



A SERIES — Designed for through pocket machining.



T SERIES — Features an "X" and "Y" stripper plate available in variable plate thicknesses.



B SERIES — Suited for blind pockets without top or bottom support plates.



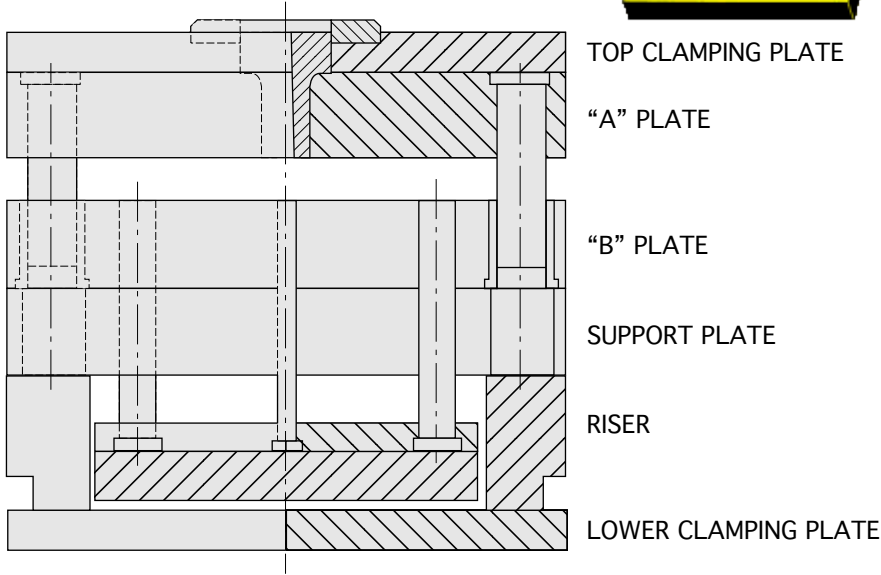
FORTAL® MOLD BASES — All series A, B, X, T and V are available in this aluminum alloy.

X SERIES — 5 and 6 plate designed for "X", "A" and "B" plate thickness you require.

V SERIES — Versatile design features a stripper plate between "A" and "B" plates.

CAVITY RETAINER PLATES — These sets are ideal for cavity or core plates.

MOLD BASE PLATE CAPABILITIES — Superior's diverse inventory offers you the selection of No. 1, No. 2, No. 3, Fortal® and other alloys suited to your specifications.



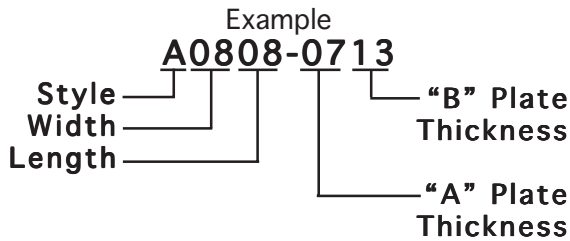
A-SERIES

These mold base assemblies lend themselves to through pocket machining. The "A" and "B" Plates are interchangeable within the Superior A Series Mold Bases. Whatever you need in a Mold Base, Standard or Special - Superior can manufacture it.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.

MOLD BASES "A" SERIES

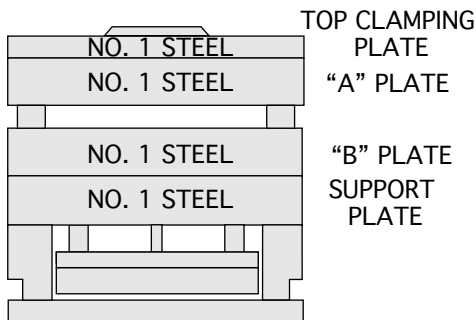
Catalog Numbers describe the parts per the following example.



WHEN ORDERING PLEASE SPECIFY:

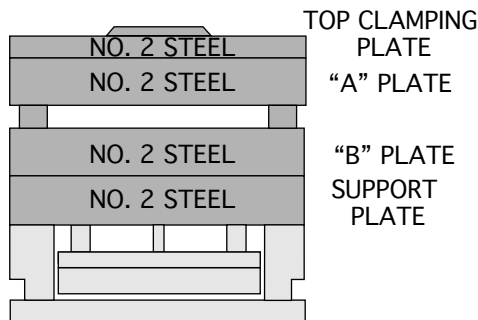
1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. Top Clamp Plate Thickness and Slot Configuration

STANDARD STEEL TYPES

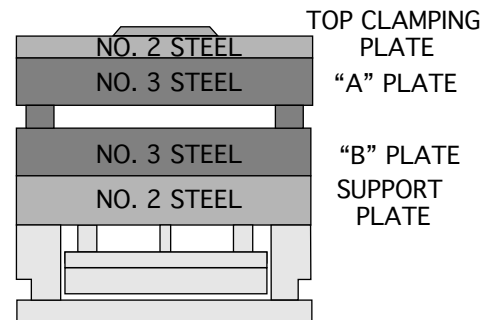


NO. 1 STEEL ASSEMBLY

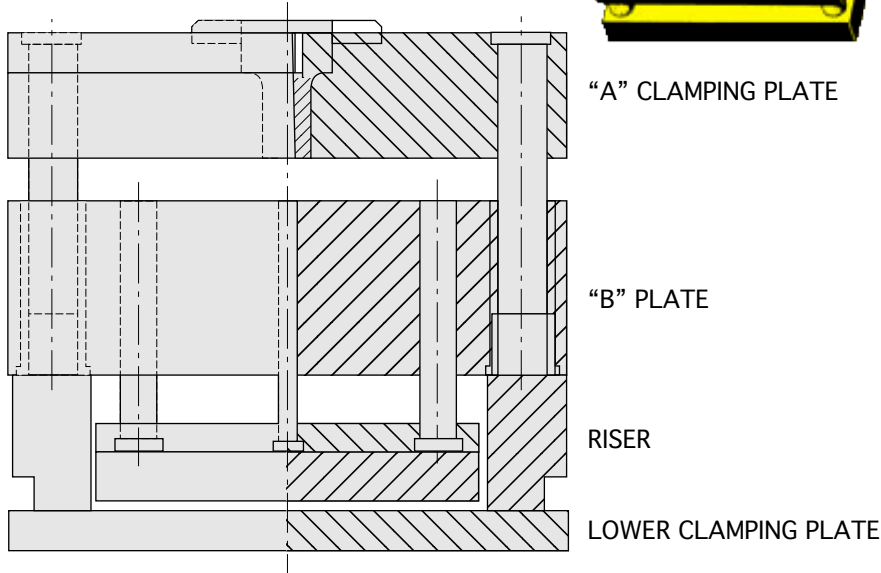
SPECIAL STEEL TYPE COMBINATIONS AVAILABLE



NO. 2 STEEL ASSEMBLY



NO. 3 STEEL ASSEMBLY



B-SERIES

This popular series does not have top or support plates and is suited for blind pockets. Within the Superior Standard Mold Base line there is a model available for your specific molding requirements. If not, Superior will build the mold base you need.

