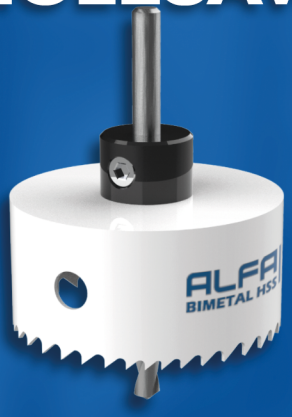
A **R. K. Malhotra** Group of Company

ALFA BLADES
...NOTHING CUTS BETTER

HACKSAW

BANDSAW

HOLESAW



BIMETAL

Proven
Reliable
Efficient

An ISO 9001:2015 Certified Company

Introduction

By the mid 1950's Mr. R. K. Malhotra was considered as one of the top technical management consultant in the Europe & US companies in engineering, manufacturing, operations and commercial field. He was recognised as a specialist on alloy steel & cutting tools, research and development programmes and had distinct contribution to his client in that field. Under growing demand in the Indian subcontinent, he was requested to return to India in order to help the fledging Razor blade industry started by his family. By the end of the fifties, Mr. R. K. Malhotra had built an organization which dominated the Indian Razor blade, saws of all types and Engineer's steel files. In sixties the "Saws and Engineer's steel files" divisions were discontinued as Razor blade which offered the greatest potential were under great threat from power houses like Tata, Hindustan Unilever, Union Carbide, Warner Lambert, Pfizer, Brooke Bond and Gillette. Irrespective of these hurdles, Mr. R. K. Malhotra was by late seventies able to control 100% of the Indian Market and dominant share in more than a hundred countries all over the world. This record has perhaps never been equalled by company anywhere in the world.

By the late seventies, Mr. R. K. Malhotra was obliged to exit the razor blade business and it was not until 1986 that he once again started Super Max group in order to manufacture Razor blades again. By 2011, the Super Max organization was once again became the leading Razor blade manufacturer in India with a dominant share in home market as well as in more than two hundred countries all over the world.

It was dream of Mr. R. K. Malhotra to restart production of bi-metal saws in India and here is the dream come true...."ALFA Bi-metal Bandsaw Blades ....Nothing cuts better." Company incorporated on August 2016 and is successfully delivering products from April 2017.

The increased cost of manufacturing today is forcing manufacturers and machine operators to seek more economical ways to cut metals. In latest demand of sawing business for cutting complex metals, the industries are looking for high tech bandsaw machines and blades having their unique combination for efficient cutting.

The information contained here is not meant to answer all of your band sawing questions. Each job is likely to present its own set of unique circumstances. However, by following the suggestions outlined here, you will be able to find economical and practical solutions more quickly.

Its Swans Management's commitment to provide best quality products with ever best economical cost supporting, best technical and service support to the customer.

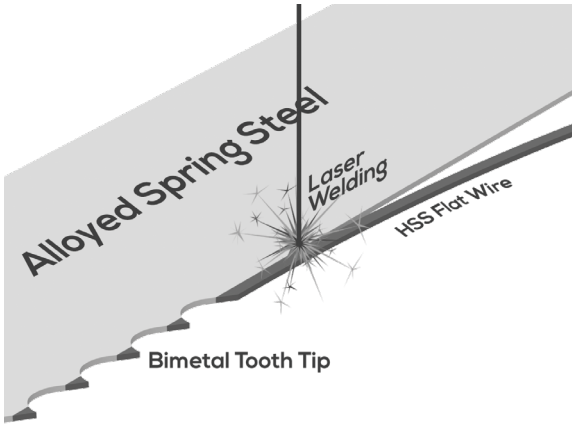
Bi-metal Manufacturing

While manufacturing bi-metal bandsaw blades at Alfa manufacturing facility the core vision lies in design and development from raw material to machine required for manufacturing the blade by using state of art technology.

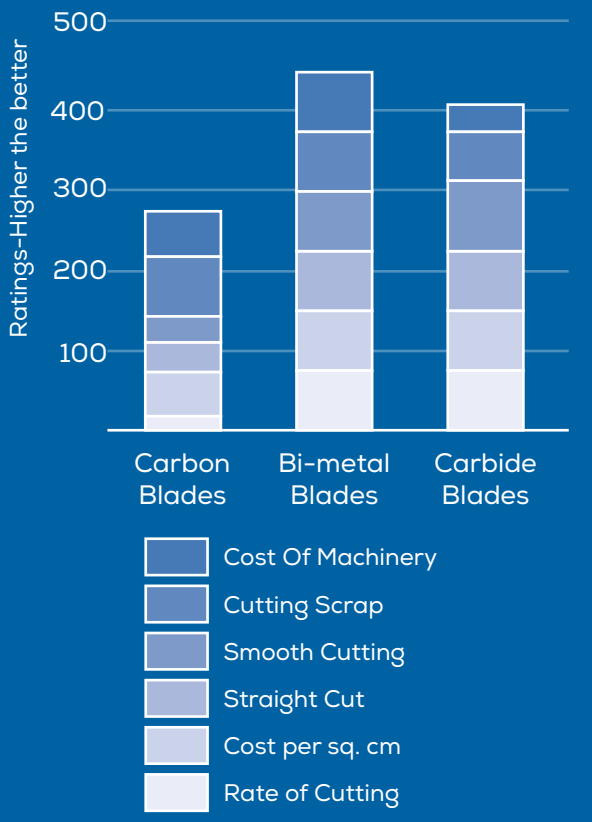
We have started with our own precision cold rolling mill and laser welding process for development of bi-metal strips with the world's best technology and equipment being used for production of quality products. This is the first successful proven research done in India.

