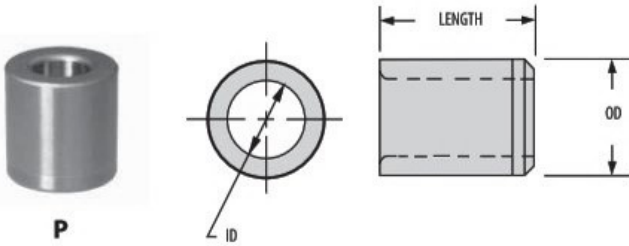
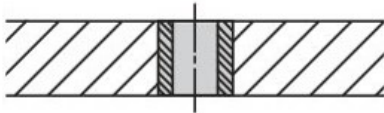


PRESS FIT BUSHINGS



APPLICATIONS:

This is the most-popular and least-expensive drill bushing. P bushings are permanently pressed into the jig plate, usually flush with the top surface. They are generally used for single-step drilling or reaming operations when you do not expect to replace bushings during the tooling's lifetime. P bushings can be mounted closer together than headed bushings, but offer less resistance to heavy axial loads.



ORDERING EXAMPLES:

P-20-16-.1250	Standard inch bushing, inch ID
P-20-16-.1772	Standard inch bushing, mm ID (.1772 = 4.50mm)
P-20-16U-.1250	Unground OD
P-20-16-.1250 REAMER	Reamer tolerance on ID
P-20-16-.1250 NCB	No counterbore on long bushings marked with * (no counterbore is standard on all other bushings)
PC-20-16-.1250	Carbide bushing
PM-8-12-4.50	Standard metric bushing

Standard prices apply only to bushings with a standard-drill-size ID within the stated ID range. See catalog back cover for standard drill sizes and their decimal equivalents. For prices on non-standard ID sizes, including reamer-tolerance and tap-guide bushings, please contact factory.

STANDARD ID TOLERANCES:

From #80 to 1/4"	+ .0001/+0.0004	From .35 to 3mm	+0.002/+0.008mm
Over 1/4 to 3/4"	+ .0001/+0.0005	Over 3 to 6mm	+0.004/+0.012mm
Over 3/4 to 1-1/2"	+ .0002/+0.0006	Over 6 to 10mm	+0.005/+0.014mm
Over 1-1/2 to 2-3/4"	+ .0003/+0.0007	Over 10 to 18mm	+0.006/+0.017mm
		Over 18 to 30mm	+0.007/+0.020mm
		Over 30 to 50mm	+0.009/+0.025mm
		Over 50 to 80mm	+0.010/+0.029mm
		Over 80 to 120mm	+0.012/+0.034mm (G6 tolerance)

REAMER ID TOLERANCES:

From #60 to 1/4"	+ .0005/+0.0008	From 1 to 3mm	+0.006/+0.012mm
Over 1/4 to 1"	+ .0006/+0.0010	Over 3 to 6mm	+0.010/+0.018mm
Over 1" to 1-1/2"	+ .0008/+0.0012	Over 6 to 10mm	+0.013/+0.022mm
		Over 10 to 18mm	+0.016/+0.027mm
		Over 18 to 30mm	+0.020/+0.033mm (F6 tolerance)

ID RANGE	OD	LENGTH	ANSI PART NO.
.0135-.0291 #80-#70 .35-.70mm	5/32 .1578-.1575 (.166-.161 UNG)	1/4	P-10-4
		5/16	P-10-5
		3/8	P-10-6
		*1/2	P-10-8
.0292-.0519 #69-3/64 .75-1.25mm		1/4	P-10-4
		5/16	P-10-5
		3/8	P-10-6
		*1/2	P-10-8
.0520-.0625 #55-1/16 1.30-1.60mm		*3/4	P-10-12
		1/4	P-10-4
		5/16	P-10-5
		3/8	P-10-6
.0520-.0634 #55-1/16 1.30-1.60mm	*1/2	P-10-8	
	*3/4	P-10-12	
	1/4	P-12-4	
	5/16	P-12-5	
.0520-.0634 #55-1/16 1.30-1.60mm	3/8	P-12-6	
	*1/2	P-12-8	
	*5/8	P-12-10	
	*3/4	P-12-12	
.0635-.0995 #52-#39 1.65-2.50mm	1/4	P-12-4	
	5/16	P-12-5	
	3/8	P-12-6	
	1/2	P-12-8	
.0135-.0291 #80-#70 .35-.70mm	5/8	P-12-10	
	*3/4	P-12-12	
	1/4	P-13-4	
	5/16	P-13-5	
.0292-.0519 #69-3/64 .75-1.30mm	3/8	P-13-6	
	*1/2	P-13-8	
	1/4	P-13-4	
	5/16	P-13-5	
.0520-.0634 #55-1/16 1.35mm-1.60mm	3/8	P-13-6	
	*1/2	P-13-8	
	*3/4	P-13-12	
	1/4	P-13-4	
.0520-.0634 #55-1/16 1.35mm-1.60mm	5/16	P-13-5	
	3/8	P-13-6	
	*1/2	P-13-8	
	*3/4	P-13-12	
.0635-.0995 #52-#39 1.65-2.50mm	*1	P-13-16	
	1/4	P-13-4	
	5/16	P-13-5	
	3/8	P-13-6	
.0135-.0291 #80-#70 .35-.70mm	1/2	P-13-8	
	*3/4	P-13-12	
	*1	P-13-16	
	*1-3/8	P-13-22	

* **INFO+**: Counterbored, leaving correct drill-bearing length and clearance (see page 551 for bearing length).

CONTINUED ON NEXT PAGE