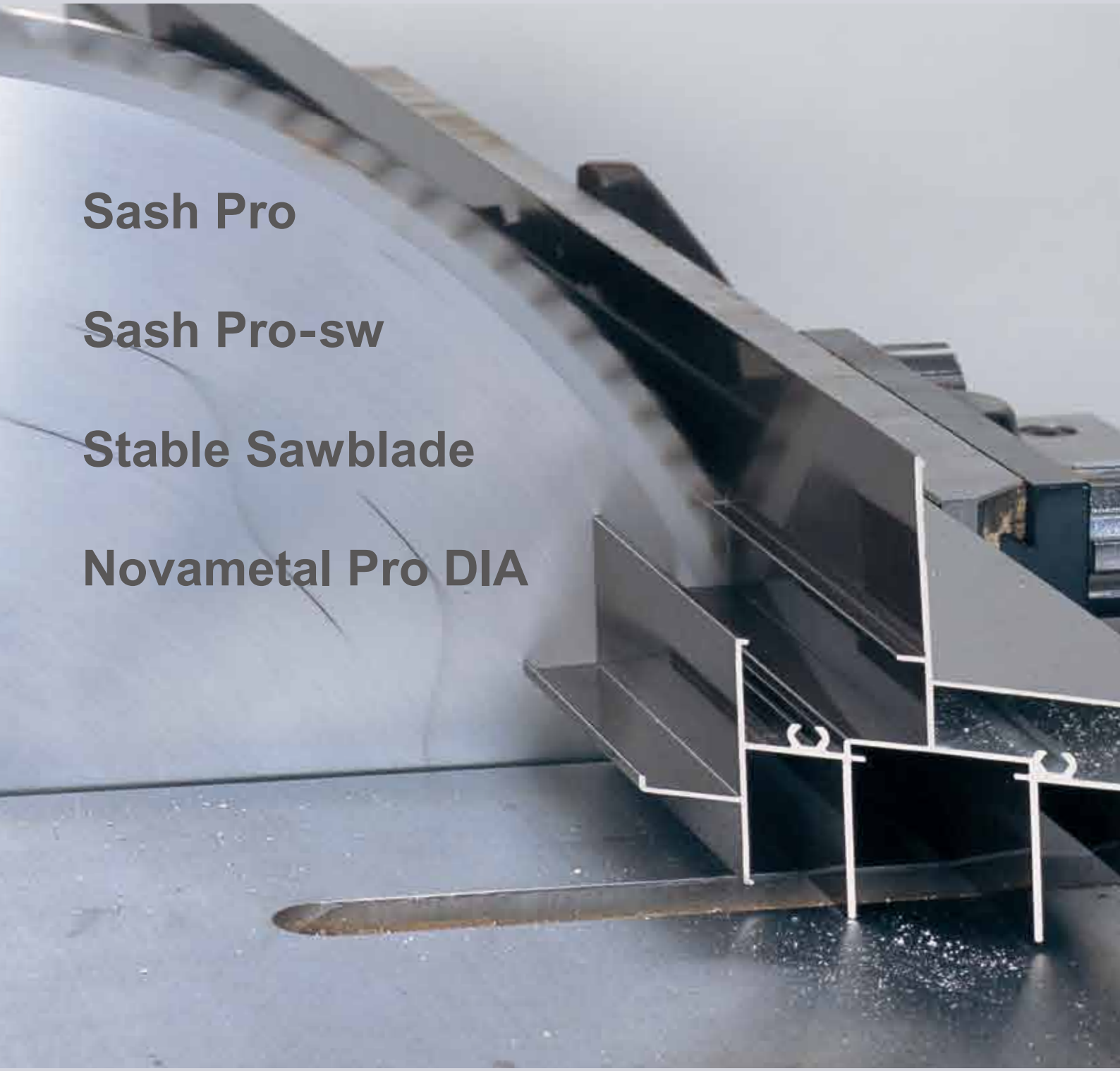
Sawblades
for Non ferrous Metals

KANEFUSA



Sash Pro

Sash Pro-sw

Stable Sawblade

Novametal Pro DIA

Kanefusa - A New Dimension of Performance

ISO 9001 JQA-QM3710

ISO 14001 JQA-EM3137 Head Office Factory

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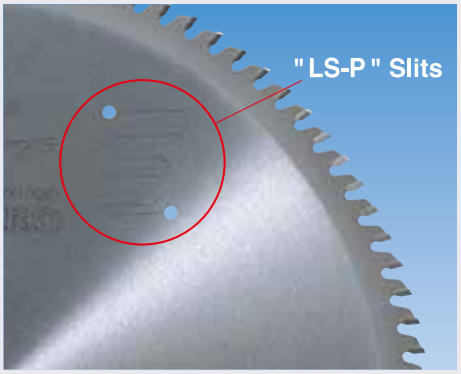
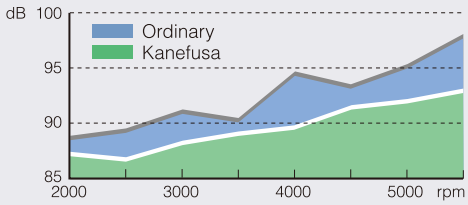
[Class] [Article] [Revision]

Reliable Performance





Noise comparison between a Kanefusa Sash Pro sawblade and an ordinary sawblade

1 Kanefusa uses only the best steel for its sawblades. After heat treatment, the saw plate is very flat. Kanefusa's proprietary flattening and surface grinding processes ensure plates that are distortion free and have uniform thickness. A good plate with high rigidity is essential for straight running of the saw.

2 Kanefusa Sash Pro sawblades have polymer injected vibration damping elements incorporated into the plate（LS-P Slits）. Vibration is responsible for high tone noise, which causes hardness of hearinghazard, bad performance due to structural damage to the carbide grain and a bad cutting quality because of edge chipping or a waving cut.

