

WEDGE/ROLLER COMBINATIONS 165 SERIES

WEDGE	ROLLER Ø	FCD MIN	FCD MAX
NARROW	0.625	3.867	4.117
NARROW	0.688	3.832	4.087
NARROW	0.750	3.797	4.039
NARROW	0.813	3.762	4.000
NARROW	0.875	3.728	3.962
NARROW	1.000	3.659	3.886
MEDIUM	0.625	3.586	3.837
MEDIUM	0.688	3.552	3.799
MEDIUM	0.750	3.518	3.762
MEDIUM	0.813	3.483	3.724
MEDIUM	0.875	3.449	3.687
MEDIUM	1.000	3.381	3.612
LARGE	0.625	3.305	3.565
LARGE	0.688	3.270	3.528
LARGE	0.750	3.237	3.492
LARGE	0.813	3.202	3.455
LARGE	0.875	3.169	3.419
LARGE	1.000	3.101	3.346
X-LARGE	0.625	3.027	3.293
X-LARGE	0.688	2.993	3.256
X-LARGE	0.750	2.959	3.221
X-LARGE	0.813	2.925	3.185
X-LARGE	0.875	2.892	3.150
X-LARGE	1.000	2.825	3.079

Use 165018 Spring for 165 Series

Note: These combinations are intended to be a starting point. Your taper setting gage may require that a different combination be used.

REFERENCE DATA SHEETS 165 SERIES**UN, UNC, UNF, UNEF, UNS THREAD SIZES**

Part Data			Roll Data		Attachment Data			
Size	- TPI	Blank Diameter	# of Starts	OD	Gage Setting	Wedge	Roller	Stock Clearance
5/16	- 18	0.274	12	3.112	1.122	LARGE	0.625	1.546
5/16	- 20	0.278	11	2.911	0.806	LARGE	1.000	1.352
5/16	- 24	0.278	11	2.945	0.800	LARGE	1.000	1.391
5/16	- 27	0.285	11	3.036	1.118	LARGE	0.750	1.492
5/16	- 28	0.287	11	3.062	1.116	LARGE	0.688	1.520
5/16	- 32	0.290	11	3.109	1.113	LARGE	0.625	1.573
5/16	- 36	0.292	10	2.851	1.118	X-LARGE	0.625	1.319
5/16	- 40	0.293	10	2.877	1.117	LARGE	1.000	1.348
5/16	- 48	0.296	10	2.918	1.115	LARGE	1.000	1.394
3/8	- 16	0.332	9	2.838	0.774	X-LARGE	0.625	1.326
3/8	- 18	0.337	9	2.885	0.770	LARGE	1.000	1.382
3/8	- 20	0.341	9	2.944	0.766	LARGE	0.813	1.448
3/8	- 24	0.346	8	2.681	0.769	X-LARGE	0.750	1.195
3/8	- 27	0.348	9	3.046	0.763	LARGE	0.625	1.565
3/8	- 28	0.350	8	2.727	0.767	X-LARGE	0.688	1.248
3/8	- 32	0.353	8	2.761	0.764	X-LARGE	0.625	1.288
3/8	- 36	0.355	8	2.779	0.763	X-LARGE	0.625	1.310
3/8	- 40	0.357	8	2.809	0.761	LARGE	1.000	1.344
7/16	- 14	0.389	8	2.955	0.740	LARGE	0.750	1.495
7/16	- 16	0.395	7	2.644	0.745	X-LARGE	0.750	1.195
7/16	- 18	0.399	7	2.681	0.742	X-LARGE	0.688	1.240
7/16	- 20	0.403	7	2.728	0.740	X-LARGE	0.625	1.294
7/16	- 24	0.408	7	2.776	0.736	LARGE	1.000	1.352
7/16	- 27	0.410	7	2.807	0.739	LARGE	1.000	1.388
7/16	- 28	0.412	7	2.823	0.732	LARGE	0.875	1.406
7/16	- 32	0.415	7	2.853	0.735	LARGE	0.813	1.442
1/2	- 12	0.446	7	2.943	0.710	LARGE	0.688	1.533
1/2	- 13	0.448	6	2.558	0.717	X-LARGE	0.875	1.154
1/2	- 16	0.457	6	2.641	0.713	X-LARGE	0.688	1.254
1/2	- 18	0.462	6	2.674	0.710	X-LARGE	0.625	1.296
1/2	- 20	0.466	6	2.713	0.707	LARGE	1.000	1.342
1/2	- 24	0.471	6	2.754	0.703	LARGE	1.000	1.393
1/2	- 27	0.473	6	2.781	0.707	LARGE	0.875	1.425
1/2	- 28	0.475	6	2.795	0.701	LARGE	0.813	1.441
1/2	- 32	0.478	6	2.821	0.697	LARGE	0.750	1.473
9/16	- 12	0.506	6	2.897	0.680	LARGE	0.625	1.547
9/16	- 14	0.514	5	2.471	0.685	X-LARGE	0.875	1.136
9/16	- 16	0.520	5	2.514	0.682	X-LARGE	0.750	1.190
9/16	- 18	0.524	5	2.546	0.680	X-LARGE	0.688	1.230
9/16	- 20	0.528	5	2.574	0.678	X-LARGE	0.625	1.265
9/16	- 24	0.533	5	2.613	0.674	X-LARGE	0.625	1.314
9/16	- 27	0.535	5	2.630	0.673	LARGE	1.000	1.336
9/16	- 28	0.537	5	2.641	0.672	LARGE	1.000	1.349

