

Mandrels required for 180 degree Bend Testing & for Bend Rebend testing as per BS : 4449-2005 & IS : 1786-2008.

Grade	Fe. 415 Grade		Fe. 415D Grade		Fe. 500 Grade		Fe. 500D Grade		Fe. 550 Grade		Fe. 550D Grade		Fe. 600 Grade	
Dia of TMT Bars (in mm) (D)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebind Mandrels Dia (in mm)
8	24	40	16	32	32	40	24	32	40	56	32	48	40	56
10	30	50	20	40	40	50	30	40	50	70	40	60	50	70
12	36	84	24	72	48	84	36	72	60	96	48	84	60	96
16	48	112	32	96	64	112	48	96	80	128	64	112	80	128
20	60	140	40	120	80	140	60	120	100	160	80	140	100	160
25	100	175	75	150	125	175	100	150	150	200	125	175	150	200
28	112	196	84	168	140	196	112	168	168	224	140	196	168	224
32	128	224	96	192	160	224	128	192	192	256	160	224	192	256
36	144	252	108	216	180	252	144	216	216	288	180	252	216	288
40	160	280	120	240	200	280	160	240	240	320	200	280	240	320

As per BS : 4449-2005 (Bend - 90° / Bend Back - 20°) ; As per IS : 1786-2008 (Bend - 135° / Re-bend - 157.5°)

Grade	Fe. 415 Grade	Fe. 415D Grade	Fe. 415 / 500 Grade	Fe. 500 Grade	Fe. 500D Grade	Fe. 415D / 500D Grade	Fe. 550 Grade	Fe. 550D Grade	Fe. 550 / 600 Grade	Fe. 600	Fe. 550D		
Dia of TMT Bars (in mm) (D)	180° Mandrels Dia (in mm)		Bend Rebend Mandrels Dia (in mm)	180° Mandrels Dia (in mm)		Bend Rebend Mandrels Dia (in mm)	180° Mandrels Dia (in mm)		Bend Rebend Mandrels Dia (in mm)	180° Mandrels Dia (in mm)	Bend Rebend Mandrels Dia (in mm)		
8	3 D (Upto & including 20 mm)	2 D (Upto & including 20 mm)	5 D (Upto & including 10 mm)	4 D (Upto & including 20 mm)	3 D (Upto & including 20 mm)	4 D (Upto & including 10 mm)	5 D (Upto & including 20 mm)	4 D (Upto & including 20 mm)	7 D (Upto & including 10 mm)	5 D (Upto & including 20 mm)	6 D (Upto & including 10 mm)		
10			7 D (Over 10 mm)			5 D (Over 20 mm)			6 D (Over 10 mm)		6 D (Over 20 mm)	8 D (Over 10 mm)	6 D (Over 20 mm)
12													
16													
20													
25	4 D (Over 20 mm)	3 D (Over 20 mm)	7 D (Over 10 mm)	5 D (Over 20 mm)	4 D (Over 20 mm)	6 D (Over 10 mm)	6 D (Over 20 mm)	5 D (Over 20 mm)	8 D (Over 10 mm)	6 D (Over 20 mm)	7 D (Over 10 mm)		
28													
32													
36													
40													