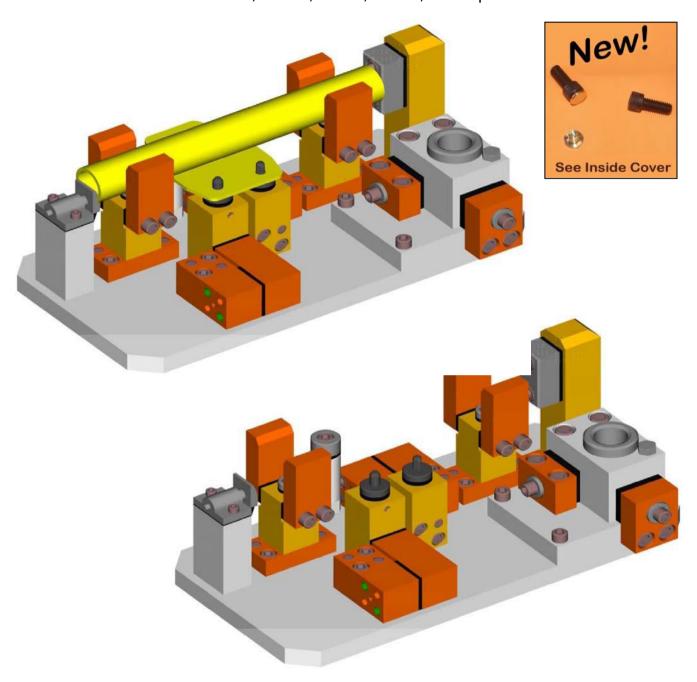
RA Pid Too ling Components™

Shims, Blocks, Plates, Risers, and Caps





RENTAPEN INC. Weld Fixture Specialist

Distributed By:



403 S. Hawley Rd. Milwaukee, WI 53214

Tel: 800-837-9270

www.elsimeth.com March 2014

For updated components and product information please visit www.rentapen.com and click Order 3D Models

Introducing:

RAPid Tooling Components RAPid Caps!

Protect Socket Head Cap Screws from Weld Spatter!



Below are the standard sizes. If your size is not listed, we can still make it!

Inch Screw Sizes Metric Screw Sizes

.500 M6 .375 M8 .313 M10 .250 M12

Part Numbers are easy: RC00-500 for the 1/2" screw RC00-M6 for the M6 screw

Made in USA

RAPid Caps are easy to press in the socket, and designed to make it easy to pop the cap off with a simple screw driver.

Plan for those times when changes need to be made to your weld fixture or machine tool.

Keep your fasteners weld-spatter and dirt free with RAPid caps.

Made of Brass



For more information visit: www.rentapen.com

Click - RAPid Tooling Components Click - RAPid Caps



RAPid Tooling Components (RTC)

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RTC Story

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RAPid Tooling Components (RTC)

General Information

RTC Components

RTC blocks and plates consist of a set of eight screw size offerings with a variety of hole and length combinations. RTC shims are currently available in many predefined shapes, eight different thicknesses and your choice of 1010 full hard or 300 series stainless. RTC components are made to order and delivery will be set at time of order. 2D files and 3D models of these optional components can be created & downloaded from weldfixturecomponents.com. Visit www.rentapen.com for the link to this online CAD catalog.

CUSTOM Components

Rentapen will gladly quote any block, plate or shim. All you need to do is email us a drawing in DXF, PDF, or TIF format or fax a copy to us. For a shim quote, all we need is a 2D shape in DXF format without dimensions or a faxed dimensioned drawing. This is a great way to get your die sharpening shims made economically.

Miscellaneous information

Delivery / Production times

Delivery will be set at the time of the purchase order. Rentapen has an excellent record of quality and on-time delivery. Our team works hard to only promice what it can deliver. Sometimes situations can arrise that are beyond our control. Rentapen Inc. shall not be held responsible for any delay or failure to make delivery of all or any part of the products due to acts or circumstances beyond the control of Rentapen Inc. including, but not limited to: labor difficulties, fires, casualties, accidents, acts of God, transportation difficulties, inability to obtain material, or governmental regulations or actions.

Shipping

We will prepay and add freight charges to your invoice if you do not supply us with an account to use. Title and risk of loss pass to the customer upon tender of shipment to the carrier. If product is damaged in transit, customer must file claim with the carrier.

Limited Warranty

Rentapen Inc. aims to provide only quality products. If for some reason you have a problem with one of our components, please contact us within 30 days after shipment. We will replace any defective RAPid Tooling Component free of charge. In no event shall Rentapen Inc. be liable for special, incidental or consequential damages, including loss of profits.