REFERENCE DATA SHEETS 165 SERIES**UN, UNC, UNF, UNEF, UNS THREAD SIZES**

Part Data			Roll Data		Attachment Data			
Size	- TPI	Blank Diameter	# of Starts	OD	Gage Setting	Wedge	Roller	Stock Clearance
9/16	- 32	0.540	5	2.663	0.669	LARGE	1.000	1.377
5/8	- 11	0.564	5	2.691	0.657	LARGE	0.875	1.395
5/8	- 12	0.569	5	2.726	0.653	LARGE	0.813	1.439
5/8	- 14	0.577	5	2.776	0.646	LARGE	0.688	1.504
5/8	- 16	0.582	5	2.826	0.641	LARGE	0.625	1.564
5/8	- 18	0.587	5	2.859	0.636	LARGE	0.625	1.606
5/8	- 20	0.591	5	2.886	0.632	MEDIUM	1.000	1.640
5/8	- 24	0.596	5	2.926	0.626	MEDIUM	0.875	1.690
5/8	- 27	0.598	5	2.942	0.629	MEDIUM	0.875	1.711
5/8	- 28	0.600	5	2.955	0.621	MEDIUM	0.813	1.726
5/8	- 32	0.603	4	2.381	0.641	X-LARGE	0.813	1.158
11/16	- 12	0.631	4	2.431	0.627	X-LARGE	0.750	1.206
11/16	- 16	0.645	4	2.511	0.619	X-LARGE	0.625	1.312
11/16	- 20	0.653	4	2.559	0.613	LARGE	1.000	1.375
11/16	- 24	0.658	4	2.591	0.609	LARGE	0.875	1.417
11/16	- 28	0.662	4	2.613	0.606	LARGE	0.813	1.446
11/16	- 32	0.665	4	2.631	0.603	LARGE	0.750	1.470
3/4	- 10	0.683	4	2.617	0.600	LARGE	0.813	1.434
3/4	- 12	0.694	4	2.681	0.587	LARGE	0.688	1.519
3/4	- 14	0.702	4	2.721	0.580	LARGE	0.625	1.574
3/4	- 16	0.707	4	2.761	0.575	MEDIUM	1.000	1.624
3/4	- 18	0.712	4	2.782	0.571	MEDIUM	1.000	1.654
3/4	- 20	0.716	4	2.808	0.566	MEDIUM	0.875	1.687
3/4	- 24	0.721	4	2.839	0.561	MEDIUM	0.813	1.728
3/4	- 27	0.724	4	2.853	0.558	MEDIUM	0.813	1.748
3/4	- 28	0.725	4	2.861	0.556	MEDIUM	0.750	1.757
3/4	- 32	0.728	4	2.880	0.553	MEDIUM	0.750	1.782
13/16	- 12	0.756	4	2.931	0.534	MEDIUM	0.625	1.831
13/16	- 16	0.772	3	2.258	0.557	X-LARGE	0.813	1.186
13/16	- 20	0.778	3	2.294	0.553	X-LARGE	0.688	1.235
13/16	- 28	0.787	3	2.335	0.548	X-LARGE	0.625	1.293
13/16	- 32	0.790	3	2.348	0.545	X-LARGE	0.625	1.312
7/8	- 10	0.808	3	2.333	0.538	X-LARGE	0.625	1.275
7/8	- 12	0.819	3	2.386	0.531	LARGE	1.000	1.349
7/8	- 14	0.827	3	2.420	0.526	LARGE	0.875	1.398
7/8	- 16	0.832	3	2.446	0.522	LARGE	0.813	1.434
7/8	- 18	0.837	3	2.461	0.519	LARGE	0.813	1.458
7/8	- 20	0.841	3	2.482	0.515	LARGE	0.750	1.486
7/8	- 24	0.846	3	2.502	0.512	LARGE	0.688	1.516
7/8	- 27	0.849	3	2.515	0.509	LARGE	0.688	1.535
7/8	- 28	0.850	3	2.523	0.508	LARGE	0.625	1.544
7/8	- 32	0.853	3	2.535	0.506	LARGE	0.625	1.562

