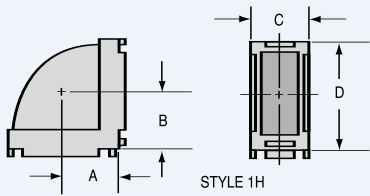
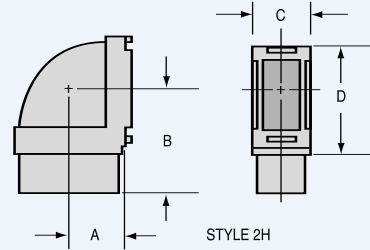


# Waveguide Bends

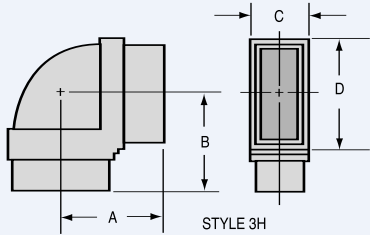
## WAVEGUIDE BENDS



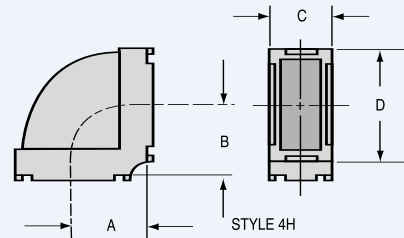
STYLE 1H



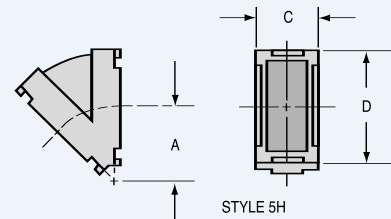
STYLE 2H



STYLE 3H



STYLE 4H



STYLE 5H

W/G Size Freq GHz	Angle	Style	Model Number	Dimensions				
				A	B	Ref C	Ref D	
WR22 33.0 to 50.0 GHz	90°	1E	22BE11	.125	.125	.40	.30	
		1H	22BH11	.187	.187	.30	.40	
		3E	22BE31	Under Development				
		3H	22BH31	Under Development				
	45°	5E	22BE22	.169	-	.40	.30	
		5H	22BH22	.169	-	.30	.40	
		30°	5E	22BE12	.137	-	.40	.30
			5H	22BH12	.137	-	.40	.30
WR28 26.50 to 40.00 GHz	90°	1E	28BE11	.140	.140	.44	.30	
		2E	28BE22	.140	.375	.44	.35	
		3E	28BE12	.375	.375	.44	.35	
		1H	28BH11	.210	.210	.30	.44	
		1H	28BH111	.343	.343	.30	.44	
		2H	28BH22	.210	.610	.30	.47	
	45°	3H	28BH32	.610	.610	.30	.47	
		5E	28BE82	.221	-	.44	.30	
		5H	28BH82	.221	-	.30	.44	
		30°	5E	28BE72	.151	-	.44	.30
	5H		28BH72	.151	-	.30	.44	
	WR34 22.0 to 33.0 GHz	90°	1E	34BE11	.170	.170	.50	.34
			1H	34BH11	.255	.255	.34	.50
			5E	34BE22	.278	-	.50	.34
		45°	5H	34BH22	.278	-	.34	.50
			30°	5E	34BE12	.166	-	.50
5H				34BH12	.166	-	.34	.50
WR42 18.00 to 26.50 GHz	90°	1E	42BE11	.170	.170	.60	.35	
		2E	42BE82	.170	.480	.60	.44	
		3E	42BE92	.480	.480	.60	.44	
		1H	42BH11	.300	.300	.35	.60	
		2H	42BH82	.300	.609	.35	.69	
		3H	42BH92	.609	.609	.35	.69	
	45°	5E	42BE42	.155	-	.61	.35	
		5H	42BH42	.290	-	.35	.61	
		30°	5E	42BE12	.210	-	.61	.35
	5H		42BH12	.335	-	.35	.61	
	WR51 15.00 to 22.00 GHz		90°	1E	51BE11	.187	.187	.67
		2E		51BE32	.187	.600	.71	.48
3E		51BE42		.600	.600	.71	.48	
4E		51BE12		.318	.318	.69	.50	
1H		51BH11		.312	.312	.42	.67	
2H		51BH52		.312	.725	.46	.71	
45°		3H	51BH62	.725	.725	.46	.71	
		4H	51BH12	.399	.399	.43	.68	
		30°	5E	51BE52	.241	-	.75	.51
			5H	51BH22	.900	-	.44	.75
30°	5E	51BE62	.282	-	.76	.51		
	5H	51BH102	.407	-	.51	.76		