Return policy

We stand behind our products. Rentapen will accept any defective or incorrectly shipped merchandise at our expense. Components can be returned with a restocking charge of 25%. Return requests must be made within 30 days after shipment. Please call us for a *Return Authorization Number*.

CAD files

3D models of these components can be created & downloaded from **weldfixturecomponents.com**. Visit **www.rentapen.com** for a link to this online CAD catalog.

Engineering changes

Product improvement is a continuous process at Rentapen Inc. RAPid Tooling Components are continually subject to design improvements. We strive to update our web site and catalog with any engineering changes as soon as possible. However, due to inevitable lag times, dimensions and specifications are subject to change without notice.

Creating the correct number

Metric examples (nearest 0.1mm increments only)
For 5mm use M5
For 100mm use M100
For 55.56mm use M55.6
Inch examples (nearest .001" increments only)
For 11.31" use 11310
For 4.75" use 4750
For .25" use 250

Prices

Contact your local distributor or call Rentapen for current pricing. Visit our web site for a list of authorized distributors.

Additional catalogs

Contact your local distributor or download the catalog in PDF format from our web site. Visit our web site for a list of authorized distributors.

Plating

Our shims come conveniently packaged and labeled. Many of our customers find the need for plating is no longer necessary, however check with your distributor for plating prices if required.



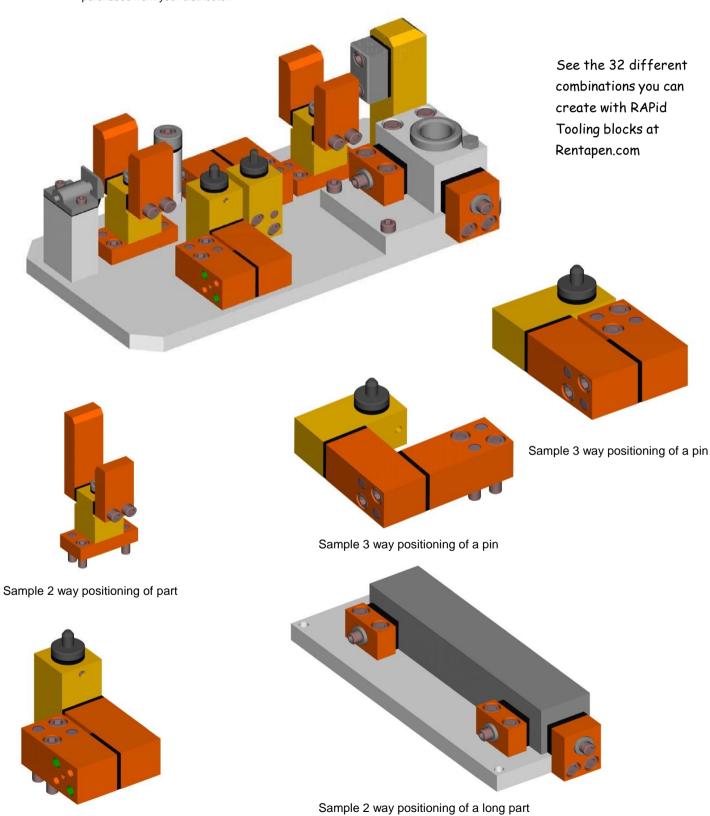
Sample 3 way positioning of a pin

RENTAPEN INC.

RAPid Tooling Components (RTC)

RAPid Tooling Components Sample Usage

This weld fixture has only five parts which need to be designed and detailed. The rest of the components can be purchased from your distributor.

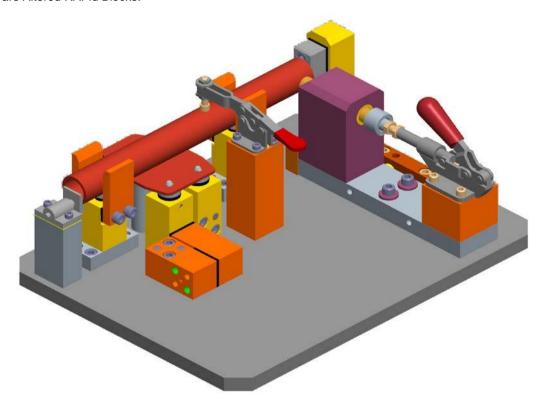




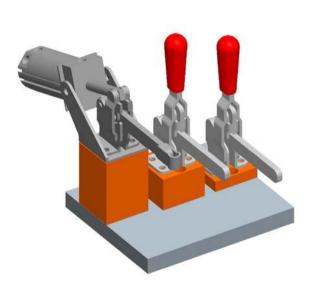
RAPid Tooling Components (RTC)

RAPid Tooling Components Sample Usage

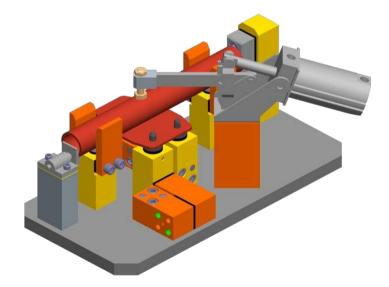
The Orange components are RAPid Blocks, RAPid Plates, and RAPid Risers. The yellow components are Altered RAPid Blocks.