REFERENCE DATA SHEETS 165 SERIES**UN, UNC, UNF, UNEF, UNS THREAD SIZES**

Part Data			Roll Data		Attachment Data			
Size	- TPI	Blank Diameter	# of Starts	OD	Gage Setting	Wedge	Roller	Stock Clearance
15/16	- 12	0.881	3	2.574	0.490	LARGE	0.625	1.599
15/16	- 16	0.895	3	2.633	0.477	MEDIUM	0.875	1.684
15/16	- 20	0.903	3	2.669	0.470	MEDIUM	0.813	1.735
15/16	- 28	0.912	3	2.710	0.460	MEDIUM	0.688	1.793
15/16	- 32	0.915	3	2.723	0.457	MEDIUM	0.688	1.812
1	- 10	0.933	3	2.708	0.452	MEDIUM	0.688	1.775
1	- 12	0.944	3	2.761	0.439	MEDIUM	0.625	1.849
1	- 14	0.952	3	2.795	0.431	NARROW	1.000	1.898
1	- 16	0.957	3	2.821	0.424	NARROW	1.000	1.934
1	- 18	0.962	3	2.836	0.419	NARROW	0.875	1.958
1	- 20	0.966	3	2.856	0.414	NARROW	0.875	1.985
1	- 24	0.971	3	2.876	0.408	NARROW	0.813	2.015
1	- 27	0.974	3	2.890	0.404	NARROW	0.750	2.035
1	- 28	0.975	3	2.898	0.403	NARROW	0.750	2.044
1	- 32	0.978	3	2.910	0.397	NARROW	0.750	2.062
1 1/16	- 12	1.006	2	1.966	0.440	X-LARGE	1.000	1.116
1 1/16	- 16	1.020	2	2.005	0.433	X-LARGE	0.813	1.181
1 1/16	- 18	1.024	2	2.019	0.431	X-LARGE	0.750	1.203
1 1/16	- 20	1.028	2	2.029	0.429	X-LARGE	0.750	1.220
1 1/16	- 28	1.037	2	2.057	0.424	X-LARGE	0.625	1.265
1 1/8	- 10	1.058	2	2.055	0.414	X-LARGE	0.688	1.247
1 1/8	- 12	1.069	2	2.091	0.407	X-LARGE	0.625	1.304
1 1/8	- 14	1.077	2	2.110	0.403	LARGE	1.000	1.338
1 1/8	- 16	1.082	2	2.130	0.400	LARGE	1.000	1.368
1 1/8	- 18	1.087	2	2.144	0.396	LARGE	1.000	1.391
1 1/8	- 20	1.091	2	2.154	0.394	LARGE	0.875	1.408
1 1/8	- 24	1.096	2	2.168	0.391	LARGE	0.875	1.432
1 1/8	- 28	1.100	2	2.182	0.388	LARGE	0.813	1.453
1 3/16	- 12	1.131	2	2.216	0.371	LARGE	0.750	1.491
1 3/16	- 16	1.145	2	2.255	0.361	LARGE	0.625	1.556
1 3/16	- 18	1.149	2	2.269	0.357	LARGE	0.625	1.578
1 3/16	- 20	1.153	2	2.279	0.354	LARGE	0.625	1.595
1 3/16	- 28	1.162	2	2.307	0.347	MEDIUM	1.000	1.640
1 1/4	- 10	1.183	2	2.305	0.338	MEDIUM	1.000	1.622
1 1/4	- 12	1.194	2	2.341	0.329	MEDIUM	0.875	1.679
1 1/4	- 14	1.202	2	2.360	0.322	MEDIUM	0.875	1.713
1 1/4	- 16	1.207	2	2.380	0.317	MEDIUM	0.813	1.743
1 1/4	- 18	1.212	2	2.394	0.313	MEDIUM	0.750	1.766
1 1/4	- 20	1.216	2	2.404	0.310	MEDIUM	0.688	1.783
1 1/4	- 24	1.221	2	2.418	0.305	MEDIUM	0.688	1.807
1 1/4	- 28	1.225	2	2.432	0.301	MEDIUM	0.625	1.828

