
800	6.0	5.0	25.4	72
800	6.0	5.0	25.4	160

# Table of Cutting Speeds for TCT Saw Blade



## Hot Circular Saw

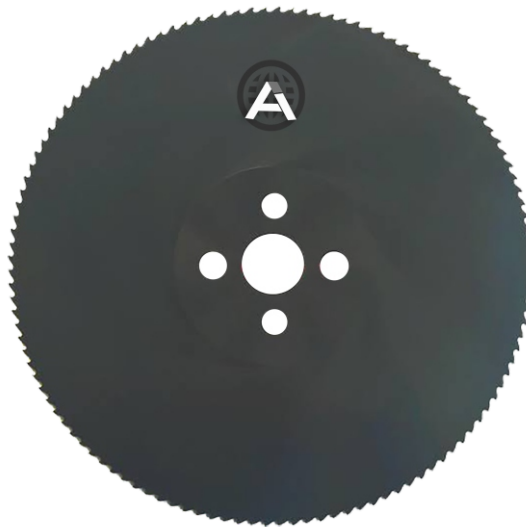
Latest techniques have developed the new process of cutting metals at the HOT stage.

**RANA:** Hot Working Circular Saw Blade is the result of dedicated efforts right from its inception at developing different SPECIALISED types of saw blades.

**RANA:** Hot Working Circular Saw Blades are developed to cut Universal broad flange beams, Rails, Sections, Bars, Billets and other products turned out from Iron, Steel and similar metals at high temperatures.

**RANA:** Hot Working Circular Saw Blades made from special steel are designed to give a considerably long life and a substantial reduction in cutting costs.

**RANA:** Hot Working Saw Blades are provided with more number of teeth and with special tooth angles to ensure faster production and burr free cutting.



### ORDERING INSTRUCTION

1. Year, Make, H.P. , RPM and other specifications of the machinery.
2. Size, Analysis, Sections and Temperature of the material.
3. Overall Diameter, Thickness of the Saw Blades. Location, Diameter and number of coupling bolt holes.
4. Diameter of clamping collar.
5. Tooth shape or specific angle if required.
6. Number of teeth.
7. Type of Saw: Fully hardened, HF hardened or Flame hardened

**FINISH:**

Black, Silver, Parallel ground, Hollow ground or Bright.

**TENSILE STRENGTH:**

70/90 KG/MM2 90/110 KG/MM2 100/120/MM2

**QUALITY:**








FLAME HARDENED  
HIGH FREQUENCY HARDENED  
THROUGH HARDENED

**STEEL:**

BEST QUALITY HIGHLY WEAR RESISTANT STEEL  
OTHER PROPERTIES:  
ACCURATELY MACHINED TOOTH PROFILE  
SCIENTIFIC HARDENING  
UNIFORM TENSIONING  
ACCURATE STRAIGHTENING  
DIAMETER UPTO 2500 mm

**VERY IMPORTANT:**

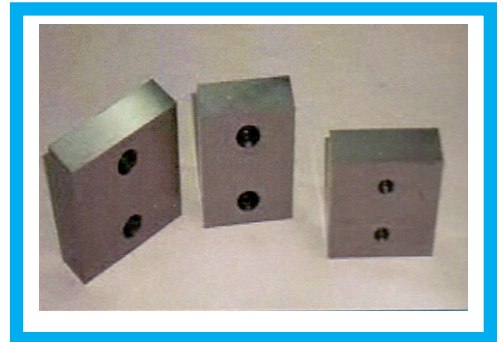
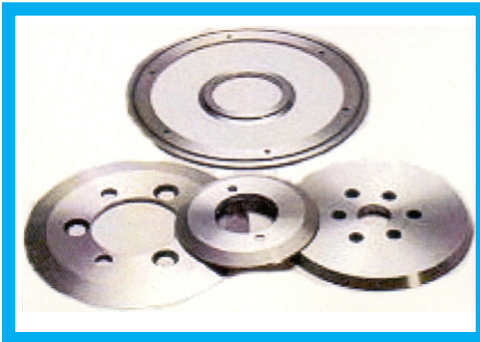
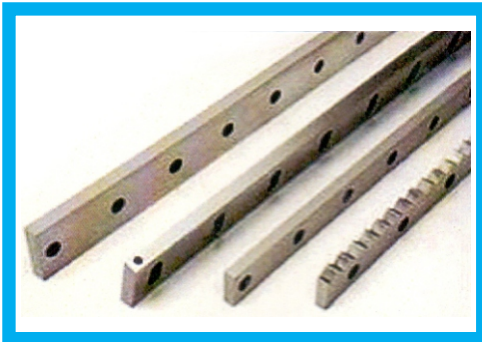
TEMPERATURE OF WORKPIECE  
NOT BELOW 700 C.