# Waveguide Bends

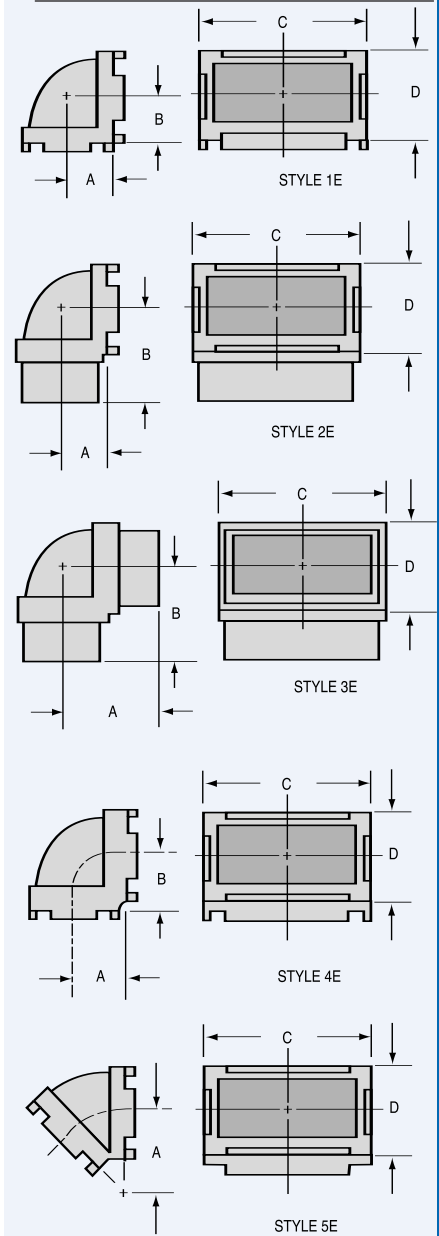
W/G Size Freq GHz	Angle	Style	Model Number	Dimensions			
				A	B	Ref C	Ref D
<b>WR62</b> 12.40 to 18.00 GHz	90°	1E	62BE11	.250	.250	.81	.50
		1E	62BE111	.280	.280	.81	.50
		2E	62BE21	.250	.600	.81	.50
		3E	62BE42	.600	.600	.81	.55
		4E	62BE82	.406	.406	.80	.58
		1H	62BH11	.368	.368	.52	.78
		2H	62BH21	.368	.625	.51	.82
		3H	62BH112	.625	.625	.51	.82
	60°	4H	62BH62	.578	.578	.50	.81
		5E	62BE52	.625	-	.78	.48
		5E	62BE222	.240	-	.79	.48
		5H	62BH192	.396	-	.48	.79
	45°	5E	62BE32	.240	-	.79	.48
		5E	62BE122	.406	-	.86	.56
		5E	62BE92	.625	-	.80	.50
		5H	62BH72	.396	-	.48	.79
30°	5E	62BE22	.240	-	.79	.48	
	5H	62BH32	.396	-	.48	.79	
<b>WR75</b> 10.00 to 15.00 GHz	90°	1E	75BE11	.325	.325	.95	.58
		1E	75BE111	.312	.312	.95	.56
		2E	75BE21	.325	.750	.95	.58
		3E	75BE32	.750	.750	.95	.58
		1H	75BH11	.484	.484	.57	.95
		1H	75BH111	.500	.500	.56	.94
		2H	75BH21	.484	.875	.57	.95
		3H	75BH32	.875	.875	.57	1.00
	45°	5E	75BE72	.376	-	.97	.59
		5H	75BH72	.800	-	.57	.95
	35°	5E	75BE42	.358	-	.95	.58
	30°	5E	75BE82	.290	-	.95	.58
		5H	75BE82	.290	-	.95	.58
	30°	5H	75BH62	.625	-	.56	.93

