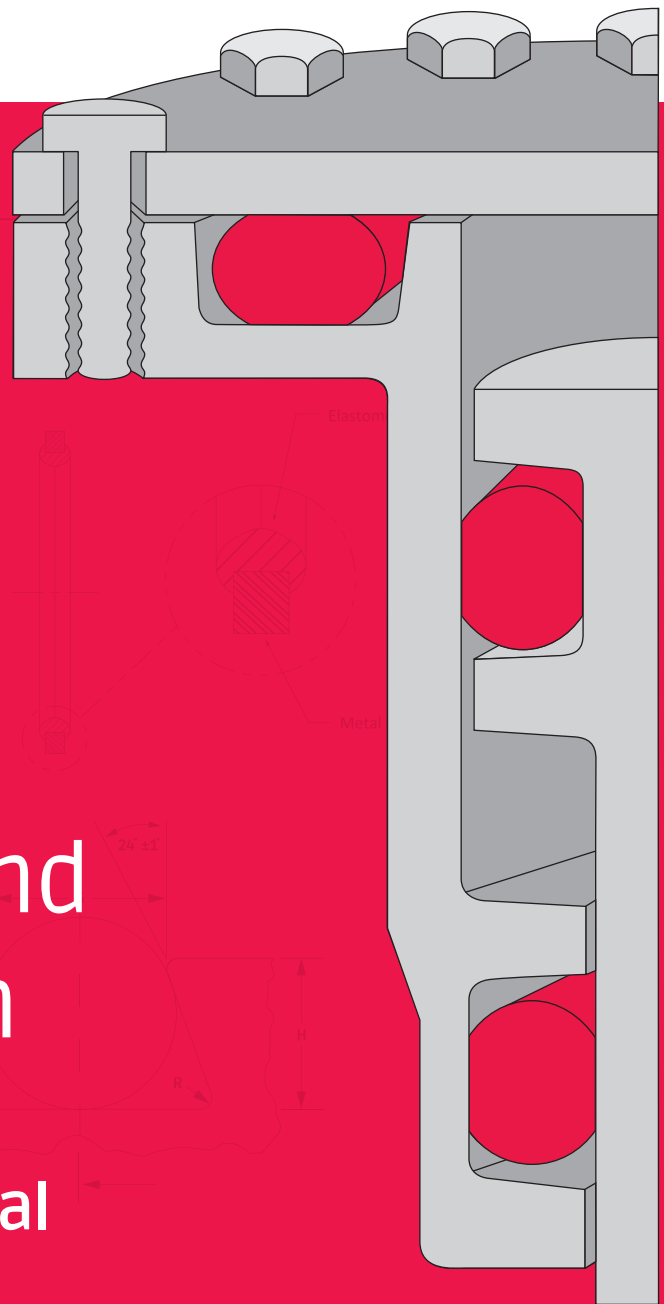


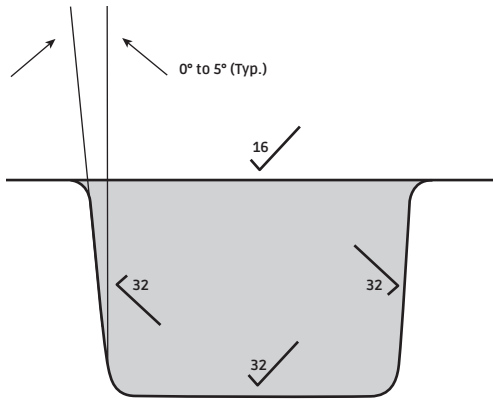
Seal Design Guide

Seal Types and Gland Design

Section 5:

Dynamic Radial Seal





Finishes are RMS values

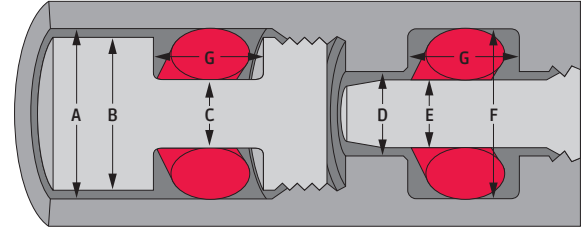
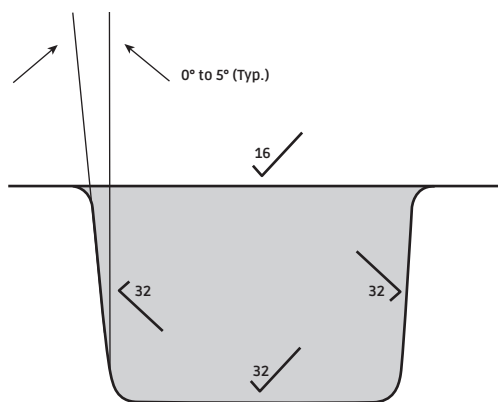


