



HSS SERIES

ADVANCED

Cutting harder materials at higher cutting speeds

For more information:

www.haassaw.com

Cutting harder materials at higher cutting speeds



Due to a special, wear resistant, multilayer PVD coating with a low friction coefficient, very high hardness and very high temperature resistance, Fusion 2.0 saw blades can be used for cutting medium to high tensile carbon steel on extremely demanding applications. Also very suitable for flying cut-off applications.

Advantages

- · High blade life
- Increased uptime
- Reduced side pick-up
- Low friction coefficient
- Wear resistant
- Very high hardness and temperature resistance
- Suitable for extremely high cutting speeds and feeds

APPLICATIONS
PARAMETERS

Medium to high tensile (carbon) steel

Suggested cutting speed: 120 – 200 m/min.

Feed: 0.04 – 0.18 mm/tooth

MACHINES

Automatic, semi-automatic and flying cut off applications



Fusion NX saw blades have specifically been designed for stainless steel applications and sticky materials, but they are also suitable for cutting (thin walled) steel tubes and stainless steel flying cut-off applications.

Advantages

- Ideal for (thin walled) stainless steel tubes and sticky materials
- Dedicated thin PVD coating
- Reduced side pick-up
- Very low friction coefficient
- Wear resistant
- Very high hardness
- Very high temperature resistance
- Suitable for extremely high cutting speeds and feeds

APPLICATIONS <u>Para</u>meters

Ideal for cutting (stainless) steel tubes and sticky materials

Suggested cutting speed

Steel 60 - 120 m/min Austenitic stainless steel (300 series) 30 - 50 m/min Ferritic w/o Ti (409 & 412) 220 - 260 m/min

Ferritic w/o 11 (401) 220 - 260 m/min 60 - 120 m/min

MACHINES Automatic, semi-automatic and flying cut off applications

TYPICAL AVAILABE HSS FUSION 2.0 & FUSION NX SAW BLADES Diameter (mm) Kerf (mm) Bore hole (mm) 1,2/1,6/2,0 80 / 100 / 120 / 160 160 175 1,6 / 2,0 32 64 / 90 / 110 / 140 / 180 1,2 / 1,6 / 1,8 / 2,0 72 / 100 / 128 / 160 / 200 1,2 / 1,6 / 2,0 / 2,5 32 / 40 64 / 80 / 90 / 120 / 150 / 180 / 220 225 64 / 80 / 100 / 110 / 128 / 160 / 200 / 240 250 1,2 / 1,6 / 2,0 / 2,5 32 / 40 275 1,2 / 1,6 / 2,0 / 2,5 / 3,0 32 / 40 72 / 78 / 84 / 96 / 110 / 120 / 144 / 180 / 220 / 280 300 1,6 / 2,0 / 2,5 / 3,0 32 / 38 / 40 80 / 90 / 100 / 110 / 120 / 140 / 160 / 200 / 240 / 320 2,0 / 2,5 / 3,0 32 / 40 72 / 80 / 90 / 100 / 110 / 120 / 140 / 160 / 200 / 250 / 320 325 2,0 / 2,5 / 3,0 32 / 40 90 / 100 / 110 / 130 / 150 / 170 / 200 / 250 / 320 2,0/2,5/3,0/3,5 350 32 / 40 / 50 80 / 90 / 110 / 120 / 140 / 160 / 180 / 220 / 280 / 350 370 2,0 / 2,5 / 3,0 / 3,5 32 / 40 / 50 70 / 80 / 90 / 100 / 110 / 120 / 140 / 160 / 190 / 220 / 300 2,5 / 3,0 / 3,5 / 4,0 / 4,5 32 / 40 / 50 70 / 80 / 90 / 100 / 128 / 140 / 160 / 180 / 200 / 250 / 320 400 425 2,5 / 3,0 / 3,5 / 4,0 32 / 40 / 50 70 / 80 / 100 / 110 / 120 / 130 / 140 / 160 / 180 / 220 / 260 / 350 2,5/3,0/3,5/4,0 40 / 50 80 / 90 / 100 / 120 / 140 / 180 / 240 / 280 450 500 90 / 100 / 110 / 130 / 160 / 200 / 260 / 310 3.0/3.540 / 50 525 3,0/3,5 50 90 / 104 / 120 / 140 / 164 / 210 / 270 / 330 550 3,5 / 4,0 50 / 80 100 / 110 / 120 / 150 / 180 / 220 / 300 / 360 560 3,5 / 4,0 50 / 80 100 / 110 / 130 / 140 / 170 / 220 / 80 / 340 3,5 / 4,0 50 / 80 100 / 120 / 130 / 160 / 190 / 240 / 320 / 380 600 100 / 120 / 130 / 160 / 190 / 240 / 320 / 380 630 3,0/3,5 50 / 80

