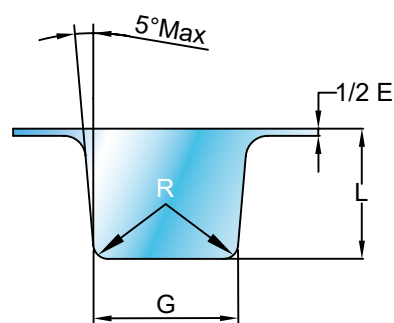
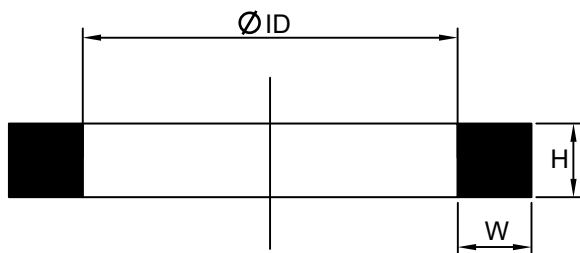


# Washer Design Reference



## Washer Design Reference

Design- For Industrial Washer Static Seal Glands

Washer Size AS568	W Cross-Section	H Thickness	L Gland Depth	1/2E Groove Gap	G Gland Width	R Groove Radius
	Actual	Actual				
005 through 050	.066 $\pm .004$	.066 $\pm .004$	.053 to .057	0.004	.094 to .104	.015
105 through 178	.099 $\pm .004$	.099 $\pm .004$	.086 to .091	0.005	.141 to .151	.015
201 through 284	.134 $\pm .004$	.134 $\pm .004$	.118 to .124	0.006	.188 to .198	.025
309 through 395	.203 $\pm .005$	.203 $\pm .005$	.182 to .189	0.007	.281 to .291	.030
425 through 475	.265 $\pm .005$	.265 $\pm .005$	.233 to .243	0.010	.375 to .385	.030

# Washer Standard Size

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0005	2.57	0.13	1.68	0.08	1.68	0.08	0.101	0.005	0.066	0.003	0.066	0.003
W0006	2.90	0.13					0.114	0.005				
W0007	3.68	0.13					0.145	0.005				
W0008	4.47	0.13					0.176	0.005				
W0009	5.28	0.13					0.208	0.005				
W0010	6.07	0.13					0.239	0.005				
W0011	7.65	0.13					0.301	0.005				
W0012	9.25	0.13					0.364	0.005				
W0013	10.82	0.13					0.426	0.005				
W0014	12.42	0.13					0.489	0.005				
W0015	14.00	0.18					0.551	0.007				
W0016	15.60	0.23					0.614	0.009				
W0017	17.17	0.23					0.676	0.009				
W0018	18.77	0.23					0.739	0.009				
W0019	20.35	0.23					0.801	0.009				
W0020	21.95	0.23					0.864	0.009				
W0021	23.52	0.23					0.926	0.009				
W0022	25.12	0.25					0.989	0.010				
W0023	26.70	0.25					1.051	0.010				
W0024	28.30	0.25					1.114	0.010				
W0025	29.87	0.28					1.176	0.011				
W0026	31.47	0.28					1.239	0.011				
W0027	33.05	0.28					1.301	0.011				
W0028	34.65	0.33	1.68	0.10	1.68	0.08	1.364	0.013	0.066	0.004	0.066	0.003
W0029	37.82	0.33					1.489	0.013				
W0030	41.00	0.33					1.614	0.013				
W0031	44.17	0.38					1.739	0.015				
W0032	47.35	0.38					1.864	0.015				
W0033	50.52	0.46					1.989	0.018				
W0034	53.70	0.46					2.114	0.018				
W0035	56.87	0.46					2.239	0.018				
W0036	60.05	0.46					2.364	0.018				
W0037	63.22	0.46					2.489	0.018				
W0038	66.40	0.51					2.614	0.020				
W0039	69.57	0.51					2.739	0.020				
W0040	72.75	0.51					2.864	0.020				
W0041	75.92	0.61					2.989	0.024				
W0042	82.27	0.61					3.239	0.024				
W0043	88.62	0.61					3.489	0.024				
W0044	94.97	0.69					3.739	0.027				
W0045	101.32	0.69					3.989	0.027				
W0046	107.67	0.76					4.239	0.030				
W0047	114.02	0.76					4.489	0.030				
W0048	120.37	0.76					4.739	0.030				
W0049	126.72	0.94					4.989	0.037				
W0050	133.07	0.94					5.239	0.037				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