Bi-metal Blade:

This blade is made up of two materials and hence termed as Bi-metal. Its back part is of alloyed spring steel and the cutting edge is of high speed steel which are welded together using laser welding technique. High speed steel used are of grade M42 (8% Cobalt) and M51 (10% Cobalt).

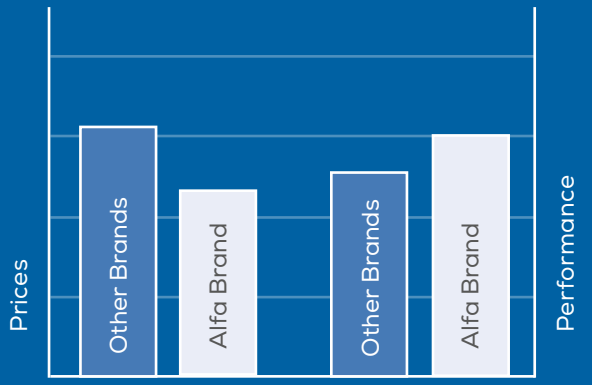


Why choose Bi-metal Blades?

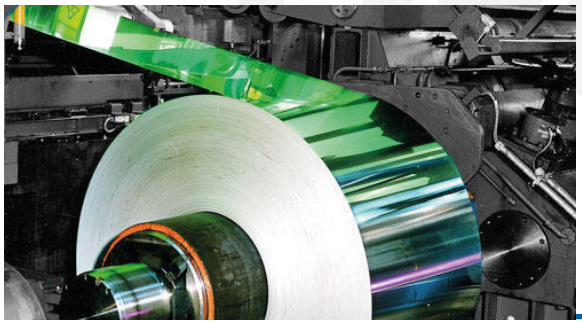


Why choose Alfa?

Our objective is to provide best quality at economical price.

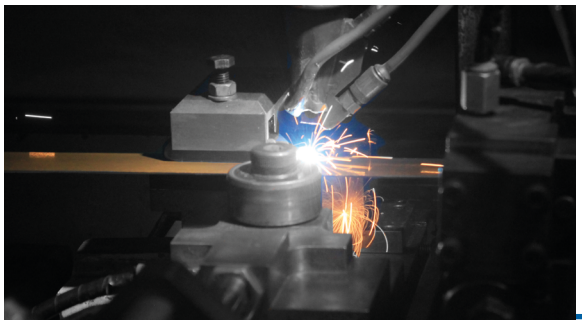


Our Manufacturing Strength



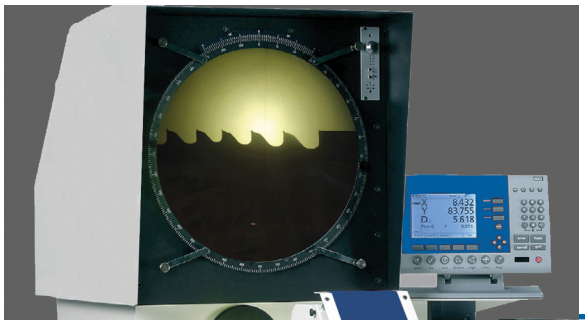
Rolling

Precision rolling without any stress on the tool steel is important to get optimum blade life, We have developed our own rolling mills to develop exclusive backup steel for our saw blades.



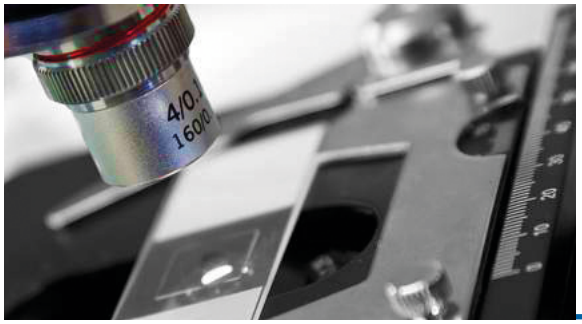
Laser Welding

Most critical process is bonding two dissimilar metal together by using laser source. We already succeeded in developing and operating laser welding process for welding HSS wire to best suitable backing steel.



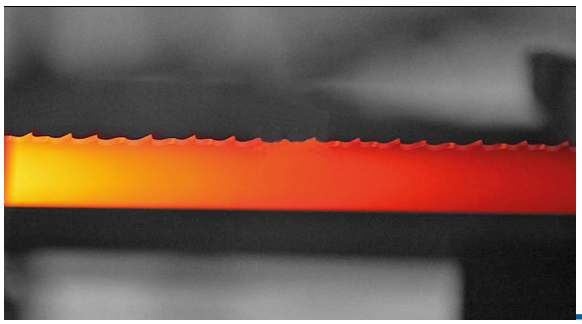
Tooth Geometry

We have inhouse R&D setup for establishing unique tooth geometry for specific cutting applications. Milling of our saws are basically based on those geometries.



Quality Assurance

Quality is our culture and we have made our quality system in such a way which takes care of all input /output of the process and we assure to deliver best and consistent products to our customer.



Heat Treatments

Getting perfect and consistent martensitic structure to the cutting edge is very essential in any tool. We have high precision and reliable PLC controlled furnace developed for heat treatments which provide us optimum fatigue life to the saws.

