

CAST IRON WEBBED
& NON WEBBED

ANGLE PLATES & BOX ANGLE PLATES

BOX ANGLE PLATES & ANGLE PLATES

'GRE' Cast Iron hand scraped Angle & Box Angle plates are manufactured to conform to IS 6232 : 2554 : 71 (BSS 3080) These are made from hard close grained castings (FG 260-IS 210). Grade 1 is precision hand scraped and Grade II is accurately machine finished.

All 'GRE' Angle & Box Angle Plates are provided with a suitable number of elongated holes on the working surface to facilitate clamping. 'T' slots on Angle Plates can be provided on the working surface at extra cost.

Unmachined faces are painted grey.

Precision Angle & Box Angle Plates to IS 6973 : 73 & 6985:73 are also manufactured by us against specific orders, where accuracies are closer than specified under IS 6232 : & 2554 : 71.

GRE Box Angle Plates are also manufactured as matched pairs to suit individual needs and supplied at extra cost.

Special Angle & Box Angle Plates can be manufactured with either plain faces, plain slots or 'T' slots to customer's requirements.

SPECIFICATION & STANDARDS FOR ANGLE PLATES AS PER IS 2554 : 71 (BSS 3080 : 59)

Product code	Size in mm			ACCURACIES T.I.R.			
	L	B	H	Flatness	Squareness	Parallelism	Slot Width
GRADE I							
CA-L01	175	100	125	0.005	0.013	0.015	10
CA-L02	250	150	175	0.008	0.015	0.018	12
CA-L03	350	200	250	0.008	0.018	0.020	14
CA-L04	450	300	350	0.010	0.018	0.020	14
CA-L05	600	400	450	0.010	0.020	0.023	20
GRADE II							
CA-L11	175	100	125	0.025	0.050	0.063	10
CA-L12	250	150	175	0.038	0.075	0.088	12
CA-L13	350	200	250	0.038	0.075	0.088	14
CA-L14	450	300	350	0.050	0.100	0.113	14
CA-L15	600	400	450	0.050	0.100	0.113	20

SPECIFICATION & STANDARDS FOR ANGLE PLATES AS PER IS 6232 : 71 (BSS 3080)

Product code	Size in mm			ACCURACIES T.I.R.			
	L	B	H	Flatness	Squareness	Parallelism	Slot Width
GRADE I							
CA-B01	175	100	125	0.005	0.013	0.015	10
CA-B02	250	150	175	0.008	0.015	0.018	12
CA-B03	350	200	250	0.008	0.018	0.020	14
CA-B04	450	300	350	0.010	0.018	0.020	14
CA-B05	600	400	450	0.010	0.020	0.023	20
GRADE II							
CA-B11	175	100	125	0.025	0.050	0.063	10
CA-B12	250	150	175	0.038	0.075	0.088	12
CA-B13	350	200	250	0.038	0.075	0.088	14
CA-B14	450	300	350	0.050	0.100	0.113	14
CA-B15	600	400	450	0.050	0.100	0.113	20

ALSO WE MANUFACTURE

GRANITE SURFACE PLATES
ANGLE PLATES & BOX ANGLE PLATES
BENCH CENTRES
TITLTING ANGLE PLATES
'V' BLOCKS
PARALLEL BLOCKS
DIAL STANDS
STRAIGHT EDGES
PALLETS
WORK HOLDING FIXTURES
RESURFACING SURFACE PLATES

"All other
 Non Standard
 &
 Special Plates
 could be
 manufactured
 to
 Client's
 Specs"

MANUFACTURED BY:



