



**WHEN ORDERING SPECIFY:**

1. Series BP-33BB. This series of die sets is furnished in precision only.
2. Dimensions A and B.
3. Thickness of die holder J and punch holder K. (J and K thickness should be at least equal to guide post diameter O. For sleeve bushings, J thickness should be at least 1/4" larger than O.)
4. Diameter of guide post O if other than listed. See page 5. (If larger or smaller guide post than listed is ordered, C and F dimensions will vary accordingly.)
5. Type of bushing, demountable or straight sleeve. Refer to pages 6 and 7 for dimensional data.
6. Demountable bushing clamp arrangement — state A, B or C (see page 16).
7. Maximum and minimum shutheight by specifying T from bottom surface of die holder to top surface of punch holder.
8. Stroke or ram movement of press.

9. Operating condition (Type I — Pre-loaded, Type II — Relieving, Type III — Disengaging.)
10. Specify size of shank, if ordered. These sets are regularly furnished without shanks. Inserted or welded steel shanks are available at additional cost.
11. Specify clamping or lifting holes. Holes can be furnished to your specifications at additional cost.
12. Specify how shipment should be made.

**Reverse Sets** — Sets with B greater than A can be furnished if required for special feeding.

**Special Machining** — Sets can be provided with any special machining required. Send print.

**Torch-Cut Holes** — Holes of any shape may be torch-cut to your needs. Send template or print.

These die sets may not be returned for credit.

NOM. GUIDE POST DIA.	C	SLEEVE BUSHING		SHOULDER BUSHING	
		F	W	F	W
1	1 3/4	2 1/16	7/16	2 7/8	9/16
1 1/4	1 7/8	2 1/16	7/16	3 1/16	9/16
1 1/2	2 1/8	3 3/8	1/2	3 9/16	1 1/16
1 3/4	2 1/4	3 5/8	1/2	3 13/16	1 1/16
2	2 1/2	4 1/8	5/8	4 7/16	1 3/16
2 1/2	2 7/8	4 3/4	5/8	5	1 1/16
3	3 1/4	5 3/8	5/8	5 5/8	7/8

X = B Minus 2F

THICKNESS OF PLATE IN STOCK							
1	1 1/8	1 1/16	1 1/16	1 1/8	1 1/8	2 1/8	2 1/8
2 1/8	2 1/8	3 1/8	3 1/8	4 1/8	4 1/8	5 1/8	6 1/8

**UNLIMITED SIZES**

Sizes are not limited to any dimensions. Suggested minimum dimensions are shown below.

1 1/2	1 3/4				2				2 1/2			3		K
1 3/4	2				2 1/4				2 3/4			3 1/4		J
1 1/2	1 3/4				2				2 1/2			3		O
30	32	34	36	40	45	50	55	60	65	70	80	90	100	A/B
72	78	84	89	99	115	127	140	153	180	193	221	261	290	6
91	97	104	110	125	140	156	171	187	216	233	266	312	347	8
108	116	125	133	147	166	184	203	221	253	273	312	363	404	10
127	136	144	153	170	191	212	245	267	290	311	356	414	460	12
144	154	164	173	193	217	241	277	302	327	352	402	465	517	14
161	172	183	194	215	252	279	308	336	363	392	448	516	574	16
178	190	202	214	238	277	308	339	370	401	431	493	567	630	18
195	209	229	242	269	303	336	370	404	437	471	538	618	687	20
212	227	248	263	292	328	365	401	438	474	521	595	669		22
236	252	267	283	314	354	393	432	472	511	560	640	720		24
253	270	287	303	337	379	421	464	514	557	600	686	771		26
270	288	306	324	360	405	450	495	548	594	640	731	822		28
287	306	325	344	382	430	485	534	582	631	679	776			30
	324	344	365	405	456	513	565	616	668	719	822			32
		364	385	428	481	542	596	650	704					34
			405	450	507	570	627	684						36
				501	564	627								40