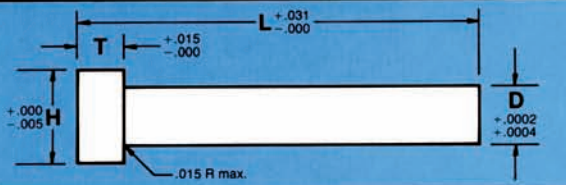


Carbide Punch Blanks

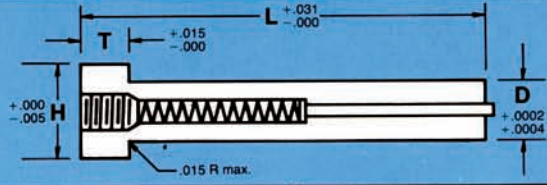


TYPE	BODY DIAMETER D	HEAD DIAMETER H	HEAD THICKNESS T	OVERALL LENGTH L				
				2	2¼	2½	2¾	3
DPB 12	1/8	3/16	1/8	■	■	■	■	■
DPB 15	5/32	7/32	1/8	■	■	■	■	■
DPB 18	3/16	1/4	1/8	■	■	■	■	■
DPB 25	1/4	3/8	3/16	■	■	■	■	■
DPB 31	5/16	7/16	3/16	■	■	■	■	■
DPB 37	3/8	1/2	3/16	■	■	■	■	■
DPB 43	7/16	9/16	3/16	■	■	■	■	■
DPB 50	1/2	5/8	3/16	■	■	■	■	■
DPB 62	5/8	3/4	3/16	■	■	■	■	■
DPB 75	3/4	7/8	3/16	■	■	■	■	■

HOW TO ORDER

QUANTITY	TYPE	OVERALL LENGTH
12	DPB-62	2½

Carbide Ejector Blanks

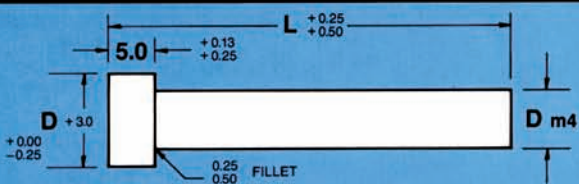


TYPE	BODY DIAMETER D	HEAD DIAMETER H	HEAD THICKNESS T	OVERALL LENGTH L				
				2	2¼	2½	2¾	3
DEB 12	1/8	3/16	1/8	■	■	■		
DEB 18	3/16	1/4	1/8	■	■	■	■	■
DEB 25	1/4	3/8	3/16	■	■	■	■	■
DEB 31	5/16	7/16	3/16	■	■	■	■	■
DEB 37	3/8	1/2	3/16	■	■	■	■	■
DEB 43	7/16	9/16	3/16	■	■	■	■	■
DEB 50	1/2	5/8	3/16	■	■	■	■	■
DEB 62	5/8	3/4	3/16	■	■	■	■	■
DEB 75	3/4	7/8	3/16	■	■	■	■	■

HOW TO ORDER

QUANTITY	TYPE	OVERALL LENGTH
24	DEB-43	2¾

Metric Carbide Punch Blanks

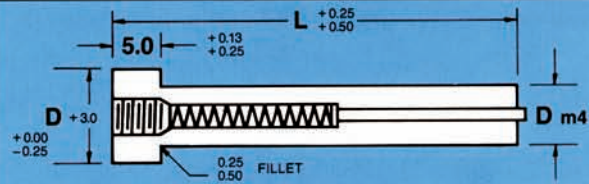


D	TYPE	OVERALL LENGTH L						
		40.0	45.0	50.0	56.0	63.0	71.0	80.0
4.0	MPB 004	■	■	■	■	■	■	■
5.0	MPB 005	■	■	■	■	■	■	■
6.0	MPB 006	■	■	■	■	■	■	■
8.0	MPB 008	■	■	■	■	■	■	■
10.0	MPB 010	■	■	■	■	■	■	■
13.0	MPB 013	■	■	■	■	■	■	■
16.0	MPB 016	■	■	■	■	■	■	■
20.0	MPB 020	■	■	■	■	■	■	■

HOW TO ORDER

QUANTITY	TYPE	OVERALL LENGTH
12	MPB-010	40.0

Metric Carbide Ejector Blanks

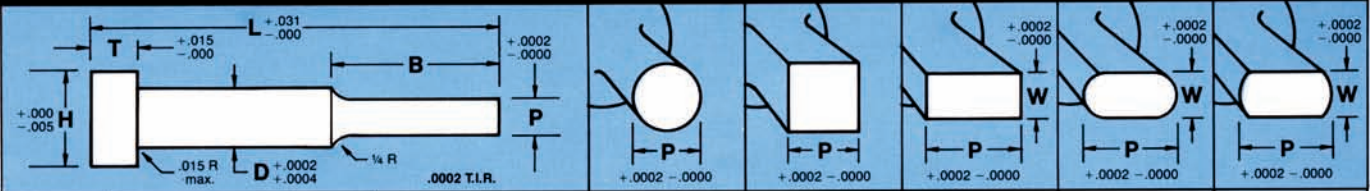


D	TYPE	OVERALL LENGTH L						
		40.0	45.0	50.0	56.0	63.0	71.0	80.0
5.0	MEB 005	■	■	■	■	■		
6.0	MEB 006	■	■	■	■	■		
8.0	MEB 008	■	■	■	■	■	■	■
10.0	MEB 010	■	■	■	■	■	■	■
13.0	MEB 013	■	■	■	■	■	■	■
16.0	MEB 016	■	■	■	■	■	■	■
20.0	MEB 020	■	■	■	■	■	■	■

