

D-M-E American Standard Steel Types

Synonymous with mold making are the D-M-E American Standard Steel Types. Our experience in mold steel ensures the cleanliness, durability and machinability appropriate to your application.

Steels for Structural and Holder Block Applications

D-M-E #1 Steel is a medium carbon quality steel with greater tensile strength than typical plain carbon warehouse steels. It machines easily, but is not "sticky", permitting a faster and smoother cut. International comparisons: DIN 1.1178 (CK 30) and 1.1730 (C 45 W); JIS S 30 CM, S50C, S55C; ISO 683-1 C30E4.

D-M-E #2 Steel is a medium alloy steel specified for durability in structural applications. It is supplied pre-heat treated to 28-34 HRC (271-321 Bhn). A high strength steel, it is ideal for cavity and core retainer plates, clamping plates and support plates in molds. International comparisons: DIN 1.2312 (40CrMnMoS 8 6), 1.7218 (25CrMo4) and 1.2331 (41CrMoS4); JIS SCM 430; ISO 683-2 Type 1.

D-M-E #7 Steel is a modified AISI 400 series stainless steel for holder block applications. It is supplied pre-heat treated to 32-36 HRC (302-340 Bhn). This stainless steel offers corrosion-resistance and exceptional machinability but cannot be further hardened (see D-M-E #6). For humid environments, corrosive plastics, "clean room" or "100% stainless" applications, it is an ideal choice for all structural mold plates. International comparisons: none.

Steels for Cavity & Core Applications

D-M-E #3 Steel is a P-20 AISI 4130 type cavity steel. Exceptionally clean, it is pre-heat treated to 28-34 HRC (271-321 Bhn). It provides good machinability, the ability to heat treat to higher hardness, and exceptional polishability. International comparisons: DIN 1.2311 G40CrMnMo7; JIS none; ISO none.

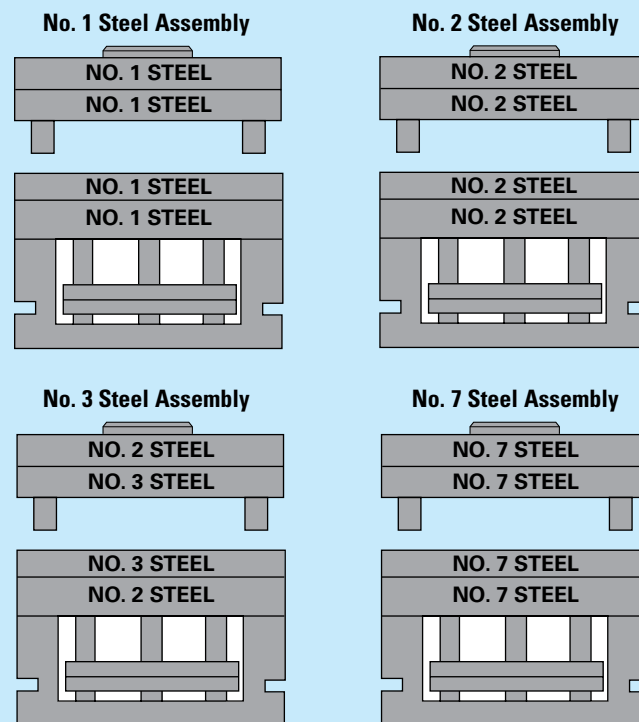
D-M-E #5 Steel is an AISI/SAE H-13 type thermal shock resistant, hotwork die steel. Supplied fully annealed (approximately 200 Bhn; 13-20 HRC) for easy machinability, it can be subsequently heat treated to the desired hardness with a minimum of deformation. Mainly used for die cast dies, it is also suitable for plastic molds with exceptional hardness or polishability requirements. D-M-E #5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest Number 01-80-01D. International comparisons: DIN 1.2344 (X40CrMoV5-1); JIS SKD 61; ISO 4955 H13.

D-M-E #6 Steel is a modified AISI 420 type stainless steel. It is supplied fully annealed to 179-241 Bhn (8-23 HRC), making it readily machinable. Unlike D-M-E #7 steel, D-M-E #6 steel is a cavity-grade material that can be subsequently heat treated to the desired hardness and has excellent polishability. International comparisons: DIN 1.4028 (X30Cr13); JIS SUS 420 J 2; ISO none.



Typical Steel Types Configurations




"A" Series Mold Bases are available in over 40 standard sizes, 7-7/8 x 7-7/8 to 23-3/4 x 35-1/2. Each size offers a wide variety of standard cavity plate thickness combinations, plus your choice of D-M-E No. 1, No. 2, No. 3 or No. 7 steel.