REFERENCE DATA SHEETS 165 SERIES**UN, UNC, UNF, UNEF, UNS THREAD SIZES**

Part Data		Roll Data		Attachment Data			
Size - TPI	Blank Diameter	# of Starts	OD	Gage Setting	Wedge	Roller	Stock Clearance
1 5/16 - 12	1.256	2	2.461	0.270	MEDIUM	0.625	1.861
1 5/16 - 16	1.270	2	2.505	0.268	NARROW	1.000	1.931
1 5/16 - 18	1.274	2	2.519	0.264	NARROW	1.000	1.953
1 5/16 - 20	1.278	2	2.529	0.260	NARROW	0.875	1.970
1 5/16 - 28	1.287	2	2.557	0.250	NARROW	0.813	2.015

REFERENCE DATA SHEETS 165 SERIES**NPSM STRAIGHT PIPE THREAD SIZES**

Part Data				Roll Data		Attachment Data			
Size	-	TPI	Blank Diameter	# of Starts	Roll OD	Gage Setting	Wedge	Roller	Stock Clearance
1/8	-	27	0.371	8	2.888	0.752	LARGE	0.875	1.430
1/4	-	18	0.488	6	2.839	0.691	LARGE	0.750	1.487
3/8	-	18	0.624	4	2.434	0.630	X-LARGE	0.750	1.218
1/2	-	14	0.775	3	2.265	0.555	X-LARGE	0.750	1.191
3/4	-	14	0.985	3	2.896	0.399	NARROW	0.750	2.032

REFERENCE DATA SHEETS 165 SERIES**BSPP STRAIGHT PIPE THREAD SIZES**

Part Data			Roll Data		Attachment Data				
Size	-	TPI	Blank Diameter	# of Starts	Roll OD	Gage Setting	Wedge	Roller	Stock Clearance
1/8	-	28	0.358	8	2.790	0.762	X-LARGE	0.625	1.319
1/4	-	19	0.482	6	2.805	0.696	LARGE	0.813	1.449
3/8	-	19	0.620	5	3.027	0.605	MEDIUM	0.688	1.809
1/2	-	14	0.777	4	3.026	0.512	NARROW	0.875	1.954

