

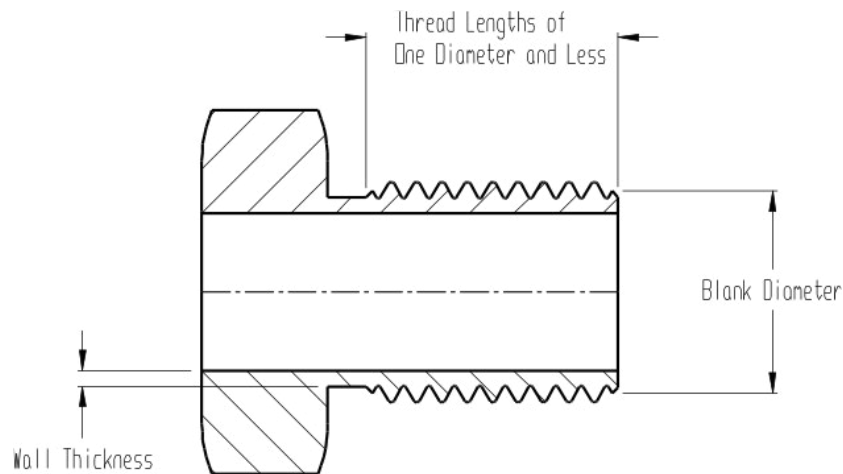
# THREAD ROLLING THIN-WALLED PARTS:

## Minimum Wall Thickness Chart

Minimal wall thickness is necessary to provide adequate support during the thread rolling and thread forming process, and to prevent distortion of the thin-walled part. The required minimum wall thickness is typically a function of the nominal thread diameter and the thread pitch.

- The larger the nominal thread diameter, the thicker the minimal wall thickness required.
- The courser the thread pitch, the thicker the minimal wall thickness required.

Distortion can not only cause flaking and non-uniform thread geometry to occur, but can also collapse or rip off the threaded portion of the part during the thread rolling cycle. Because of this, it is important to maintain the minimal wall thicknesses outlined in the charts below when thread rolling parts with thin walls.



### STANDARD

### METRIC

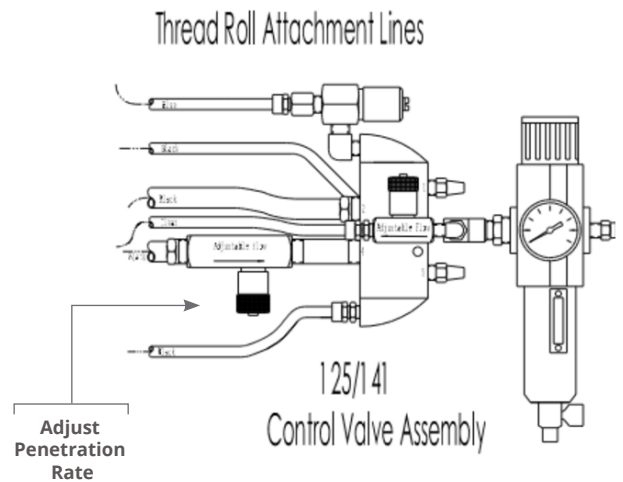
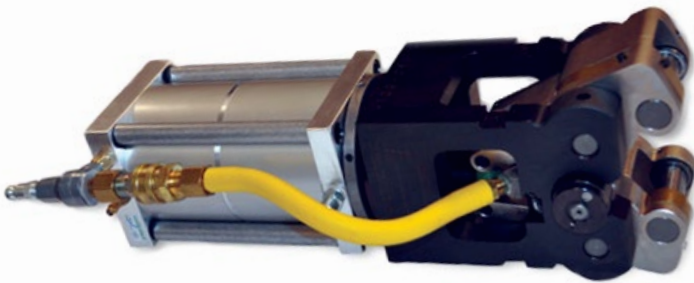
Wall Thickness using derived equations in Inches				Wall Thickness using derived equations in mm			
Threads per Inch	Blank Diameters - In Inches			Threads per mm	Blank Diameters - In Inches		
	Up to 1/2	1/2 to 1	1 to 2		Up to 1/2	1/2 to 1	1 to 2
32	.038 - .048	.048 - .060	.072 - .090	0.50	.024 - .030	.030 - .038	.045 - .057
24	.051 - .064	.064 - .080	.096 - .120	0.60	.029 - .036	.036 - .045	.054 - .068
20	.061 - .077	.077 - .096	.115 - .114	0.75	.036 - .045	.045 - .057	.068 - .085
18	.068 - .085	.085 - .106	.128 - .160	1.00	.048 - .060	.060 - .075	.091 - .113
16	.077 - .096	.096 - .120	.144 - .180	1.25	.060 - .075	.075 - .094	.113 - .142
14	.088 - .110	.110 - .137	.164 - .205	1.50	.072 - .091	.091 - .113	.136 - .170
12	.102 - .128	.128 - .160	.192 - .240	1.75	.085 - .106	.106 - .132	.158 - .198
10	..	.153 - .192	.230 - .288	2.00	..	.121 - .151	.181 - .226
8	..	..	.288 - .359	2.50	..	..	.226 - .283

## Attachments for Thin-Walled Parts

Thread rolling thin-walled parts is much more effective when using CJWinter's pneumatic radial pinch type attachments instead of tangential style attachments, the latter of which typically cause out-of-round conditions or, in some cases, cause parts to be torn off machines when side force is applied. The equalized rolling pressure produced by CJWinter's pneumatic radial pinch style attachments:

- Ensures thread concentricity
- Eliminates side pressure on parts and machine
- Allows precise control of penetration rate — particularly beneficial when rolling thin walled parts

For more information about our pneumatic attachments, visit our Online Catalog.



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