

TECHNICAL GUIDE

080A15/EN32B

BS970: 1955	BS970: 1991	COLOUR CODE	DESCRIPTION
EN32B	080A15		Bright drawn / turned mild steel

CHEMICAL ANALYSIS	
Car	0.13 / 0.18
Sil	0.10 / 0.40
Mang	0.70 / 0.90
Phos	0.05 max
Sul	0.05 max

INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH BS 970:1991	080A15
BRITISH BS 970:1955	EN32B
GERMAN DIN	CK15
FRENCH AFNOR	
SWEDISH SS	1370
AMERICAN SAE	1016
EUROPEAN STEEL NO.	1.0407
EUROPEAN STEEL NAME	C16
EUROPEAN STANDARD	EN10277-2

QUICK VIEW SYSTEM	
MACHINEABILITY	100
WELDABILITY	Good
HARDENABILITY	Poor
SELECTION GUIDE AND USAGE EXAMPLES	General purpose engineering suitable for case hardening and welding

SIZES														
Size (ins. dia)	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1.1/16
	1.1/8	1.1/4	1.3/8	1.1/2	1.5/8	1.3/4	1.7/8	2	2.1/8	2.1/4	2.3/8	2.1/2	2.5/8	2.3/4
	2.7/8	3	3.1/4	3.1/2	3.3/4	4	4.1/4	4.1/2	4.3/4	5	5.1/4	5.1/2	5.3/4	6
	6.1/4	6.1/2	6.3/4	7	7.1/2	8	8.1/2	9	9.1/2	10	10.1/2	11	12	

Size (mm. dia)	3.00	4.00	5.00	6.00	8.00	10.00	12.00	15.00	16.00	17.00	18.00	19.00	20.00	22.00
	24.00	25.00	27.00	30.00	32.00	35.00	36.00	38.00	40.00	45.00	50.00	54.00	55.00	60.00
	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	110.00	180.00	240.00	320.00	330.00	350.00
	360.00	380.00	390.00											

SIZES						
Size (ins.)	1/4 x 3/16	1/2 x 1/8	1/2 x 1/4	1/2 x 3/8	5/8 x 1/8	5/8 x 1/4
	3/4 x 1/8	3/4 x 3/16	3/4 x 1/4	3/4 x 3/8	3/4 x 1/2	7/8 x 1/8
	7/8 x 1/4	1 x 1/8	1 x 3/16	1 x 1/4	1 x 3/8	1 x 1/2
	1 x 5/8	1 x 3/4	1.1/4 x 1/8	1.1/4 x 3/16	1.1/4 x 1/4	1.1/4 x 3/4
	1.1/4 x 1	1.1/2 x 1/8	1.1/2 x 3/16	1.1/2 x 1/4	1.1/2 x 5/16	1.1/2 x 3/8
	1.1/2 x 1/2	1.1/2 x 5/8	1.1/2 x 3/4	1.1/2 x 1	1.1/2 x 1.1/4	2 x 1/8
	2 x 3/16	2 x 1/4	2 x 3/8	2 x 1/2	2 x 5/8	2 x 3/4
	2 x 1	2 x 1.1/4	2 x 1.1/2	2.1/2 x 1/8	2.1/2 x 3/16	2.1/2 x 1/4
	2.1/2 x 5/16	2.1/2 x 3/8	2.1/2 x 1/2	2.1/2 x 5/8	2.1/2 x 3/4	2.1/2 x 1
	2.1/2 x 1.1/2	2.1/2 x 2	3 x 1/8	3 x 3/16	3 x 1/4	3 x 5/16
	3 x 3/8	3 x 1/2	3 x 5/8	3 x 3/4	3 x 1	3 x 1.1/2
	3 x 2	3 x 2.1/2	3.1/2 x 3/4	3.1/2 x 1.1/2	4 x 1/8	4 x 3/16
	4 x 1/4	4 x 3/8	4 x 1/2	4 x 5/8	4 x 3/4	4 x 1
	4 x 1.1/2	4 x 2	4 x 2.1/2	4 x 3	4.1/2 x 1/2	5 x 1/4
	5 x 5/16	5 x 3/8	5 x 1/2	5 x 5/8	5 x 3/4	5 x 1
	5 x 1.1/2	5 x 2	5 x 3	6 x 1/8	6 x 3/16	6 x 1/4
	6 x 3/8	6 x 1/2	6 x 5/8	6 x 3/4	6 x 1	6 x 1.1/2
	6 x 2	6 x 3	6 x 4	7 x 1/4	7 x 1/2	7 x 1
	8 x 1/4	8 x 3/8	8 x 1/2	8 x 5/8	8 x 3/4	8 x 1
	8 x 1.1/2	8 x 2	9 x 1/2	9 x 3/4	9 x 1	10 x 1/4
	10 x 3/8	10 x 1/2	10 x 1/2	10 x 5/8	10 x 3/4	10 x 1
	10 x 1.1/2	10 x 2	12 x 1/4	12 x 3/8	12 x 1/2	12 x 5/8
	12 x 3/4	12 x 1	14 x 1/2			