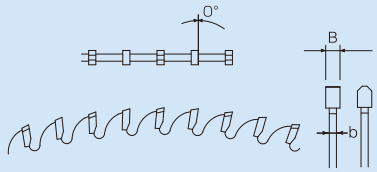
3 Special carbide, which is exclusively available to Kanefusa, was developed in cooperation with a leading carbide manufacturer. The tungsten carbide was designed for cutting non-ferrous metals such as aluminium and clearly outlasts conventional carbides.

Tooth Geometries

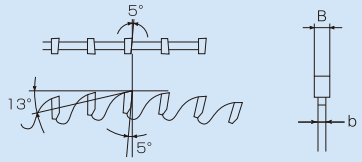
Extruded Profiles 	**3DX**	■ Does not create high cutting forces and therefore cuts very light ■ Almost no bending of the material especially when cutting thin walled material such as lamellas or radiator fins ■ The cut quality is very consistent throughout the entire time of use ■ Runs very straight and does not create vibration
	BC5	■ Less cutting force for lighter cut very light ■ Cuts cleaner than 3DX or D ■ Almost no bending on thin walled material such as lamellas or radiator fins ■ Recommended for thin walled material (< 4mm) because of vibration
	D	■ Straight sawing by symmetric tooth geometry ■ Very suitable cutting on thick walled material (> 4mm)
Solids 	**D**	■ Straight sawing by symmetric tooth geometry ■ Please ask us about any blade secification such as suitable tooth number for cutting an aluminum solid round bar