Bi-metal Bandsaw Blade

Mild Steel

SW-MS

Specially designed skip tooth
with large gullet space and standard rake angle

Size (mm)	Constant TPI	Variable TPI
13 x 0.65	4, 10, 14, 18	6/10, 8/12, 10/14
13 x 0.90	4, 10, 14, 18	6/10, 8/12, 10/14
20 x 0.90	4, 8, 10, 14, 18	4/6, 5/8, 6/10, 8/12, 10/14
27 x 0.90	4, 8, 10, 14, 18	4/6, 5/8, 6/10, 8/12, 10/14
34 x 1.10	4	4/6, 5/8, 6/10, 8/12
41 x 1.30	4	4/6, 5/8, 6/10

Application

Mild steel
EN series
High carbon steels
Structural steels
Tool steels having large profiles
Solids (Upto 35 HRC)

Industry segment : General engineering, Infrastructure industries, Complex material cutting for R & D laboratories, Ship building industries, Steel Traders.

Speciality : Less aggressive cutting but longer life. Proven generally on Swing type machine.

Stainless/Alloy Steel

SW-SAS

Specially designed tooth geometry
with positive rake angle having additional
relief angle and deep gullet space.

Size (mm)	Variable
20 x 0.90	3/4, 4/6, 5/8
27 x 0.90	2/3, 3/4, 4/6, 5/8
34 x 1.10	2/3, 3/4, 4/6, 5/8
41 x 1.30	1.4/2, 2/3, 3/4, 4/6, 5/8
54 x 1.60	1.4/2, 2/3, 3/4, 4/6
67 x 1.60	1.4/2, 2/3, 3/4, 4/6
80 x 1.60	3/4

Application

Deep drawing steel
Machine steel
Spring steel
Medium alloy steel
Nitriding steel
Stainless steel

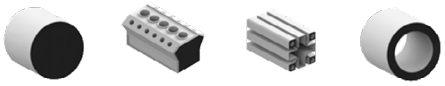
Industry segment : Automobile industry, Steel traders, Steel Manufacturing industries, Complex material cutting for R & D laboratories, Ship building industry.

Speciality : Aggressive cutting with optimum blade life. Proven for Alloy steel on both Swing & Double column bandsaw machines.

Bi-metal Bandsaw Blade

Aluminium

SW-AL



Specially designed skip tooth with shallow gullet space and positive rake angle.

Size (mm)	Constant TPI
13 x 0.65	6
13 x 0.90	6
20 x 0.90	3, 6
27 x 0.90	3, 6
34 x 1.10	3, 6
41 x 1.30	2

Application

Aluminium die casting
Extrusion
Non-ferrous metals
Non-ferrous alloys

Industry segment : Automobile industries, Aluminium forge, Casting industries,Bus body building.

Speciality : Very aggressive cutting. Specially designed for vertical bandsaw operation with die casting cutting application. Reduces stress on operator while manual feed cutting.

Large Cross Section

SW-LCT

Specially designed tooth geometry with positive rake angle having additional relief angle and deep gullet space.

Size (mm)	Variable TPI
41 x 1.30	1.4/2
54 x 1.60	1.4/2
67 x 1.60	1/1.3, 1.4/2, 0.75/1.25
80 x 1.60	1/1.3, 1.4/2, 0.75/1.25

Application

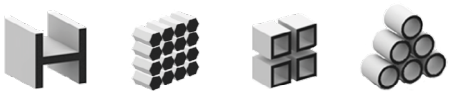
Quenched and Tempered steel
Case hardened steel
Nitriding steel
High speed steel
Rust and heat resistant steel

Industry segment : Steel sectors, Steel traders, Automobile industries, Forging industries, Casting industries.

Speciality : Very aggressive cutting with better blade life. Better chip carrying capacity and faster cuts. Suitable for Double column machines.

Interrupted Cutting

SW-IC



Specially designed tooth geometry having strong tooth for absorbing shocks due to interrupted cut.

Size (mm)	Variable TPI
20 x 0.90	4/6, 5/7, 5/8
27 x 0.90	2/3, 3/4, 4/6, 5/7, 5/8
34 x 1.10	2/3, 3/4, 4/6, 5/7, 5/8
41 x 1.30	2/3, 3/4, 4/6, 5/8
54 x 1.60	2/3, 3/4, 4/6
67 x 1.60	2/3, 3/4

Application

Bundle cutting
Tubing
Structural steel
Wire
TMT

Industry segment : Infrastructure industry, Railway workshop, Bus body building. Steel traders.

Speciality : Aggressive tough tooth, designed to cut bundles, structural steel or solids with longer blades life. Suitable for swing & double column bandsaw machines.

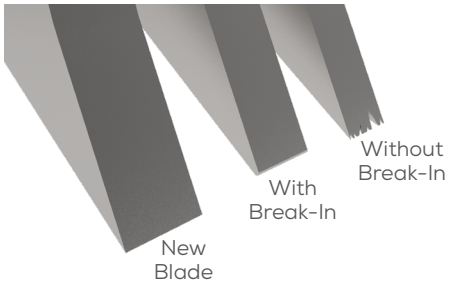
Think smart before you start

Safety tips for bandsaw blades

- Caution to be maintained while opening welded loops as they are packed under tension. Necessary guidelines are from your nearest Alfa representative or at info@alfablades.com.
- Safety precautions like safety shoes, glass and gloves are recommended for use while unpacking and mounting of blades on machine.
- Remove tooth safety guard while mounting the blade on the machine.
- Close wheel cover of the machine during cutting operation.
- Turn of the main-switch during blade change.
- Follow ddditional safety instructions available in your band saw machine manual.
- Check for brush wheel and use recommended coolants.