SIZES									
Size (mm)	6 x 3	10 x 3	10 x 5	10 x 6	12 x 3	12 x 5	12 x 6	12 x 8	12 x 10
	15 x 3	15 x 5	15 x 6	16 x 3	16 x 5	16 x 6	16 x 8	16 x 10	16 x 12
	20 x 3	20 x 4	20 x 5	20 x 6	20 x 8	20 x 10	20 x 12	20 x 16	25 x 3
	25 x 4	25 x 5	25 x 6	25 x 8	25 x 10	25 x 12	25 x 16	25 x 20	30 x 3
	30 x 5	30 x 6	30 x 8	30 x 10	30 x 12	30 x 16	30 x 20	30 x 25	32 x 10
	32 x 12	32 x 16	32 x 20	32 x 25	35 x 10	35 x 12	35 x 16	35 x 20	35 x 25
	35 x 30	40 x 1.25	40 x 3	40 x 5	40 x 6	40 x 8	40 x 10	40 x 12	40 x 16
	40 x 20	40 x 25	40 x 30	45 x 6	45 x 8	45 x 10	45 x 12	45 x 16	45 x 20
	45 x 25	45 x 30	45 x 40	50 x 3	50 x 5	50 x 6	50 x 8	50 x 10	50 x 12
	50 x 16	50 x 20	50 x 25	50 x 30	50 x 40	60 x 6	60 x 8	60 x 10	60 x 12
	60 x 16	60 x 20	60 x 25	60 x 30	60 x 40	65 x 6	65 x 10	65 x 12	65 x 16
	65 x 20	65 x 25	70 x 6	70 x 8	70 x 10	70 x 12	70 x 16	70 x 20	70 x 25
	70 x 30	70 x 40	70 x 50	75 x 1.5	75 x 6	75 x 8	75 x 10	75 x 12	75 x 16
	75 x 20	75 x 25	80 x 6	80 x 8	80 x 10	80 x 12	80 x 16	80 x 20	80 x 25
	80 x 30	80 x 40	80 x 50	80 x 60	90 x 6	90 x 10	90 x 12	90 x 16	90 x 20
	90 x 25	90 x 30	90 x 40	90 x 50	100 x 6	100 x 8	100 x 10	100 x 12	100 x 16
	100 x 20	100 x 25	100 x 30	100 x 40	100 x 50	110 x 10	110 x 20	125 x 6	125 x 10
	125 x 12	125 x 16	125 x 20	125 x 25	125 x 30	125 x 40	125 x 50	150 x 10	150 x 12
	150 x 16	150 x 20	150 x 25	160 x 6	160 x 8	160 x 10	160 x 12	160 x 16	160 x 20
	160 x 25	160 x 30	160 x 50	200 x 10	200 x 12	200 x 20	200 x 25		

Size (ins. sq)	3/16	1/4	3/8	1/2	5/8	3/4	7/8	1	1.1/4	1.1/2	1.3/4	2	2.1/4	2.1/2
	3	3.1/2	4	4.1/2	5	6								

Size (mm sq)	6	8	10	12	16	18	20	25	30	32	35	40	45	50
	60	70	80	90	100									

Size (mm)	16 x 16 x 3	20 x 20 x 3	25 x 25 x 3	25 x 25 x 5	30 x 30 x 3	32 x 32 x 4	32 x 32 x 5
	32 x 32 x 6	40 x 40 x 3	40 x 40 x 4	40 x 40 x 5	40 x 40 x 6	50 x 50 x 6	