<b>GUIDE TO SAW SELECTION</b>	
Purpose	Description
Stationary Saws for round steel	
Stationary Saws for block materials	
Flying Saws	
Circular Saws on carriage for round steel	
Circular Saws on carriage for block materials	
Circular Saws carriage	
Swinging Saw	

# Shear Blade / Slitter Cutter / Bar Cutter

## Products and Services

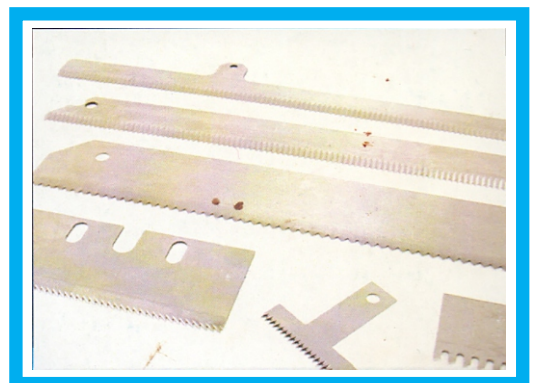
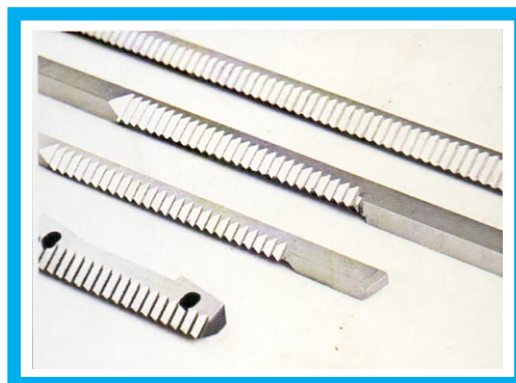
As specialists in the manufacturing of shear Blade and Machine Knives, we have endeavored, by illustration in following pages, to give some idea of the comprehensive range of our products. The manufacturing of II type of Shear Blade and machine knives depends on such essential factors as the correct quality of steel, modern heat treatment methods, precision grinding, careful inspection of both intermediate and final stages. Our modern factory guarantees these facilities and with our extensive research department engaged in development of a variety of special steels, also a high percentage of skilled and experience operators, we can recommend any of our products with the greatest confidence.



## Industries > Packaging

**We manufacture various types of knives for packaging Machines**

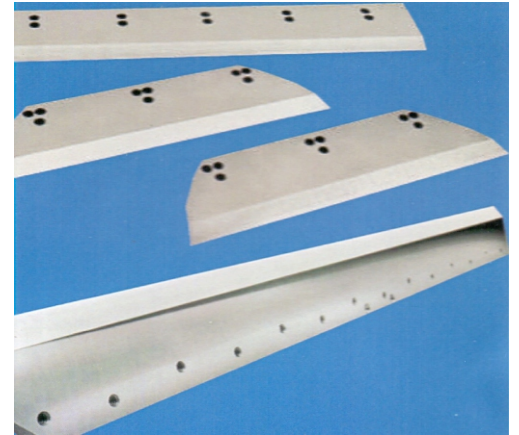
- Anvil Cutter
- Round Slitter
- Zig-Zag Knives
- Perforation Knives
- Segmental Knives
- knotch Cutter
- Profile Cutters
- Circular Knives
- Slitting Knives
- Straight Knives and Anvils



