

HIGH SPEED STEEL - TOOLBITS

Steps towards rationalization taken by high speed steel uses brought about the tendency which is many years old, to buy ready-made cutting tools from steelmakers. Early adaptation to this development accounts for our position as accomplished manufacturers of toolbits. With all the experience gained during the past 50 years both with customers and in our own machine shops, we have established a set of high speed brands ideally suited to the requirements of any relevant application.

S600

Typical Analysis (Ave. values %)	C	Cr	Mo	V	W
	0.9	4.3	5.0	1.9	6.4
NEAREST STANDARD	AS	DIN	BS	AISI	
	M2A	1.3343 S 6-5-2	BM2	M2	

DESCRIPTION

This well balanced chemical composition produces both excellent toughness and cutting power and makes this economical molybdenum high speed steel the standard for all types of roughing and finishing tools.

S700

Typical Analysis (Ave. values %)	C	Cr	Mo	V	W	Co
	1.3	4.3	3.6	3.2	9.8	10.4
NEAREST STANDARD	UNI	DIN	BS	JIS		
	HS 10-4-3-2	1.3207 S 10-4-3-2	BM42	SKH57		

DESCRIPTION

High Cobalt Molybdenum high speed steel with excellent cutting power and abrasion resistance, designed for severely stressed tools for the machining of high tensile materials, including austenitic steels and high temperature alloys.

SIZE RANGE	S600		S700	
	Round	3/32" to 1" 3mm – 12 mm	Round	1/8" to 1" 4 mm to 20 mm
	Square	3/16" to 1"	Square	3/16" to 1"
	Flat	5/16" x 5/32 to 1-1/2 x 3/8"	Flat	3/8" x 3/16 to 1-1/2 x 1"
	Bevel	1-1/4" x 3/16"	Bevel	10 x 4 to 25 x 12 mm
			Index Bevel	1/2 x 3.32 to 1-1.4 x 3/16"
				12 x 3 to 18 x 4 mm

GROUND FLAT STOCK

ASSAB - O1

Typical Analysis (Ave. values %)	C	Si	Mn	Cr	V	W
	0.95	0.25	1.1	0.55	0.10	0.55
NEAREST STANDARD	AS	DIN		BS	AISI	
	O1A	1.2510 100 MnCrW4		BO1	O1	

DESCRIPTION	Oil hardening, dimensionally stable tool steel, ground to (thickness) +/- 0.001" (width) +/- 0.005" (length) +1/16" supplied in 18" 36" & 500 & 1000 mm lengths. Used in cutting tools, dies, measuring tools, jigs and fixtures.
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HEAT TREATMENT	Anneal	710-750°C furnace cool	
	Stress relieve	650° air cool.	
	Harden	780-820°C oil	
	Temper	180-200°C	
	Hardness	63-64 R/C	

Square 36" Long					
SIZE RANGE	3/16 x 3/16	5/16 x 5/16	1/2 x 1/2	3/4 x 3/4	1-1/2 x 1-1/2
	1/4 x 1/4	3/8 x 3/8	5/8 x 5/8	1 x 1	

Sizes normally stocked in Australia. Some branches may not hold the entire range.
 Other sizes available on request

Flat Metric 500 & 1000mm Long					
SIZE RANGE	10x1	25x15	50x20	100x8	250x1
	10x2	25x20	50x25	100x10	250x2
	10x3	30x2	60x3	100x12	250x3
	10x4	30x3	60x5	100x15	250x4
	10x5	30x5	60x8	100x25	250x5
	10x6	30x6	60x10	125x4	250x6
	10x8	30x8	60x12	125x5	250x8
	15x2	30x10	60x15	125x6	250x12
	15x3	30x12	70x6	125x8	250x25
	15x4	30x15	75x1	125x10	300x2
	15x6	40x2	75x3	125x12	300x3
	15x8	40x3	75x4	125x15	300x4
	15x10	40x4	75x5	150x2	300x5
	15x12	40x5	75x6	150x3	300x6
	20x2	40x6	75x8	150x4	300x10
	20x3	40x8	75x10	150x5	300x12
	20x4	40x10	75x12	150x6	300x15
	20x5	40x12	75x15	150x8	
	20x6	40x15	75x20	105x10	
	20x8	40x20	75x25	150x12	
	20x10	40x25	80x2	150x15	
	20x12	50x1	80x3	200x1	
	20x15	50x2	80x4	200x2	
	24x1	50x2.5	80x5	200x3	
	25x2	50x3	80x6	200x4	
	25x3	50x4	80x8	200x5	
	25x4	50x5	80x10	200x6	
	25x5	50x6	80x12	200x8	
	25x6	50x8	80x15	200x10	
	25x8	50x10	100x2	200x12	
	25x10	50x12	100x5	200x15	
	25x12	50x15	100x6	200x20	