BREAK-IN

A new band saw blade has razor sharp tooth tips. In order to withstand the cutting pressures used in band sawing, tooth tips should be honed to form micro-fine radius. Failure to perform this honing will cause microscopic damage to the tip of the teeth, resulting in reduced blade life.



BREAK-IN PROCEDURE

- Select the proper band speed for the material to be cut.
- Reduce the feed rate intially.
- Begin the first cut at the reduced rate. Make sure the teeth are forming a chip.
- Small adjustment to the band speed may be in the event of excessive noise/vibration.
- During the first cut, increase feed rate slightly once the blade fully enters the work piece.

Bi-Metal Bandsaw Blade

Material (Annealed)	Grade	Stock Dimension	Up to 25mm		From 25-75mm			From 75-150mm			Over 150 mm		
		Tooth Pitch	10/14, 8/12, 6/10, 5/8, 24, 18, 14, 10, 6		5/8, 6, 4/6, 3/4,4			3/4, 2/3, 3			2/3, 1.4/2, 0.75/1.25 1.25, 0.75		
			Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)	
				Min	Max		Min	Max		Min	Max		Min	Max
Carbon Steels	1008-1030		73	52	65	66	64	96	62	84	110	58	70	103
	1015-1018		70	58	84	66	84	110	62	96	130	58	70	110
	1048-1065		62	32	45	58	38	52	55	52	70	50	45	64
	1065-1095		60	20	38	53	32	45	50	38	52	45	32	52
Free Machining Steels	1008-1111		90	58	71	79	70	90	75	84	97	68	71	90
	1112-1113		90	58	77	79	70	96	75	96	116	68	77	96
	1115-1132		85	58	84	74	70	103	70	90	122	65	77	110
	1137-1151		80	32	52	70	45	64	65	64	84	62	52	77
	1212-113		90	58	77	79	70	96	75	90	122	68	84	110
Manganese Steels	1320-1330		75	26	4	66	32	52	62	52	70	58	38	58
	1335-1345		70	26	45	62	38	52	58	52	70	54	38	58
Nickel Chrome Steels	3115-3130		78	26	39	70	32	45	65	32	45	60	32	45
	3135-3135		65	26	39	58	26	45	54	39	52	50	32	52
	3310-3315		60	19	26	52	26	32	50	32	45	46	26	39
Molybdenum Steels	4017-4024		90	32	58	80	45	70	75	58	84	70	52	77
	4032-404		85	26	45	75	38	58	70	58	84	65	52	77
	4047-468		75	12	38	66	32	52	6	38	64	58	32	52
Chrome Moly Steels	4130-4140		85	26	45	75	38	58	70	58	84	65	52	77
	4142-4150		70	12	38	62	32	52	58	38	64	54	32	52
Nickel Chrome Moly Steels	4317-4320		75	26	38	66	32	52	62	38	58	58	32	52
	4337-4340		70	26	38	62	26	45	58	32	52	54	26	45
	8615-8627		75	26	38	66	32	45	62	38	52	58	26	45
	8630-8645		75	20	32	66	26	38	62	32	45	58	26	45
	8647-8660		65	12	26	58	20	32	54	26	38	50	20	32
	8715-8750		75	19	32	66	23	39	62	32	45	58	26	39
	9310-9317		60	7	19	54	13	19	50	13	26	46	13	19
	9437-9445		75	26	32	66	26	32	62	32	36	58	26	32
	9747-9763		75	20	32	66	26	38	62	26	45	58	20	38
	9840-9850		72	26	32	64	26	39	60	32	45	56	26	39
Nickel Moly Steels	4608-4621		75	19	32	66	32	39	62	39	45	58	32	39
	4640		65	19	32	58	26	39	54	32	45	50	26	39
	4812-4820		60	19	32	54	19	32	50	26	39	46	26	32
Chrome Steels	5045-5046		85	26	39	75	32	45	70	52	65	65	45	52
	5120-5135		85	26	39	75	39	45	70	45	52	65	32	5
	5140-5160		75	19	32	66	26	39	62	32	45	58	26	39
	50100-52100		55	13	26	48	19	32	46	26	39	42	19	32
Chrome Vanadium Steels	6117-6210		68	26	32	60	32	45	56	39	52	52	32	45
	6145-6152		64	19	26	58	26	32	54	32	39	50	26	32
Silicon Steels	9255-9260		60	13	26	54	19	32	50	19	32	46	19	3
	9261-6262		55	6	19	48	13	19	46	13	26	42	13	19
High Speed Steels	T-1,T-2		40	6	13	26	13	19	33	13	26	30	13	19
	T-4,T-5		33	6	13	30	6	13	28	13	19	24	4	11
	T-6,T-8		33	6	13	30	6	13	28	6	13	24	4	11
	T-15		25	6	13	22	6	13	20	6	13	18	4	11
	M-1		45	6	13	40	13	26	36	19	32	34	13	26
	M-2,M-3		35	6	13	30	13	19	28	19	26	25	13	19
	M-4,M-10		30	6	13	26	6	13	24	6	19	22	6	13
Die Steels	A-2		63	13	19	55	19	26	52	19	26	48	13	19
	D-2,D-3		33	6	13	30	6	13	26	6	13	24	6	13
	D-7		27	6	11	24	6	11	22	6	11	20	4	10
	O-1,O-2		70	19	26	62	26	32	58	32	39	54	26	32
	O-6		68	19	26	60	26	39	56	32	45	52	26	39