W/G Size Freq GHz	Angle	Style	Model Number	Dimensions			
				A	B	Ref C	Ref D

## Double Ridge Bends

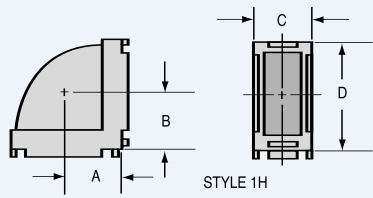
<b>WRD750</b> 7.50 to 18.0 GHz	4E	D750BE12	.410	.410	.89	.52
	4H	D750BH12	.593	.593	.52	.89
<b>WRD650</b> 6.50 to 18.0 GHz	4E	D650BE11	.815	.815	.92	.52
	4H	D650BH11	.815	.815	.52	.92

WAVEGUIDE BENDS

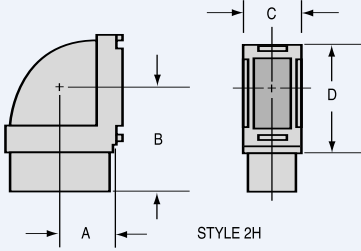


# Waveguide Bends

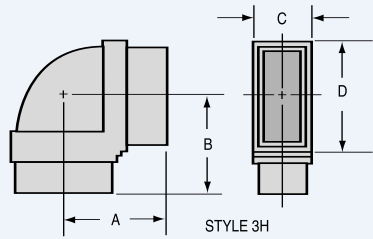
## WAVEGUIDE BENDS



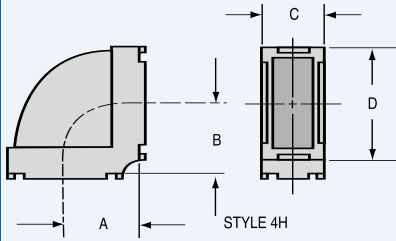
STYLE 1H



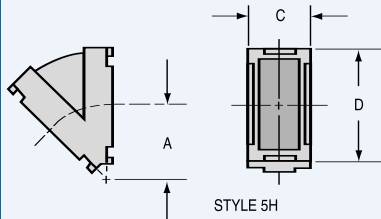
STYLE 2H



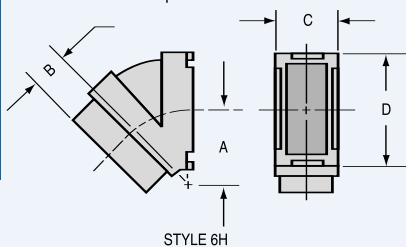
STYLE 3H



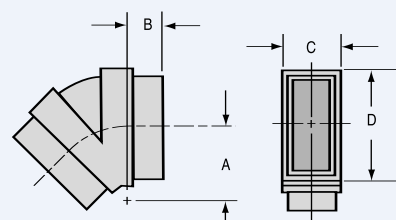
STYLE 4H



STYLE 5H



STYLE 6H



STYLE 7H

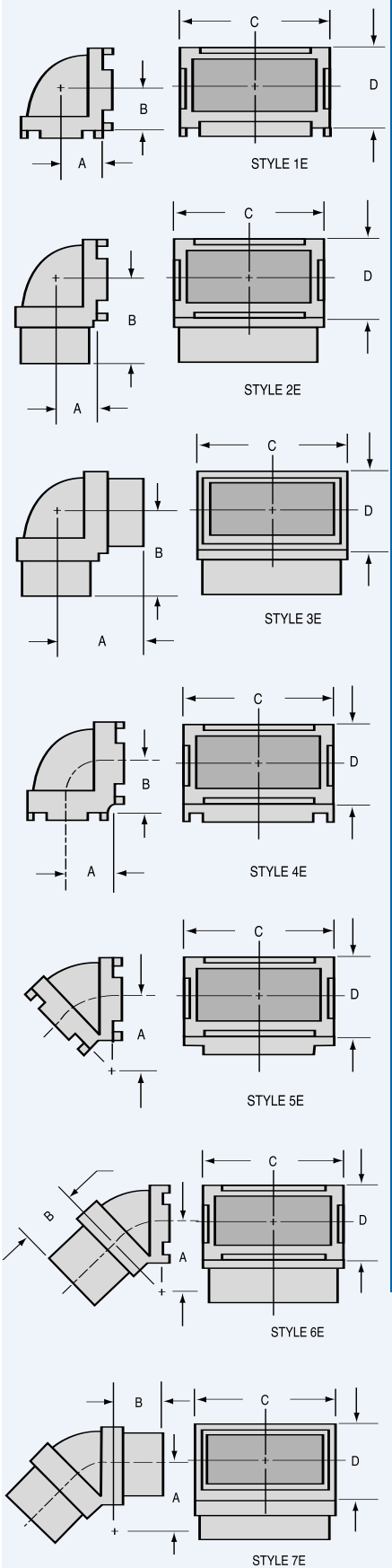
W/G Size	Freq GHz	Angle	Style	Model Number	Dimensions			
					A	B	Ref C	Ref D
WR90	8.20 to 12.40 GHz	90°	1E	90BE11	.325	.325	1.13	.63
			2E	90BE21	.325	.900	1.12	.63
			3E	90BE112	.906	.906	1.12	.63
			3E	90BE202	.656	1.875	1.12	.64
			4E	90BE42	.453	.453	1.15	.65
			1H	90BH11	.575	.575	.63	1.13
			2H	90BH21	.575	1.030	.63	1.13
		3H <sup>1</sup>	90BH32	1.030	1.030	.63	1.14	
		3H	90BH302	1.700	1.500	.63	1.15	
		4H	90BH322	.750	.750	.65	1.15	
		4H	90BH332	1.500	1.500	.65	1.15	
		60°	5E	90BE212	.453	-	1.13	.63
		5H	90BH292	.750	-	.63	1.13	
		45°	5E	90BE232	.453	-	1.13	.63
5H	90BH342	.750	-	.63	1.13			
30°	5E	90BE222	.453	-	1.13	.63		
5H	90BH312	.750	-	.63	1.13			

