

REFERENCE DATA SHEETS NC41SA
UN, UNC, UNF, UNEF, UNS THREAD SIZES

Part Data				Roll Data		Attachment Data			
Size	TPI	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance
#0	- 80	0.045	0.050	35	1.684	2.574	Long	0.068	0.693
#1	- 64	0.054	0.061	28	1.626	2.570	Long	0.078	0.644
#1	- 72	0.056	0.062	28	1.673	2.574	Long	0.072	0.693
#2	- 56	0.064	0.072	24	1.654	2.573	Long	0.083	0.682
#2	- 64	0.067	0.074	24	1.706	2.577	Long	0.080	0.737
#3	- 48	0.073	0.084	21	1.659	2.574	Long	0.096	0.696
#3	- 56	0.077	0.085	20	1.638	2.573	Long	0.082	0.679
#4	- 40	0.081	0.094	19	1.674	2.576	Long	0.106	0.719
#4	- 48	0.086	0.096	18	1.658	2.575	Long	0.091	0.708
#5	- 40	0.094	0.107	16	1.618	2.573	Long	0.104	0.676
#5	- 44	0.097	0.108	16	1.652	2.575	Long	0.098	0.713
#6	- 32	0.100	0.116	15	1.622	2.573	Long	0.119	0.686
#6	- 40	0.107	0.120	14	1.598	2.572	Long	0.104	0.669
#8	- 32	0.126	0.142	12	1.609	2.574	Long	0.119	0.699
#8	- 36	0.130	0.144	12	1.650	2.577	Long	0.112	0.744
#10	- 24	0.139	0.161	11	1.651	2.578	Long	0.141	0.754
#10	- 28	0.146	0.164	11	1.702	2.581	Long	0.129	0.812
#10	- 32	0.152	0.168	10	1.601	2.575	Long	0.120	0.717
#10	- 36	0.156	0.169	10	1.626	2.577	Long	0.108	0.746
#10	- 40	0.159	0.171	10	1.652	2.579	Long	0.103	0.775
#10	- 48	0.164	0.174	10	1.693	2.581	Long	0.094	0.821
#10	- 56	0.168	0.176	9	1.550	2.573	Long	0.083	0.682
#12	- 24	0.165	0.188	9	1.585	2.575	Long	0.143	0.714
#12	- 28	0.172	0.191	9	1.636	2.579	Long	0.131	0.772
#12	- 32	0.178	0.194	9	1.675	2.581	Long	0.123	0.817
#12	- 36	0.182	0.195	9	1.698	2.582	Short	0.111	0.844
#12	- 40	0.185	0.197	8	1.530	2.573	Long	0.100	0.679
#12	- 48	0.190	0.200	8	1.563	2.575	Long	0.092	0.717
#12	- 56	0.194	0.202	8	1.586	2.577	Long	0.084	0.744
1/4	- 18	0.182	0.212	8	1.575	2.576	Long	0.163	0.721
1/4	- 20	0.189	0.216	8	1.617	2.579	Long	0.158	0.770
1/4	- 24	0.199	0.220	8	1.672	2.582	Long	0.141	0.835
1/4	- 26	0.203	0.223	8	1.705	2.583	Short	0.139	0.872
1/4	- 27	0.205	0.223	8	1.708	2.583	Short	0.133	0.877
1/4	- 28	0.206	0.225	7	1.511	2.573	Long	0.127	0.681
1/4	- 32	0.212	0.228	7	1.541	2.575	Long	0.120	0.717
1/4	- 36	0.216	0.229	7	1.558	2.577	Long	0.108	0.738
1/4	- 40	0.219	0.231	7	1.576	2.578	Long	0.103	0.759
1/4	- 48	0.224	0.234	7	1.605	2.580	Long	0.094	0.793