Fine-tune location of straight line action clamps with RAPid Blocks and RAPid Shims



RAPid Risers -- customize the height for your clamp brand and style



RAPid Tooling Components are used in weld fixtures where precision is needed.

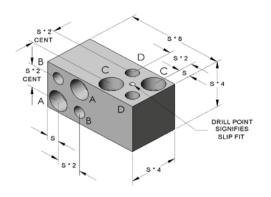


RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 00 How to order -- **RB00 -** [S] - [L] - [A][B][C][D][M]

(8) Holes



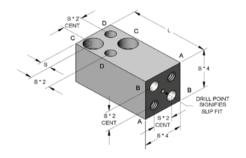
Part number example for ordering a block RB00-M10-M80-CPCPS

Length is (S) Screw * 8

(Screw) S	(Hole) A	(Hole) B	(Hole) C	(Hole) D	(Material) M
250					
312					
375					
500	C C'Bore both sides	P Press fit	C C'Bore both sides	P Press fit	S Mild Steel
М6	D Drill thru	S Slip fit	D Drill thru	S Slip fit	A Aluminum
M8	T Tap thru		T Tap thru		3 300 Stainless
M10					
M12					

STYLE 02 How to order -- **RB02** - [S] - [L] - [A][B][C][D][M]

(8) Holes



Part number example for ordering a block RB02-312-3500-TSXX3

aterial) M	ole) D	_ ` _	(Hole) C	(Hole) B (2)	(Hole) A (2)	(Length) L (1)	(Screw) S
	\neg			()		2000 ~ 4000 2500 ~ 5000	250 312
			C C'Bore both sides			3000 ~ 6000	375
Steel ninum		P Press S Slip fit	D Drill thru T Tap thru	S Slip fit	T Tap	4000 ~ 8000 M50 ~ M100	500 M6
Stainless	3					M70 ~ M130	M8
						M80 ~ M160	M10
ni	fit		D Drill thru	S Slip fit	Т Тар	4000 ~ 8000 M50 ~ M100 M70 ~ M130	500 M6 M8

- (1) Length increments are .250" for inch, or 5mm for metric
- (2) Tap & Slip fit depth is (2 * Screw)

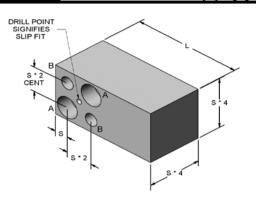


RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 00 How to order -- RB00 - [S] - [L] - [A][B][C][D][M]

(4) Holes

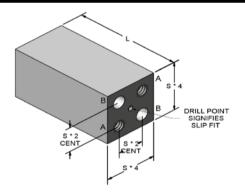


Part number example for ordering a block RB00-M10-M55-CPXXS

(Screw) S	(Length) L (1)	(Hole) A	(Hole) B	(Hole) C (3)	(Hole) D (3)	(Material) M
250	1000 ~ 1750					
312	1250 ~ 2250					
375	1500 ~ 2750					
500	2000 ~ 3750	C C'Bore both sides	P Press fit	X No Hole	X No Hole	S Mild Steel
М6	M25 ~ M45	D Drill thru	S Slip fit			A Aluminum
М8	M35 ~ M60	T Tap thru				3 300 Stainless
M10	M40 ~ M75					
M12	M50 ~ M90					

STYLE 02 How to order -- **RB02** - [S] - [L] - [A][B][C][D][M]

(4) Holes



Part number example for ordering a block RB02-312-3500-TSXX3

(Screw) S	(Length) L (1)	(Hole) A (2)	(Hole) B (2)	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 4000 2500 ~ 5000					
312 375	3000 ~ 6000					
500 M6	4000 ~ 8000 M50 ~ M100	T Tap	S Slip fit	X No Hole	X No Hole	S Mild Steel
M8	M70 ~ M130					A Aluminum 3 300 Stainless
M10	M80 ~ M160					
M12	M100 ~ M200					

- (1) Length increments are .250" for inch, or 5mm for metric
- (2) Tap & Slip fit depth is (2 * Screw)