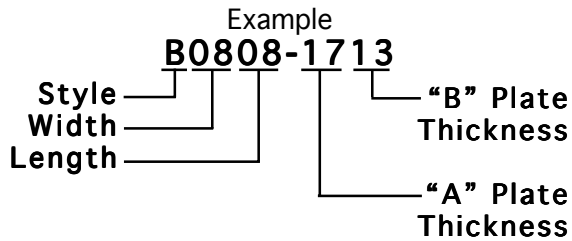
Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information

WHEN ORDERING PLEASE SPECIFY:

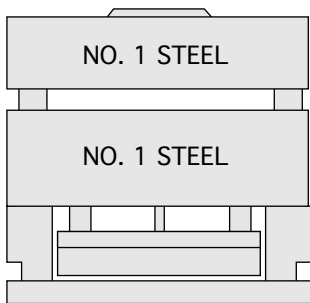
1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. Top Clamp Slot Configuration

MOLD BASES "B" SERIES

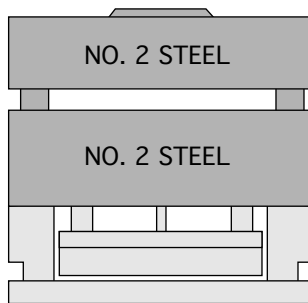
Catalog Numbers describe the parts per the following example.



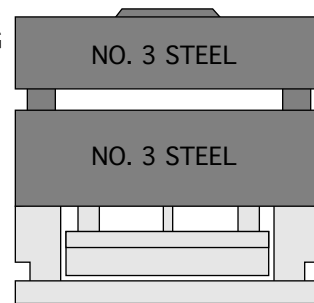
STANDARD STEEL TYPES



NO. 1 STEEL ASSEMBLY

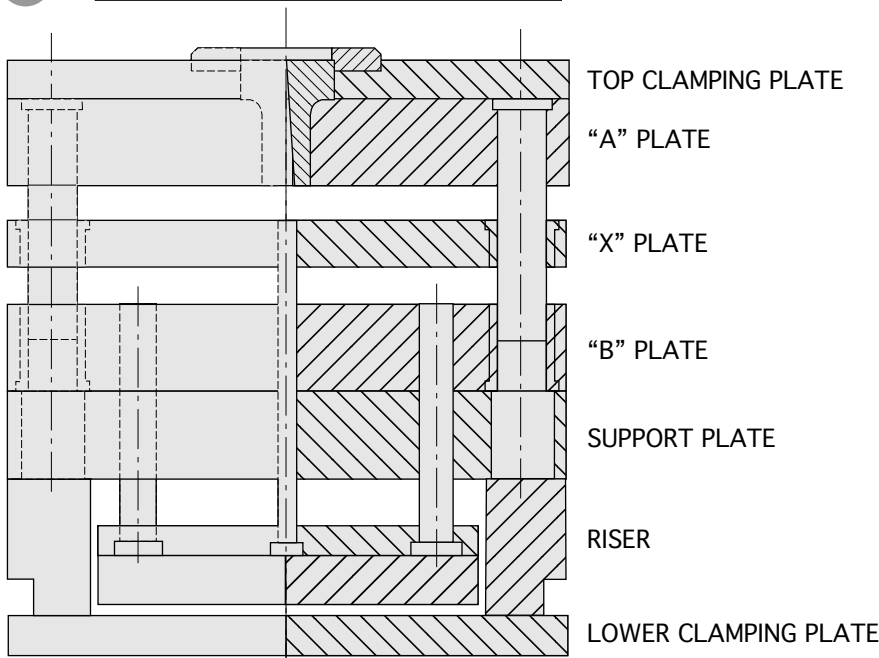


NO. 2 STEEL ASSEMBLY



NO. 3 STEEL ASSEMBLY

SPECIAL STEEL TYPE COMBINATIONS AVAILABLE



V-SERIES

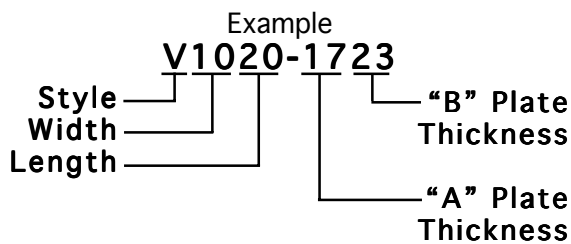
The "V" Series Mold Bases feature a Stripper Plate "X" located between the "A" and "B" Plates. The plates among the Superior V Series Mold Bases are interchangeable. You can order a complete mold base or only the specific plates you need. Superior also builds Mold Bases customized to your requirements.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.



MOLD BASES "V" SERIES

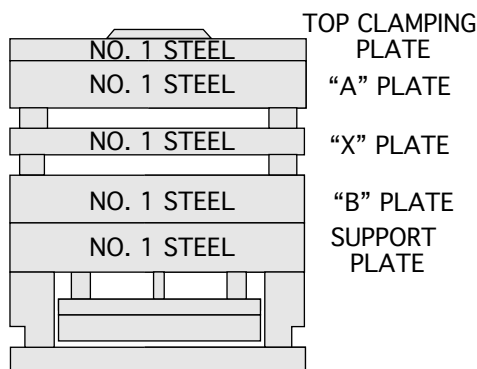
Catalog Numbers describe the parts per the following example.