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Part Data				Roll Data		Attachment Data			
Size	TPI	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance
1/4	- 56	0.228	0.236	7	1.625	2.581	Long	0.086	0.817
1/4	- 80	0.235	0.240	7	1.667	2.583	Short	0.071	0.866
9/32	- 18	0.213	0.243	7	1.597	2.579	Long	0.165	0.774
9/32	- 28	0.237	0.256	6	1.481	2.573	Long	0.127	0.682
9/32	- 32	0.243	0.258	6	1.502	2.575	Long	0.115	0.709
9/32	- 40	0.251	0.263	6	1.544	2.578	Long	0.106	0.759
5/16	- 16	0.236	0.269	6	1.513	2.575	Long	0.171	0.713
5/16	- 18	0.244	0.274	6	1.556	2.578	Long	0.164	0.764
5/16	- 20	0.251	0.278	6	1.588	2.580	Long	0.158	0.803
5/16	- 24	0.261	0.273	6	1.636	2.583	Short	0.105	0.861
5/16	- 27	0.267	0.285	6	1.656	2.584	Short	0.132	0.887
5/16	- 28	0.269	0.287	6	1.670	2.584	Short	0.134	0.903
5/16	- 32	0.274	0.290	6	1.696	2.585	Short	0.125	0.934
5/16	- 36	0.278	0.292	5	1.426	2.572	Long	0.108	0.668
5/16	- 40	0.282	0.293	5	1.439	2.573	Long	0.098	0.685
5/16	- 48	0.287	0.296	5	1.459	2.575	Long	0.089	0.710
11/32	- 32	0.305	0.322	5	1.570	2.582	Short	0.125	0.839
3/8	- 16	0.298	0.332	5	1.576	2.582	Long	0.178	0.838
3/8	- 18	0.307	0.336	5	1.603	2.583	Short	0.168	0.874
3/8	- 19	0.310	0.339	4	1.298	2.563	Long	0.152	0.572
3/8	- 20	0.314	0.340	5	1.636	2.585	Short	0.161	0.914
3/8	- 24	0.324	0.346	5	1.676	2.585	Short	0.149	0.964
3/8	- 28	0.331	0.350	5	1.703	2.586	Short	0.139	0.998
3/8	- 32	0.337	0.353	4	1.381	2.573	Long	0.119	0.682
3/8	- 36	0.341	0.354	4	1.390	2.574	Long	0.107	0.695
3/8	- 40	0.344	0.356	4	1.401	2.575	Long	0.101	0.709
3/8	- 48	0.349	0.360	4	1.420	2.577	Long	0.097	0.733
13/32	- 28	0.362	0.381	4	1.488	2.581	Long	0.131	0.814
13/32	- 32	0.368	0.384	4	1.505	2.582	Long	0.123	0.837
7/16	- 14	0.350	0.389	4	1.477	2.580	Long	0.190	0.791
7/16	- 16	0.361	0.395	4	1.511	2.582	Long	0.180	0.836
7/16	- 18	0.369	0.398	4	1.532	2.583	Short	0.166	0.865
7/16	- 20	0.376	0.403	4	1.558	2.584	Short	0.162	0.898
7/16	- 24	0.386	0.407	4	1.586	2.585	Short	0.143	0.936
7/16	- 27	0.392	0.410	4	1.604	2.585	Short	0.134	0.960
7/16	- 28	0.394	0.412	4	1.613	2.586	Short	0.136	0.971
7/16	- 32	0.399	0.415	4	1.631	2.586	Short	0.127	0.994
7/16	- 40	0.407	0.419	4	1.654	2.586	Short	0.112	1.025
15/32	- 14	0.381	0.422	4	1.599	2.585	Short	0.202	0.944
15/32	- 32	0.430	0.446	3	1.317	2.575	Long	0.117	0.711
1/2	- 12	0.398	0.444	3	1.261	2.568	Long	0.197	0.623