Sash Pro

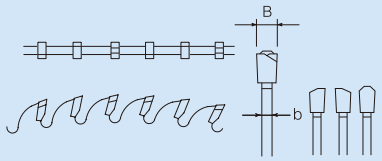
D



BC5



3DX



	Product No.	D [mm]	B [mm]	b [mm]	d [mm]	z	Pin Holes	Tooth Type	Hook Angle [°]
1	681-B480-405	350	3.0	2.4	32	108	2/14/64	BC5	5
2	681-A630-405	400	3.5	3.0	30	120	2/12/64	BC5	5
3	681-B114-405	500	3.5	3.0	30	120	2/14/64	BC5	5
4	681-B482-405	530	4.0	3.4	30	140	2/14/64	BC5	5

	Product No.	D [mm]	B [mm]	b [mm]	d [mm]	z	Pin Holes	Tooth Type	Hook Angle [°]
1	691-C432-405	215	2.2	1.6	30	60		D	-5
2	691-D207-405	250	3.0	2.4	32	80	2/11/63	D	5
3	691-B207-405	300	3.0	2.4	30	96	2/10/60+2/10.5/70	D	5
4	691-C604-405	300	3.0	2.4	32	96	2/11/63	D	5
5	691-A495-405	300	3.2	2.4	30	72	2/10/60	D	5
6	691-A792-405	300	3.2	2.4	30	96	2/12/63	D	5
7	691-D805-405	350	3.0	2.4	32	108	2/11/63	D	5
8	691-D137-405	350	3.0	2.5	40	84	2/11/63	D	5
9	691-A578-405	350	3.6	2.8	30	108	2/10/60	D	5
10	691-D428-405	352	3.6	2.8	30	108	2/10/60	D	5
11	691-A791-405	400	4.0	3.2	30	96	2/12/64	D	5
12	691-A580-405	420	4.0	3.2	30	100		D	5
13	691-C628-405	430	3.0	2.5	30	60		D	5
14	691-A551-405	450	4.0	3.2	30	108	2/12/64	D	5
15	691-D804-405	450	4.0	3.4	32	140		D	5
16	691-A925-405	500	4.0	3.4	30	120	2/10/60+2/13/70+2/12/63	D	5

Other sizes and tooth shapes are available upon request

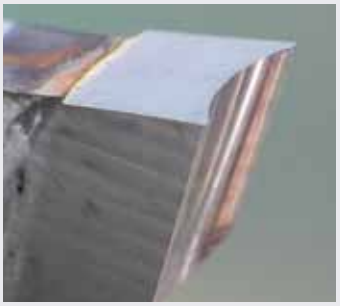
Sash Pro-sw

New

Control on Swarf Dispersion for perfect Swarf Collection

Dispersion and flying away of swarf in aluminum profile sawing is a big problem. Swarf particles remained in profile inside fall out and land on product surface and scratch and scar appear on product surface. Good control on swarf dispersion direction is highly required.
Kanefusa made it possible now!!

Special tooth type



BHF Type

Swarf remained

Blade	Swarf remained
In use 3DX	0.180g
Sash Pro-sw	0.012g
Comparison	93% Less

In use : 3DX ϕ510×3.5×3.0×25.4×120Z
Sash Pro-sw : BHF ϕ510×3.5×2.7×25.4×100Z

The value for the user is:

- Scratch Prevention on products caused by falling swarf during transportation.
- Less cleaning time around the machine.

Stable Sawblade

TST Thin Sawing Technology

KANEFUSA

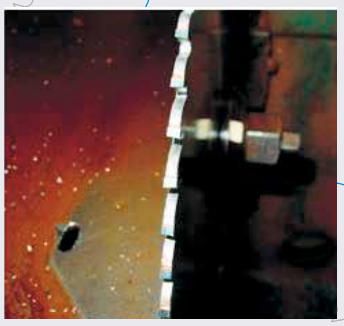
PAT.CA2542470,CN ZL200480030284,EP1679165,ID P0024180,IN234055,KR10-1041312,NO333385,RU2348513,US8042443,TWI316882

Patented laser slot geometry allows reduction of plate thickness without losing lateral stability.

Plate thickness can be reduced by 20 % in comparison to a regular plate.