For more information:

Cutting thin walled & stainless steel tubes and profiles



Power 2.0 saw blades provide an optimal combination of a rigid saw blade and a vibration-reducing thin kerf for cutting thin walled tubes and profiles on very demanding applications. A superior surface finish and low friction multilayer PVD coating ensure low vibration, less burr and reduced risk of tube-end deformation.

Advantages

- Ideal for very thin walled tubes and profiles
- Low friction, high hardness and high temperature resistant multilayer PVD coating
- Very suitable for extremely demanding applications
- Reduced cutting resistance
- Low vibration
- Less burr
- · Reduced risk of tube-end deformation
- Wear resistant

APPLICATIONS PARAMETERS

Cutting thin walled steel tubes and profiles

Suggested cutting speed: 120 - 200 m/min. Feed: 0.04 - 0.18 mm/tooth.

MACHINES

Automatic, semi-automatic and flying cut off applications



The Power NX saw blade has specifically been designed for cutting (very) thin walled (stainless) steel tubes and profiles. A special, temperature resistant, thin PVD coating, combined with a thinned cutting area, enables these blades to be used for extremely demanding applications, like fast cutting of thin walled products.

Advantages

- Especially designed for cutting stainless steel
- Thin PVD coating with a very low friction coefficient and high hardness
- Very suitable for extremely demanding applications
- Low vibration
- Less burr
- Reduced risk of tube-end deformation
- Very high temperature resistance

APPLICATIONS
PARAMETERS

MACHINES

Cutting thin walled (stainless) tubes and profiles, sticky materials

Austenitic stainless steel (300 series) Ferritic w/o Ti (409 & 412) Ferritic with Ti (441) Suggested cutting speed 30 - 50 m/min

220 - 260 m/min 60 - 120 m/min

Automatic, semi-automatic and flying cut off applications

	TYPICAL AVAILABE HSS POWER 2.0 & POWER NX SAW BLADES												
Diameter (mm)	Kerf (mm)	Bore hole (mm)	Teeth										
160	1,2	32	80 / 100 / 120 / 160										
200	1,2	32	72 / 100 / 128 / 160 / 200										
225	1,2	32 / 40	64 / 80 / 90 / 120 / 150 / 180 / 220										
250	1,2 / 1,6 / 1,8 / 2,0	32 / 40	64 / 80 / 100 / 110 / 128 / 160 / 200 / 240										
275	1,2 / 1,8 / 2,0 / 2,5	32 / 40	72 / 78 / 84 / 96 / 110 / 120 / 144 / 180 / 220 / 280										
315	1,8 / 2,0 / 2,5	32 / 40	72 / 80 / 90 / 100 / 110 / 120 / 140 / 160 / 200 / 250 / 320										
350	1,8 / 2,0 / 2,2 / 2,5 / 3,0	32 / 40 / 50	80 / 90 / 110 / 120 / 140 / 160 / 180 / 220 / 280 / 350										
370	1,8 / 2,0 / 2,5 / 3,0	32 / 40 / 50	70 / 80 / 90 / 100 / 110 / 128 / 140 / 160 / 190 / 220 / 300										
400	2,0 / 2,2 / 2,5 / 3,0	32 / 40 / 50	70 / 80 / 90 / 100 / 128 / 140 / 160 / 180 / 200 / 250 / 320										
425	2,5 / 3,0	32 / 40 / 50	70 / 80 / 100 / 110 / 120 / 130 / 140 / 160 / 180 / 220 / 260 / 350										
450	2,5 / 3,0	40 / 50	80 / 90 / 100 / 120 / 140 / 180 / 240 / 280										
600	3,0	50 / 80	100 / 120 / 130 / 160 / 190 / 240 / 320										