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Size	TPI	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance
1/2	- 13	0.406	0.448	3	1.279	2.570	Long	0.190	0.649
1/2	- 14	0.412	0.450	3	1.291	2.572	Long	0.180	0.667
1/2	- 16	0.415	0.458	3	1.320	2.574	Long	0.195	0.699
1/2	- 18	0.432	0.461	3	1.336	2.576	Long	0.161	0.732
1/2	- 20	0.439	0.466	3	1.356	2.578	Long	0.157	0.759
1/2	- 24	0.449	0.470	3	1.377	2.580	Long	0.139	0.790
1/2	- 27	0.455	0.473	3	1.391	2.581	Long	0.131	0.810
1/2	- 28	0.456	0.475	3	1.397	2.581	Long	0.132	0.817
1/2	- 32	0.462	0.478	3	1.410	2.582	Long	0.124	0.836
1/2	- 40	0.469	0.486	3	1.441	2.583	Short	0.126	0.874
9/16	- 12	0.460	0.506	3	1.448	2.583	Short	0.210	0.872
9/16	- 14	0.475	0.513	3	1.478	2.585	Short	0.194	0.917
9/16	- 16	0.486	0.520	3	1.508	2.585	Short	0.185	0.958
9/16	- 18	0.494	0.524	3	1.528	2.586	Short	0.174	0.986
9/16	- 20	0.501	0.528	3	1.544	2.586	Short	0.166	1.009
9/16	- 24	0.511	0.533	2	1.045	2.558	Long	0.130	0.520
9/16	- 24	0.511	0.533	2	1.045	2.558	Long	0.130	0.520
9/16	- 28	0.519	0.537	2	1.057	2.560	Long	0.120	0.540
9/16	- 32	0.524	0.540	2	1.065	2.562	Long	0.112	0.553
9/16	- 40	0.532	0.545	2	1.077	2.563	Long	0.103	0.573
5/8	- 11	0.513	0.564	2	1.079	2.562	Long	0.202	0.556
5/8	- 12	0.523	0.569	2	1.091	2.564	Long	0.195	0.578
5/8	- 14	0.537	0.575	2	1.110	2.567	Long	0.177	0.611
5/8	- 16	0.548	0.582	2	1.130	2.570	Long	0.169	0.642
5/8	- 18	0.557	0.587	2	1.144	2.572	Long	0.161	0.665
5/8	- 20	0.564	0.590	2	1.154	2.573	Long	0.151	0.682
5/8	- 24	0.574	0.596	2	1.170	2.575	Long	0.139	0.708
5/8	- 24	0.574	0.596	2	1.170	2.575	Long	0.139	0.708
5/8	- 27	0.580	0.598	2	1.178	2.576	Long	0.128	0.722
5/8	- 28	0.581	0.600	2	1.182	2.576	Long	0.129	0.727
5/8	- 32	0.587	0.603	2	1.190	2.577	Long	0.121	0.741
11/16	- 12	0.585	0.631	2	1.216	2.578	Long	0.204	0.765
11/16	- 16	0.611	0.645	2	1.255	2.582	Long	0.179	0.830
11/16	- 20	0.626	0.653	2	1.279	2.583	Short	0.160	0.869
11/16	- 24	0.636	0.658	2	1.295	2.584	Short	0.145	0.895
11/16	- 27	0.642	0.660	2	1.302	2.584	Short	0.132	0.908
11/16	- 28	0.644	0.662	2	1.307	2.585	Short	0.134	0.915
11/16	- 32	0.649	0.665	2	1.315	2.585	Short	0.125	0.928
3/4	- 10	0.627	0.683	2	1.309	2.584	Short	0.234	0.900
3/4	- 12	0.648	0.694	2	1.341	2.585	Short	0.216	0.953
3/4	- 14	0.662	0.700	2	1.360	2.586	Short	0.196	0.986
3/4	- 16	0.673	0.707	2	1.380	2.586	Short	0.187	1.017
3/4	- 18	0.682	0.710	2	1.394	2.586	Short	0.172	1.040
3/4	- 20	0.689	0.716	2	1.404	2.586	Short	0.170	1.057
* 3/4	- 24	0.699	0.720	2	1.419	2.586	Short	0.150	1.082

REFERENCE DATA SHEETS NC41SA
NPT, NPTF TAPERED PIPE THREAD SIZES

Part Data					Roll Data		Attachment Data			
Size	TPI	Minor Diameter	Blank Diameter at "Y"	# of Starts	OD Large End	Centerline Height	Spring	Working Stroke	Stock Clearance	
1/16	- 27	0.237	0.279	6	1.615	2.581	Long	0.197	0.816	
1/8	- 27	0.330	0.372	4	1.440	2.577	Long	0.193	0.734	
1/4	- 18	0.427	0.489	3	1.428	2.581	Long	0.243	0.819	
3/8	- 18	0.564	0.625	2	1.229	2.578	Long	0.237	0.757	

REFERENCE DATA SHEETS NC41SA
BSPT TAPERED PIPE THREAD SIZES

Part Data					Roll Data		Attachment Data			
Size	Pitch	Minor Diameter	Blank Diameter at "Y"	# of Starts	OD Large End	Centerline Height	Spring	Working Stroke	Stock Clearance	
1/16	- 28	0.246	0.281	6	1.626	2.582	Long	0.181	0.836	
1/8	- 28	0.325	0.360	4	1.405	2.574	Long	0.174	0.694	
1/4	- 19	0.433	0.484	3	1.418	2.581	Long	0.219	0.815	
3/8	- 19	0.571	0.622	2	1.227	2.578	Long	0.216	0.762	

"Y" dimension is shown in accompanying drawing.