TABLE F Dynamic Radial Seal Gland Dimensions

AS568 Number	O-Ring Dimensions				A Cylinder Bore Dia.	B Piston Diameter	C Piston Gland Dia.	D Rod Bore Diameter	E Rod Diameter	F Gland Diameter	G Gland Width
	I.D.	± Tol.	W	(O.D.)							
Tolerance		±0.003			+0.001 -0.000	+0.000 -0.001	+0.000 -0.001	+0.001 -0.000	+0.000 -0.001	+0.001 -0.000	+0.010 -0.000
-006	0.114	0.005	0.070	0.254	0.230	0.229	0.121	0.123	0.121	0.230	0.100
-007	0.145	0.005		0.285	0.262	0.261	0.152	0.154	0.152	0.262	
-008	0.176	0.005		0.316	0.294	0.293	0.183	0.185	0.183	0.294	
-009	0.208	0.005		0.348	0.326	0.325	0.215	0.217	0.215	0.326	
-010	0.239	0.005		0.379	0.358	0.357	0.246	0.248	0.246	0.358	
-011	0.301	0.005		0.441	0.421	0.420	0.308	0.310	0.308	0.421	
-012	0.364	0.005		0.504	0.484	0.483	0.371	0.373	0.371	0.484	
-013	0.426	0.005		0.566	0.546	0.545	0.433	0.435	0.433	0.546	
-014	0.489	0.005	↓	0.629	0.609	0.608	0.496	0.498	0.496	0.609	↓
Tolerance		±0.003			+0.002 -0.000	+0.000 -0.001	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-015	0.551	0.007	0.070	0.691	0.672	0.671	0.561	0.562	0.561	0.672	0.100
-016	0.614	0.009		0.754	0.736	0.735	0.626	0.627	0.626	0.736	
-017	0.676	0.009		0.816	0.798	0.797	0.688	0.689	0.688	0.798	
-018	0.739	0.009		0.879	0.862	0.861	0.751	0.752	0.751	0.862	
-019	0.801	0.009		0.941	0.925	0.924	0.814	0.815	0.814	0.925	
-020	0.864	0.009	↓	1.004	0.988	0.987	0.877	0.878	0.877	0.988	↓
Tolerance		±0.003			+0.002 -0.000	+0.000 -0.002	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-106	0.174	0.005	0.103	0.380	0.351	0.350	0.182	0.184	0.182	0.351	0.135
-107	0.206	0.005		0.412	0.384	0.383	0.214	0.216	0.214	0.384	
-108	0.237	0.005		0.443	0.415	0.414	0.245	0.247	0.245	0.415	
-109	0.299	0.005		0.505	0.479	0.478	0.307	0.309	0.307	0.479	
-110	0.362	0.005		0.568	0.542	0.541	0.370	0.372	0.370	0.542	
-111	0.424	0.005	↓	0.630	0.605	0.604	0.432	0.434	0.432	0.605	↓



Finishes are RMS values

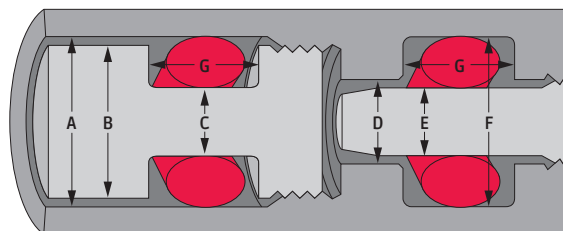
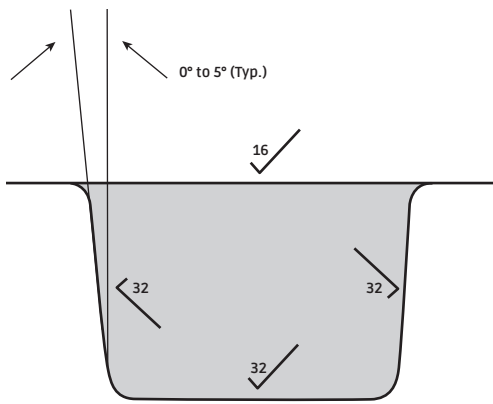