Steel Selections: Available in 43 Nominal Sizes

MOLD PLATE	STEEL TYPES					
	#1	#2	#3	#7	#5	#6
TOP CLAMP PLATE	⚡	⚡	⚡	⚡		
AC PLATE	⚡	⚡	⚡	⚡		
A PLATE	⚡	⚡	⚡	⚡*		
B PLATE	⚡	⚡	⚡	⚡*		
AX, BX PLATES	⚡	⚡	⚡	⚡		
XP, X-1 AND X-2 PLATES	⚡	⚡	⚡	⚡		
SUPPORT PLATE	⚡	⚡	⚡	⚡		
EJECTOR RETAINER PLATE	⚡			⚡		
EJECTOR BAR PLATE	⚡			⚡		
EJECTOR HOUSING ASSEMBLY	WELDED	⚡				
	THREE PIECE	⚡		⚡		

D-M-E regularly mixes steel types within a mold base assembly to deliver plates configured to your application requirements. You can select steel types for each plate, as available from the table at left, in any combination for your mold base.

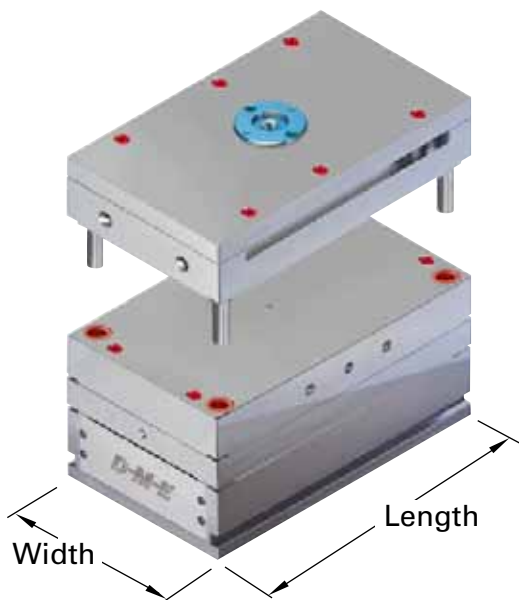
-  = Ships in 5 days or less
-  = Contact D-M-E for quote. D-M-E Customer Service can quote up to 5.875 thickness plates on all plates.
-  = Not available

*Up to 2.375 thickness
NOTE: AC plates are not recommended.

The American Standard Mold Base is available in 43 nominal sizes to match the mold space requirements for your application.

As the creator of the American mold base standard, D-M-E has the largest selection of mold base sizes and most are available in less than five business days.

NOTE: Drilled complete replacement plates available with quick delivery.



NOTE: Approximate mold base weight can be estimated with the following formula:
 WEIGHT = WIDTH x LENGTH x HEIGHT x .283 x 90%

NOMINAL SIZE	WIDTH (IN)	LENGTH (IN)	WEIGHT RANGE (LBS)	
			MIN	MAX
88	7.875	7.875	116	305
812	7.875	11.875	175	460
108	9.875	8.000	156	393
1012	9.875	11.875	235	592
1016	9.875	16.000	316	798
1020	9.875	20.000	395	997
1112	10.875	12.000	261	659
1114	10.875	14.000	305	769
1118	10.875	18.000	392	988
1123	10.875	23.500	511	1290
1212	11.875	12.000	285	719
1215	11.875	15.000	379	899
1220	11.875	20.000	505	1199
1223	11.875	23.500	594	1409
1315	13.375	15.000	427	1038
1318	13.375	18.000	512	1246
1321	13.375	20.750	590	1436
1323	13.375	23.500	669	1627
1326	13.375	26.000	740	1800
1329	13.375	29.500	839	2042
1518	14.875	17.875	599	1410
1524	14.875	23.750	796	1873
1529	14.875	29.500	989	2327
1616	15.875	16.000	573	1347
1620	15.875	20.000	716	1683
1623	15.875	23.500	841	1978
1626	15.875	26.000	930	2189
1629	15.875	29.500	1056	2483
1635	15.875	35.500	1270	2988
1724	16.500	23.750	883	2078
1729	16.500	29.500	1097	2581
1818	17.875	18.000	725	1706
1820	17.875	20.000	806	1896
1823	17.875	23.500	947	2227
1826	17.875	26.000	1048	2464
1829	17.875	29.500	1189	2796
1835	17.875	35.500	1430	3365
1924	19.500	23.750	1044	2456
1929	19.500	29.500	1297	3050
1935	19.500	35.500	1648	3758
2424	23.750	23.750	1343	3062
2429	23.750	29.500	1668	3804
2435	23.750	35.500	2008	4578