**We also makes custom knives for as per customers requirement & Specifications.**

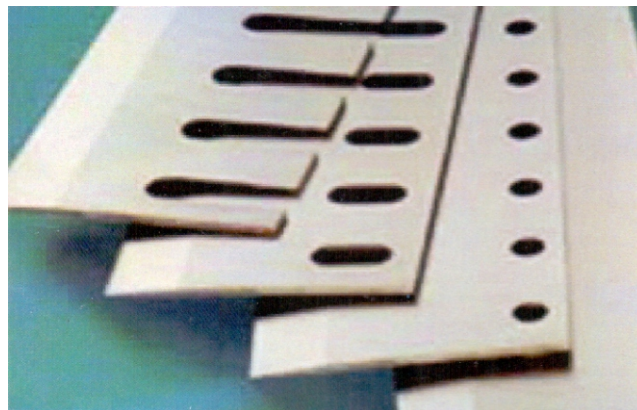
## Industries > Paper and Biscuit

**RANA KNIVES** manufacturers complete range of Paper Trimming & Guillotine Knives to meet with all different requirement of modern paper trimming & cutting machine.

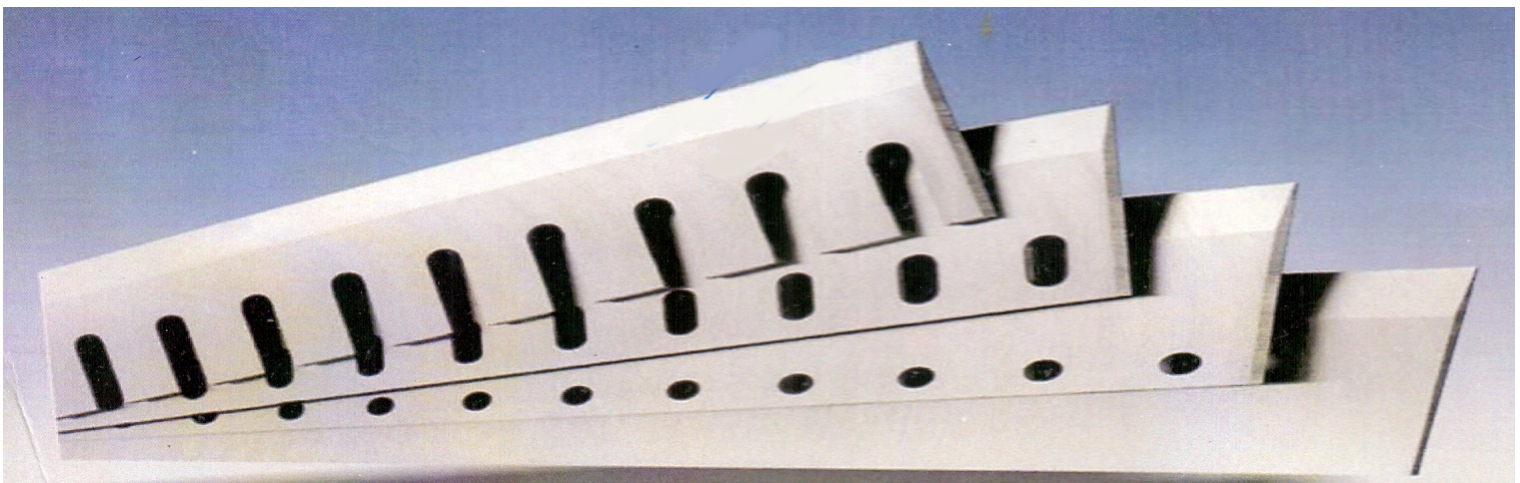


**RANA KNIVES** sheeter knives are manufactured with stand the cutting forces generated by today high speed machine without compromising consistent cutting accuracy. Knives are mfg. to extremely close tolerance and carefully inspected to ensure straightness & parallelism with assures longer blade life & less downtime.