Notes: <sup>1</sup> Rib one side only

# Waveguide Bends

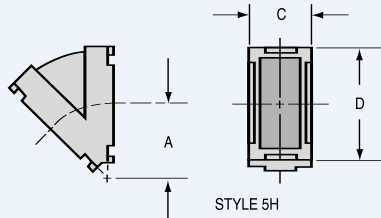
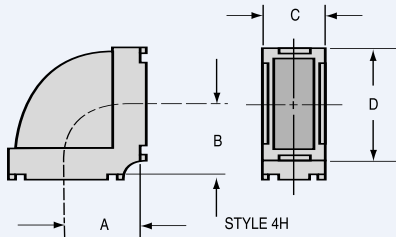
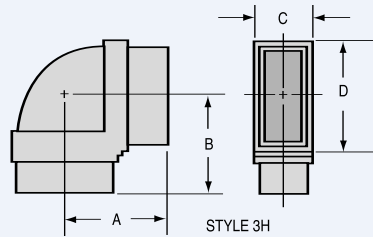
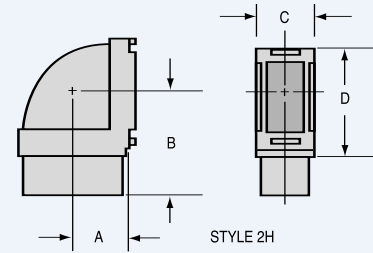
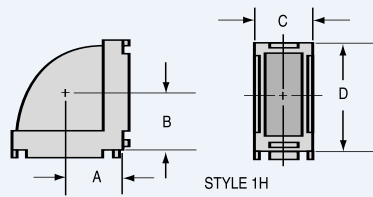
W/G Size Freq GHz	Angle	Style	Model Number	Dimensions			
				A	B	Ref C	Ref D
WR102 7.0 to 11.00 GHz	90°	1E	102BE11	.380	.380	1.27	.76
		2E	102BE22	.380	.843	1.27	.76
		3E	102BE32	.843	.843	1.27	.76
	45°	1H	102BH11	.640	.640	.76	1.27
		2H	102BH22	.640	1.093	.76	1.27
		3H	102BH32	1.093	1.093	.76	1.27
	30°	5E	102BE42	.500	-	1.27	.76
		6E	102BE52	.500	.453	1.27	.76
		7E	102BE62	.500	.453	1.27	.76
		5H	102BH82	.835	-	.76	1.27
		6H	102BH52	.835	.453	.76	1.27
		7H	102BH62	.835	.453	.76	1.27
		7H	102BH62	.835	.453	.76	1.27