WHEN ORDERING PLEASE SPECIFY:

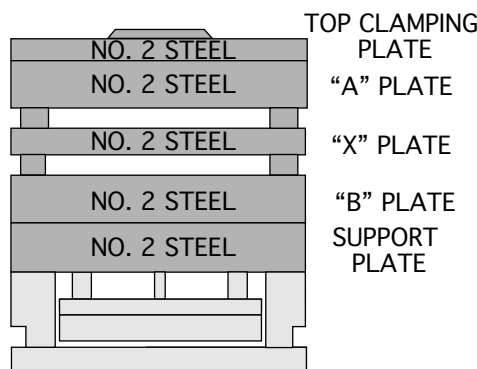
1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. "X" Plate Thickness
6. Top Clamp Plate Thickness and Slot Configuration

STANDARD STEEL TYPES

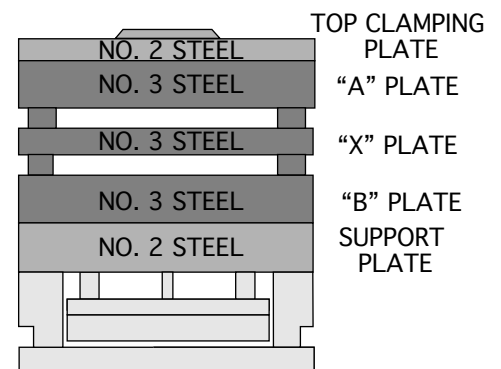


NO. 1 STEEL ASSEMBLY

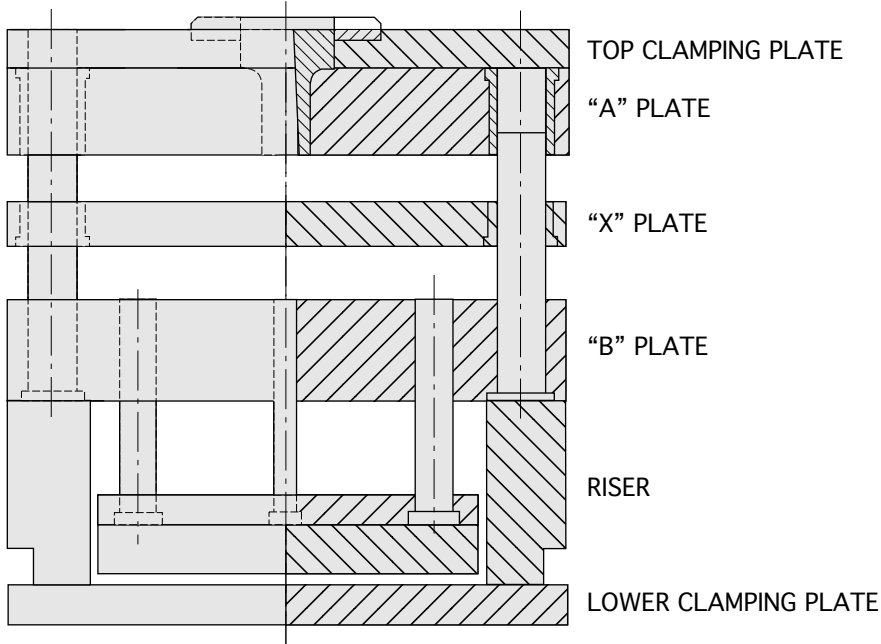
SPECIAL STEEL TYPE COMBINATIONS AVAILABLE



NO. 2 STEEL ASSEMBLY



NO. 3 STEEL ASSEMBLY



X-SERIES - 5 PLATE

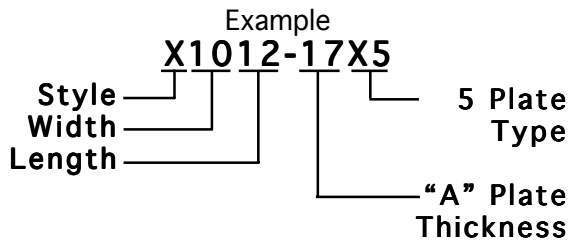
The "X", "A" and "B" Plates are available in the thickness you require. You can also mix and match Plate thicknesses within Superior's X Series Mold Bases. Our decades of experience assure you consistent Mold Base quality. And, if you need a customized Mold Base, we will tailor it for your specific needs. That's the Superior difference.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.



MOLD BASES "X" SERIES - 5 PLATE

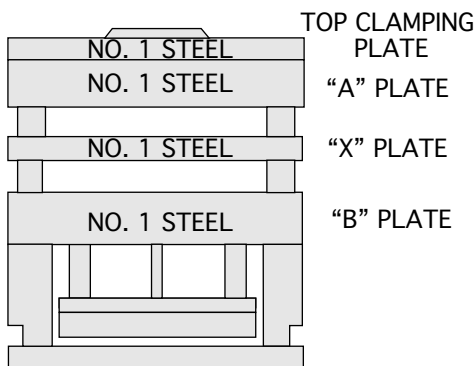
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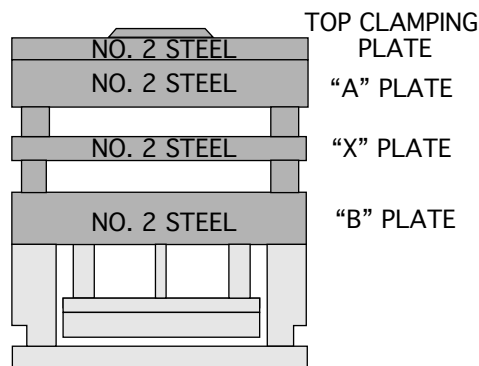
WHEN ORDERING PLEASE SPECIFY:

1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. "X" Plate Thickness
6. "B" Plate Thickness
7. Top Clamp Plate Thickness and Slot Configuration