TABLE F Dynamic Radial Seal Gland Dimensions

AS568 Number	O-Ring Dimensions				A Cylinder Bore Dia.	B Piston Diameter	C Piston Gland Dia.	D Rod Bore Diameter	E Rod Diameter	F Gland Diameter	G Gland Width
	I.D.	± Tol.	W	(O.D.)							
Tolerance			±0.003		+0.002 -0.000	+0.000 -0.001	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-112	0.487	0.005	0.103	0.693	0.668	0.667	0.495	0.497	0.495	0.668	0.135
-113	0.549	0.005		0.755	0.732	0.731	0.559	0.561	0.559	0.732	
-114	0.612	0.009		0.818	0.796	0.795	0.624	0.626	0.624	0.796	
-115	0.674	0.009		0.880	0.859	0.858	0.686	0.688	0.686	0.859	
-116	0.737	0.009		0.943	0.922	0.921	0.749	0.751	0.749	0.922	
-117	0.799	0.010		1.005	0.986	0.985	0.813	0.815	0.813	0.986	
-118	0.862	0.010		1.068	1.049	1.048	0.876	0.878	0.876	1.049	
-119	0.924	0.010		1.130	1.110	1.109	0.938	0.940	0.938	1.110	
-120	0.987	0.010		1.193	1.174	1.173	1.001	1.003	1.001	1.174	
-121	1.049	0.010		1.255	1.236	1.235	1.063	1.065	1.063	1.236	
-122	1.112	0.010		1.318	1.299	1.298	1.126	1.128	1.126	1.299	
-123	1.174	0.012		1.380	1.363	1.362	1.190	1.192	1.190	1.363	
-124	1.237	0.012		1.443	1.426	1.425	1.253	1.255	1.253	1.426	
-125	1.299	0.012	▼	1.505	1.489	1.488	1.316	1.318	1.316	1.489	▼
Tolerance			±0.004		+0.002 -0.000	+0.000 -0.002	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-202	0.234	0.005	0.139	0.512	0.478	0.476	0.242	0.244	0.242	0.478	0.175
-203	0.296	0.005		0.574	0.541	0.539	0.304	0.306	0.304	0.541	
-204	0.359	0.005		0.637	0.605	0.603	0.367	0.369	0.367	0.605	
-205	0.421	0.005		0.699	0.668	0.666	0.429	0.431	0.429	0.668	
-206	0.484	0.005		0.762	0.732	0.730	0.492	0.494	0.492	0.732	
-207	0.546	0.007		0.824	0.795	0.793	0.556	0.558	0.556	0.795	
-208	0.609	0.009		0.887	0.859	0.857	0.621	0.623	0.621	0.859	
-209	0.671	0.009		0.949	0.922	0.920	0.683	0.685	0.683	0.922	
-210	0.734	0.010		1.012	0.986	0.984	0.747	0.749	0.747	0.986	
-211	0.796	0.010		1.074	1.049	1.047	0.810	0.812	0.810	1.049	
-212	0.859	0.010		1.137	1.112	1.110	0.873	0.875	0.873	1.112	
-213	0.921	0.010		1.199	1.175	1.173	0.935	0.937	0.935	1.175	
-214	0.984	0.010		1.262	1.238	1.236	0.998	1.000	0.998	1.238	
-215	1.046	0.010		1.324	1.299	1.297	1.060	1.062	1.060	1.299	
-216	1.109	0.012	▼	1.387	1.365	1.363	1.125	1.127	1.125	1.365	▼



