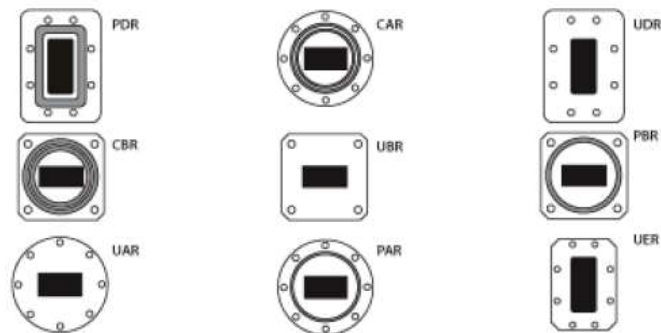


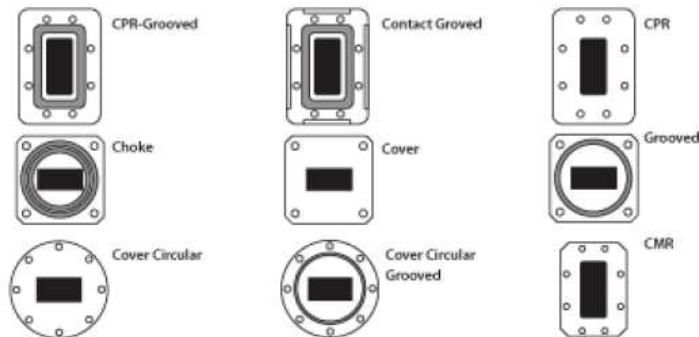
## Flange Types Designations

Dolph Microwave Components and Engineering manufacture and supply flanges made to current IEC and EIA standards.

### European IEC Standard Flanges



### North American EIA Standard Specifications



WG Type		A Type			B Type			D Type		FUGP
EIA Std	IEC Std	FAP (RND COVER)	FAM (RND GROOV ED)	FAE (RND CHOK E)	FBP (SQ COVER)	FBM (SQ GROOV ED)	FBE (SQ CHOK E)	FDP (CPRF)	FDM (CPRG)	
WR2300	R3							FDP3	FDM3	
WR2100	R4							FDP4	FDM4	
WR1800	R5							FDP5	FDM5	
WR1500	R6							FDP6	FDM6	

WR1150	R8							FDP8	FDM8	
WR975	R9							FDP9	FDM9	
WR770	R12							FDP12	FDM12	
WR650	R14							FDP14	FDM14	
WR510	R18							FDP18	FDM18	
WR430	R22							FDP22	FDM22	
WR340	R26							FDP26	FDM26	
WR284	R32	FAP32	FAM32	FAE32				FDP32	FDM32	
WR229	R40	FAP40	FAM40	FAE40				FDP40	FDM40	
WR187	R48	FAP48	FAM48	FAE48				FDP48	FDM48	
WR159	R58	FAP58	FAM58	FAE58				FDP58	FDM58	
WR137	R70	FAP70	FAM70	FAE70				FDP70	FDM70	
WR112	R84				FBP84	FBM84	FBE84	FDP84	FDM84	
WR90	R100				FBP100	FBM100	FBE100	FDP100	FDM100	
WR75	R120				FBP120	FBM120	FBE120	FDP120	FDM120	
WR62	R140				FBP140	FBM140	FBE140	FDP140	FDM140	
WR51	R180				FBP180	FBM180	FBE180	FDP180	FDM180	
WR42	R220				FBP220	FBM220	FBE220			
WR34	R260				FBP260	FBM260	FBE260			
WR28	R320				FBP320	FBM320	FBE320			
WR22	R400	FAP400	FAM400							FUGP400
WR18	R500	FAP500	FAM500							FUGP500
WR14	R620	FAP620	FAM620							FUGP620
WR12	R740	FAP740	FAM740							FUGP740
WR10	R900	FAP900	FAM900							FUGP900

## Rectangular Waveguide Tubing Information

Model No	EIA WG	IEC WG	Fre. (GHz)	Material	Inside Dimensions (mm)	Std Tol ±Inside Dim(mm)	Nom Wall Thickness (mm)	Outside Dimension s (mm)	Std Tol ±Outside Dim(mm)	Freq of Cut-Off for TE <sub>1,0</sub> Mode(GHz)	Wave-length of Cut-Off for TE <sub>1,0</sub> Mode(mm)	Theoretical Attenuation lowest to highest freq (dB/100ft)	
												Al	Cu
DH-BJ3	WR2300	R3	0.32-0.49	Al	584.2*292.1		6			0.257	1169.2	0.27-0.4	
DH-BJ4	WR2100	R4	0.35-0.53	Al	533.4*266.7		5			0.281	1067.5	0.31-0.46	
DH-BJ5	WR1800	R5	0.41-0.62	Al	457.2*228.6	0.51	5			0.328	915.0	0.39-0.58	
DH-BJ6	WR1500	R6	0.49-0.75	Al	381*190.5	0.38	3.18			0.393	762.5	0.51-0.76	
DH-BJ8	WR1150	R8	0.64-0.98	Al	292.1*146.05	0.38	3.18			0.513	584.6	0.760-0.113	
DH-BJ9	WR975	R9	0.76-1.15	Al	247.65*123.82		3.18			0.605	495.6	0.098-0.145	
DH-BJ12	WR770	R12	0.96-1.46	Al	195.58*97.79		3.18			0.766	391.4	0.140-0.206	
DH-BJ14	WR650	R14	1.13-1.73	Co/Al	165.1*82.55	0.33	2.03	169.16*86.61	0.2	0.908	330.4	0.18-0.266	0.214-0.317
DH-BJ18	WR510	R18	1.45-2.2	Co/Al	129.54*64.77	0.26	2.03	133.6*68.83	0.2	1.157	259.1	0.259-0.382	0.309-0.456
DH-BJ22	WR430	R22	1.72-2.61	Co/Al	109.22*54.61	0.22	2.03	113.28*58.67	0.2	1.372	218.4	0.334-0.494	0.399-0.588
DH-BJ26	WR340	R26	2.17-3.3	Co/Al	86.36*43.18	0.17	2.03	90.42*47.24	0.17	1.736	172.7	0.475-0.702	0.567-0.837