REFERENCE DATA SHEETS 165 SERIES
NPT, NPTF TAPERED PIPE THREAD SIZES

Part Data			Roll Data			Attachment Data			
Size	-	TPI	Blank Diameter @ Y	# of Starts	OD	Gage Setting @ Y	Wedge	Roller	Stock Clearance
1/16	-	27	0.279	11	2.943	0.800	LARGE	1.000	1.393
1/8	-	27	0.279	8	2.883	0.753	LARGE	1.000	1.333
1/4	-	18	0.489	6	2.840	0.692	LARGE	0.750	1.489
3/8	-	18	0.625	5	3.040	0.603	MEDIUM	0.625	1.825
1/2	-	14	0.774	4	3.028	0.518	NARROW	0.875	1.953
3/4	-	14	0.985	3	2.910	0.403	NARROW	0.750	2.046

REFERENCE DATA SHEETS 165 SERIES

METRIC THREAD SIZES

Part Data				Roll Data		Attachment Data			
Size	X	Pitch	Blank Diameter	# of Starts	OD	Gage Setting	Wedge	Roller	Stock Clearance
M6	X	1	0.208	15	2.963	0.836	LARGE	1.000	1.340
M8	X	1	0.286	11	3.039	0.797	LARGE	0.750	1.495
M8	X	1.25	0.280	11	2.935	0.805	LARGE	1.000	1.379
M10	X	0.75	0.372	8	2.917	0.750	LARGE	0.813	1.464
M10	X	1.25	0.359	8	2.764	0.762	X-LARGE	0.625	1.287
M10	X	1.5	0.352	8	2.688	0.766	X-LARGE	0.750	1.198
M12	X	1	0.445	6	2.602	0.720	X-LARGE	0.750	1.216
M12	X	1.25	0.437	6	2.546	0.724	X-LARGE	0.875	1.147
M12	X	1.5	0.431	7	2.776	0.734	LARGE	1.000	1.365
M12	X	1.75	0.424	7	2.836	0.726	LARGE	0.875	1.412
M14	X	1.5	0.510	6	2.962	0.673	MEDIUM	1.000	1.630
M14	X	2	0.497	6	2.846	0.687	LARGE	0.750	1.490
M15	X	1	0.562	5	2.759	0.654	LARGE	0.750	1.490
M16	X	1.5	0.588	5	2.861	0.635	LARGE	0.625	1.607
M16	X	2	0.575	5	2.766	0.648	LARGE	0.750	1.488
M17	X	1	0.641	4	2.523	0.620	LARGE	1.000	1.333
M18	X	1.5	0.667	4	2.604	0.605	LARGE	0.875	1.429
M20	X	1	0.759	3	2.246	0.563	X-LARGE	0.813	1.174
M20	X	1.5	0.746	4	2.919	0.540	MEDIUM	0.625	1.823
M20	X	2.5	0.720	4	2.766	0.569	MEDIUM	1.000	1.621
M22	X	1.5	0.825	3	2.425	0.527	LARGE	0.875	1.408
M22	X	2.5	0.799	3	2.311	0.543	X-LARGE	0.688	1.245
M24	X	2	0.892	3	2.604	0.482	MEDIUM	1.000	1.643
M25	X	1.5	0.943	3	2.779	0.437	MEDIUM	0.625	1.880
M27	X	2	1.008	2	1.973	0.439	X-LARGE	0.875	1.128
M30	X	1.5	1.140	2	2.247	0.364	LARGE	0.625	1.545
M30	X	2	1.127	2	2.209	0.373	LARGE	0.750	1.483
M33	X	2	1.245	2	2.445	0.296	MEDIUM	0.625	1.836