### Textile Ledger Blades



### Rotary Molder Knife For Biscuit Manufacturing



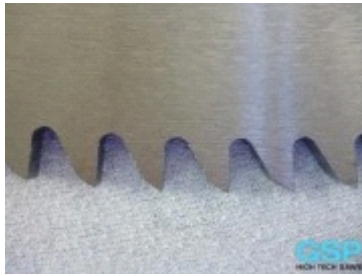




## Friction saw blades for metal cutting - standard dimensions

200	2,0	30	160	0,5
250	2,5	30	160	0,8
250	3,0	30	160	1,0
300	2,5	40	180	1,5
300	3,0	40	180	1,5
350	2,5	40	200	1,8
350	3,0	40	200	2,0
400	2,5	40	240	2,0
400	3,0	40	240	2,6
400	4,0	40	240	3,4
450	2,5	40	240	2,5
450	3,0	40	240	3,1
450	4,0	40	240	4,2
500	3,0	40	300	4,2
500	4,0	40	300	5,0
520	3,0	40	300	4,4
520	4,0	40	300	5,4
520	5,0	40	300	7,0
520	6,0	40	300	8,2
550	3,0	40	300	5,2
550	4,0	40	300	6,2
550	5,0	40	300	7,5
600	4,0	40	300	7,4
600	5,0	40	300	10,0
600	6,0	40	300	12,0
650	6,0	40	300	14,5
700	5,0	40	300	13,5
700	6,0	40	300	15,9
750	6,0	40	350	18,5
750	7,0	40	350	20,5
800	6,0	65	350	21,2
800	7,0	65	350	23,0
800	8,0	65	350	25,0
850	8,0	65	350	29,0
900	7,0	65	350	35,0
1000	8,0	65	350	38,0
1000	7,5	65	350	40,0

## Friction saw



### Quality friction saw blades

Quality friction saw blades are always made of special steel types which are designed for such tools. Especially steel type 1.2235 Chrome-Vanadium and Nickel steels, annealed and tempered are being used as it guarantees for superior durability at reasonable cost. It is the best choice at present for hot and friction cutting blades.

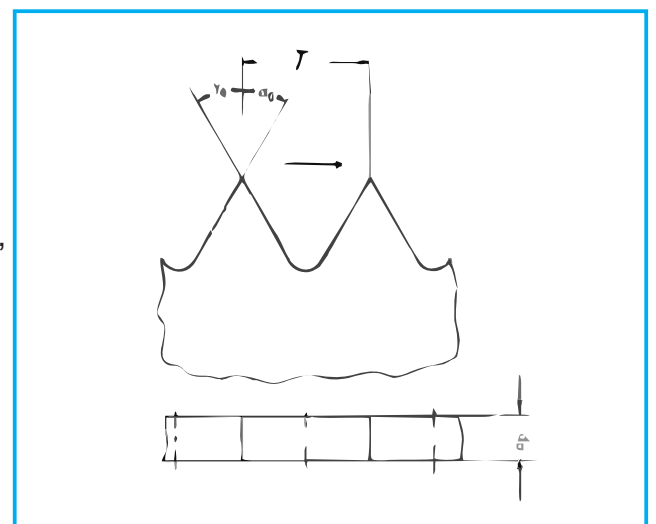
### Product description Friction saw blades for metal cutting