HOW TO ORDER

QUANTITY	TYPE	OVERALL LENGTH
24	MEB-013	50.0

Solid Carbide Punches



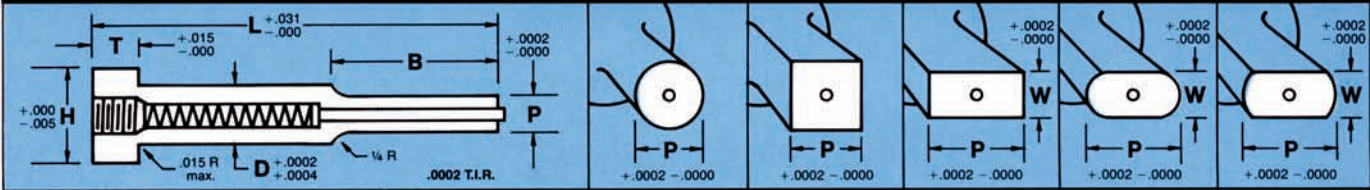
TYPE DSP, DSS, DSR, DSO, DSF	BODY DIAMETER D	HEAD DIAMETER H	HEAD THICKNESS T	POINT LENGTH B	OVERALL LENGTH L					DSP ROUND P		DSS SQUARE P		DSR RECTANGLE W P		DSO OBLONG W P		DSF FLATTED ROUND W P	
					2	2 1/4	2 1/2	2 3/4	3	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
() 12	1/8	3/16	1/8	to 1/2	■	■	■	■	■	.031	.125	.060	.089	.060	.099	.060	.125	.060	.125
() 15	5/32	7/32	1/8	to 1/2	■	■	■	■	■	.031	.156	.062	.109	.060	.124	.060	.156	.060	.156
() 18	3/16	1/4	1/8	to 3/4	■	■	■	■	■	.046	.187	.062	.131	.062	.141	.060	.186	.060	.187
() 25	1/4	3/8	3/16	to 1	■	■	■	■	■	.060	.250	.062	.176	.062	.208	.062	.250	.062	.250
() 31	5/16	7/16	3/16	to 1	■	■	■	■	■	.125	.312	.093	.220	.093	.250	.093	.312	.093	.312
() 37	3/8	1/2	3/16	to 1	■	■	■	■	■	.187	.375	.125	.265	.125	.312	.125	.375	.125	.374
() 43	7/16	9/16	3/16	to 1	■	■	■	■	■	.312	.437	.187	.308	.156	.343	.156	.437	.187	.437
() 50	1/2	5/8	3/16	to 1	■	■	■	■	■	.375	.500	.218	.353	.187	.375	.187	.500	.187	.500
() 62	5/8	3/4	3/16	to 1	■	■	■	■	■	.438	.625	.250	.441	.250	.500	.250	.625	.250	.625
() 75	3/4	7/8	3/16	to 1	■	■	■	■	■	.530	.750	.375	.531	.312	.625	.312	.750	.312	.750

FOR SOLID CARBIDE PUNCHES WITH AIR-HOLE, SEE BOTTOM OF PAGE.

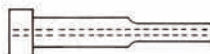
"D" PRESS FIT TOLERANCES	
Type 1 + .00005 - .0000	Type 2 + .0002 + .0004
If unspecified, Type 2 will be given	

FOR STEEL-HEADED AND STEEL-COLLARED PUNCHES AND EJECTORS, SEE PAGE 8.

Solid Carbide Ejectors



TYPE DEP, DES, DER, DEO, DEF	BODY DIAMETER D	HEAD DIAMETER H	HEAD THICKNESS T	POINT LENGTH B	OVERALL LENGTH L					DEP ROUND P		DES SQUARE P		DER RECTANGLE W P		DEO OBLONG W P		DEF FLATTED ROUND W P	
					2	2 1/4	2 1/2	2 3/4	3	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
() 12	1/8	3/16	1/8	to 1/2	■	■	■			.062	.125	.062	.089	.062	.099	.062	.125	.062	.125
() 18	3/16	1/4	1/8	to 3/4	■	■	■			.062	.187	.062	.131	.062	.141	.062	.187	.062	.125
() 25	1/4	3/8	3/16	to 1	■	■	■	■	■	.093	.250	.062	.176	.062	.208	.062	.250	.093	.250
() 31	5/16	7/16	3/16	to 1	■	■	■	■	■	.125	.312	.093	.220	.093	.250	.093	.312	.125	.312
() 37	3/8	1/2	3/16	to 1 1/4	■	■	■	■	■	.187	.375	.125	.265	.125	.312	.125	.375	.156	.375
() 43	7/16	9/16	3/16	to 1 1/4	■	■	■	■	■	.312	.437	.187	.308	.156	.343	.156	.437	.187	.437
() 50	1/2	5/8	3/16	to 1 1/4	■	■	■	■	■	.375	.500	.218	.353	.187	.375	.187	.500	.312	.500
() 62	5/8	3/4	3/16	to 1 1/4	■	■	■	■	■	.500	.625	.281	.441	.281	.500	.282	.625	.312	.750