STANDARD STEEL TYPES

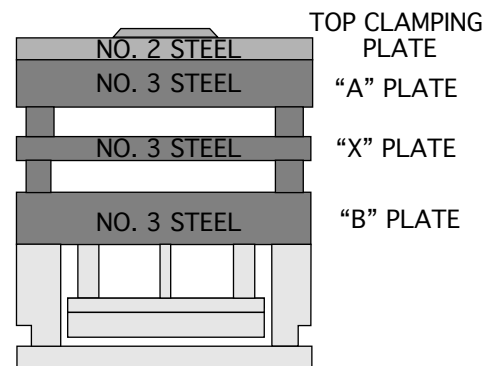


NO. 1 STEEL ASSEMBLY



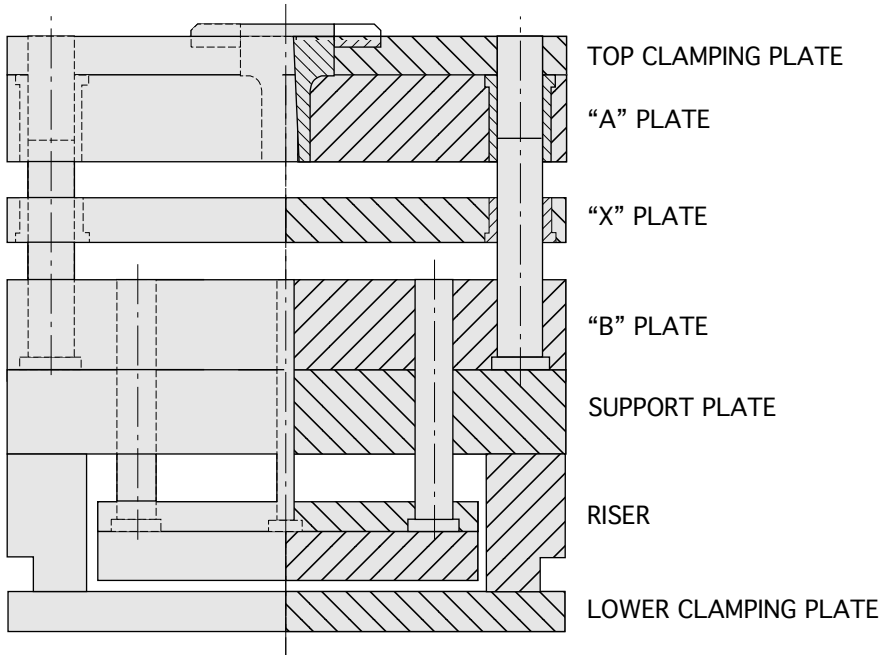
NO. 2 STEEL ASSEMBLY

SPECIAL STEEL COMBINATIONS AVAILABLE



NO. 3 STEEL ASSEMBLY

Revised 1/93



X-SERIES - 6 PLATE

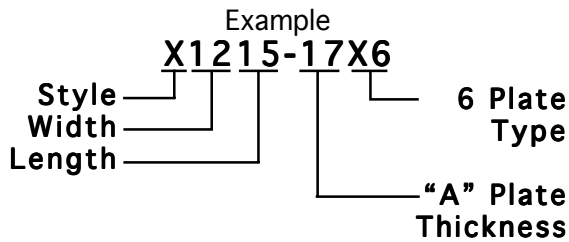
This series offers you added strength by having a support plate. The "X", "A" and "B" Plates are available in any thickness to meet your specifications. It's how Superior goes the limit to serve you, without placing unnecessary restrictions on any "X" Series Mold Base. We also will build Mold Bases to suit your particular applications.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.



MOLD BASES "X" SERIES - 6 PLATE

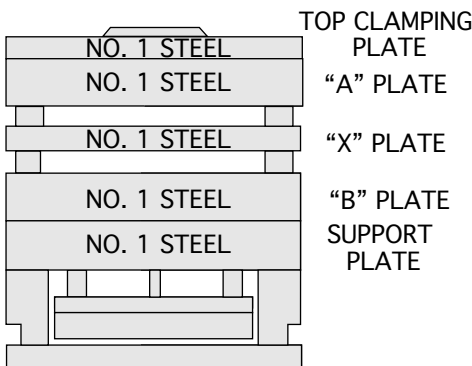
Catalog Numbers describe the parts per the following example.



WHEN ORDERING PLEASE SPECIFY:

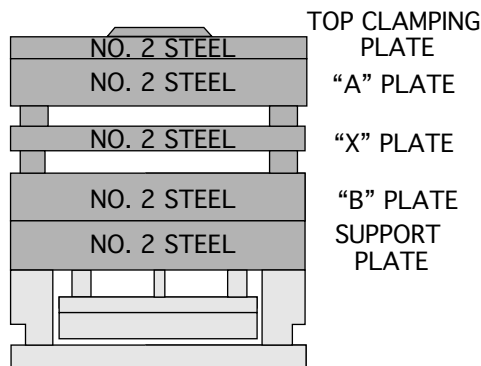
1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. "X" Plate Thickness
6. "B" Plate Thickness
7. Top Clamp Plate Thickness and Slot Configuration

STANDARD STEEL TYPES

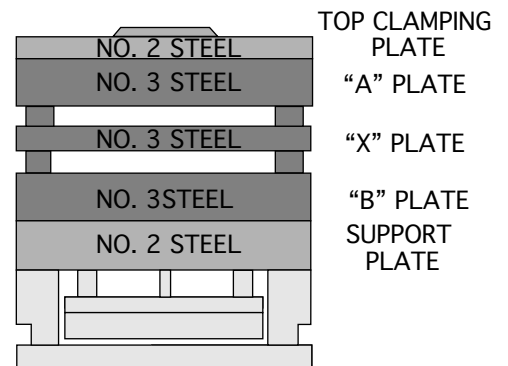


NO. 1 STEEL ASSEMBLY

SPECIAL STEEL TYPE COMBINATIONS AVAILABLE

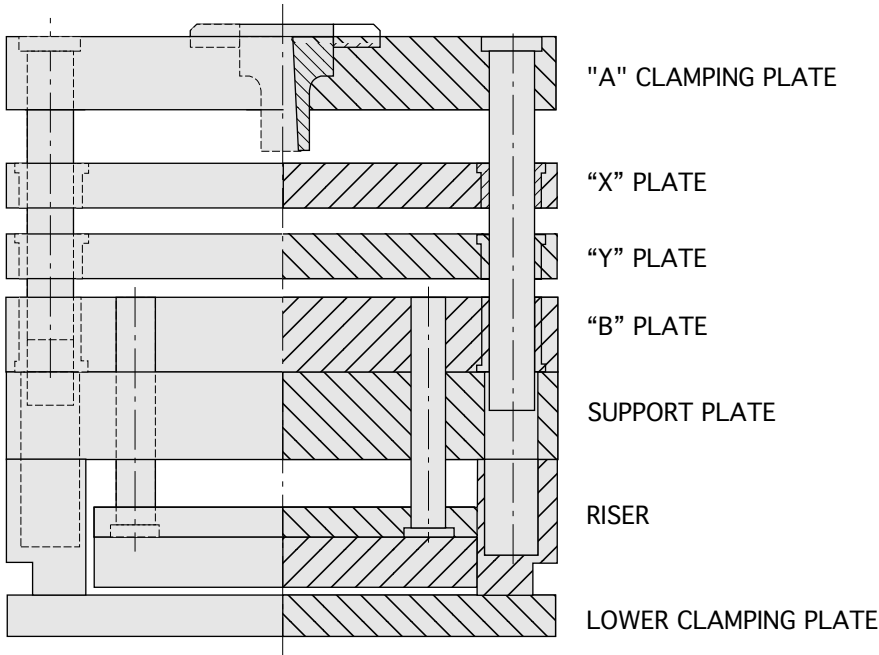


NO. 2 STEEL ASSEMBLY



NO. 3 STEEL ASSEMBLY

Revised 1/93



T-SERIES

The "X", "Y" and "B" Plates are available in any thickness you specify. Should you need customized Mold Bases, Superior will manufacture them to your exact specifications.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.

