

ALLOY STEEL**DSM 1.6.1****Definition:**

EN 24T: A through hardened Alloy steel (nickel, chromium & molybdenum) supplied hardened & tempered to a "T" condition.
(Tensile strength: 850/1000 MPa. Hardness: 24 – 32Rc).

Features:

A popular engineering steel that is readily machineable and combines high tensile strength with ductility & wear resistance. Can be further case hardened to 50Rc or higher to create components with enhanced wear properties. Offers good impact properties at low temperatures combined with low thermal expansion.

ASM (DEK) Applications:

Bush, pins, guide rails

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	7850 Kg/m³
YOUNGS MODULUS:	205 GPa
POISSONS RATIO:	0.29
YIELD STRENGTH	650 MPa
TENSILE STRENGTH	850 - 1000 MPa

Issue	01	02	03	04	05	06	07	08	09
DCR	7135	30040	44682						



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CHEMICAL ANALYSIS		BENEFIT
Carbon	0.36/0.44	Low % content: Good for machining & welding.
Silicon	0,10/0.40	Good for galvanising purposes
Mang	0.45/0.70	Combines with sulphur: good machining & finish.
Phos	0.035 max	Increases resistance to corrosion.
Sulphur	0.04 max	Good for machining.
Chrome	1.0/1.40	Increases hardenability & corrosion resistance.
Moly	0.20/0.35	Improves tensile strength & heat resistance.
Nickel	1.30/1.70	Combined with Chrome for good through hardening

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: BS	BS 970: 1991: 817M40T
GERMAN: DIN	34CrNiMo6
AMERICAN: SAE	4340
EUROPEAN STEEL No.	1.6582
JAPANESE GRADE	JIS G SNM447
CHINA GRADE	34CrN13Mo

REPLACES

BS970 1955	BS970 1991	COLOUR CODE	DESCRIPTION
EN24T			Black/Bright: Nickel chromium molybdenum

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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Rounds (mm)_Bright_ Drawn/Turned

10	12	15	16	18	20	25	30	35	40
45	50	60							

Squares (mm)_ Bright_ Drawn

25	30	40	50	60	70	80	90	100	110
120	130	140	150	160	180	190			

Flats(mm)_ Bright_ Drawn

30	25								
35	25	30							
40	25	30							
45	25	30	40						
50	25	30	40						
55	25	30	40	50					
60	25	30	40	50					
65	25	30	40	50	60	70			
70	25	30	40	50	60				
75	25	30	40	50	60	70			
80	25	30	40	50	60	70			
85	25	30	40	50	60	70			
90	25	30	40	50	60	70	80		

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Flats(mm)_ Bright_ Drawn													
95	25	30	40	50	60	70	80	90					
100	25	30	40	50	60	70	80	90					
110	25	30	40	50	60	70	80	90	100				
120	25	30	40	50	60	70	80	90	100	110			
125	25	30	40	50	60	70	80	90	100	110	120		
130	25	30	40	50	60	70	80	90	100	110	120		
140	25	30	40	50	60	70	80	90	100	110	120	130	
150	25	30	40	50	60	70	80	90	100	110	120	130	140
160	25	30	40	50	60	70	80	90	100	110	120	130	140
170	25	30	40	50	60	70	80	90	100	110	120	130	140
180	25	30	40	50	60	70	80	90	100	110	120	130	140
190	25	30	40	50	60	70	80	90	100	110	120	130	140
200	25	30	40	50	60	70	80	90	100	110	120	130	140
220	25	30	40	50	60	70	80	90	100	110	120	130	140
230	25	30	40	50	60	70	80	90	100	110	120	130	140
240	25	30	40	50	60	70	80	90	100	110	120	130	140
250	25	30	40	50	60	70	80	90	100	110	120	130	140
260	25	30	40	50	60	70	80	90	100	110	120	130	140
270	25	30	40	50	60	70	80	90	100	110	120	130	140
280	25	30	40	50	60	70	80	90	100	110	120	130	140
290	25	30	40	50	60	70	80	90	100	110	120	130	140
300	25	30	40	50	60	70	80	90	100	110	120	130	140
310	25	30	40	50	60	70	80	90	100	110	120	130	140
320	25	30	40	50	60	70	80	90	100	110	120	130	140

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