The value for the user is:

- Better material yield rates
- Less swarf that must be recycled
- Better cut quality
- Longer saw life
- Less motor power is required
- Runs significantly quieter



Conventional Sawblade

Stable Sawblade

Cutting solids

	D [mm]		B [mm]		b [mm]		z	Tooth Type	Hook Angle [°]	f l [mm]	Nmax
1	300	x	3.0	x	2.0	x	30	D	15	93	2,700
2	350	x	3.5	x	2.5	x	36	D	15	108	3,200
3	400	x	3.5	x	2.5	x	42	D	15	124	2,800
4	450	x	3.5	x	2.5	x	48	D	15	140	2,500
5	500	x	3.5	x	2.5	x	54	D	15	155	2,250
6	550	x	4.0	x	3.0	x	60	D	15	170	2,000
7	600	x	4.0	x	3.0	x	66	D	15	186	1,850

f l = flange diameter

Cutting extruded profiles

	D [mm]		B [mm]		b [mm]		z	Tooth Type	f l [mm]	Nmax
1	300	x	2.0	x	1.5	x	72	3DX	93	5,100
2	350	x	2.5	x	2.0	x	84	3DX	108	4,350
3	400	x	2.5	x	2.0	x	96	3DX	124	3,800
4	450	x	2.5	x	2.0	x	108	3DX	140	3,400
5	500	x	2.8	x	2.2	x	120	3DX	155	3,000
6	550	x	3.0	x	2.5	x	132	3DX	170	2,800
7	600	x	3.2	x	2.6	x	138	3DX	186	2,500

f l = flange diameter

Stable Sawblades are manufactured upon order.

Novametal Pro DIA

PCD
Polycrystalline Diamond

Novametal Pro DIA is suitable to cut Aluminum alloys with silicon content of over 10 %.

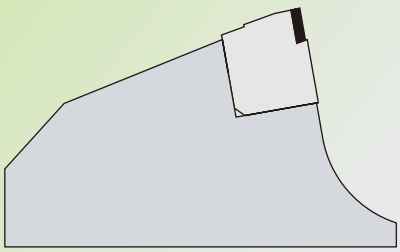
Novametal Pro DIA is tipped with polycrystalline diamond (PCD).

PCD provides extensively longer life than tungsten carbide when cutting Aluminum alloys.

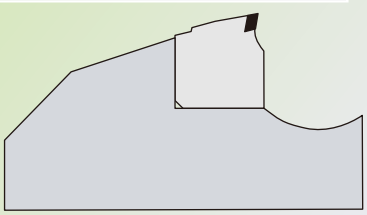
In the past, a certain size of the PCD tooth was required to assure that the tooth was firmly attached to the saw plate.

Because PCD is much more expensive than other cutting edge materials, the sawblade price strongly depended on the tooth size.

We at Kanefusa have developed a technology that allows us to fuse a very small PCD tooth to a tungsten carbide substrate, which is brazed to the saw plate. In this way we can optimize the use of PCD and make the single use of PCD tipped sawblades possible.



Tooth with negative hook angle for cutting gate of aluminum castings



Tooth with positive hook angle for cutting solid

For many reasons, sawblades for single use are superior to sawblades that can be re-sharpened.

Reground sawblades are instable in performance, especially after they have been reground a few times. Sawblades for single use provide the same cut quality cut after cut, blade after blade.

Sawblades for single use can be run to the limit. Sawblades that can be re-sharpened should be taken off the machine earlier to avoid damage. For that reason, Novametal Pro DIA outlasts conventional PCD sawblades.

For various applications, sawblades with positive or negative hook angle are available.

The value for the user is:

- Extensively longer life time than tungsten carbide tipped sawblades
- Outperforms regular PCD sawblades
- More machine uptime
- High process reliability due to single use concept
- Maintenance free

Specification are available upon request. Please contact Kanefusa.