Finishes are RMS values

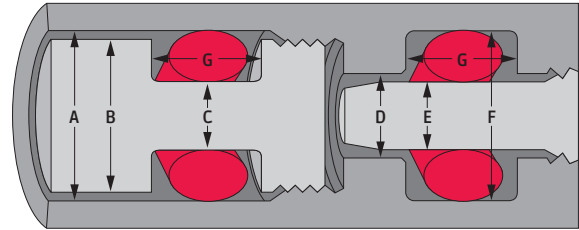
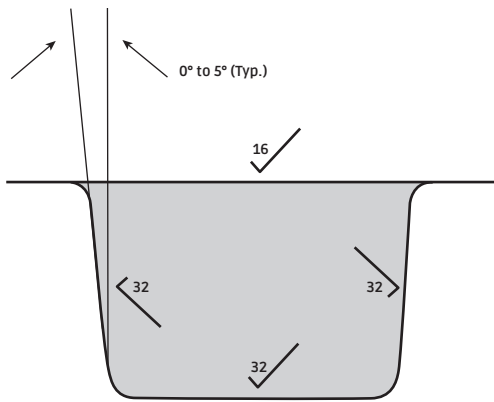


TABLE F Dynamic Radial Seal Gland Dimensions

AS568 Number	O-Ring Dimensions				A Cylinder Bore Dia.	B Piston Diameter	C Piston Gland Dia.	D Rod Bore Diameter	E Rod Diameter	F Gland Diameter	G Gland Width
	I.D.	± Tol.	W	(O.D.)							
Tolerance		±0.004			+0.002 -0.000	+0.000 -0.002	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-217	1.171	0.012	0.139	1.449	1.427	1.425	1.187	1.189	1.187	1.427	0.175
-218	1.234	0.012		1.512	1.489	1.487	1.250	1.252	1.250	1.489	
-219	1.296	0.012		1.574	1.552	1.550	1.313	1.315	1.313	1.552	
-220	1.359	0.012		1.637	1.616	1.614	1.376	1.378	1.376	1.616	
-221	1.421	0.012		1.699	1.678	1.676	1.438	1.440	1.438	1.678	
-222	1.484	0.015		1.762	1.744	1.742	1.504	1.506	1.504	1.744	
-223	1.609	0.015		1.887	1.868	1.866	1.629	1.631	1.629	1.868	
-224	1.734	0.015		2.012	1.994	1.992	1.754	1.756	1.754	1.994	
-225	1.859	0.018	▼	2.137	2.122	2.120	1.883	1.885	1.883	2.122	▼
Tolerance		±0.005			+0.002 -0.000	+0.000 -0.002	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-309	0.412	0.005	0.210	0.832	0.789	0.786	0.420	0.423	0.420	0.789	0.250
-310	0.475	0.005		0.895	0.853	0.850	0.483	0.486	0.483	0.853	
-311	0.537	0.007		0.957	0.916	0.913	0.547	0.550	0.547	0.916	
-312	0.600	0.009		1.020	0.981	0.978	0.612	0.615	0.612	0.981	
-313	0.662	0.009		1.082	1.044	1.041	0.674	0.677	0.674	1.044	
-314	0.725	0.010		1.145	1.108	1.105	0.738	0.741	0.738	1.108	
-315	0.787	0.010		1.207	1.170	1.167	0.801	0.804	0.801	1.170	
-316	0.850	0.010		1.270	1.234	1.231	0.864	0.867	0.864	1.234	
-317	0.912	0.010		1.332	1.295	1.292	0.926	0.929	0.926	1.295	
-318	0.975	0.010		1.395	1.359	1.356	0.989	0.992	0.989	1.359	
-319	1.037	0.010		1.457	1.420	1.417	1.051	1.054	1.051	1.420	
-320	1.100	0.012		1.520	1.485	1.482	1.116	1.119	1.116	1.485	
-321	1.162	0.012		1.582	1.548	1.545	1.178	1.181	1.178	1.548	
-322	1.225	0.012		1.645	1.610	1.607	1.241	1.244	1.241	1.610	
-323	1.287	0.012		1.707	1.673	1.670	1.304	1.307	1.304	1.673	
-324	1.350	0.012		1.770	1.737	1.734	1.367	1.370	1.367	1.737	
-325	1.475	0.015		1.895	1.865	1.862	1.495	1.498	1.495	1.865	
-326	1.600	0.015		2.020	1.990	1.987	1.620	1.623	1.620	1.990	
-327	1.725	0.015		2.145	2.114	2.111	1.745	1.748	1.745	2.114	
-328	1.850	0.015	▼	2.270	2.240	2.237	1.871	1.874	1.871	2.240	▼