REFERENCE DATA SHEETS NC41SA
NPS, NPSM STRAIGHT PIPE THREAD SIZES

Part Data					Roll Data		Attachment Data					
Size			TPI	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance	
1/8			-	27	0.344	0.371	4	1.440	2.577	Long	0.154	0.748
1/4			-	18	0.447	0.488	3	1.420	2.582	Long	0.196	0.831
3/8			-	18	0.583	0.624	2	1.219	2.578	Long	0.193	0.766

REFERENCE DATA SHEETS NC41SA
BSPP STRAIGHT PIPE THREAD SIZES

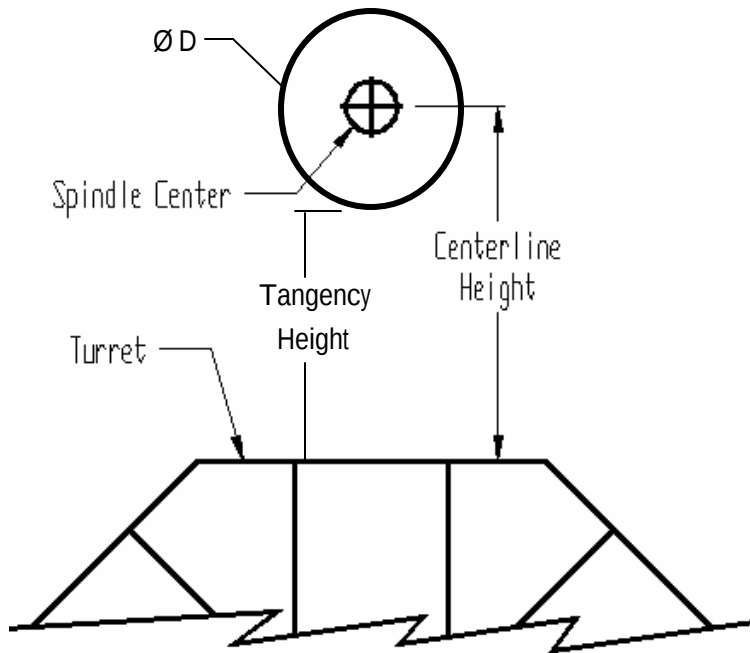
Part Data					Roll Data		Attachment Data					
Size			TPI	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance	
1/16			-	28	0.255	0.281	6	1.621	2.582	Short	0.156	0.840
1/8			-	28	0.334	0.358	4	1.395	2.574	Long	0.143	0.693
1/4			-	19	0.446	0.482	3	1.402	2.581	Long	0.183	0.812
3/8			-	19	0.584	0.620	2	1.211	2.578	Long	0.180	0.759

REFERENCE DATA SHEETS NC41SA

METRIC THREAD SIZES

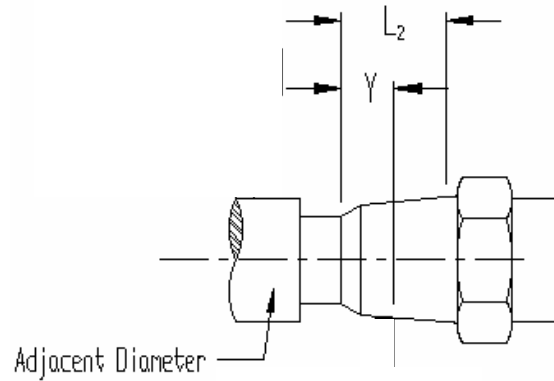
Part Data					Roll Data		Attachment Data			
Size		Pitch	Minor Diameter	Blank Diameter	# of Starts	OD	Centerline Height	Spring	Working Stroke	Stock Clearance
M1.6	X	0.35	0.045	0.051	34	1.669	2.573	Long	0.070	0.678
M2	X	0.4	0.059	0.066	26	1.638	2.571	Long	0.079	0.661
M2.5	X	0.45	0.076	0.084	21	1.695	2.577	Long	0.085	0.735
M3	X	0.5	0.093	0.103	17	1.676	2.576	Long	0.093	0.733
M3.5	X	0.6	0.108	0.120	14	1.612	2.573	Long	0.102	0.684
M4	X	0.7	0.123	0.137	13	1.693	2.579	Long	0.114	0.780
M5	X	0.8	0.157	0.173	10	1.658	2.579	Long	0.120	0.779
M6	X	1	0.187	0.208	8	1.580	2.576	Long	0.137	0.731
M8	X	0.75	0.278	0.293	5	1.479	2.576	Long	0.116	0.721
M8	X	1	0.266	0.286	6	1.657	2.584	Short	0.140	0.887
M8	X	1.25	0.253	0.280	6	1.601	2.581	Long	0.157	0.818
M10	X	0.75	0.357	0.372	4	1.458	2.579	Long	0.118	0.779
M10	X	1.25	0.332	0.359	4	1.382	2.573	Long	0.152	0.678
M10	X	1.5	0.320	0.352	5	1.679	2.585	Short	0.180	0.963
M12	X	1	0.423	0.444	3	1.301	2.573	Long	0.135	0.688
*M12	X	1.25	0.411	0.437	4	1.697	2.586	Short	0.166	1.072
M12	X	1.5	0.399	0.431	4	1.659	2.586	Short	0.183	1.022
M12	X	1.75	0.387	0.424	4	1.621	2.586	Short	0.195	0.972
M14	X	1.5	0.477	0.510	3	1.480	2.585	Short	0.179	0.921
M14	X	2	0.453	0.497	3	1.423	2.582	Short	0.204	0.840
M15	X	1	0.541	0.562	2	1.104	2.567	Long	0.131	0.609
M16	X	1.5	0.556	0.588	2	1.144	2.572	Long	0.165	0.664
M16	X	2	0.532	0.575	2	1.106	2.566	Long	0.189	0.602
M17	X	1	0.620	0.641	2	1.261	2.582	Short	0.141	0.845
M18	X	1	0.659	0.680	2	1.340	2.585	Short	0.144	0.963
M18	X	1.5	0.635	0.667	2	1.302	2.584	Short	0.177	0.901

