COMETEL s.r.l.

SEAMLESS FLEXIBLE WAVEGUIDE

Characteristics of the product and relative advantage.

Lengths Max 1200 mm (±50 mm)

Advantage:
Minor reject of production, and by consequence saving costs; possibility of producing single straight component with maximum dimensions.

Strait and repetitive tollerance on extern dimensions ± 0,3 mm.

Advantage:
According to the part of supply, for welding the waveguide, the dimensions of the flange don't have to be corrected continuosly.
No twistable on the diagonal axis of the guide, in all his lengths.

Advantage:
Easy alignment is corrected by the flange during the welding.
No strain or deformity of the material during the formation of folding.

Advantage:
Good mecanical resistance on the repeated vibrations.

High flexibility

Advantage:
Possibility of bending the guide on two planes E and H, also on reduced radius (permanent deformation), without changing the value of the V.S.W.R. and insertion loss I.L.
The internal dimensions and internal radius of curving is meticulous studied so that the value of the V.S.W.R. is the lowest possible in all the frequency of production.

All dimensions are in mm.

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Electrical and Mechanical Specification for Flexible Waveguide in Brass

Standard Code	Waveguide Type		Frequency Range [GHz]	V.S.W.R. max	Attenuation (dB/m)	Power rating CW Max at 1 atm (Kwatt)	Dimension Lenght	Operating pressure Max P.S.I.G	Min. bending radius neutral axis Plane E	Min. bending radius neutral axis Plane H	Weight gr/mt
12B18	R48	WR187	3.95÷5.95	1.06	0.3	t.b.d.	1200	t.b.d.	75/80	95/100	480
12B13	R70	WR137	5.6÷8.5	1.07	0.2	3.5	1200	30	30	50	352
12B11	R84	WR112	6.6÷10.0	1.07	0.25	3.0	1200	35	25	45	296
12B90	R100	WR90	8.2÷12.5	1.07	0.3	2.2	1200	45	22	43	219
12B75	R120	WR75	10.0÷15.0	1.07	0.4	2.0	1200	45	20	40	152
12B62	R140	WR62	12.4÷18.0	1.08	0.45	1.5	1200	45	18	30	122
12B51	R180	WR51	14.5÷22.0	1.08	0.60	1.0	1200	45	15	25	108
12B42	R220	WR42	17.6÷26.7	1.10	0.9	0.8	900	45	10	20	56
12B32	R320	WR28	26.5÷40.1	1.10	1.6	0.6	900	45	10	15	44

Electrical and Mechanical Specification for Flexible Waveguide in Berillium Copper

Standard Code	Waveguide Type		Frequency Range [GHz]	V.S.W.R. max	Attenuation (dB/m)	Power rating CW Max at 1 atm (Kwatt)	Dimension Lenght	Operating pressure Max P.S.I.G	Min. bending radius neutral axis Plane E	Min. bending radius neutral axis Plane H	Weight gr/mt
12C13	R70	WR137	5.6÷8.5	1.07	0.2	3.5	1200	30	30	50	308
12C11	R84	WR112	6.6÷10.0	1.07	0.25	3.0	1200	35	25	45	250
12C90	R100	WR90	8.2÷12.5	1.07	0.3	2.2	1200	45	22	43	183
12C75	R120	WR75	10.0÷15.0	1.07	0.4	2.0	1200	45	20	40	131
12C62	R140	WR62	12.4÷18.0	1.08	0.45	1.5	1200	45	18	30	98
12C51	R180	WR51	14.5÷22.0	1.08	0.60	1.0	1200	45	15	25	99
12C42	R220	WR42	17.6÷26.7	1.10	0.9	0.8	900	45	10	20	47
12C32	R320	WR28	26.5÷40.1	1.10	1.6	0.6	900	45	10	15	37

All dimensions are in mm.

Electrical and Mechanical Specification for Flexible Waveguide in Phosphor Bronze

Standard Code	*Waveguide Type*		*Frequency Range [GHz]*	*V.S.W.R. max*	*Attenuation (dB/m)*	*Power rating CW Max at 1 atm (Kwatt)*	*Dimension Lenght*	*Operating pressure Max P.S.I.G*	*Min. bending radius neutral axis Plane*		*Weight gr/mt*
									E	*H*	
12P18	R48	WR187	3.95÷5.95	1.06	0.3	t.b.d.	1200	t.b.d.	75/80	95/100	480

All dimensions are in mm.

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INSERT YOUR REQUEST AND CREATE YOUR CODE FOR STANDARD FLEXIBLE WAVEGUIDE

(SEE EXAMPLE TABLE)

12	B	42	900
CODE	BODY MATERIAL	WAVEGUIDE COMETEL TYPE	LENGHT IN mm

C	BERILLIUM COPPER
B	BRASS
P	PHOSPHOR BRONZE

CODE	R	WR
18	48	187
13	70	137
11	84	112
90	100	90
75	120	75
62	140	62
51	180	51
42	220	42
32	320	28

THIS CODE REFERS TO

STANDARD FLEXIBLE WAVEGUIDE WR 42 TYPE IN BRASS LENGTH = 900 MM

All dimensions are in mm.