## WAVEGUIDE BENDS



# Waveguide Bends

## WAVEGUIDE BENDS



W/G Size Freq GHz	Angle	Style	Model Number	Dimensions				
				A	B	Ref C	Ref D	
WR112 7.05 to 10.00 GHz	90°	1E	112BE11	.344	.344	1.39	.76	
		1E	112BE111	.382	.382	1.39	.76	
		2E	112BE21	.344	.844	1.39	.76	
		3E	112BE32	.844	.844	1.39	.81	
		4E	112BE62	.593	.593	1.36	.74	
		1H	112BH11	.656	.656	.76	1.39	
	45°	1H	112BH111	.695	.695	.76	1.39	
		2H	112BH21	.656	1.156	.76	1.39	
	30°	3H	112BH31*	1.156	.859	.62	1.25	
		5E	112BE42	.594	-	1.38	.75	
	5H	112BH42	1.187	-	.75	1.38		
		5E	112BE52	.594	-	1.38	.75	
	5H	112BH52	1.187	-	.75	1.38		
		WR137 5.85 to 8.20 GHz	90°	1E	137BE11	.438	.438	1.64
1E	137BE111			.437	.437	1.62	.87	
2E	137BE21			.438	.938	1.64	.88	
3E	137BE32			.938	.938	1.59	.84	
1H	137BH11			.828	.828	.89	1.63	
1H	137BH111			.812	.812	.87	1.62	
45°	2H		137BH21	.828	1.320	.85	1.59	
	3H		137BH32	1.320	1.320	.85	1.59	
30°	5E		137BE52	.436	-	1.62	.87	
	5H		137BH52	.811	-	.87	1.62	
5E	137BE42		.467	-	1.62	.87		
	5H		137BH42	.842	-	.87	1.62	
WR159 4.90 to 7.05 GHz	90°		1E	159BE11	.550	.550	1.90	1.11
			2E	159BE22	.550	.915	1.86	1.06
		3E	159BE32	.915	.915	1.86	1.06	
		1H	159BH11	1.000	1.000	1.11	1.90	
		4H	159BH12	1.562	1.562	1.18	1.96	

Notes: \* Cast without exterior ribs

# Waveguide Bends

W/G Size Freq GHz	Angle	Style	Model Number	Dimensions			
				A	B	Ref C	Ref D
<b>WR187</b> 3.95 to 5.85 GHz	90°	1E	187BE11	.593	.593	2.18	1.18
		1E	187BE111	.562	.562	2.19	1.18
		2E	187BE32	.593	1.093	2.17	1.17
		3E	187BE22	1.093	1.093	2.17	1.17
		4E	187BE82	1.063	1.063	2.13	1.13
		1H	187BH11	1.062	1.062	1.18	2.18
		2H	187BH22	1.062	1.625	1.18	2.18
		3H	187BH12	1.625	1.625	1.18	2.18
	45°	5E	187BE62	1.062	-	2.18	1.18
		5H	187BH62	2.187	-	1.18	2.18
	30°	5E	187BE92	1.062	-	2.18	1.18
5H		187BH72	2.187	-	1.18	2.18	
<b>WR229</b> 3.30 to 4.90 GHz	90°	1E	229BE11	.700	.700	2.61	1.47
		2E	229BE22	.700	1.093	2.54	1.47
		3E	229BE32	1.093	1.093	2.54	1.47
		1H	229BH11	1.234	1.234	1.46	2.54
		2H	229BH22	1.234	1.718	1.41	2.60
		2H	229BH62	1.234	2.000	1.45	2.60
		3H	229BH32	1.718	1.718	1.41	2.62
		3H	229BH52	2.000	2.000	1.46	2.60
	45°	5E	229BE52	1.500	-	2.61	1.46
		5H	229BH72	1.750	-	1.46	2.61
	<b>WR284</b> 2.60 to 3.95 GHz	90°	1E	284BE11	.781	.781	3.25
2E			284BE21	.781	1.625	3.25	1.68
3E			284BE31	1.625	1.625	3.25	1.68
1H			284BH11	1.531	1.531	1.67	3.18
2H			284BH21	1.531	3.600	1.67	3.18
3H			284BH31	3.250	3.600	1.74	3.25
45°		5E	284BE112	.927	-	3.20	1.70
		5H	284BH82	1.677	-	1.67	3.18
30°		5E	284BE102	1.045	-	3.20	1.70
		5H	284BH72	1.748	-	1.67	3.18

WAVEGUIDE BENDS