Cutting high tensile (stainless) steel tubes and profiles



X-treme 2.0 embodies the best features of both the Fusion and Power saw blades. Due to a stable, flat hub and improved conicity of the cutting area, X-treme 2.0 saw blades offer a stable and highly accurate solution when cutting high tensile steel tubes and profiles on a very high performance level.

Advantages

- Stable flat hub for high stability and accuracy
- Extremely narrow tolerances in blade thickness
- Optimized surface finish
- Low friction coefficient

- Very high temperature resistance
- Improved blade tensions
- More regrinds per blade, therefore lower cost per cut
- Narrow tolerances in side run-out

APPLICATIONS

Cutting steel tubes and profiles with a tensile strength

up to 1000 N/mm²

PARAMETERS

Suggested cutting speed: 120 - 260 m/min

Feed: 0.04 - 0.22 mm/tooth.

MACHINES

High quality automatic



A dedicated low friction, thin PVD coating with a very high temperature resistance, as well as a stable, flat hub and improved conicity of the cutting area enable the X-treme NX saw blade to cut stainless steel tubes and profiles.

Advantages

- Thin PVD coating, specifically designed for cutting stainless steel
- Extremely narrow tolerances in blade thickness
- Optimized surface finish

- Very low friction coefficient
- Improved blade tensions
- Narrow tolerances in side run-out
- High temperature resistance
- Stable flat hub for high stability

APPLICATIONS **PARAMETERS**

(Stainless) steel tubes, profiles and sticky materials

Austenitic stainless steel (300 series) Ferritic w/o Ti (409 & 412)

Ferritic with Ti (441)

Suggested cutting speed 30 - 50 m/min 220 - 260 m/min

60 - 120 m/min

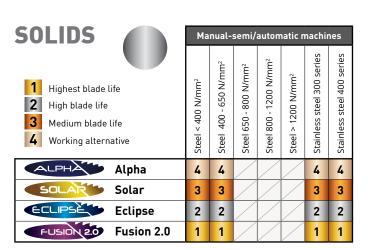
MACHINES

High quality automatic

TYPICAL AVAILABE HSS X-TREME 2.0 & X-TREME NX SAW BLADES													
Diameter (mm)	Kerf (mm)	Bore hole (mm)	Teeth										
225	2,5	32 / 40	64 / 80 / 90 / 120 / 150 / 180 / 220										
315	2,0 / 2,5	32 / 40 / 50	72 / 80 / 90 / 100 / 110 / 120 / 140 / 160 / 200 / 250 / 320										
350	2,0 / 2,5	32 / 40 / 50	80 / 90 / 110 / 120 / 140 / 160 / 180 / 220 / 280 / 350										
370	2,5	32 / 40 / 50	70 / 80 / 90 / 100 / 110 / 128 / 140 / 160 / 190 / 220 / 300										
400	2,5 / 3,0	32 / 40 / 50	70 / 80 / 90 / 100 / 128 / 140 / 160 / 180 / 200 / 250 / 320										
425	2,5 / 3,0	32 / 40 / 50	70 / 80 / 100 / 110 / 120 / 130 / 140 / 160 / 180 / 220 / 260 / 350										