# Washer Standard Size

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0105	3.63	0.13					0.143	0.005				
W0106	4.42	0.13					0.174	0.005				
W0107	5.23	0.13					0.206	0.005				
W0108	6.02	0.13					0.237	0.005				
W0109	7.59	0.13					0.299	0.005				
W0110	9.19	0.13					0.362	0.005				
W0111	10.77	0.13					0.424	0.005				
W0112	12.37	0.13					0.487	0.005				
W0113	13.94	0.18					0.549	0.007				
W0114	15.54	0.23					0.612	0.009				
W0115	17.12	0.23					0.674	0.009				
W0116	18.72	0.23					0.737	0.009				
W0117	20.30	0.25					0.799	0.010				
W0118	21.89	0.25					0.862	0.010				
W0119	23.47	0.25					0.924	0.010				
W0120	25.07	0.25					0.987	0.010				
W0121	26.64	0.25					1.049	0.010				
W0122	28.24	0.25					1.112	0.010				
W0123	29.82	0.30					1.174	0.012				
W0124	31.42	0.30					1.237	0.012				
W0125	32.99	0.30					1.299	0.012				
W0126	34.59	0.30					1.362	0.012				
W0127	36.17	0.30	2.51	0.10	2.51	0.08	1.424	0.012	0.099	0.004	0.099	0.003
W0128	37.77	0.30					1.487	0.012				
W0129	39.34	0.38					1.549	0.015				
W0130	40.94	0.38					1.612	0.015				
W0131	42.52	0.38					1.674	0.015				
W0132	44.12	0.38					1.737	0.015				
W0133	45.69	0.38					1.799	0.015				
W0134	47.29	0.38					1.862	0.015				
W0135	48.90	0.43					1.925	0.017				
W0136	50.47	0.43					1.987	0.017				
W0137	52.07	0.43					2.050	0.017				
W0138	53.64	0.43					2.112	0.017				
W0139	55.25	0.43					2.175	0.017				
W0140	56.82	0.43					2.237	0.017				
W0141	58.42	0.51					2.300	0.020				
W0142	59.99	0.51					2.362	0.020				
W0143	61.60	0.51					2.425	0.020				
W0144	63.17	0.51					2.487	0.020				
W0145	64.77	0.51					2.550	0.020				
W0146	66.34	0.51					2.612	0.020				
W0147	67.95	0.56					2.675	0.022				
W0148	69.52	0.56					2.737	0.022				
W0149	71.12	0.56					2.800	0.022				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0150	72.69	0.56					2.862	0.022				
W0151	75.87	0.61					2.987	0.024				
W0152	82.22	0.61					3.237	0.024				
W0153	88.57	0.61					3.487	0.024				
W0154	94.92	0.71					3.737	0.028				
W0155	101.27	0.71					3.987	0.028				
W0156	107.62	0.76					4.237	0.030				
W0157	113.97	0.76					4.487	0.030				
W0158	120.32	0.76					4.737	0.030				
W0159	126.67	0.89					4.987	0.035				
W0160	133.02	0.89					5.237	0.035				
W0161	139.37	0.89					5.487	0.035				
W0162	145.72	0.89					5.737	0.035				
W0163	152.07	0.89					5.987	0.035				
W0164	158.42	1.02	2.51	0.10	2.51	0.08	6.237	0.040	0.099	0.004	0.099	0.003
W0165	164.77	1.02					6.487	0.040				
W0166	171.12	1.02					6.737	0.040				
W0167	177.47	1.02					6.987	0.040				
W0168	183.82	1.14					7.237	0.045				
W0169	190.17	1.14					7.487	0.045				
W0170	196.52	1.14					7.737	0.045				
W0171	202.87	1.14					7.987	0.045				
W0172	209.22	1.27					8.237	0.050				
W0173	215.57	1.27					8.487	0.050				
W0174	221.92	1.27					8.737	0.050				
W0175	228.27	1.27					8.987	0.050				
W0176	234.62	1.40					9.237	0.055				
W0177	240.97	1.40					9.487	0.055				
W0178	247.32	1.40					9.737	0.055				
W0201	4.34	0.13					0.171	0.005				
W0202	5.94	0.13					0.234	0.005				
W0203	7.52	0.13					0.296	0.005				
W0204	9.12	0.13					0.359	0.005				
W0205	10.69	0.13					0.421	0.005				
W0206	12.29	0.13					0.484	0.005				
W0207	13.87	0.18					0.546	0.007				
W0208	15.47	0.23					0.609	0.009				
W0209	17.04	0.23	3.40	0.10	3.40	0.10	0.671	0.009	0.134	0.004	0.134	0.004
W0210	18.64	0.25					0.734	0.010				
W0211	20.22	0.25					0.796	0.010				
W0212	21.82	0.25					0.859	0.010				
W0213	23.39	0.25					0.921	0.010				
W0214	24.99	0.25					0.984	0.010				
W0215	26.57	0.25					1.046	0.010				
W0216	28.17	0.30					1.109	0.012				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