DH-BJ32	WR284	R32	2.6-3.95	Co/Al	72.14*34.04	0.14	2.03	76.2*38.1	0.14	2.078	144.3	0.652-0.953	0.777-1.136
DH-BJ40	WR229	R40	3.22-4.9	Co/Al	58.17*29.08	0.12	1.625	61.42*32.33	0.12	2.577	116.3	0.86-1.27	1.026-1.514
DH-BJ48	WR187	R48	3.94-5.99	Co/Al	47.549*22.149	0.095	1.625	50.8*25.4	0.1	3.153	95.1	1.231-1.795	1.467-2.14
DH-BJ58	WR159	R58	4.64-7.05	Co/Al	40.386*20.193	0.081	1.625	43.64*23.44	0.08	3.712	80.77	1.487-2.195	1.773-2.617
DH-BJ70	WR137	R70	5.38-8.17	Co/Al	34.849*15.799	0.07	1.625	38.1*19.05	0.08	4.301	69.7	2.004-2.910	2.390-3.470
DH-BJ84	WR112	R84	6.57-9.99	Co/Al	28.499*12.624	0.057	1.625	31.75*15.88	0.05	5.260	57	2.761-3.993	3.292-4.761
DH-BJ100	WR90	R100	8.2-12.5	Co/Al	22.86*10.16	0.046	1.27	25.4*12.7	0.05	6.557	45.72	3.833-5.547	4.570-6.614
DH-BJ120	WR75	R120	9.84-15	Co/Al	19.05*9.525	0.038	1.27	21.59*12.06	0.05	7.869	38.1	4.590-6.775	5.472-8.078
DH-BJ140	WR62	R140	11.9-18	Co/Al	15.799*7.899	0.031	1.015	17.83*9.93	0.05	9.488	31.6	6.077-8.971	7.246-10.696
DH-BJ180	WR51	R180	14.5-22	Co/Al	12.95*6.477	0.026	1.015	14.99*8.51	0.05	11.575	25.91	8.185-12.082	9.759-14.406
DH-BJ220	WR42	R220	17.6-26.7	Co/Al	10.668*4.318	0.021	1.015	12.7*6.35	0.05	14.051	21.34	12.970-18.487	15.464-22.042
DH-BJ260	WR34	R260	21.7-33	Co/Al	8.636*4.318	0.02	1.015	10.67*6.35	0.05	17.358	17.27	15.036-22.197	17.928-26.465



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DH-BJ320	WR28	R320	26.3-40	Co/Al	7.12*3.556	0.02	1.015	9.14*5.59	0.05	21.053	14.22	20.120-29.701	23.989-35.413
DH-BJ400	WR22	R400	32.9-50.1	Co/Al	5.69*2.845	0.02	1.015	7.72*4.88	0.05	26.344	11.38	28.119-41.508	33.526-49.491
DH-BJ500	WR19	R500	39.2-59.6	Cu	4.775*2.388	0.02	1.015	6.81*4.42	0.05	31.393	9.55		43.603-64.367
DH-BJ620	WR15	R620	49.8-75.8	Cu	3.795*1.88	0.02	1.015	5.79*3.91	0.05	39.499	7.52		62.425-92.152
DH-BJ740	WR12	R740	60.5-91.9	Cu	3.0988*1.5494	0.0127	1.015	5.13*3.58	0.05	48.374	6.2		83.409-123.128
DH-BJ900	WR10	R900	73.8-112	Cu	2.54*1.27	0.0127	1.015	4.57*3.3	0.05	59.016	5.08		112.397-165.920



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## *Wave Band Designations*

Frequency	Wave Band Designations		Frequency	Wave Band Designations	
	Old	New		Old	New
500~1000 MHz	VHF	C	8~10GHz	X	I
1~2GHz	L	D	10~12.4GHz	X	J
2~3GHz	S	E	12.4~18GHz	Ku	J
3~4GHz	S	F	18~20GHz	K	J
4~6GHz	C	G	20~26.5GHz	K	K
6~8GHz	C	H	26.5~40GHz	Ka	K