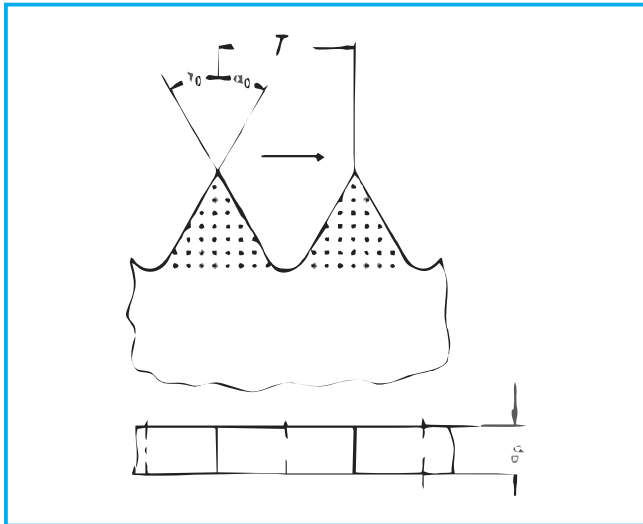
Hot and Friction Saw Blades up to 2500 mm diameter are tools of high efficiency made from well proven steel plates with a tensile strength of 850 bis 950 N/mm<sup>2</sup>. Friction saw blades are used for cutting of steel tubes and profiles by low working temperature, it means by material temperature up to 250° C. They are made from chrom-vanadium steel marked (DIN 1.2235) and they are heat-treated to reach the optimum ratio of tenacity and hardness, which is suitable for cutting of material with high circumferential cutting speed. The cutting principal consists in melting of material in cut place caused by special kind of teeth.

### Common tooth geometries

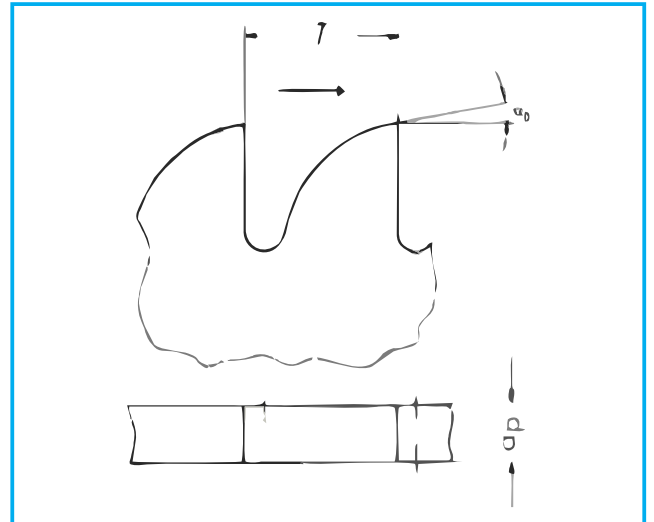
#### Pendulum saw tooth

$\gamma_0/\alpha_0 = 30^\circ$  suitable for the hot and cold cutting of pipes, profiles, beams and solid material



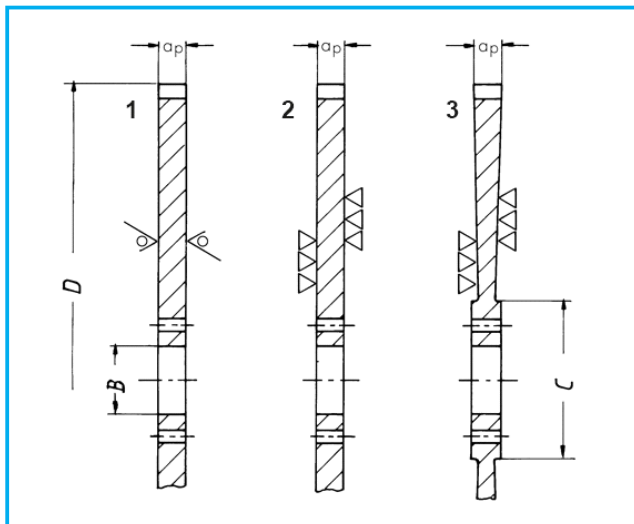


Special version with  
**tooth-tip hardening**



### Parrot tooth

$\gamma_0 = 0^\circ$   $\alpha_0 = 8^\circ$  suitable for the cold cutting  
of pipes, profiles and beams



### Common tooth geometries

$D$  = saw blade diameter (mm)

$a_p$  = cutting width (mm)

$B$  = medium bore diameter (mm)