Finishes are RMS values

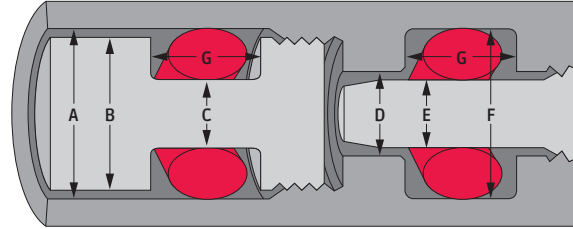
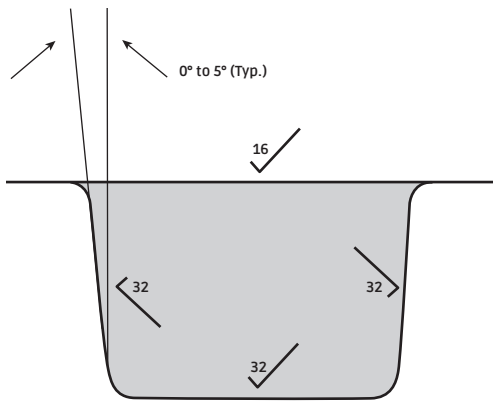


TABLE F Dynamic Radial Seal Gland Dimensions

AS568 Number	O-Ring Dimensions				A Cylinder Bore Dia.	B Piston Diameter	C Piston Gland Dia.	D Rod Bore Diameter	E Rod Diameter	F Gland Diameter	G Gland Width
	I.D.	± Tol.	W	(O.D.)							
Tolerance			±0.005		+0.002 -0.000	+0.000 -0.002	+0.000 -0.002	+0.002 -0.000	+0.000 -0.002	+0.002 -0.000	+0.010 -0.000
-329	1.975	0.018	0.210	2.395	2.369	2.366	1.999	2.002	1.999	2.369	0.250
-330	2.100	0.018		2.520	2.493	2.490	2.124	2.127	2.124	2.493	
-331	2.225	0.018		2.645	2.618	2.615	2.249	2.252	2.249	2.618	
-332	2.350	0.018		2.770	2.745	2.742	2.375	2.378	2.375	2.745	
-333	2.475	0.020		2.895	2.871	2.868	2.502	2.505	2.502	2.871	
-334	2.600	0.020		3.020	2.997	2.994	2.627	2.630	2.627	2.997	
-335	2.725	0.020		3.145	3.121	3.118	2.752	2.755	2.752	3.121	
-336	2.850	0.020		3.270	3.247	3.244	2.878	2.881	2.878	3.247	
-337	2.975	0.024		3.395	3.376	3.373	3.007	3.010	3.007	3.376	
-338	3.100	0.024		3.520	3.502	3.499	3.132	3.135	3.132	3.502	
-339	3.225	0.024		3.645	3.626	3.623	3.257	3.260	3.257	3.626	
-340	3.350	0.024		3.770	3.752	3.749	3.383	3.386	3.383	3.752	
-341	3.475	0.024		3.895	3.877	3.874	3.508	3.511	3.508	3.877	
-342	3.600	0.028		4.020	4.007	4.004	3.637	3.640	3.637	4.007	
-343	3.725	0.028		4.145	4.133	4.130	3.763	3.766	3.763	4.133	
-344	3.850	0.028		4.270	4.257	4.254	3.888	3.891	3.888	4.257	
-345	3.975	0.028		4.395	4.382	4.379	4.013	4.016	4.013	4.382	
-346	4.100	0.028		4.520	4.507	4.504	4.138	4.141	4.138	4.507	
-347	4.225	0.030		4.645	4.635	4.632	4.266	4.269	4.266	4.635	
-348	4.350	0.030		4.770	4.760	4.757	4.391	4.394	4.391	4.760	
-349	4.475	0.030	↓	4.895	4.885	4.882	4.516	4.519	4.516	4.885	↓
Tolerance			±0.006		+0.003 -0.000	+0.000 -0.003	+0.000 -0.003	+0.003 -0.000	+0.000 -0.003	+0.004 -0.000	+0.010 -0.000
-425	4.475	0.033	0.275	5.025	5.009	5.005	4.520	4.523	4.520	5.008	0.320
-426	4.600	0.033		5.150	5.134	5.130	4.645	4.648	4.645	5.133	
-427	4.725	0.033		5.275	5.260	5.256	4.771	4.774	4.771	5.259	
-428	4.850	0.033		5.400	5.385	5.381	4.896	4.899	4.896	5.384	
-429	4.975	0.037		5.525	5.514	5.510	5.025	5.028	5.025	5.513	
-430	5.100	0.037		5.650	5.639	5.635	5.150	5.153	5.150	5.638	
-431	5.225	0.037		5.775	5.765	5.761	5.276	5.279	5.276	5.764	
-432	5.350	0.037	↓	5.900	5.890	5.886	5.401	5.404	5.401	5.889	↓