WHEN ORDERING PLEASE SPECIFY:

1. Quantity and Catalog Number
2. Steel Type
3. Locating Ring Catalog Number
4. E, O, R Dimensions
5. "X" Plate Thickness
6. Leader Pin Length

NOTE: 1. "A" Clamp Plate Thickness -

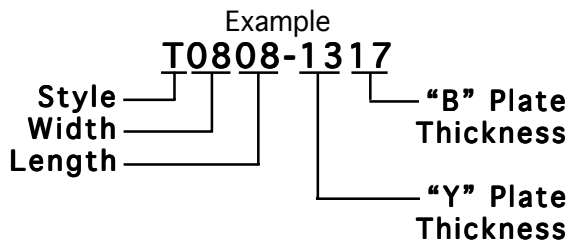
1 7/8" for Bases
8" x 8" thru
19 1/2" x 35 1/2"

2 3/8" for Bases
23 3/4" x 23 3/4" thru
23 3/4" x 35 1/2"

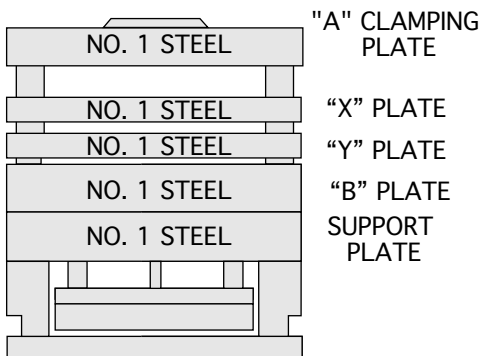
2. "d" Type Top Clamp Slots given as standard.

MOLD BASES "T" SERIES

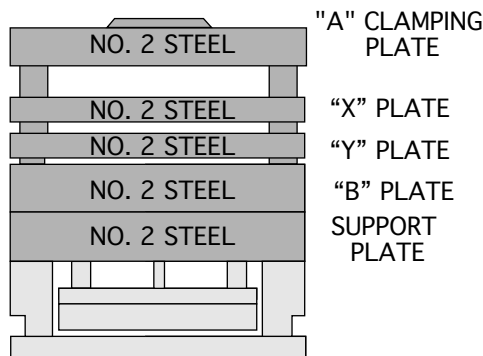
Catalog Numbers describe the parts per the following example.



STANDARD STEEL TYPES

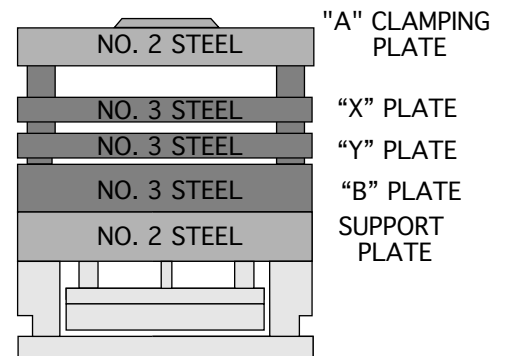


NO. 1 STEEL ASSEMBLY

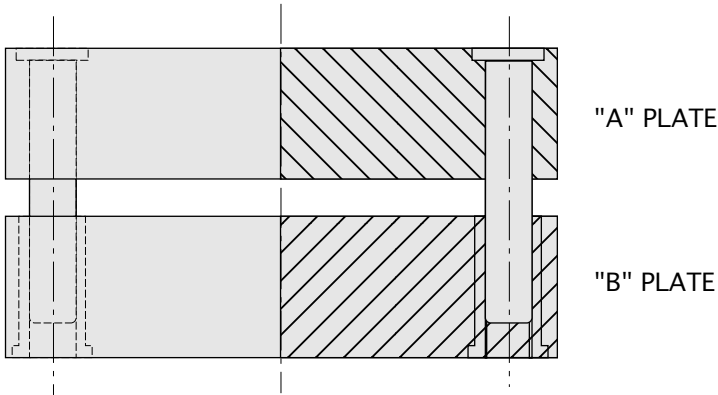


NO. 2 STEEL ASSEMBLY

SPECIAL STEEL TYPE COMBINATIONS AVAILABLE



NO. 3 STEEL ASSEMBLY



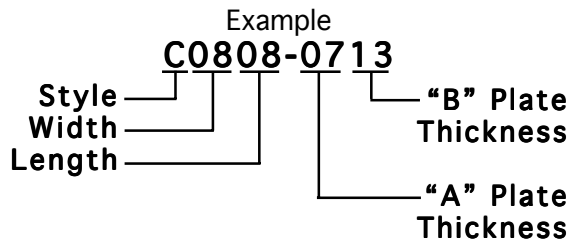
CAVITY RETAINER SETS

These Sets are ideal as replacements for other Cavities and Core Plates on your existing molds. Apply them also when you are constructing your own mold bases - whether for compression or injection molding, or die casting dies. Select from the most popular steels shown in the assembly drawings below. Whatever you require in Cavity Retainer Sets, Superior can supply standard, or custom-build Sets to your specifications.

Superior Mold Bases and Plates are also available in FORTAL® aluminum alloy. See FORTAL® TECHNICAL DATA MANUAL for information.

CAVITY RETAINER SETS

Catalog Numbers describe the parts per the following example.

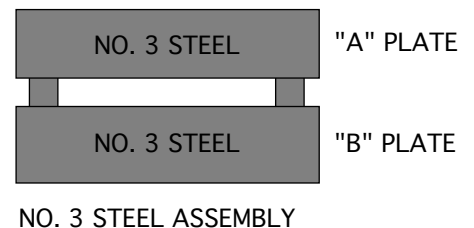
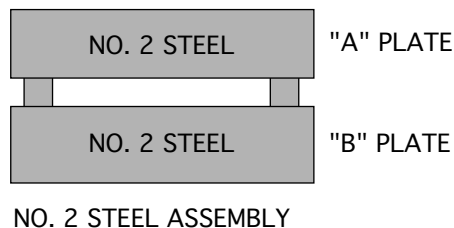
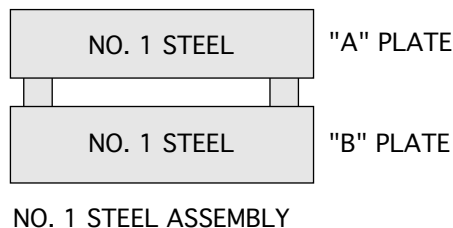


WHEN ORDERING PLEASE SPECIFY:

1. Quantity and Catalog Number
2. Steel Type
3. Leader Pin Length



STANDARD STEEL TYPES



SPECIAL STEEL TYPE COMBINATIONS AVAILABLE



Over 100,000 Mold Base Combinations Now Available for Shipment in

*Same Day
*3-5-7 Days
*Mold Plate

*** Same Day Mold Bases**

Part Number.....SA08080707 Mold Base Size.....8" x 8" "A & B" Plate Thickness.....7/8" "C" Height.....3"	Part Number.....SA09121313 Mold Base Size.....9" x 12" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"	Part Number.....SA11181717 Mold Base Size.....10-7/8" x 18" "A & B" Plate Thickness.....1-7/8" "C" Height.....3-1/2"
Part Number.....SA08081313 Mold Base Size.....8" x 8" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"	Part Number.....SA10121313 Mold Base Size.....9-7/8" x 11-7/8" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"	Part Number.....SA12121313 Mold Base Size.....11-7/8" x 12" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"
Part Number.....SA08111313 Mold Base Size.....8" x 11" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"	Part Number.....SA10161313 Mold Base Size.....9-7/8" x 16" "A & B" Plate Thickness.....1-3/8" "C" Height.....3"	Part Number.....SA13151717 Mold Base Size.....13-3/8" x 15" "A & B" Plate Thickness.....1-7/8" "C" Height.....3-1/2"

NOTE: All Bases are: "A" series, #2 steel, Top Clamp Plate = 1-3/8" Option #2, Ejector Plate = Base Length

DELIVERY	MOLD BASE SIZES	"A & B" THICKNESS	"A & B" STEEL TYPE	"C" HEIGHT	OPTIONS
7-DAYS	Sizes as Indicated in Charts	Any Std. Thickness up to 5-7/8"	No. 1, 2, 3 Fortal® 420 Stainless	All Standard Heights	Torch-cut Pockets Step Sprue Puller "A & B" Series & Cavity Retainer Sets
5-DAYS	Sizes as Indicated in Charts	Limited to Color in Charts	Limited to Color in Charts	All Standard Heights	Step Sprue Puller "A & B" Series & Cavity Retainer Sets
3-DAYS	Sizes as Indicated in Charts	Limited to Color in Charts	Limited to Color in Charts	As Indicated in Charts	Step Sprue Puller (std hole in "B" plate) "A" series only















WHEN ORDERING PLEASE SPECIFY:

1. Series Type and Base Size.
2. "A & B" Plate Thickness and Steel Type.
3. "O" and "R" Dimensions.
4. Locating Ring Part Number.

COLOR CHARTS ON NEXT 2 PAGES.















NOTE: All Top Clamp Plates = 1-3/8" Option #2

*** 3-5-7 Day Mold Bases**

Mold Base Size		“C” Dim.	7/8”			1-3/8”			1-7/8”			2-3/8”			2-7/8”		
			#1	#2	#3	#1	#2	#3	#1	#2	#3	#1	#2	#3	#1	#2	#3
	8 x 8	3	■	■		■	■		■	■		■	■		■	■	
	8 x 11	3	■	■		■	■		■	■		■	■		■	■	
	9 x 12	3	■	■		■	■		■	■		■	■		■	■	
	9-7/8 x 11-7/8	3	■	■		■	■		■	■		■	■		■	■	
	9-7/8 x 16	3	■	■		■	■		■	■		■	■		■	■	
	10-7/8 x 14	3-1/2	■	■		■	■		■	■		■	■		■	■	
	10-7/8 x 18	3-1/2	■	■		■	■		■	■		■	■		■	■	
	11-7/8 x 12	3-1/2	■	■		■	■		■	■		■	■		■	■	
	11-7/8 x 15	3-1/2	■	■		■	■		■	■		■	■		■	■	
	13-3/8 x 15	3-1/2	■	■		■	■		■	■		■	■		■	■	
	13-3/8 x 18	3-1/2	■	■		■	■		■	■		■	■		■	■	
NEW	14-7/8 x 17-7/8	STD.															
NEW	14-7/8 x 23-3/4	STD.															
NEW	15-7/8 x 16	STD.															
	15-7/8 x 20	STD.				■			■			■			■		
NEW	15-7/8 x 23-1/2	STD.															
NEW	17-7/8 x 18	STD.															
	17-7/8 x 20	STD.				■			■			■			■		
NEW	17-7/8 x 23-1/2	STD.															
	19-1/2 x 23-3/4	STD.				■			■			■			■		
NEW	23-3/4 x 23-3/4	STD.															