# Washer Standard Size

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0217	29.74	0.30					1.171	0.012				
W0218	31.34	0.30					1.234	0.012				
W0219	32.92	0.30					1.296	0.012				
W0220	34.52	0.30					1.359	0.012				
W0221	36.09	0.30					1.421	0.012				
W0222	37.69	0.38					1.484	0.015				
W0223	40.87	0.38					1.609	0.015				
W0224	44.04	0.38					1.734	0.015				
W0225	47.22	0.46					1.859	0.018				
W0226	50.39	0.46					1.984	0.018				
W0227	53.57	0.46					2.109	0.018				
W0228	56.74	0.51					2.234	0.020				
W0229	59.92	0.51					2.359	0.020				
W0230	63.09	0.51					2.484	0.020				
W0231	66.27	0.51					2.609	0.020				
W0232	69.44	0.61					2.734	0.024				
W0233	72.62	0.61					2.859	0.024				
W0234	75.79	0.61					2.984	0.024				
W0235	78.97	0.61					3.109	0.024				
W0236	82.14	0.61					3.234	0.024				
W0237	85.32	0.61					3.359	0.024				
W0238	88.49	0.61					3.484	0.024				
W0239	91.67	0.71	3.40	0.10	3.40	0.10	3.609	0.028	0.134	0.004	0.134	0.004
W0240	94.84	0.71					3.734	0.028				
W0241	98.02	0.71					3.859	0.028				
W0242	101.19	0.71					3.984	0.028				
W0243	104.37	0.71					4.109	0.028				
W0244	107.54	0.76					4.234	0.030				
W0245	110.72	0.76					4.359	0.030				
W0246	113.89	0.76					4.484	0.030				
W0247	117.07	0.76					4.609	0.030				
W0248	120.24	0.76					4.734	0.030				
W0249	123.42	0.89					4.859	0.035				
W0250	126.59	0.89					4.984	0.035				
W0251	129.77	0.89					5.109	0.035				
W0252	132.94	0.89					5.234	0.035				
W0253	136.12	0.89					5.359	0.035				
W0254	139.29	0.89					5.484	0.035				
W0255	142.47	0.89					5.609	0.035				
W0256	145.64	0.89					5.734	0.035				
W0257	148.82	0.89					5.859	0.035				
W0258	151.99	0.89					5.984	0.035				
W0259	158.34	1.02					6.234	0.040				
W0260	164.69	1.02					6.484	0.040				
W0261	171.04	1.02					6.734	0.040				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0262	177.39	1.02					6.984	0.040				
W0263	183.74	1.14					7.234	0.045				
W0264	190.09	1.14					7.484	0.045				
W0265	196.44	1.14					7.734	0.045				
W0266	202.79	1.14					7.984	0.045				
W0267	209.14	1.27					8.234	0.050				
W0268	215.49	1.27					8.484	0.050				
W0269	221.84	1.27					8.734	0.050				
W0270	228.19	1.27					8.984	0.050				
W0271	234.54	1.40					9.234	0.055				
W0272	240.89	1.40					9.484	0.055				
W0273	247.24	1.40	3.40	0.10	3.40	0.10	9.734	0.055	0.134	0.004	0.134	0.004
W0274	253.59	1.40					9.984	0.055				
W0275	266.29	1.40					10.484	0.055				
W0276	278.99	1.65					10.984	0.065				
W0277	291.69	1.65					11.484	0.065				
W0278	304.39	1.65					11.984	0.065				
W0279	329.79	1.65					12.984	0.065				
W0280	355.19	1.65					13.984	0.065				
W0281	380.59	1.65					14.984	0.065				
W0282	405.26	1.91					15.955	0.075				
W0283	430.66	2.03					16.955	0.080				
W0284	456.06	2.16					17.955	0.085				
W0309	10.46	0.13					0.412	0.005				
W0310	12.07	0.13					0.475	0.005				
W0311	13.64	0.18					0.537	0.007				
W0312	15.24	0.23					0.600	0.009				
W0313	16.81	0.23					0.662	0.009				
W0314	18.42	0.25					0.725	0.010				
W0315	19.99	0.25					0.787	0.010				
W0316	21.59	0.25					0.850	0.010				
W0317	23.16	0.25					0.912	0.010				
W0318	24.77	0.25					0.975	0.010				
W0319	26.34	0.25	5.16	0.13	5.16	0.13	1.037	0.010	0.203	0.005	0.203	0.005
W0320	27.94	0.30					1.100	0.012				
W0321	29.51	0.30					1.162	0.012				
W0322	31.12	0.30					1.225	0.012				
W0323	32.69	0.30					1.287	0.012				
W0324	34.29	0.30					1.350	0.012				
W0325	37.47	0.38					1.475	0.015				
W0326	40.64	0.38					1.600	0.015				
W0327	43.82	0.38					1.725	0.015				
W0328	46.99	0.38					1.850	0.015				
W0329	50.17	0.46					1.975	0.018				
W0330	53.34	0.46					2.100	0.018				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