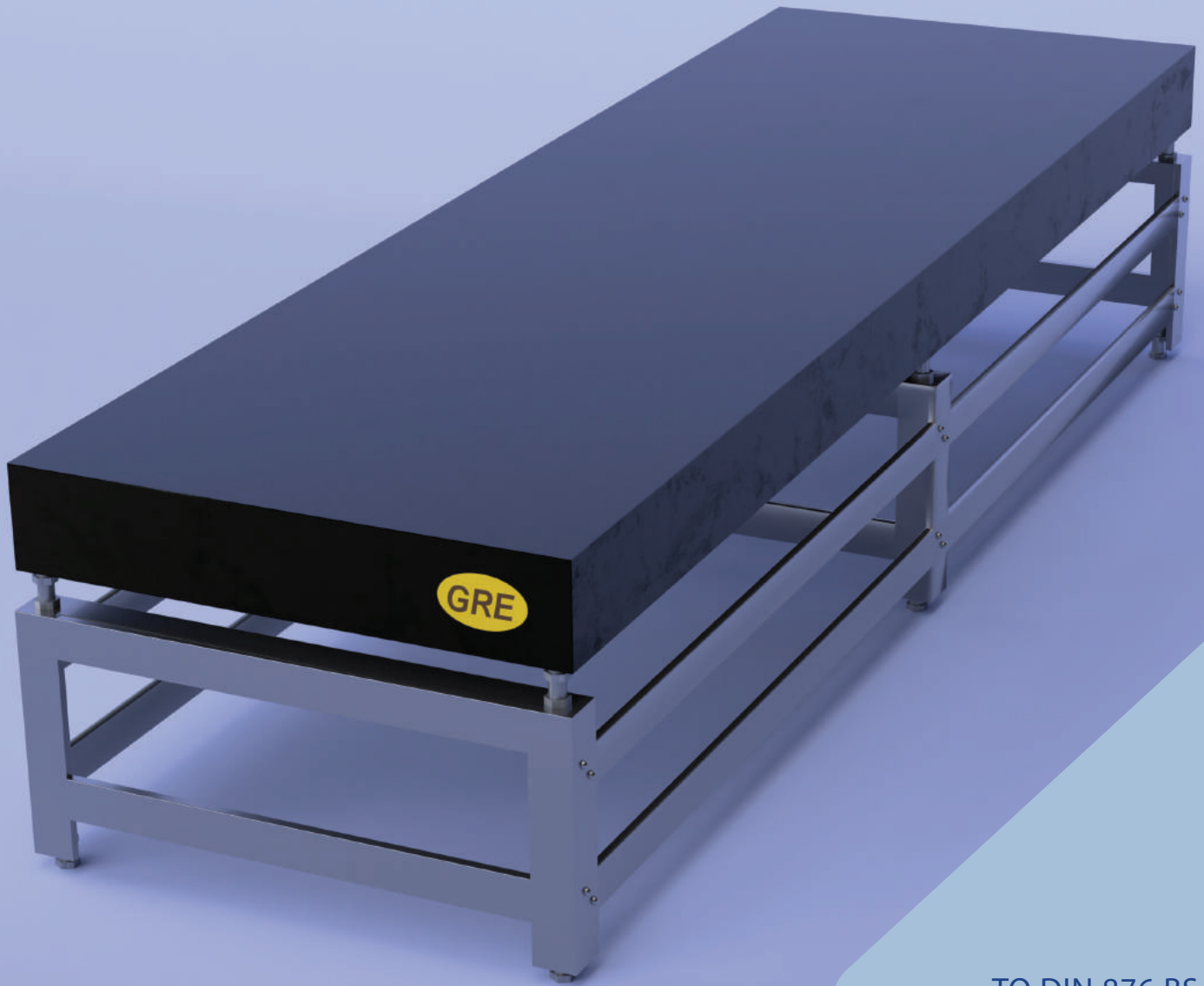
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TO DIN 876 BS &
IS 7327 - 2003
SPECIFICATIONS

BLACK GRANITE SURFACE PLATES & TABLES

LARGEST RANGE OF SURFACE PLATE & TABLES

BLACK GRANITE SURFACE PLATES & TABLES

Each 'GRE' Granite Surface Plate is the result of extremely careful and highly specialised finishing work based on many years of experience on the part of experts in the field of high precision surface plate manufacture.

'GRE' Granite Surface Plates are manufactured from the hardest granite available in South India. The density of Black Granite with its high hardness ensures greater resistance to wear.

'GRE' Granite plates are extremely heavy built. This provides special advantages, in terms of rigidity, since in accordance with deflection and torsion formul, the rigidity of a body increases by the cube law related to its thickness.