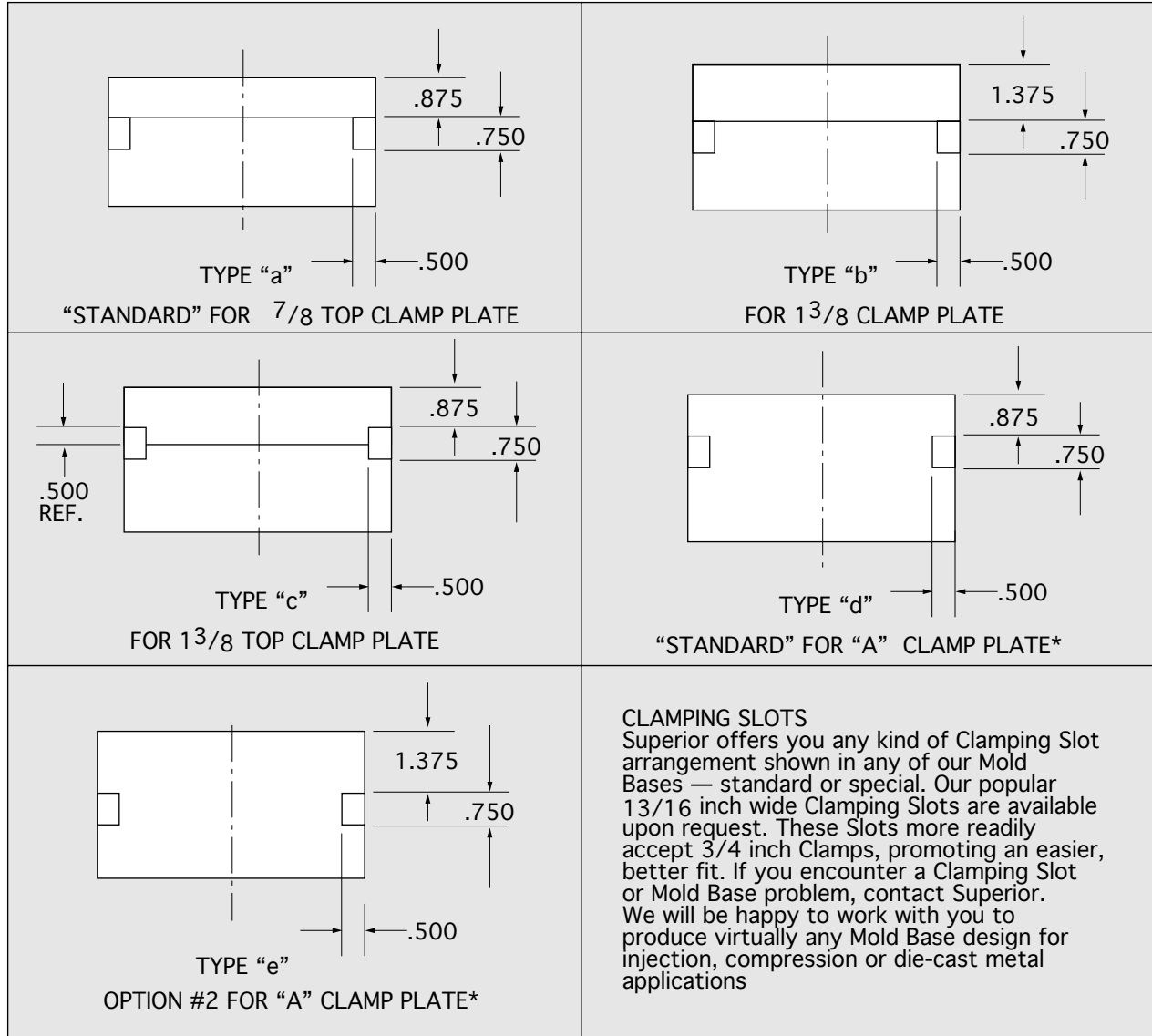


*** 3-5-7 Day Mold Bases**

3-3/8"			3-7/8"			4-3/8"			4-7/8"			5-7/8"			"C" Dim.	Mold Base Size	
#1	#2	#3	#1	#2	#3	#1	#2	#3	#1	#2	#3	#1	#2	#3			
															3	8 x 8	
															3	8 x 11	
															3	9 x 12	
															3	9-7/8 x 11-7/8	
															3	9-7/8 x 16	
															3-1/2	10-7/8 x 14	
															3-1/2	10-7/8 x 18	
															3-1/2	11-7/8 x 12	
															3-1/2	11-7/8 x 15	
															3-1/2	13-3/8 x 15	
															3-1/2	13-3/8 x 18	
															STD.	14-7/8 x 17-7/8	NEW
															STD.	14-7/8 x 23-3/4	NEW
															STD.	15-7/8 x 16	NEW
															STD.	15-7/8 x 20	
															STD.	15-7/8 x 23-1/2	NEW
															STD.	17-7/8 x 18	NEW
															STD.	17-7/8 x 20	
															STD.	17-7/8 x 23-1/2	NEW
															STD.	19-1/2 x 23-3/4	
															STD.	23-3/4 x 23-3/4	NEW



THESE TYPE DESIGNATIONS MAY ALSO BE USED FOR SPECIFYING CLAMP SLOT CONFIGURATION OF SPECIAL MOLD BASES.



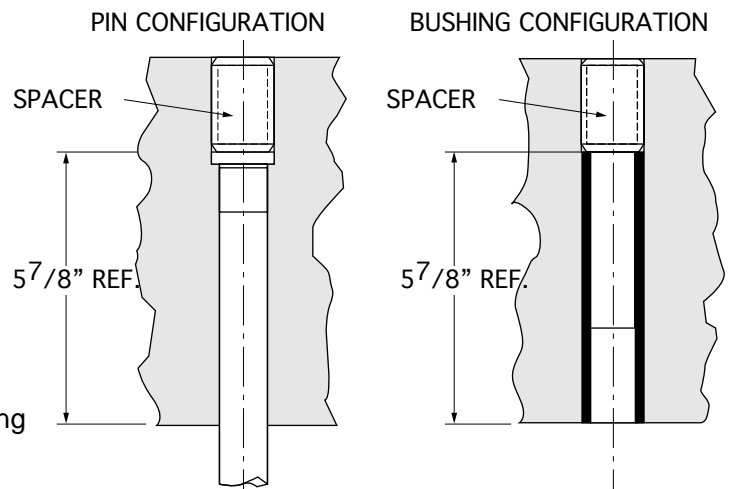
* **NOTE:** For Clamping Plates less than 1-7/8", please specify exact top clamping slot location.

STANDARD THICK PLATE PIN AND BUSHING INSTALLATION

When a Mold Base plate thickness is larger than the standard maximum thickness of 5-7/8", the pin or bushing holes are to be configured as shown. The bushing length to be used will be the longest "Standard" bushing available (i.e. 5-7/8"). The pin chosen is to be a length which would be chosen if the plate thickness were 5-7/8".

The holes will be machined to accommodate the pins or bushings, plus spacers to retain these components in the desired position. These standard Superior manufacturing procedures for all Standard and Custom Mold Bases are applied, unless customer specifications dictate otherwise.

Revised 1/93



SUPERIOR 1020 STEEL (#1 STEEL)

Superior 1020 Steel is a medium carbon silicon killed (over 1 1/2" thick) hot rolled steel with greater tensile strength than typical low carbon warehouse steels. It machines easily but is not sticky, permitting economical stock removal.

COMPOSITION 1020 STEEL

C.....	.18/.24
Mn.....	.60/.90
P.....	.04 Max.
S.....	.05 Max.

RAW PLATE INVENTORY

1 0 2 0

1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 1 7/8, 2, 2 1/8, 2 1/4, 2 3/8, 2 1/2, 2 5/8, 2 3/4, 2 7/8, 3, 3 1/8, 3 1/4, 3 1/2, 3 3/4, 4, 4 1/4, 4 1/2, 4 3/4, 5, 5 1/4, 5 1/2, 5 3/4, 6, 6 1/4, 6 1/2, 6 3/4, 7, 7 1/4, 7 1/2, 7 3/4, 8, 8 1/4, 8 1/2, 8 3/4, 9, 9 1/4, 9 1/2, 9 3/4, 10, 10 1/2, 11, 11 1/2, 12

SUPERIOR 4130 STEEL (#2 STEEL)

Superior 4130 Steel is a holder block quality steel. It is supplied heat treated to 300 Bhn. (262-321). This steel is an optimum balance between machinability and hardness while possessing the flexibility of the AISI 4100 Chrome-Moly Series of Steel.