Recommended Speed/Feed Chart

	Stock Dimension	Up to 25mm			From 25-75mm			From 75-150mm			Over 150 mm		
	Tooth Pitch	10/14, 8/12, 6/10, 5/8, 24, 18, 14, 10, 6			5/8, 6, 4/6, 3/4, 4			3/4, 2/3, 3			2/3, 1.4/2, 0.75/1.25, 1.25, 0.75		
Material (Annealed)	Grade	Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)		Band Speed (mtr/min)	Cutting Rate (cm^2/min)	
			Min	Max		Min	Max		Min	Max		Min	Max
Special Purpose Tool Steels	L-6	59	10	24	52	19	32	47	18	32	44	12	23
	L-7	58	10	24	51	17	32	48	16	31	44	12	23
Stainless Steels	201-302	35	3	25	27	13	25	26	10	23	25	5	16
	303-305	42	3	24	36	11	26	36	17	29	29	11	24
	308-310	25	6	13	21	5	20	19	4	13	18	5	9
	314-317	24	6	8	22	3	22	22	3	9	17	3	9
	321-347	40	19	19	34	4	18	31	11	23	30	5	18
	410,420,420F	44	4	18	37	5	19	34	10	26	33	3	18
	416,430F	58	5	31	52	24	39	48	30	45	45	24	36
	430,446	29	5	16	24	11	25	25	10	26	21	5	18
	440 A,B,C	34	12	17	27	3	17	25	10	26	25	6	16
	440F 443	44	3	19	40	6	19	34	10	23	34	5	19
	17-4PH,17-7PH	27	26	18	25	10	23	22	19	23	20	10	19
	A-7	27	11	11	23	3	12	22	11	18	19	10	18
Beryllium Copper	BHN 100-120	105	3	36	91	31	45	85	38	51	77	32	45
	BHN 220-250	73	4	25	65	18	32	60	33	37	58	18	31
	BHN 310-340	58	11	10	50	3	12	49	10	19	43	6	10
Nickel Base Alloy	Monel	27	4	13	26	4	12	25	4	11	21	6	13
	R Monel	39	3	16	37	13	25	35	12	24	30	10	17
	K Monel	30	6	13	23	4	9	20	5	10	20	4	10
	KR Monel	27	4	16	26	5	16	21	3	17	20	4	13
	Inconel	31	5	13	26	3	17	23	5	17	25	3	12
	Inconel X	24	5	10	21	4	8	21	4	9	18	3	10
	Hastelloy A	36	4	13	29	3	11	27	10	18	27	3	10
	Hastelloy B	33	6	8	28	4	3	23	4	10	23	6	11
	Hastelloy C	28	4	10	20	5	8	25	6	8	19	6	8
	Rene 41	25	6	12	24	3	8	19	5	10	19	4	10
	Udimit	29	3	12	25	5	11	25	3	13	20	6	12
	Wasalloy	25	3	10	23	5	10	22	3	9	20	4	9
	Titanium	28	4	10	24	12	17	23	13	17	20	10	17
Titanium Alloys	TI-140A 2CR-2MO	29	3	8	23	6	11	24	6	10	22	4	10
	TI-150A	28	5	8	26	4	11	24	3	10	19	6	9
	MST-6AL-4V	27	6	11	24	6	8	25	6	7	19	3	8
	99% Pure Titanium	29	4	8	24	6	8	24	5	10	21	4	7
Aluminium Alloys	1100,2011,2017,2024	148	48	66	130	67	118	125	118	149	114	122	150
	3003,5052,5086,6061	149	48	65	132	67	119	123	119	148	114	124	149
	6063,6160,6262,7075	148	47	68	129	68	119	124	117	148	114	124	150
Bronze	Aluminium Bronze	42	10	23	42	16	25	36	17	29	32	17	23
	Most others	68	36	57	60	64	74	58	62	75	53	42	58
Copper Alloys	356, 360	102	42	60	92	91	123	85	123	136	80	134	163
	353	99	38	52	87	79	109	81	100	110	75	114	145
	1452, 187	100	36	48	88	51	89	83	99	108	72	110	136
	380, 544	94	34	47	84	50	90	77	83	101	71	105	125
	173, 932	89	30	42	80	43	79	73	70	88	70	87	113
	330, 356	85	25	37	75	38	67	69	69	78	63	79	103
	623, 624	80	22	34	70	33	65	63	62	73	61	74	94
	230, 260, 272	74	20	31	63	31	60	62	57	67	57	69	87
	280, 464, 632, 655	75	21	32	66	30	58	59	58	70	55	71	90
	101, 102, 110, 122, 172	69	23	30	59	29	53	58	56	67	53	70	84
	1751, 182, 220, 510	67	21	31	60	31	53	56	56	65	51	70	86
	652, 706, 751, 934	70	22	29	61	32	54	58	54	68	52	70	83
	630	64	21	30	57	28	53	53	53	64	49	66	83
	811	59	18	26	53	29	48	50	49	59	45	61	78

Tooth Selection Chart

Round Bar

Diameter (mm)	0-10	10-15	15-20	20-30	30-75	75-150	150-250	250-500	500-900	900-1500
TPI	10/14	8/12	6/10	5/8	4/6	3/4	2/3	1.4/2	1/1.3	0.75/1.25

Square/Rectangular Bar

Diameter (mm)	0-10	10-15	15-20	20-25	25-50	50-100	100-200	200-400	400-800	800-1500
TPI	10/14	8/12	6/10	5/8	4/6	3/4	2/3	1.4/2	1/1.3	0.75/1.25

Structural Steel

Diameter (mm)	0-3	3-4	4-5	5-7	7-15	15-30	30-50
TPI	10/14	8/12	6/10	5/8	4/6	3/4	2/3

