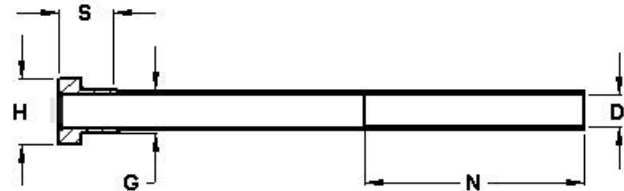
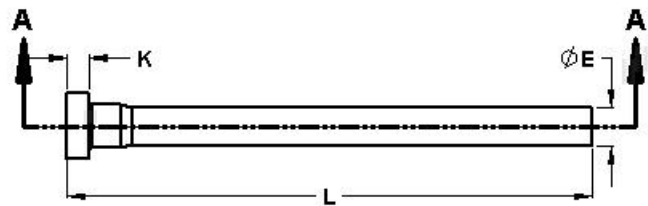
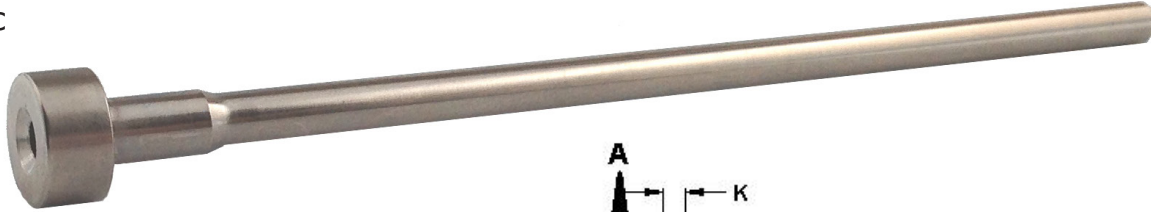


# Thin Wall Sleeves

PCS Thin Wall Sleeves eliminate the need to machine a step in standard sleeves. These Thin Wall Sleeves can be used as an alternative to standard sleeves in applications where the wall on a standard sleeve is too large a footprint. The nickel electroless coating provides added durability as well as increased corrosion protection.

**Features:**

- Manufactured from A2 Tool Steel
- Electroless Nickel Coated .00003" - .00007" Thick
- 58-60 Rc



Tolerances	
D I.D.	+ .0003 - .0000
E O.D.	- .0003 - .0007
G Shoulder Diameter	+ .000 - .001
S Shoulder Length	+/- .01
H Head Diameter	+ .00 - .01
K Head Thickness	+ .000 - .002
L Overall Length	+ .03 - .00

Part #	Nominal I.D.	D I.D.	E O.D.	G Shoulder Diameter	S Shoulder Length	H Head Diameter	K Head Thickness	N Bearing Length	L Overall Length
TWS13-4	3/32	.0937	.1563	.188	.500	.37	.187	1.75	4
TWS13-6	3/32	.0937	.1563	.188	.500	.37	.187	1.75	6
TWS15-4	1/8	.1250	.1875	.219	.500	.40	.187	1.75	4
TWS15-6	1/8	.1250	.1875	.219	.500	.40	.187	1.75	6
TWS17-4	5/32	.1562	.2187	.250	.500	.43	.187	2.50	4
TWS17-6	5/32	.1562	.2187	.250	.500	.43	.187	2.50	6
TWS21-4	3/16	.1875	.2500	.312	.625	.50	.250	2.50	4
TWS21-6	3/16	.1875	.2500	.312	.625	.50	.250	2.50	6
TWS23-4	7/32	.2187	.2813	.344	.625	.56	.250	2.50	4
TWS23-6	7/32	.2187	.2813	.344	.625	.56	.250	2.50	6
TWS25-4	1/4	.2500	.3125	.375	.625	.62	.250	2.50	4
TWS25-6	1/4	.2500	.3125	.375	.625	.62	.250	2.50	6
TWS29-4	5/16	.3125	.3750	.438	.625	.68	.250	2.50	4
TWS29-6	5/16	.3125	.3750	.438	.625	.68	.250	2.50	6
TWS33-4	3/8	.3750	.4375	.500	.625	.75	.250	2.50	4
TWS33-6	3/8	.3750	.4375	.500	.625	.75	.250	2.50	6

CAD Files available at [www.pcs-company.com](http://www.pcs-company.com)