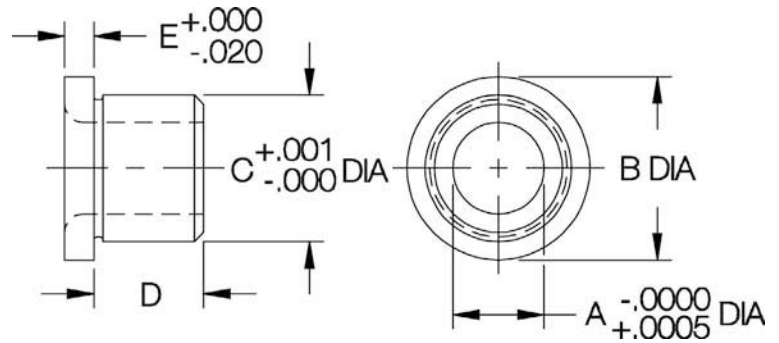


ON-SIZE® BUSHINGS

INVAR 36® NICKEL-IRON ALLOY



**ON-SIZE® Bushings
for Bullet-Nose Dowels
(Head Type)**



ON-SIZE® Bushings are made from Invar 36, a 36% nickel-iron alloy that has an extremely low coefficient of thermal expansion. Invar material is particularly useful in applications where minimum thermal expansion and high dimensional stability is required. Useful in high temperature applications up to 750°F (400°C), these products will maintain their size and accuracy even under heat-cool multiple cycles.

The precision bushings shown here are used with Bullet-Nose Dowels to align two pieces of a fixture. The bushing's ID and OD are concentric to within .0003" TIR. Available for pin diameters 1/4, 5/16, 3/8, and 1/2" (6, 8, 10, and 12mm in metric).

HEAD TYPE (INCH)

PART NO.	A DIA		B DIA	C DIA		D	E
	NOMINAL	ACTUAL		NOMINAL	ACTUAL		
CL-1000-BNV	1/4	.2501	.625	1/2	.5002	3/8	.100
CL-2000-BNV	5/16	.3126	.625	1/2	.5002	3/8	.100
CL-3000-BNV	3/8	.3751	.750	5/8	.6253	1/2	.100
CL-4000-BNV	1/2	.5001	.875	3/4	.7504	5/8	.100

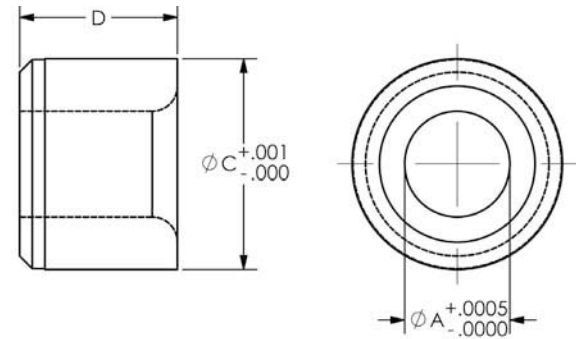
HEAD TYPE (METRIC)

CLM-60-BNV	6mm	.2363	.512	10mm	.3939	.276	.118
CLM-80-BNV	8mm	.3151	.591	12mm	.4726	.276	.118
CLM-100-BNV	10mm	.3938	.709	15mm	.5909	.354	.118
CLM-120-BNV	12mm	.4725	.866	18mm	.7091	.472	.157

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**ON-SIZE® Bushings
for Bullet-Nose Dowels
(Headless Type)**



HEADLESS TYPE (INCH)

PART NO.	A DIA		C DIA		D
	NOMINAL	ACTUAL	NOMINAL	ACTUAL	
CL-1000-BPNV	1/4	.2501	1/2	.5002	3/8
CL-2000-BPNV	5/16	.3126	1/2	.5002	3/8
CL-3000-BPNV	3/8	.3751	5/8	.6253	1/2
CL-4000-BPNV	1/2	.5001	3/4	.7504	5/8

HEADLESS TYPE (METRIC)

CLM-60-BPNV	6mm	.2363	10mm	.3939	.276
CLM-80-BPNV	8mm	.3151	12mm	.4726	.276
CLM-100-BPNV	10mm	.3938	15mm	.5909	.354
CLM-120-BPNV	12mm	.4725	18mm	.7091	.472