For air-hole type punch, order Type DAP, DAS, DAR, DAO, or DAF

HOW TO ORDER

QUANTITY	TYPE	POINT DIAMETER	POINT LENGTH	OVERALL LENGTH	QUANTITY	TYPE	POINT DIMENSIONS	POINT LENGTH	OVERALL LENGTH
12	DSP-31	.130	1/2	2	5	DEO-50	W.250 P.437	3/4	3

Metric Solid Carbide Punches

TYPE MSP, MSS, MSR, MSO, MSF	BODY DIAMETER D	POINT LENGTH B	OVERALL LENGTH L						MSP ROUND P		MSS SQUARE P		MSR RECTANGLE W P		MSO OBLONG W P		MSF FLATTED ROUND W P	
			40.0	45.0	50.0	56.0	63.0	71.0	80.0	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
()	4.0	32 Max.	■	■	■	■	■		0.80	3.95	2.50	3.95	2.50	3.95	2.50	3.95	2.50	3.95
()	5.0	32 Max.	■	■	■	■	■		1.20	4.95	2.50	4.95	2.50	4.95	2.50	4.95	2.50	4.95
()	6.0	32 Max.	■	■	■	■	■	■	1.60	5.95	2.50	5.95	2.50	5.95	2.50	5.95	2.50	5.95
()	8.0	38 Max.	■	■	■	■	■	■	2.50	7.95	2.50	7.95	2.50	7.95	2.50	7.95	2.50	7.95
()	10.0	38 Max.	■	■	■	■	■	■	3.20	9.95	3.20	9.95	3.20	9.95	3.20	9.95	3.20	9.95
()	13.0	38 Max.	■	■	■	■	■	■	6.00	12.95	5.00	12.95	5.00	12.95	5.00	12.95	5.00	12.95
()	16.0	38 Max.	■	■	■	■	■	■	8.00	15.95	6.00	15.95	6.00	15.95	6.00	15.95	6.00	15.95
()	20.0	38 Max.	■	■	■	■	■	■	10.00	19.95	8.00	19.95	8.00	19.95	8.00	19.95	8.00	19.95
()	25.0	38 Max.	■	■	■	■	■	■	12.80	24.95	9.00	24.95	9.00	24.95	9.00	24.95	9.00	24.95

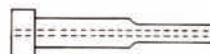
FOR SOLID CARBIDE PUNCHES WITH AIR-HOLE, SEE BOTTOM OF PAGE.

AVAILABLE IN STEEL-HEAD AND STEEL-COLLARS.

P to D

Metric Solid Carbide Ejectors

TYPE MEP, MES, MER, MEO, MEF	BODY DIAMETER D	POINT LENGTH B	OVERALL LENGTH L						MEP ROUND P		MES SQUARE P		MER RECTANGLE W P		MEO OBLONG W P		MEF FLATTED ROUND W P	
			40.0	45.0	50.0	56.0	63.0	71.0	80.0	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
()	5.0	25 Max.	■	■	■	■	■		1.60	4.95	1.60	4.95	1.60	4.95	1.60	4.95	1.60	4.95
()	6.0	25 Max.	■	■	■	■	■		2.40	5.95	2.40	5.95	2.40	5.95	2.40	5.95	2.40	5.95
()	8.0	32 Max.	■	■	■	■	■	■	3.20	7.95	3.20	7.95	3.20	7.95	3.20	7.95	3.20	7.95
()	10.0	32 Max.	■	■	■	■	■	■	4.50	9.95	4.50	9.95	4.50	9.95	4.50	9.95	4.50	9.95
()	13.0	32 Max.	■	■	■	■	■	■	6.00	12.95	6.00	12.95	6.00	12.95	6.00	12.95	6.00	12.95
()	16.0	32 Max.	■	■	■	■	■	■	8.00	15.95	8.00	15.95	8.00	15.95	8.00	15.95	8.00	15.95
()	20.0	32 Max.	■	■	■	■	■	■	10.00	19.95	10.00	19.95	10.00	19.95	10.00	19.95	10.00	19.95
()	25.0	32 Max.	■	■	■	■	■	■	12.80	24.95	12.80	24.95	12.80	24.95	12.80	24.95	12.80	24.95



For air-hole type punch, order Type MAP, MAS, MAR, MAO, or MAF

HOW TO ORDER

QUANTITY	TYPE	POINT DIAMETER	POINT LENGTH	OVERALL LENGTH	QUANTITY	TYPE	POINT DIMENSIONS	POINT LENGTH	OVERALL LENGTH
12	MSP-5	3.60	25	50.0	5	MEO-8	W - 4.20 P - 7.90	32	63.0