Pipes / Tubes

Diameter (mm)	20	40	60	80	100	120	150	200	300	400	500	600	700
Thickness (mm)	TPI												
2	14	14	14	14	14	14	10/14	10/14	8/12	8/12	6/10	6/10	5/8
3	14	14	10/14	10/14	10/14	10/14	8/12	8/12	6/10	6/10	5/8	5/8	5/8
4	14	14	10/14	10/14	8/12	8/12	8/12	8/12	5/8	5/8	4/6	4/6	4/6
5	14	10/14	10/14	10/14	8/12	8/12	8/12	6/10	5/8	5/8	4/6	4/6	4/6
6	14	10/14	10/14	8/12	8/12	8/12	8/12	5/8	5/8	4/6	4/6	4/6	3/4
8	14	10/14	8/12	8/12	8/12	6/10	6/10	5/8	4/6	4/6	4/6	3/4	3/4
10		8/12	6/10	6/10	6/10	5/8	5/8	4/6	4/6	4/6	3/4	3/4	3/4
12		8/12	6/10	6/10	5/8	5/8	4/6	4/6	4/6	3/4	3/4	3/4	3/4
15		8/12	6/10	5/8	5/8	4/6	4/6	4/6	3/4	3/4	3/4	2/3	2/3
20			6/10	5/8	4/6	4/6	4/6	3/4	3/4	3/4	2/3	2/3	2/3
30				4/6	4/6	4/6	3/4	3/4	3/4	2/3	2/3	2/3	2/3
50						3/4	3/4	3/4	2/3	2/3	2/3	2/3	2/3
75								2/3	2/3	2/3	2/3	2/3	1.4/2
100									2/3	2/3	1.4/2	1.4/2	1.4/2
150										2/3	1.4/2	1.4/2	1.4/2
200											1.4/2	1.4/2	1.4/2

Bi-metal Holesaw Cutter

Universal Holesaw

Universal Holesaw are all purpose holesaw manufactured with bi-metal bandsaw strip of grade M42 (8% Cobalt). The strip is hardened and tempered in PLC controlled furnace to increase it's toughness and provide a better cutter life. It's tool geometry gives a smooth cut. It is a single piece construction with arbor and drill attached.

Features

- Cutting depth is doubled compared to conventional saw.
- Specially design teeth geometry helps cutting variety of materials.
- Hardness & toughness of HSS teeth gives it a longer life.
- Useful in cutting of all different types of soft and hard materials.
- Cuts at higher speed with smooth finish.
- Rigid body construction.

Sizes

Cutting Depth : 17 mm

Metric	Imperial
12 mm	1/2"
16 mm	5/8"
19 mm	3/4"
22 mm	7/8"
25 mm	1"
29 mm	1 1/8"
32 mm	1 1/4"
35 mm	1 3/8"
38 mm	1 1/2"

Metric	Imperial
40 mm	1 9/16"
44 mm	1 3/4"
48 mm	1 7/8"
51 mm	2"
54 mm	2 1/8"
57 mm	2 1/4"
60 mm	2 3/8"
64 mm	2 1/2"
67 mm	2 5/8"

Metric	Imperial
70 mm	2 3/4"
76 mm	3"
79 mm	3 1/8"
83 mm	3 1/4"
86 mm	3 3/8"
89 mm	3 1/2"
92 mm	3 5/8"
95 mm	3 3/4"
102mm	4"

Bi-metal Holesaw Cutter

Precision Holesaw

Precision holesaw cutter are manufactured from self-made bi-metal strips of grade M42 (8% Cobalt) and is grounded to precise tolerance. It sustains higher temperature and has greater wear resistance. This provides smoother and faster cuts compared to conventional holesaw. Its improved variable tooth profile gives a precise and greater cutter life.

Features

- Reduces cutting vibrations.
- Cutting 30% faster than conventional Hole Saw.
- Provide extra swap clearance when cutting thicker metal section.
- Easier penetration into the material.
- Smooth cut and have less tendency to snag on while in contact with irregular surface.
- Hollow out material from the groove more efficiently.
- It is useful in cutting Cast Iron, Mild Steel, Cast Steels, Stainless Steel, Aluminium, Duralium, Inconel, Non Ferrous Alloys, Bakelite, Bronze, Brass, Wood, Hardwood, Metal, and Plaster Of Paris.
- Hole Saw is useful for variety of applications like production, maintenance, electrical panel manufacturer, electrical contractor, building contractor and carpenter.

Sizes

Cutting Depth : 38 mm

Metric	Imperial
12 mm	1/2"
14 mm	9/16"
16 mm	5/8"
19 mm	3/4"
22 mm	7/8"
25 mm	1 inch
29 mm	1 1/8"
32 mm	1 1/4"
35 mm	1 3/8"
38 mm	1 1/2"
40 mm	1 9/16"
44 mm	1 3/4"
48 mm	1 7/8"
51 mm	2 inch

Metric	Imperial
54 mm	2 1/8"
57 mm	2 1/4"
60 mm	2 3/8"
64 mm	2 1/2"
67 mm	2 5/8"
70 mm	2 3/4"
76 mm	3 inch
79 mm	3 1/8"
83 mm	3 1/4"
86 mm	3 3/8"
89 mm	3 1/2"
92 mm	3 5/8"
95 mm	3 3/4"
102mm	4 inch

Metric	Imperial
105 mm	4 1/8"
108 mm	4 1/4"
111 mm	4 3/8"
114 mm	4 1/2"
121 mm	4 3/4"
127 mm	5"
133 mm	5 1/4"
140 mm	5 1/2"
152 mm	6"
160 mm	6 5/16"
183 mm	7 3/16"
210 mm	8 9/32"