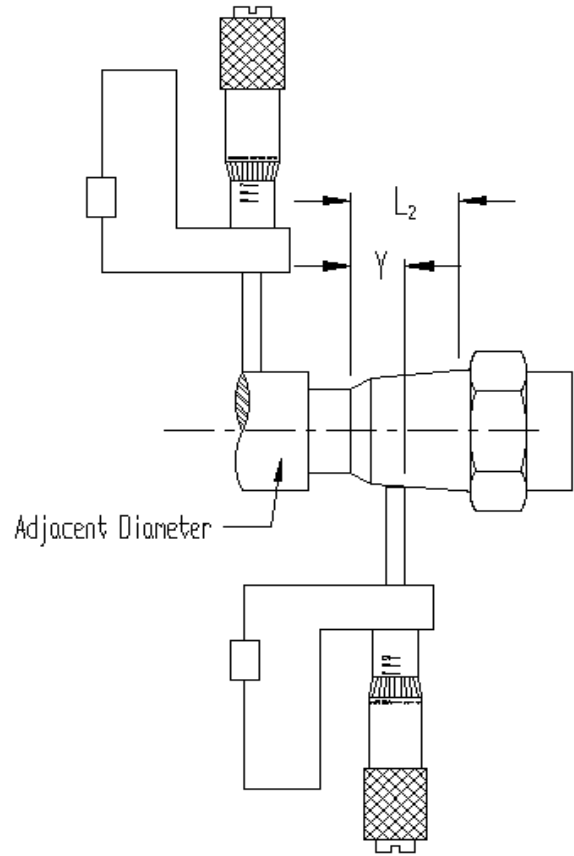
GAGE SETTING CHART FOR NPT, NPTF & BSPT TAPERED PIPE THREAD SIZES**OPTIONAL GAGE SETTING USING AN ADJACENT DIAMETER**

- 1) Take the difference between the blank diameter at Y and the adjacent diameter.
- 2) Divide the difference by 2 and subtract it from the original gage dimension. The result is your corrected gage dimension.

Example using 141 SA

1/4 - 18 NPT B.D. at Y	= .489
Adjacent Diameter	= .625
Difference	= .136
Difference/2	= .068
Original Gage Setting	= .324
minus Difference/2	- .068
Correct Gage Setting	= .256

Note: If the adjacent diameter is smaller than the blank diameter at Y, add the difference instead of subtracting.



BLANK SPECIFICATIONS				GAGE SPECIFICATIONS							
PIPE SIZE NPT & NPTF	Y	L2	B.D. @ Y	125 Series	141/142	145	151/152	160/162/163 Series	165 Series	170 Series	172/173 Series
1/16-27	.130	.261	.279	.385	.431	.437	.431	-	.800	-	-
1/8-27	.132	.264	.372	.345	.376	.385	.398	.970	.753	-	-
1/4-18	.200	.402	.489	.286	.326	.328	.340	.934	.692	-	-
3/8-18	.203	.408	.625	-	.252	.265	.267	.872	.603	-	-
1/2-14	.266	.534	.774	-	-	-	.195	.797	.518	.852	.852
3/4-14	.273	.546	.985	-	-	-	-	.688	.403	.739	.738
1" -11 1/2	.341	.683	1.235	-	-	-	-	.549	-	.632	.632
1 1/4-11 1/2	.353	.707	1.579	-	-	-	-	.395	-	.474	.329
1 1/2-11 1/2	.362	.724	1.818	-	-	-	-	.258	-	.342	.342

BLANK SPECIFICATIONS				GAGE SPECIFICATIONS							
PIPE SIZE BSPT	Y	L2	B.D. @ Y	125 Series	141/142	145	151/152	160/162/163 Series	165 Series	170 Series	172/173 Series
1/16-28	.1563	.255	.281	.387	.432	.450	.430	-	.803	-	-
1/8-28	.1563	.255	.360	.350	.378	.377	.408	.971	.762	-	-
1/4-19	.2367	.381	.484	.484	.328	.328	.344	.936	.696	-	-
3/8-19	.2500	.394	.622	-	.254	.254	.273	.873	.605	-	-
1/2-14	.3214	.517	.779	-	-	-	.195	.795	.512	.847	.847
3/4-14	.3750	.571	.995	-	-	-	-	.685	.408	.727	.727
1" -11	.4091	.659	1.250	-	-	-	-	.539	-	.620	.620
1 1/4-11	.5000	.750	1.591	-	-	-	-	.389	-	.468	.314
1 1/2-11	.5000	.750	1.823	-	-	-	-	.253	-	.338	.338