$C$  = flange diameter (mm)

Version 1: Rolling black sides

Version 2: Side surfaces ground even

Version 3: Side surfaces ground radial conical

**We are offering Slitting Cutter, Hss Slitting Saw, Milling Cutter, Cutting Tools, HSS Slitting Cutter and many more.**

#### Features:

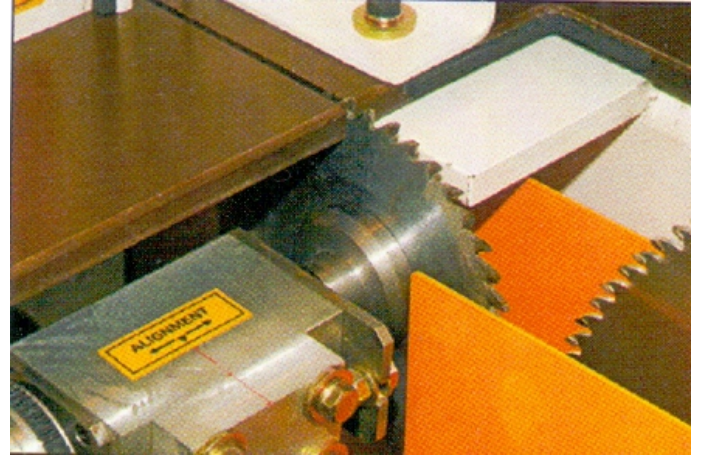
- Higher Productivity of Lower Operation Cost.
- Best Quality Imported Raw Material.
- Short Delivery Time.
- All Tools Are Inspected with Strict Quality Norms.



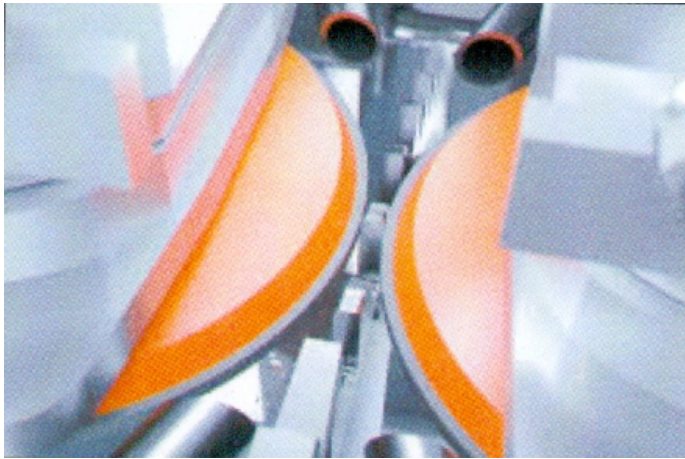
## HOLLO FACE GRINDING



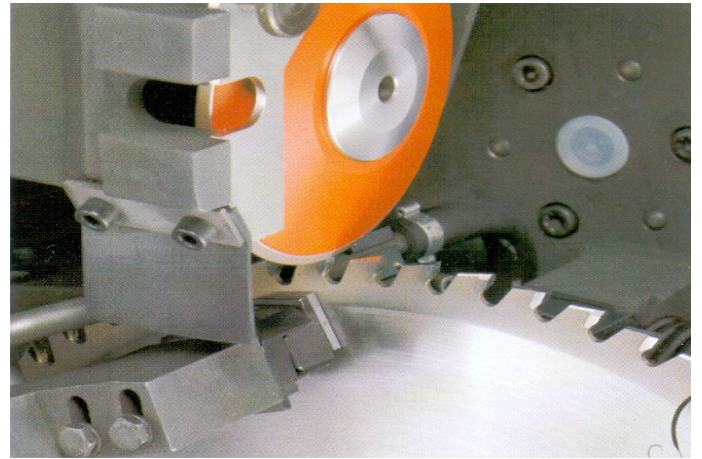
## SCORING-BLADE



## SIDE GRINDING



## TOP GRINDING



**Anurag International**

One Step Ahead

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