Sizes normally stocked in Australia. Some branches may not hold the entire range.
 Other sizes available on request.

Flat Imperial 18" & 36" Long					
SIZE RANGE	1/2 x 1/32	1 x 3/4	2 x 5/16	3-1/2 x 3/16	6 x 1/2
	1/2 x 1/16	1-1/4 x 1/32	2 x 3/8	3-1/2 x 3/8	6 x 5/8
	1/2 x 3/32	1-1/4 x 1/16	2 x 7/16	3-1/2 x 1/2	6 x 3/4
	1/2 x 1/8	1-1/4 x 1/8	2 x 1/2	3-1/2 x 3/4	6 x 1
	1/2 x 5/32	1-1/4 x 3/16	2 x 5/8	4 x 1/32	8 x 1/16
	1/2 x 3/16	1-1/4 x 1/4	2 x 3/4	4 x 1/16	8 x 1/8
	1/2 x 1/4	1-1/4 x 5/16	2 x 1	4 x 3/32	8 x 3/16
	1/2 x 5/16	1-1/4 x 3/8	2 x 1-1/4	4 x 1/8	8 x 1/4
	1/2 x 3/8	1-1/4 x 1/2	2-1/2 x 1/32	4 x 3/16	8 x 3/8
	9/16 x 3/16	1-1/4 x 5/8	2-1/2 x 1/16	4 x 1/4	8 x 1/2
	5/8 x 1/8	1-1/4 x 5/8	2-1/2 x 3/32	4 x 1/32	8 x 5/8
	5/8 x 3/16	1-1/4 x 3/4	2-1/2 x 1/8	4 x 5/16	8 x 3/4
	5/8 x 1/4	1-1/4 x 1	2-1/2 x 5/32	4 x 3/8	8 x 1
	5/8 x 5/16	1-1/2 x 1/32	2-1/2 x 3/16	4 x 1/2	10 x 3/16
	3/4 x 1/32	1-1/2 x 1/16	2-1/2 x 1/4	4 x 5/8	10 x 1/4
	3/4 x 1/16	1-1/2 x 3/32	2-1/2 x 5/16	4 x 3/4	10 x 3/8
	3/4 x 3/32	1-1/2 x 1/16	2-1/2 x 3/8	4 x 1	10 x 1/2
	3/4 x 1/8	1-1/2 x 3/32	2-1/2 x 7/16	4-1/2 x 5/16	10 x 5/8
	3/4 x 5/32	1-1/2 x 1/8	2-1/2 x 1/2	4-1/2 x 3/8	10 x 3/4
	3/4 x 3/16	1-1/2 x 5/32	2-1/2 x 5/8	4-1/2 x 7/16	10 x 1
	3/4 x 1/4	1-1/2 x 3/16	2-1/2 x 3/4	4-1/2 x 3/4	12 x 3/32
	3/4 x 5/16	1-1/2 x 1/4	3 x 1/32	5 x 1/16	12 x 1/8
	3/4 x 3/8	1-1/2 x 5/16	3 x 1/16	5 x 1/8	12 x 3/16
	3/4 x 7/16	1-1/2 x 3/8	3 x 3/32	5 x 3/16	12 x 1/4
	3/4 x 1/2	1-1/2 x 7/16	3 x 1/8	5 x 1/4	12 x 5/16
	1 x 1/32	1-1/2 x 1/2	3 x 5/32	5 x 5/16	12 x 3/8
	1 x 1/16	1-1/2 x 5/8	3 x 3/16	5 x 3/8	12 x 1/2
	1 x 3/32	1-1/2 x 3/4	3 x 1/4	5 x 1/2	12 x 5/8
	1 x 1/8	1-1/2 x 1	3 x 5/16	6 x 1/32	12 x 3/4
	1 x 5/32	2 x 1/32	3 x 3/8	6 x 1/16	12 x 1
	1 x 3/16	2 x 5/32	3 x 1/2	6 x 3/32	
	1 x 1/4	2 x 5/32	3 x 5/8	6 x 1/8	
	1 x 5/16	2 x 1/16	3 x 3/4	6 x 3/16	
	1 x 3/8	2 x 3/32	3 x 1	6 x 1/4	
	1 x 7/16	2 x 1/8	3 x 1-1/2	6 x 5/16	
	1 x 1/2	2 x 3/16	3-1/2 x 1/16	6 x 3/8	
1 x 5/8	2 x 1/4	3-1/2 x 1/8	6 x 7/16		