Centerline Height Definition

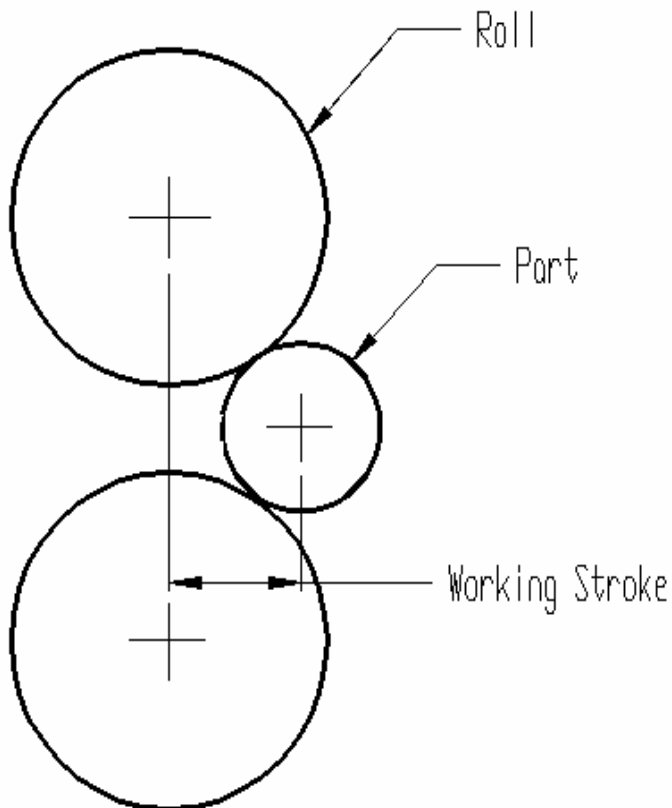


$$\text{Centerline Height} = \text{Tangency Height} + (\text{Ø D} / 2)$$

Taper Pipe Diameter Definition



Working Stroke Definition



BLANK SPECIFICATIONS			
PIPE SIZE NPT & NPTF	Y	L2	B.D. @ Y
1/16-27	.130	.261	.279
1/8-27	.132	.264	.372
1/4-18	.200	.402	.489
3/8-18	.203	.408	.625
1/2-14	.266	.534	.774
3/4-14	.273	.546	.985
1" -11 1/2	.341	.683	1.235
1 1/4-11 1/2	.353	.707	1.579
1 1/2-11 1/2	.362	.724	1.818
PIPE SIZE BSPT	Y	L2	B.D. @ Y
1/16-28	.1563	.255	.281
1/8-28	.1563	.255	.360
1/4-19	.2367	.381	.484
3/8-19	.2500	.394	.622
1/2-14	.3214	.517	.779
3/4-14	.3750	.571	.995
1" -11	.4091	.659	1.250
1 1/4-11	.5000	.750	1.591

Roll	1 1/2-11	.5000	.750	1.823
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