

EN25 High tensile steel

Typical Analysis (Ave. values %)	C	Si	Mn	Ni	Cr	Mo	S	P	
	0.30	0.25	0.60	2.50	0.60	0.50	0.025	0.025	
NEAREST STANDARD	AS		DIN		BS 970		AISI		
	X9931		1.6743 32NiCrMo10-4		EN25 826 M 31		-		

DESCRIPTION	2½% Nickel Chromium Molybdenum alloy steel with increased strength due to the Nickel content. Supplied in the hardened and tempered condition.
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APPLICATIONS	Highly stressed components of large cross section for automotive, and general engineering applications, such as shafts, connecting rods, pump and gear shafts heavy forgings where optimum strength is required.
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HEAT TREATMENT	Forge	850-1050°C. Cool in furnace.
	Normalize	850-880°C. Air cool.
	Anneal	650-700°C. Cool slowly in controlled furnace.
	Stress relieve	In the quenched and tempered condition, about 30-50°C below the tempering temperature. Air cool. In the annealed condition, 600-650°C. Air cool.
	Harden	820-850°C Oil quench.
	Temper	540-660°C hold for 1 hour min. at temperature, air cool.

MECHANICAL PROPERTIES Heat Treated Condition	Condition	Ruling section mm	Tensile Strength MPa	Yield Strength MPa	Elong. %	Izod Impact J	Brinell Hardness
	T	250	850-1000	635	13	40	248-302
	T	150	850-1000	665	13	54	248-302
	U	250	930-1080	725	12	34	269-331
	U	150	930-1080	740	12	47	293-331
	V	150	1000-1150	835	12	47	293-352
	W	100	1080-1230	925	11	40	311-375
	X	63	1150-1300	1005	10	34	341-401
	Y	63	1230-1380	1080	10	34	363-429
	Z	63	1555-	1125	5	10	444-

WELDING	<p>Limited weldability. Parts should be welded in the hardened and tempered condition. Strength properties of the joint will not be the same as the base metal. Preheat 300-400°C. Temper after welding to about 35-50°C below the recommended tempering temperature.</p> <p>Filler metal: - Fox CM2-KB electrodes or CM2-IG wire.</p> <p>For advice in connection with difficult welding, please consult our engineers.</p>
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Round Peeled k12										
SIZE RANGE	7.94	33	40.5	54	69	85	102	130	160	215
	26	34.5	42	55.5	70	87	106	140	162	230
	27	36	47.5	56	75	92	110	146	175	240
	30	37.5	50	60	78	97	116	150	185	260
	31.5	39	51.5	66	82	100	127	152	200	
Square Black										
SIZE RANGE	300x300									

<u>LOCATIONS</u>					
Bohler Uddeholm Australia Pty Ltd ABN 15000013052					
Sydney	129-135 McCredie Rd Guildford	2161	Ph (02) 8724 5554	Fax (02) 8724 5555	
Newcastle	3 Pavilion Pl Cardiff	2285	Ph (02) 4954 6611	Fax (02) 4956 5773	
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					
<p>Every care has been taken in listing this information, particularly specifications. Bohler Uddeholm Australia Pty Ltd will not accept responsibility for any loss or other damage caused to any person or Company as a result of the use of information contained herein</p>					

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