COMPOSITION 4130 STEEL

C.....	.27/.33 (.29 Typ.)
Mn.....	.901/1.30 (1.15 Typ.)
P.....	.035 Max.
S.....	.040 Max.
Cr.....	.60/.90 (.75 Typ.)
Moly.....	.15/.25 (.20 Typ.)
Si.....	.15/.40 (.28 Typ.)
V.....	.02Min. (.04 Typ.)

RAW PLATE INVENTORY

4 1 3 0

1, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4, 5, 6, 7, 8, 9

SUPERIOR P-20 STEEL (#3 STEEL)

Superior P-20 Steel is a manganese-chromium-moly-vanadium steel. Due to an argon refinement, this steel has fewer nonmetallic inclusions than electric furnace vacuum degassed steels with no additional refinements. P-20 Steel is supplied heat-treated to 300 Bhn. (262-321). This steel offers improved polishability and consistent machinability. Any inclusions that remain are shape-controlled. Not subject to elongation during rolling.

COMPOSITION P-20 STEEL

C.....	.24/.35 (.29 Typ.)
Mn.....	.75/1.00 (.90 Typ.)
P.....	.025 Max.
S.....	.010 Max.
Cr.....	.90/1.20 (1.05 Typ.)
Moly.....	.45/.65 (.55 Typ.)
Si.....	.15/.40 (.28 Typ.)
V.....	.04Min. (.06 Typ.)

RAW PLATE INVENTORY

P - 2 0

1, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4



SUPERIOR FORTAL® ALUMINUM

Superior FORTAL Aluminum is a high strength, lightweight, easy to machine alloy. Stronger than 1020 steels, FORTAL is an ideal material for all types of die sets. FORTAL HR is solution heat treated then artificially aged and stress relieved by stretching. FORTAL HP is solution heat treated, stabilized, artificially aged and stress relieved by stretching.

COMPOSITION FORTAL

Cu.....	1.6
Mg.....	2.5
Cr.....	.23
Zn.....	5.6
Al.....	90.07

RAW PLATE INVENTORY

FORTAL (in mm)

14, 18.5, 22.5, 28, 35.5, 39, 43.5, 46, 53.5, 65, 72, 82, 92, 102, 127, 152, 162, 182, 202 mm

**FORTAL TECHNICAL
DATA MANUAL**

SUPERIOR FORGE-RITE™ 4340 STEEL

Superior FORGE-RITE Steel is a proprietary material specially formulated for the manufacture of forging equipment and tooling. It is a tough, shock resistant, oil hardening nickel-chromium-molybdenum steel with optimum grain flow characteristics. Its main attributes are high hardenability, strength and toughness. These properties, combined with good machinability, make FORGE-RITE a frequent selection for applications involving severe impact, heat, wear and stress.

COMPOSITION FORGE-RITE

C.....	.35/.45
Mn.....	.60/.90
Cr.....	.60/.90
Moly.....	.25/.35
Si.....	.40/.60
Ni.....	1.65/2.00

RAW PLATE INVENTORY

FORGE-RITE 4340

1 1/8, 1 5/8, 1 7/8, 2 1/8, 2 5/8, 3 1/8, 4 1/8, 5 1/8, 6 1/8, 7 1/8, 8 1/8, 9 1/8, 10 1/8, 12 1/8

SUPERIOR 1045 STEEL

Superior 1045 Steel is a medium carbon type usually selected for applications where higher mechanical properties are required. It is frequently further hardened by heat treatment or cold working and is ordinarily produced as a killed steel. It is suitable for most normal machining operations.

COMPOSITION 1045 STEEL

C.....	.42/.50
Mn.....	.60/.90
P.....	.04 Max.
S.....	.05 Max.

RAW PLATE INVENTORY

1 0 4 5

3/4, 1 1/2, 2, 3, 4.



OTHER METALS: Superior supplies die sets, mold bases and components in other metals on special order with a variety of machining options. Non-stock materials may require extra lead time.

Raw Plate Inventory listed may be subject to changes. Contact Superior Die Set on current availability.

FORTAL FEATURES

- Strong as steel
- 1/3rd the weight of steel
- Absorbs shocks, vibration - 3 times greater than steel

"Aircraft type" alloy for components and special parts that machines up to 5 TIMES FASTER THAN STEEL.

Fortal features uniform material consistency and will not deform under high loads. Available in plate up to 8 inches thick.

CHEMICAL COMPOSITION

Superior FORTAL is a high strength, lightweight, easy to machine alloy. Stronger than 1020 steels, FORTAL is an ideal material for all types of die sets. FORTAL HR is solution heat treated then artificially aged and stress relieved by stretching. FORTAL HP is solution heat treated, stabilized, artificially aged and stress relieved by stretching.

Cu.....1.6	Cr..... .23
Mg.....2.5	Zn..... 5.6
	Al..... 90.07

WHEN ORDERING FORTAL MATERIAL FOR OTHER APPLICATIONS, PLEASE SPECIFY:

1. Fortal Material
2. Quantity
3. Size Thickness (in mm) Depth (in mm) Length (in mm)

IMPORTANT NOTE: Cutting of Fortal can be by wire EDM, conventional EDM or Plasma. Flamecutting and welding of Fortal are not recommended. For welding criteria and other information see **Fortal Technical Data Manual.**

DIMENSIONAL DATA

Dimensions in mm	STOCK RAW PLATE WIDTH X LENGTH						
	1500	1250	1200	1060	990	900	810
Raw Plate Thickness	X	X	X	X	X	X	X
14		HR					
18.5	HR						
22.5	HR						
28	HR						
35.5	HR						
39	HR						
43.5	HR						
46	HR						
53.5	HR						
65	HR						
72	HR						
82	HR						
92	HR						
102		HP					
127			HP				
152				HP			
162					HP		
182						HP	
202							HP

NOTE: 1mm = .03937 inches, 1 inch = 25.4 mm
Larger sizes are readily available upon request.

MECHANICAL PROPERTIES

PARAMETERS	FORTAL HR (typical)	FORTAL HP (typical)	STEEL 1020 HR
Thickness (mm)	<92	>92	-
Tensile strength (PSI)	78,320	74,000	64,000
Yield strength (PSI)	69,600	63,800	50,200
Shear strength (PSI)	48,000	48,000	48,000
Hardness Brinell	150	150	142
Density (pounds/inch3)	0.1	0.1	.2833
Modulus of elasticity (pounds/inch2)	10.44 x 10 6	10.3 x 10 6	30 x 10 6
Lineal coefficient of expansion (10-6 x °F) between 68° and 212° F	13.05	12.78	6.30
Thermal conductivity (W/m x k)	130	130	40