TUBES	Manual-semi/automatic mach						nes		A	utoma	itic ma	achine	es		Flying cut-off								
 1 Highest blade life 2 High blade life 3 Medium blade life 4 Working alternative 	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 650 - 800 N/mm²	Steel 800 - 1200 N/mm²	Steel > 1200 N/mm²	Stainless steel 300 series	Stainless steel 400 series	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 650 - 800 N/mm²	Steel 800 - 1200 N/mm²	Steel > 1200 N/mm²	Stainless steel 300 series	Stainless steel 400 series	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 800 - 1200 N/mm²	ID Scarf 800 - 1200 N/mm²	Orbital 800 - 1200 N/mm²	Stainless 300 series	Orbital Stainless 300 series	Stainless steel 400 series	
ALPHA Alpha	3	4				4	3																
SOLAR Solar	2	3				3	2	4	4			$\overline{/}$	4	4	4	4				4		4	
ECLIPSÉ Eclipse	1	2				2	1	4	4				3	4	3	3				3		3	
FUSION 2.0 Fusion 2.0		1						2	2					2	1	1						1	
FUSION NX Fusion NX						1		3	3			$\overline{/}$	2	3	2	2				1		2	
X-TREME 2.0 X-treme 2.0								1	1					1									
X-TREME NX X-treme NX								3	3				1	3									

THIN WALLED	Ма	nual-	semi/	auton	natic n	nachir	nes		A	utoma	itic ma	achine	es				F	lying	cut-of	ff		
1 Highest blade life 2 High blade life 3 Medium blade life 4 Working alternative	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 650 - 800 N/mm²	Steel 800 - 1200 N/mm²	Steel > 1200 N/mm²	Stainless steel 300 series	Stainless steel 400 series	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 650 - 800 N/mm²	Steel > 1200 N/mm²	Stainless steel 300 series	Stainless steel 400 series	Duplex stainless steel	Steel < 400 N/mm²	Steel 400 - 650 N/mm²	Steel 800 - 1200 N/mm²	ID Scarf 800 - 1200 N/mm²	Orbital 800 - 1200 N/mm²	Stainless 300 series	Orbital Stainless 300 series	Stainless steel 400 series
ALPHA	4																					
SOLAR Solar	3	4				4	4	4	4			4	4		4	4				4		4
ECLIPSÉ Eclipse	2	3				3	3	4	4			3	4		3	3				3		4
FUSION 2.0 Fusion 2.0		2						3	2				2		1	1				2		3
FUSION NX Fusion NX						2	2	4	3			3	3		2	2				1		4
POWER 2.0 Power 2.0	1	1					2	1	1				1		1	1						1
									_			_				_						
POWER NX Power NX						1	1	2	2			1	2		2	2				1		2
			<u> </u>			1	1	2 1	1			1	1	_	2	2			$\overline{/}$	1		2





For more information about the Kinkelder Alpha, Solar and Eclipse saw blades, please check our HSS Standard catalog.

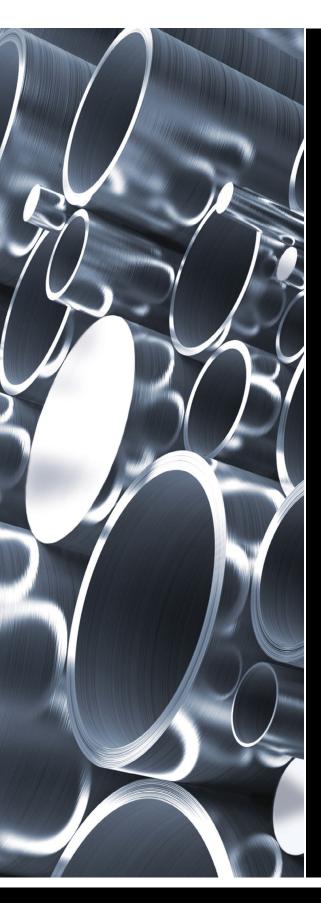


With the Kinkelder saw blades app, you will be able to find all (technical) information regarding your specific steel cutting applications and the use of Kinkelder saw blades.









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