'GRE' Granite Plates have well radiused edges and corners for protection against shock while loading. The smooth matt polished exteriors impart a Pleasing appearance to the Plates. The measuring Surfaces are finished to a high standard of flatness, close Micro-structure and Wear resistance.

'T' slotted Granite Surface Plates with mounted centres are also manufactured.

Heavy duty Floor Stands suitable for all 'GRE' Granite Plates are supplied at extra cost.

EVERY 'GRE' PLATE IS CHECKED FOR FLATNESS WITH AN ELECTRONIC LEVEL & INSPECTION REPORT FURNISHED TO RELATIVE IS, DIN / BS FEDERAL SPECIFICATIONS. NABL APPROVED LAB INSP REPORT CAN ALSO BE FURNISHED

PRICES AND ACCURACIES FOR BIGGER & OPTIMUM PRECISION GRANITE PLATES COULD BE FURNISHED ON REQUEST.

'GRE' Plates are supplied either as a Block or with 2 lips

SPECIFICATION & ACCURACIES AS PER DIN 876

Product code	Size of Plate		Permissible deviations from absolute theoretical plane (in Microns)		
	L	B	Gr. 1	Gr. 0	Gr. 00
GS-01	400	400	5.6	2.8	1.4
GS-02	450	450	5.6	2.8	1.4
GS-03	600	450	6.6	3.3	1.6
GS-04	630	630	6.6	3.3	1.6
GS-05	630	1000	8.0	4.0	2.0
GS-06	1000	1000	8.0	4.0	2.0
GS-07	1600	1000	10.0	5.0	2.5
GS-08	2000	1000	12.0	6.0	3.0

Heavy duty floor stands suitable for all 'GRE' Granite Plates are supplied at extra cost

SPECIFICATION AS PER IS 7327 : 2003

Product code	Size of Plate	Diagonal length (approx) mm	Border Zone	Tolerance on deviation from flatness overall grades of plates			
				0	1	2	3
GS-01	400 x 400 mm	566	8	4.5	9	17	34
GS-02	630 x 400 mm	745	8	5	10	20	39
GS-03	630 x 630 mm	891	13	5	10	21	42
GS-04	1000 x 630 mm	1180	13	6	12	24	49
GS-05	1000 x 1000 mm	1414	20	7	14	28	56
GS-06	1600 x 1000 mm	1880	20	8	16	33	66
GS-07	2000 x 1000 mm	2236	20	9.5	19	38	75
GS-08	2500 x 1000 mm	2960	20	11.5	23	46	92

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'V' BLOCKS
PARALLEL BLOCKS
DIAL STANDS
STRAIGHT EDGES
PALLETS
WORK HOLDING FIXTURES
RESURFACING SURFACE PLATES

"All other Non Standard & Special Plates could be manufactured to Client's Specs"

MANUFACTURED BY:



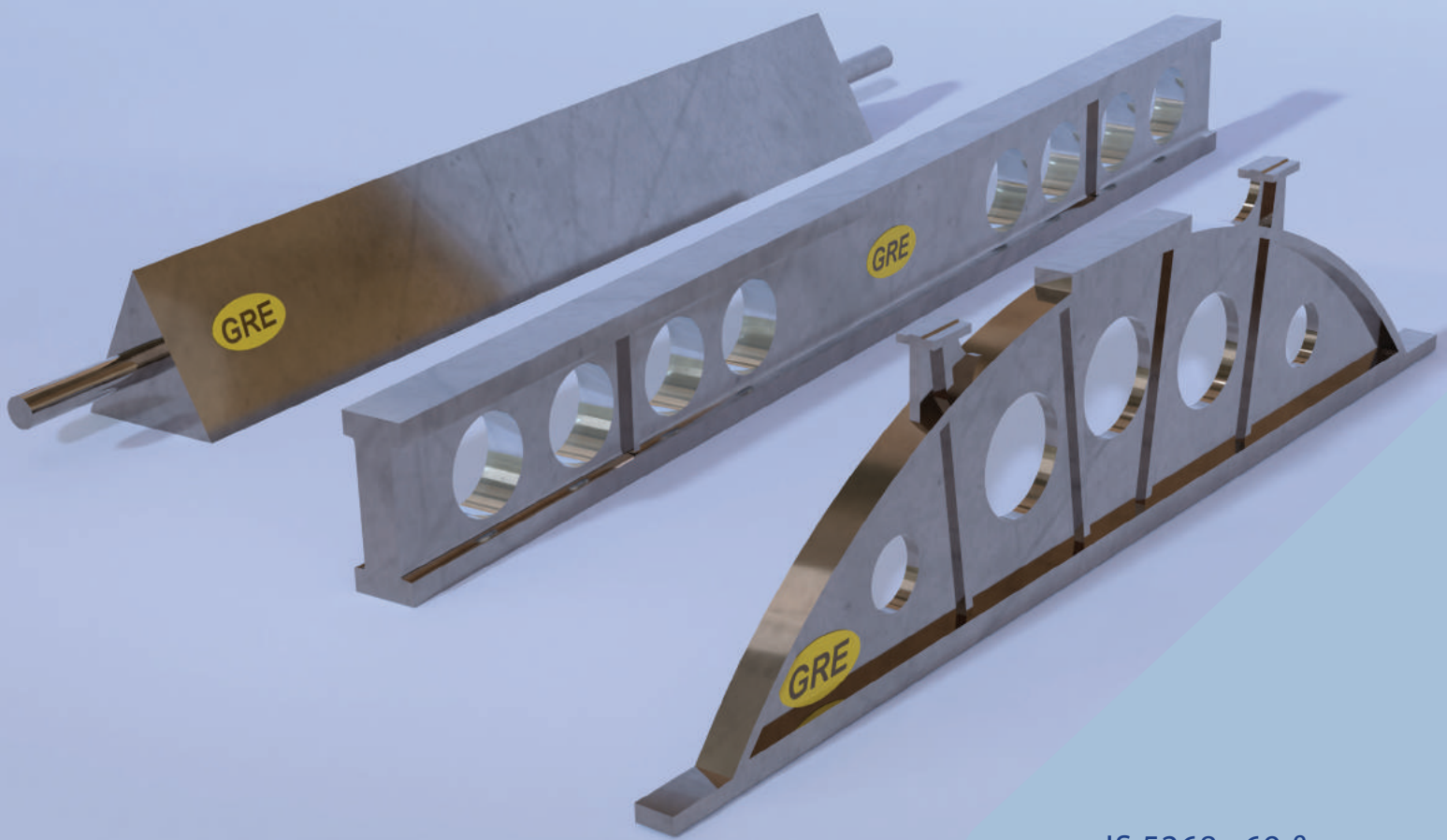
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IS 5268 : 69 &
IS 8823 : 1978

I SEC STRAIGHT EDGES - TRIANGULAR ST. EDGES

'I' SEC STRAIGHT EDGES - TRIANGULAR ST. EDGES

GRE "I" Section Straight Edges manufactured in various sizes & grades to suit individual requirements.

These are made from high quality close Grained Cast Iron to IS 210 FG 200/220.

Accuracy is achieved by HAND SCRAPING to be within tolerances set for CI straight edges in IS 5268:69. Painted Wooden Cover is supplied to protect working surface at extra cost.

SPECIFICATION AS PER IS 5268 : 69

Product code	Length	Breadth	Height	Flatness & Parallelism of Both Faces T.I.R.
				microns
CSt.I-01	300	30	60	3
CSt.I-02	500	30	60	4
CSt.I-03	500	80	80	6
CSt.I-04	1000	100	100	8
CSt.I-05	1500	70	200	13
CSt.I-06	2000	70	200	16
CSt.I-07	3000	100	200	25
CSt.I-08	4000	100	200	35
CSt.I-09	5000	100	200	40

STANDARD SIZE AND ACCURACY OF TRIANGULAR STRAIGHT EDGES AS PER IS: 8823-1978, GRADE - I

Product Code	Length	Angle between working surfaces (in Degrees)			Tolerance on Flatness of working surfaces
		30	45	60	
	mm	Width of working surface mm			microns
CSt.T-01	500	70	70	60	4
CSt.T-02	750	90	90	80	6
CSt.T-03	1000	110	110	100	8
CSt.T-04	1250	130	130	110	13
CSt.T-05	1500	130	130	110	13
CSt.T-06	2000	130	130	110	16