Precision

Recommended Speed/Feed Chart

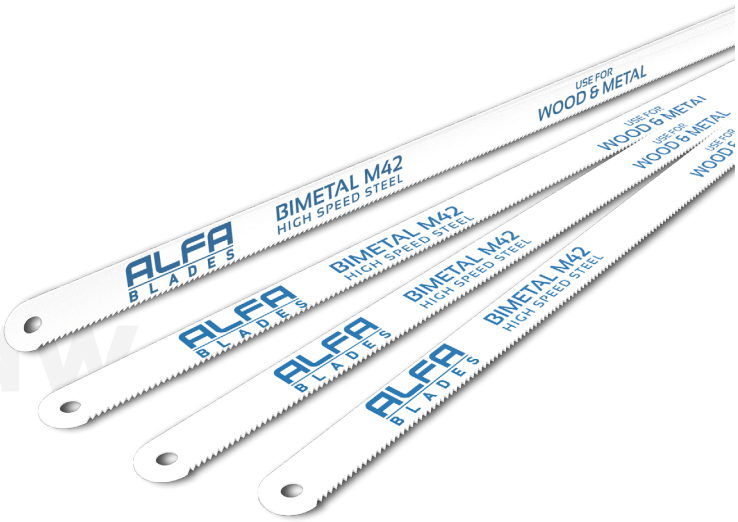
Holesaw Diameter		Mild Steel	Stainless & Tool Steel	Cast Iron	Brass & Aluminium	Wood & Plastic
Metric (mm)	Imperial (inch)					
14 - 25	9/16 - 1	580-350	300-175	400-235	790-470	800-500
27 - 51	1 1/16 - 2	325-170	160-85	215-115	435-230	500-200
52 - 76	2 1/16 - 3	165-115	80-55	110-75	220-150	200-150
79 - 102	3 1/8 - 4	110-85	55-40	70-55	140-110	150-100
105 - 210	4 1/8 - 8 9/32	80-40	40-20	55-25	110-60	100-60

If you don't think it's safe.It probably isn't

Safety tips for holesaw cutter

- Always wear safety glasses.
- Keep hands, loose hair and clothing away from the rotating saws.
- Use oil or coolant on most metals except cast iron.
- Hold the Impact drill machine firmly and perpendicular to the work surface.
- Use enough pressure to ensure that the hole saw cuts and does not just "rub"the work. Make clear the chips frequently from hole saw.
- Run the hole saw at recommended speeds for the material to be cut and the diameter of the holesaw. Use a variable speed machine, if possible.
- Do not run the Saw too fast (see RPM chart).
- For tough cuts and production work, consider using our "locking arbor" which eliminates chatter and vibrations, extending the hole saw life.
- When sawing tough materials such as ceramics, it is sometimes a good idea to leave the drill in only long enough to allow the hole saw to penetrate the material and establish its position. Then take the drill out of the hole saw. This will lessen pressure, which will allow for a much faster cut.
- Coolant should be used, especially when cutting metals and fired ceramics.
- Always start with low (or recommended) speed (RPM). Speed can be increased as ease of cutting is noticed. Avoid extreme heat build-up on the cutting surface.

Bi-metal Hacksaw Blade



Hand Hacksaw

Bi-Metal hand hacksaw blades have high-speed teeth electron beam-welded to tough, yet flexible die steel backing to produce the best possible performance in a premium quality blade. HSS tooth provides faster cut and a longer blade life.

Product Range

TPI	Size (Metric)	Size (Imperial)	Application
14	300 X 12.75 X 0.63 (mm)	12 X 1/2 X 0.025 (inch)	General Purpose
18	300 X 12.75 X 0.63 (mm)	12 X 1/2 X 0.025 (inch)	Heavy metals
24	300 X 12.75 X 0.63 (mm)	12 X 1/2 X 0.025 (inch)	Medium Metals
32	300 X 12.75 X 0.63 (mm)	12 X 1/2 X 0.025 (inch)	Soft Metals

Quality Standard

Our company is certified by TÜV SÜD quality mangement system which conform the best quality product at every stage of manufacturing process.

ISO 9001
Certified
Quality Management System
www.tuv-sud.com/ms-cert

Quality management system certified by TÜV SÜD according to ISO 9001:2015

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD South Asia

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited
certifies that

ALFA

SWAN ALUMINIUMS PVT. LTD.
Survey No. 12 & 13, Village: Vasuri Khurd, Near Bluestar Ltd.,
Kanchadphata Khanivali Road,
Taluka: Wada, Dist. Palghar, Maharashtra – 421312, INDIA

has implemented a Quality Management System
in accordance with ISO 9001:2015
For Scope of

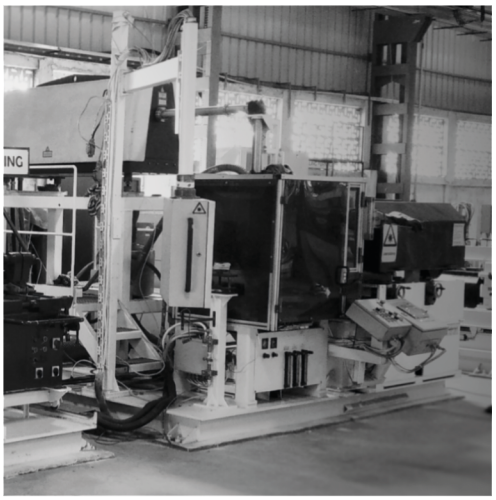
Manufacture of Various Types of Saw Blades

