



RECTANGULAR WAVEGUIDE STRAIGHT SECTIONS, BENDS AND TWISTS

10 / 120 / 130 / 150 SERIES

**DATA
SHEET
No. T16D
1 of 2**

- LOW VSWR
- LOW INSERTION LOSS
- PRECISION FABRICATION



DESCRIPTION

MEC's Straight Sections of Rectangular Waveguide are useful for field and laboratory applications where lowest loss and VSWR are required. The waveguide conforms to MIL-W-85. Straight Sections can be supplied up to 12 feet long. Bends and Twists may be used alone or in combination for systems packaging. Straights, Bends and Twists are normally supplied with UG cover flanges; however choke, CPR, CMR and other flanges may be requested. VSWR of Standard Waveguide models is 1.03 typical, 1.05 max. over the full waveguide band while insertion loss is essentially that of straight waveguide. Units are available in aluminum or copper. Finish is chromate conversion per MIL-C-5541, Class 3 for aluminum and corrosion-resistant coatings for all others, painted with gray enamel.

SPECIFICATIONS

FREQUENCY (GHz)	WAVEGUIDE SIZE	STRAIGHT SECTION	E PLANE BEND		H PLANE BEND		TWIST		MATERIAL
		MODEL NO.	MODEL NO.	A	MODEL NO.	A	MODEL NO.	A	
STANDARD WAVEGUIDE									
1.0 – 1.45	WR770	E10	E120	24.0	E130	24.0	E150	—	A
1.12 – 1.70	WR650	L10	L120	15.0	L130	15.0	L150	24.0	A
1.45 – 2.20	WR510	LM10	LM120	15.0	LM130	15.0	LM150	24.0	A
1.70 – 2.60	WR430	LA10	LA120	15.0	LA130	15.0	LA150	24.0	A
2.20 – 3.30	WR340	LS10	LS120	12.0	LS130	12.0	LS150	24.0	A
2.60 – 3.95	WR284	S10	S120	4.75	S130	6.50	S150	11.0	A,C
3.30 – 4.90	WR229	B10	B120	5.00	B130	8.00	B150	12.0	A,C
3.95 – 5.85	WR187	G10	G120	3.00	G130	4.50	G150	8.0	A,C
4.90 – 7.05	WR159	D10	D120	4.25	D130	4.25	D150	7.0	A,C
5.85- 8.20	WR137	J10	J120	2.38	J130	2.75	J150	6.0	A,C
7.05 – 10.0	WR112	H10	H120	1.50	H130	2.63	H150	6.0	A,C
7.0 – 11.0	WR102	W10	W120	2.31	W130	2.63	W150	6.0	A,C
8.2 – 12.4	WR90	X10	X120	1.50	X130	1.69	X150	6.0	A,C
10.0 – 15.0	WR75	M10	M120	1.50	M130	1.69	M150	6.0	A,C
12.4 – 18.0	WR62	P10	P120	1.69	P130	1.84	P150	6.0	A,C
15.0 – 22.0	WR51	N10	N120	1.50	N130	1.50	N150	4.0	A,C
18.0 – 26.5	WR42	K10	K120	1.50	K130	1.50	K150	3.5	A,C
22.0 – 33.0	WR34	Y10	Y120	1.50	Y130	1.50	Y150	3.0	A,C
26.5 – 40.0	WR28	A10	A120	1.38	A130	1.44	A150	3.0	A,C
REDUCED HEIGHT									
2.60 – 5.85	M85/4 - 001	S2-10	S2-120*	5.00	—	—	S2-150*	11.0	C
5.85 – 12.4	M85/4 - 003	J2-10	J2-120	2.38	—	—	J2-150*	8.0	C
MEC FLATGUIDE									
8.0 – 18.0	(F750)M85/4-003	F10	F120§	3.00	F130†	3.75	F150§	5.00	A
7.0 – 18.0	(F700)M85/4-029,-027	F11	F120§	3.00	F131†	4.25	F151§	6.00	A,C
4.0 – 10.4	(F400)M85/4-023	F12	F122§	2.50	F132†	4.75	F152§	9.00	A

*VSWR § VSWR<1.08 † VSWR<1.12

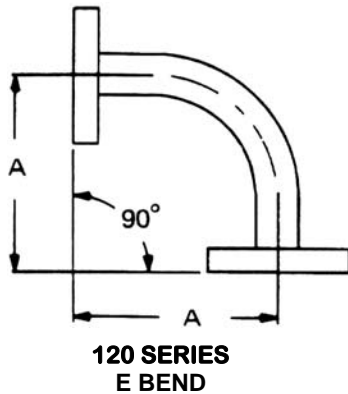




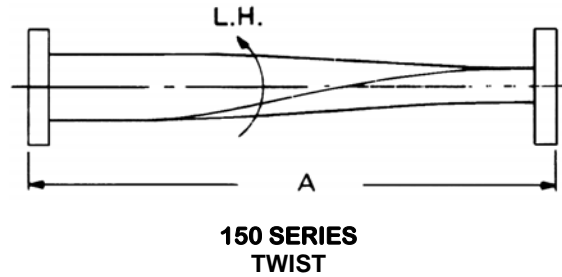
RECTANGULAR WAVEGUIDE STRAIGHT SECTIONS, BENDS AND TWISTS

10 / 120 / 130 / 150 SERIES

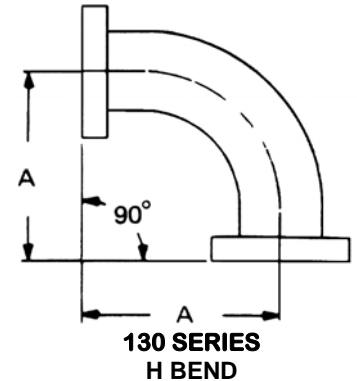
DATA SHEET
No. T16D
2 of 2



120 SERIES
E BEND



150 SERIES
TWIST



130 SERIES
H BEND

ORDERING INFORMATION

- (1) For 10 Series STRAIGHT SECTIONS, add suffixes to model number as follows:
 - (a) LENGTH: Specify face-to-face length in inches.
 - (b) MATERIAL: A for Aluminum; C for Copper
 - (c) FLANGES: 1 for Cover; 2 for Choke; 3 for CMR; 4 for CPRF, 5 for CPRG. See Data Sheet T5C for Reduced Height & MEC FLATGUIDE Flanges.
- (2) For Series 120/130 BENDS and Series 150 TWISTS, add suffixes to model numbers as follows:
 - (a) ANGLE: Suffix desired angle in degrees if other than 90°.
 - (b) MATERIAL: A for Aluminum; C for Copper.
 - (c) FLANGES: Cover flanges are standard. For others, specify as above.
- (3) Coin silver available above 18 GHz on request.
- (4) Heavy Wall and Extra Heavy Wall small radius copper bends also available: e.g. WR90 H Bend with "A" dimension = 1.50" and wall thickness = 0.200".
- (5) Mitered Bends are available to provide even shorter "A" dimensions: e.g. X120-M and X130-M have leg lengths of only 1.0". Specify "M" for mitered bends.
- (6) Other sizes, configurations and combinations available on request. MEC has one of the largest waveguide facilities to satisfy unique customer requirements. See Data Sheet B20C.