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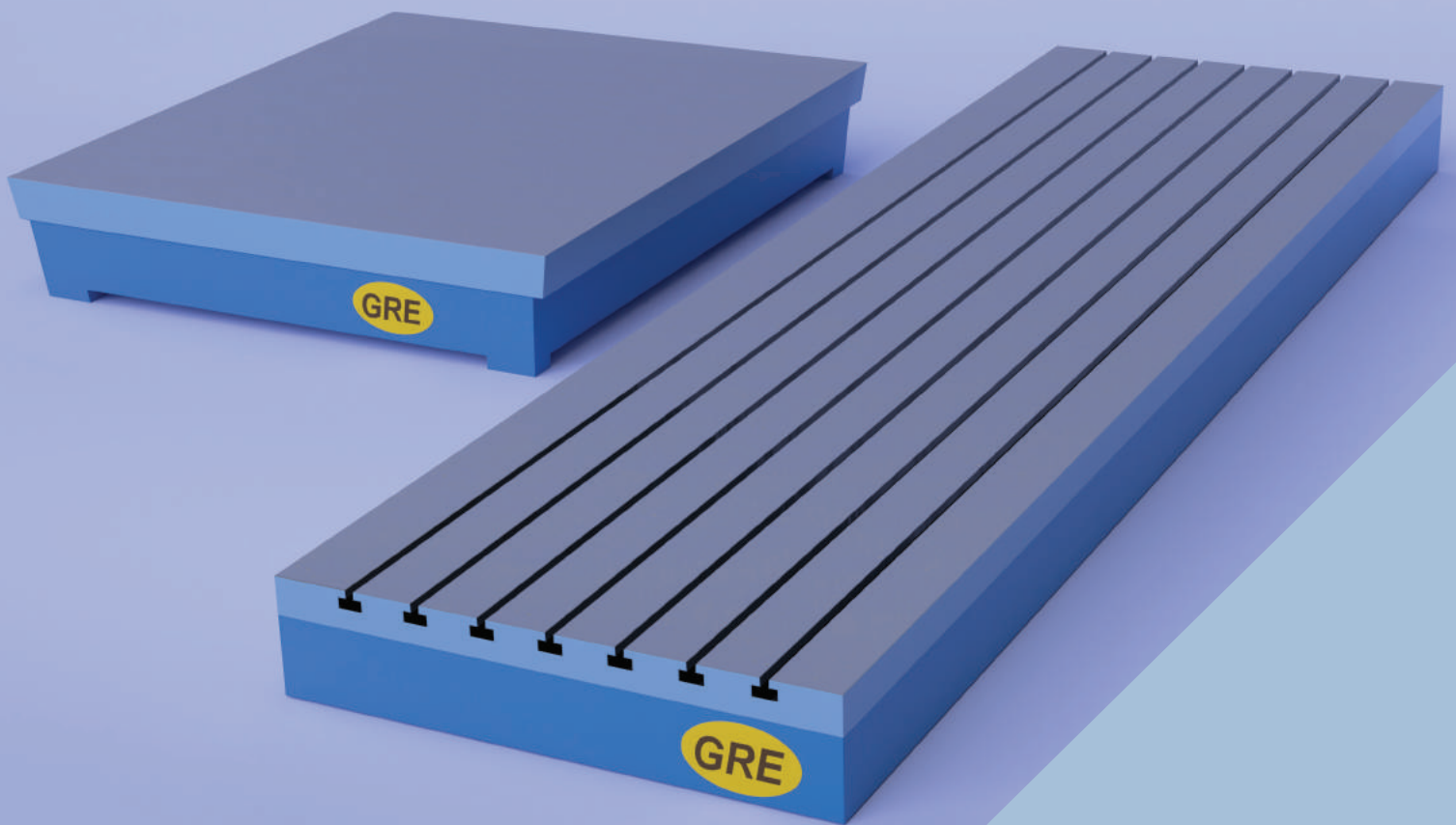
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TO IS 2285, DIN 876 &
BS.817 & IS 10602
ACCURACIES