Sizes normally stocked in Australia. Some branches may not hold the entire range.
 Other sizes available on request

SILVER STEEL

ASSAB - O1

Typical Analysis (Ave. values %)	C	Si	Mn	Cr	V	W
	0.95	0.25	1.1	0.55	0.10	0.55
NEAREST STANDARD	AS	DIN		BS	AISI	
	O1A	1.2510 100 MnCrW4		BO1	O1	

DESCRIPTION	Oil hardening, dimensionally stable silver steel, ground to ISA 19 half plus half minus supplied in 36" & 1000mm lengths. Used in cutting tools, dies, measuring tools, jigs and fixtures.
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HEAT TREATMENT	Anneal	710-750°C furnace cool	
	Stress relieve	650° air cool.	
	Harden	780-820°C oil	
	Temper	180-200°C	
	Hardness	63-64 R/C	

Metric 1000mm Long					
SIZE RANGE	2	6	12	18	24
	2.5	7	13	19	25
	3	8	14	20	28
	4	9	15	21	30
	5	10	16	22	
	5.5	11	17	23	

Sizes normally stocked in Australia. Some branches may not hold the entire range.
 Other sizes available on request

Imperial 36" Long					
SIZE RANGE	1/16	1/4	15/32	13/16	1-3/8
	3/32	9/32	1/2	7/8	1-1/2
	1/8	5/16	9/16	15/16	
	5/32	11/32	5/8	1	
	3/16	3/8	11/16	1-1/8	
	7/32	7/16	3/4	1-1/4	

Sizes normally stocked in Australia. Some branches may not hold the entire range.
Other sizes available on request

<u>LOCATIONS</u>					
Bohler Uddeholm Australia Pty Ltd ABN 15000013052					
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Albury	1 Eames St Albury	2640	Ph (02) 6041 3399	Fax (02) 6041 1820	
Wollongong	40 Doyle Ave Unanderra	2526	Ph (02) 4272 6544	Fax (02) 4272 7563	
Marayong	1/21 Binney Rd Marayong	2148	Ph (02) 9831 4431	Fax (02) 9671 1682	
Melbourne	282-290 Greens Rd Dandenong	3175	Ph (03) 9767 5554	Fax (03) 9767 5555	
Bayswater	4 Ramage St Bayswater	3153	Ph (03) 9729 7356	Fax (03) 9738 0850	
Adelaide	1 Williams Cir Pooraka	5095	Ph (08) 8368 4554	Fax (08) 8368 4555	
Brisbane	12-18 Limestone St Darra	4076	Ph (07) 3712 9554	Fax (07) 3712 9555	
Townsville	9-11 Caldwell St Garbutt	4814	Ph (07) 4479 4800	Fax (07) 4725 1316	
Perth	29-33 Gauge Cir Canningvale	6155	Ph (08) 9455 8672	Fax (08) 9455 8673	
Kewdale	5 Beete St Welshpool	6106	Ph (08) 9350 9582	Fax (08) 9350 9683	
Launceston	20 Murphy St Invermay	7248	Ph (03) 6334 3542	Fax (03) 6331 4001	
www.buau.com.au					
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Notes