# Washer Standard Size

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0331	56.52	0.46					2.225	0.018				
W0332	59.69	0.46					2.350	0.018				
W0333	62.87	0.51					2.475	0.020				
W0334	66.04	0.51					2.600	0.020				
W0335	69.22	0.51					2.725	0.020				
W0336	72.39	0.51					2.850	0.020				
W0337	75.57	0.61					2.975	0.024				
W0338	78.74	0.61					3.100	0.024				
W0339	81.92	0.61					3.225	0.024				
W0340	85.09	0.61					3.350	0.024				
W0341	88.27	0.61					3.475	0.024				
W0342	91.44	0.71					3.600	0.028				
W0343	94.62	0.71					3.725	0.028				
W0344	97.79	0.71					3.850	0.028				
W0345	100.97	0.71					3.975	0.028				
W0346	104.14	0.71					4.100	0.028				
W0347	107.32	0.76					4.225	0.030				
W0348	110.49	0.76					4.350	0.030				
W0349	113.67	0.76					4.475	0.030				
W0350	116.84	0.76					4.600	0.030				
W0351	120.02	0.76					4.725	0.030				
W0352	123.19	0.76					4.850	0.030				
W0353	126.37	0.94	5.16	0.13	5.16	0.13	4.975	0.037	0.203	0.005	0.203	0.005
W0354	129.54	0.94					5.100	0.037				
W0355	132.72	0.94					5.225	0.037				
W0356	135.89	0.94					5.350	0.037				
W0357	139.07	0.94					5.475	0.037				
W0358	142.24	0.94					5.600	0.037				
W0359	145.42	0.94					5.725	0.037				
W0360	148.59	0.94					5.850	0.037				
W0361	151.77	0.94					5.975	0.037				
W0362	158.12	1.02					6.225	0.040				
W0363	164.47	1.02					6.475	0.040				
W0364	170.82	1.02					6.725	0.040				
W0365	177.17	1.02					6.975	0.040				
W0366	183.52	1.14					7.225	0.045				
W0367	189.87	1.14					7.475	0.045				
W0368	196.22	1.14					7.725	0.045				
W0369	202.57	1.14					7.975	0.045				
W0370	208.92	1.27					8.225	0.050				
W0371	215.27	1.27					8.475	0.050				
W0372	221.62	1.27					8.725	0.050				
W0373	227.97	1.27					8.975	0.050				
W0374	234.32	1.40					9.225	0.055				
W0375	240.67	1.40					9.475	0.055				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0376	247.02	1.40					9.725	0.055				
W0377	253.37	1.40					9.975	0.055				
W0378	266.07	1.52					10.475	0.060				
W0379	278.77	1.52					10.975	0.060				
W0380	291.47	1.65					11.475	0.065				
W0381	304.17	1.65					11.975	0.065				
W0382	329.57	1.65					12.975	0.065				
W0383	354.97	1.78					13.975	0.070				
W0384	380.37	1.78					14.975	0.070				
W0385	405.26	1.91	5.16	0.13	5.16	0.13	15.955	0.075	0.203	0.005	0.203	0.005
W0386	430.66	2.03					16.955	0.080				
W0387	456.06	2.16					17.955	0.085				
W0388	481.41	2.29					18.953	0.090				
W0389	506.81	2.41					19.953	0.095				
W0390	532.21	2.41					20.953	0.095				