CAST IRON SURFACE PLATES, BED PLATES & 'T' SLOTTED FLOOR PLATES

LARGEST RANGE OF SURFACE PLATE & TABLES

SURFACE PLATES, BED PLATES & 'T' SLOTTED FLOOR PLATES

'GRE' Cast iron hand scraped Surface Plate conforms to IS 2285. These Plates are manufactured in various sizes & grades to suit customer's exact requirements. Grade I being PRECISION HAND SCRAPED and Grade II accurately finish machined to tolerance.

'GRE' Surface Plates are made of close grained Cast iron to IS 210 Grade FG 200 or FG 220/260 with Hardness 170-200 BHN. Adequate care has been taken in the design of Ribbing to meet requirements of IS / BS & DIN specifications. These are artificially seasoned as recommended by IS 2285 & BS 817 and HAND SCRAPED accurately, so that the error in flatness over any 100 mm distance shall not exceed as per details furnished hereunder.

Surface Plates are also supplied with one or more 'T' slots as per customer's need at extra cost.

'GRE' Surface Plates up to 630 x 630 mm are provided with handles. Sizes over 1000 x 1000 mm and above are provided with lifting arrangement. CI floorstands or fabricated stand could be supplied along with 'GRE' Plates at an added cost.

'Special 'T' Slotted Bed Plates are manufactured to suit customer's requirements for varied application. Plate size 2000 x 2000 mm onwards upto 6000 x 2000 mm and combination thereof are under manufacturing programme. Bed Plates & AUXILIARY PLATES for HORIZONTAL BORING MACHINES are also manufactured to IS 10602-83. These are Combination Type Plates & manufactured with Square side faces, so that, when one or more plates are combined, large configuration is obtained -

EACH "GRE" PLATE IS INSPECTED & INSPECTION REPORT AWARDED

CAST IRON SURFACE PLATES SPECIFICATION AS PER IS 2285 : 2003

Product Code	Size of Plate	Diagonal length (approx)	Border Zone	Tolerance on deviation from flatness overall grades			
				0	1	2	3
CS-01	160 x 100	188	2	3	6	12	25
CS-02	250 x 160	296	3	3.5	7	14	27
CS-03	250 x 250	354	5	3.5	7	15	30
CS-04	400 x 250	471	5	4	8	16	32
CS-05	400 x 400	566	8	4.5	9	17	34
CS-06	630 x 400	745	8	5	10	20	39
CS-07	630 x 630	891	13	5	10	21	42
CS-08	1000 x 630	1180	13	6	12	24	49
CS-09	1000 x 1000	1414	20	7	14	28	56
CS-10	1600 x 1000	1880	20	8	16	33	66
CS-11	2000 x 1000	2236	20	9.5	19	38	75
CS-12	2500 x 1600	2960	20	11.5	23	46	92

CAST IRON "T" SLOTTED FLOOR PLATES SPECIFICATION AS PER IS:10602

Product Code	L/B	H	No of 'T' Slots	Max Permissible Deviation from Flatness		Straightness of 'T' Slot	
				GRADE 'I'	GRADE 'II'	GRADE 'I'	GRADE 'II'
CF-01	1000 x 1000	250	6	0.025	0.05	0.02	0.05
CF-02	2000 x 2000	250	8	0.050	0.10	0.04	0.07
CF-03	2000 x 3000	300	8	0.075	0.15	0.06	0.10
CF-04	2000 x 4000	300	8	0.100	0.20	0.08	0.14
CF-05	2000 x 5000	300	8	0.125	0.25	0.10	0.17
CF-06	2000 x 6000	300	8	0.150	0.30	0.10	0.21
		400	8	0.150	0.30	0.10	0.21

1) Tolerances for hand scraped plates on deviation from flatness overall are expressed to the nearest µm.

1) 1 µm for plates of grade 1,2,3

2) 0.5 µm for plates of grade '0'

NOTE:

Special sizes can also be offered to customer's requirement both as individual larger and combined plates adding more than one unit.

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