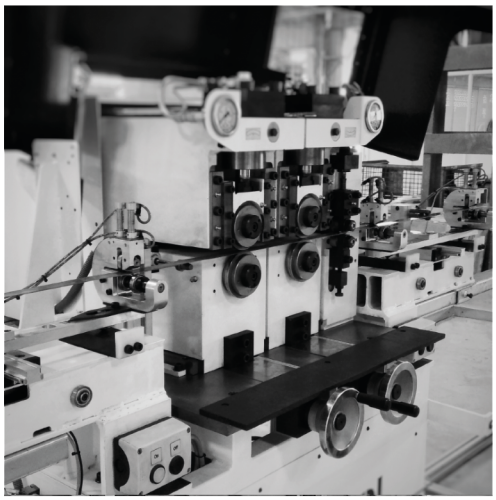
The certificate is valid From 2017-11-17 until 2020-11-16
Subject to successful completion of annual periodic audits
The present status of this Certificate can be obtained on www.tuv-sud.in
Further clarifications regarding the scope of this certificate may be obtained by consulting the certification body

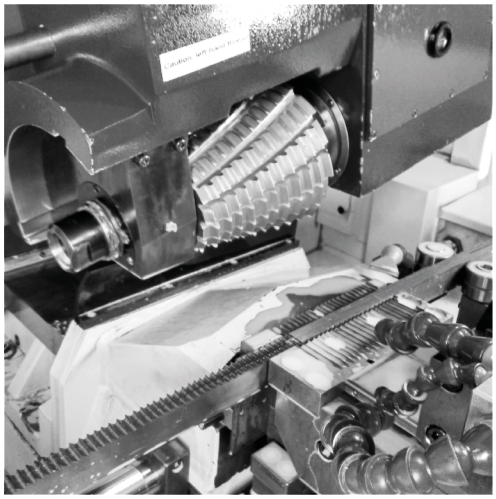
Certificate Registration No. 99 100 18055
Date of Initial certification : 2017-11-17

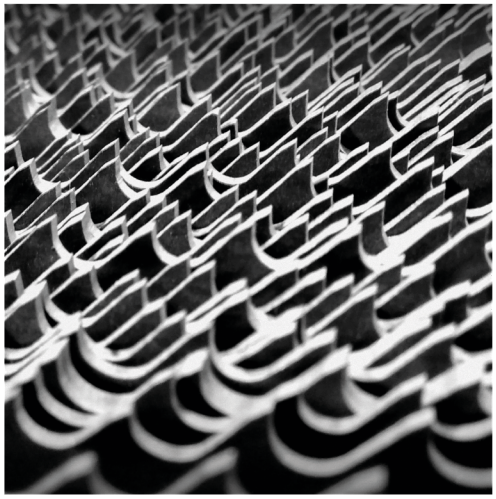
Certification Body
of TÜV SÜD South Asia Private Limited, Mumbai
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Naka ● Andheri (East) ● Mumbai – 400072 ● Maharashtra ● India

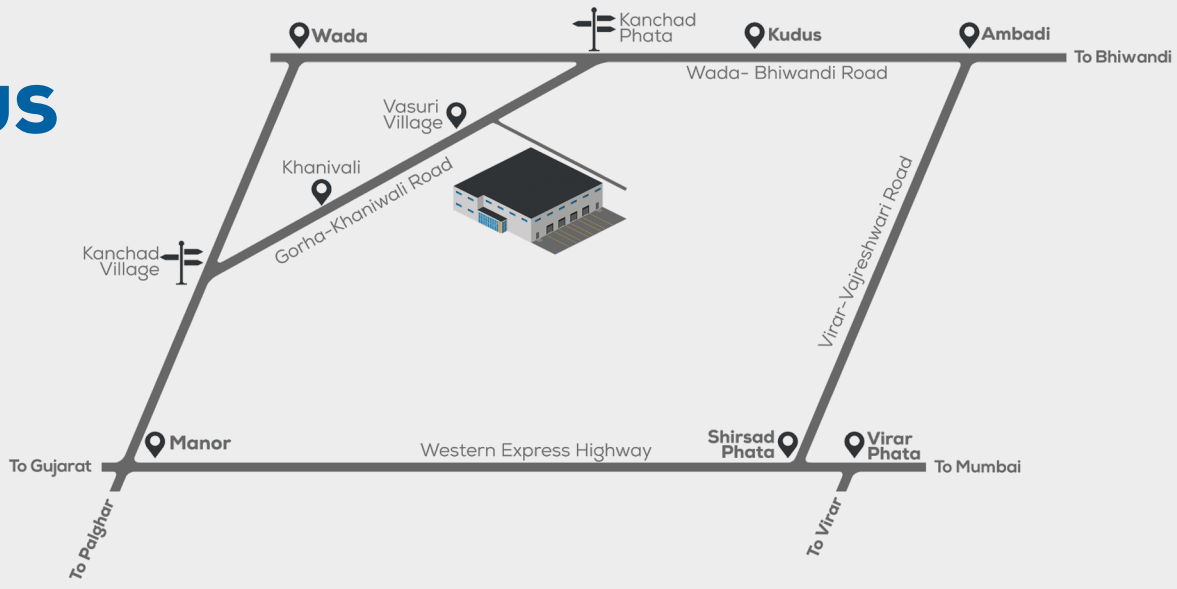








HOW TO REACH US



ALFA BLADES

Swan Aluminiums Pvt. Ltd.

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