W0391	557.61	2.54					21.953	0.100				
W0392	582.68	2.67					22.940	0.105				
W0393	608.08	2.79					23.940	0.110				
W0394	633.48	2.92					24.940	0.115				
W0395	658.88	3.05					25.940	0.120				
W0425	113.67	0.84					4.475	0.033				
W0426	116.84	0.84					4.600	0.033				
W0427	120.02	0.84					4.725	0.033				
W0428	123.19	0.84					4.850	0.033				
W0429	126.37	0.94					4.975	0.037				
W0430	129.54	0.94					5.100	0.037				
W0431	132.72	0.94					5.225	0.037				
W0432	135.89	0.94					5.350	0.037				
W0433	139.07	0.94					5.475	0.037				
W0434	142.24	0.94					5.600	0.037				
W0435	145.42	0.94					5.725	0.037				
W0436	148.59	0.94					5.850	0.037				
W0437	151.77	0.94	6.73	0.15	6.73	0.15	5.975	0.037	0.265	0.006	0.265	0.006
W0438	158.12	1.02					6.225	0.040				
W0439	164.47	1.02					6.475	0.040				
W0440	170.82	1.02					6.725	0.040				
W0441	177.17	1.02					6.975	0.040				
W0442	183.52	1.14					7.225	0.045				
W0443	189.87	1.14					7.475	0.045				
W0444	196.22	1.14					7.725	0.045				
W0445	202.57	1.14					7.975	0.045				
W0446	215.27	1.40					8.475	0.055				
W0447	227.97	1.40					8.975	0.055				
W0448	240.67	1.40					9.475	0.055				
W0449	253.37	1.40					9.975	0.055				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±



# Washer Standard Size

## Washer Standard Size

Washer Size	MEASUREMENTS IN MILLIMETERS						MEASUREMENTS IN INCHES					
	ID	±	W	±	H	±	ID	±	W	±	H	±
W0450	266.07	1.52					10.475	0.060				
W0451	278.77	1.52					10.975	0.060				
W0452	291.47	1.52					11.475	0.060				
W0453	304.17	1.52					11.975	0.060				
W0454	316.87	1.52					12.475	0.060				
W0455	329.57	1.52					12.975	0.060				
W0456	342.27	1.78					13.475	0.070				
W0457	354.97	1.78					13.975	0.070				
W0458	367.67	1.78					14.475	0.070				
W0459	380.37	1.78					14.975	0.070				
W0460	393.07	1.78					15.475	0.070				
W0461	405.26	1.91					15.955	0.075				
W0462	417.96	1.91	6.73	0.15	6.73	0.15	16.455	0.075	0.265	0.006	0.265	0.006
W0463	430.66	2.03					16.955	0.080				
W0464	443.36	2.16					17.455	0.085				
W0465	456.06	2.16					17.955	0.085				
W0466	468.76	2.16					18.455	0.085				
W0467	481.46	2.29					18.955	0.090				
W0468	494.16	2.29					19.455	0.090				
W0469	506.86	2.41					19.955	0.095				
W0470	532.26	2.41					20.955	0.095				
W0471	557.66	2.54					21.955	0.100				
W0472	582.68	2.67					22.940	0.105				
W0473	608.08	2.79					23.940	0.110				
W0474	633.48	2.92					24.940	0.115				
W0475	658.88	3.05					25.940	0.120				
Washer	ID	±	W	±	H	±	ID	±	W	±	H	±