Finishes are RMS values

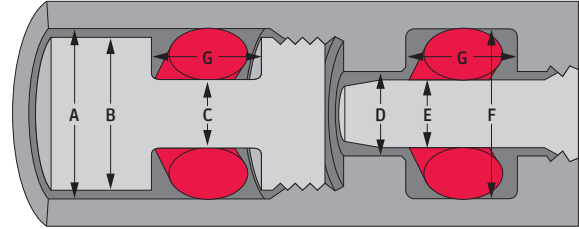


TABLE F Dynamic Radial Seal Gland Dimensions

AS568 Number	O-Ring Dimensions				A Cylinder Bore Dia.	B Piston Diameter	C Piston Gland Dia.	D Rod Bore Diameter	E Rod Diameter	F Gland Diameter	G Gland Width
	I.D.	± Tol.	W	(O.D.)							
Tolerance			±0.006		+0.003 -0.000	+0.000 -0.003	+0.000 -0.003	+0.003 -0.000	+0.000 -0.003	+0.004 -0.000	+0.010 -0.000
-433	5.475	0.037	0.275	6.025	6.015	6.011	5.526	5.529	5.526	6.014	0.320
-434	5.600	0.037		6.150	6.140	6.136	5.651	5.654	5.651	6.139	
-435	5.725	0.037		6.275	6.266	6.262	5.777	5.780	5.777	6.265	
-436	5.850	0.037		6.400	6.391	6.387	5.902	5.905	5.902	6.390	
-437	5.975	0.037		6.525	6.516	6.512	6.027	6.030	6.027	6.515	
-438	6.225	0.040		6.775	6.770	6.766	6.281	6.284	6.281	6.769	
-439	6.475	0.040		7.025	7.020	7.016	6.531	6.534	6.531	7.019	
-440	6.725	0.040		7.275	7.271	7.267	6.782	6.785	6.782	7.270	
-441	6.975	0.040		7.525	7.521	7.517	7.032	7.035	7.032	7.520	
-442	7.225	0.045		7.775	7.777	7.773	7.288	7.291	7.288	7.776	
-443	7.475	0.045		8.025	8.027	8.023	7.538	7.541	7.538	8.026	
-444	7.725	0.045		8.275	8.278	8.274	7.789	7.792	7.789	8.277	
-445	7.975	0.045		8.525	8.528	8.524	8.039	8.042	8.039	8.527	
-446	8.475	0.055		9.025	9.039	9.035	8.550	8.553	8.550	9.038	
-447	8.975	0.055		9.525	9.540	9.536	9.051	9.054	9.051	9.539	
-448	9.475	0.055		10.025	10.041	10.037	9.552	9.555	9.552	10.040	
-449	9.975	0.055		10.525	10.542	10.538	10.053	10.056	10.053	10.541	
-450	10.475	0.060		11.025	11.048	11.044	10.559	10.562	10.559	11.047	
-451	10.975	0.060		11.525	11.549	11.545	11.060	11.063	11.060	11.548	
-452	11.475	0.060		12.025	12.050	12.046	11.561	11.564	11.561	12.049	
-453	11.975	0.060		12.525	12.551	12.547	12.062	12.065	12.062	12.550	
-454	12.475	0.060		13.025	13.052	13.048	12.563	12.566	12.563	13.051	
-455	12.975	0.060		13.525	13.553	13.549	13.064	13.067	13.064	13.552	
-456	13.475	0.070		14.025	14.064	14.060	13.575	13.578	13.575	14.063	
-457	13.975	0.070		14.525	14.565	14.561	14.076	14.079	14.076	14.564	
-458	14.475	0.070		15.025	15.066	15.062	14.577	14.580	14.577	15.065	
-459	14.975	0.070		15.525	15.567	15.563	15.078	15.081	15.078	15.566	
-460	15.475	0.070	▼	16.025	16.068	16.064	15.579	15.582	15.579	16.067	▼