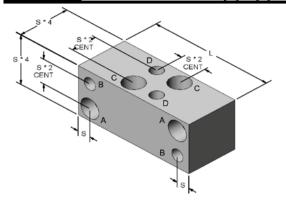


RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 03 How to order -- **RB03** - [S] - [L] - [A][B][C][D][M]

(8) Holes

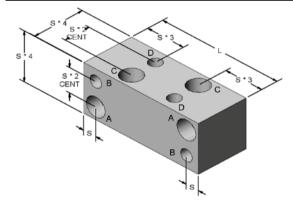


Part number example for ordering a block RB03-250-2000-CPCPS

(Screw) S	(Length) L (1)	(Hole) A (2)	(Hole) B (2)	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 4000					
312	2500 ~ 5000					
375	3000 ~ 6000	C C'Bore both sides		C C'Bore both sides		S Mild Steel
500	4000 ~ 8000	D Drill thru	P Press fit	D Drill thru	P Press fit	A Aluminum
M6	M50 ~ M100	T Tap thru	S Slip fit	T Tap thru	S Slip fit	3 300 Stainless
M8	M70 ~ M130					
M10	M80 ~ M160					
M12	M100 ~ M200					

STYLE 05 How to order -- **RB05** - [S] - [L] - [A][B][C][D][M]

(8) Holes



Part number example for ordering a block RB05-250-2000-CPCPS

(Screw) S	(Length) L (1)	(Hole) A (2)	(Hole) B (2)	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 4000	· ,				
312	2500 ~ 5000					
375	3000 ~ 6000	C C'Bore both sides		C C'Bore both sides		S Mild Steel
500	4000 ~ 8000	D Drill thru	P Press fit	D Drill thru	P Press fit	A Aluminum
M6	M50 ~ M100	T Tap thru	S Slip fit	T Tap thru	S Slip fit	3 300 Stainless
M8	M70 ~ M130					
M10	M80 ~ M160					
M12	M100 ~ M200					

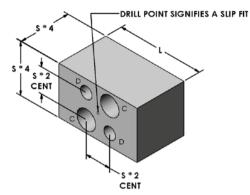


RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 03 How to order -- **RB03 -** [S] - [L] - [A][B][C][D][M]

(4) Holes

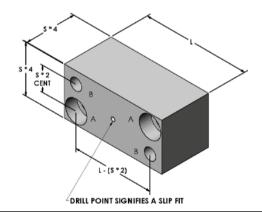


Part number example for ordering a block RB03-250-2000-XXCPS

(Screw) S	(Length) L (1)	(Hole) A (2)	(Hole) B (2)	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 4000					
312	2500 ~ 5000					
375	3000 ~ 6000			C C'Bore both sides		S Mild Steel
500	4000 ~ 8000	X No hole	X No hole	D Drill thru	P Press fit	A Aluminum
М6	M50 ~ M100			T Tap thru	S Slip fit	3 300 Stainless
М8	M70 ~ M130					
M10	M80 ~ M160					
M12	M100 ~ M200					

STYLE 05 How to order -- **RB05** - [S] - [L] - [A][B][C][D][M]

(4) Holes



Part number example for ordering a block RB05-250-2000-CPXXS

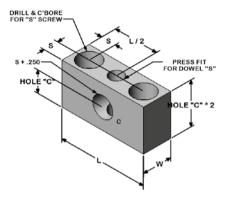
(Screw)	(Length)	(Hole)	(Hole)	(Hole)	(Hole)	(Material)
S	L (1)	A (2)	B (2)	С	D	M
250	2000 ~ 4000					
312	2500 ~ 5000					
375	3000 ~ 6000	C C'Bore both sides				S Mild Steel
500	4000 ~ 8000	D Drill thru	P Press fit	X No hole	X No hole	A Aluminum
М6	M50 ~ M100	T Tap thru	S Slip fit			3 300 Stainless
M8	M70 ~ M130					
M10	M80 ~ M160					
M12	M100 ~ M200					



RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 11 How to order -- **RB11** - [S] - [M]

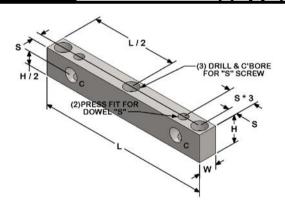


Part number example for ordering a block RB11-250-3

Up to 3mm Shim Pack Spacing

(Screw) S	(Length) L	(Width) W	(Hole) C	(Material) M
250	1500	500	500	
312	1875	625	563	
375	2250	750	625	S Mild Steel
500	3000	1000	750	A Aluminum
М6	36	12	12	3 300 Stainless
M8	48	16	14	
M10	60	20	16	
M12	72	24	18	

STYLE 12 How to order -- **RB12** - [S] - [L] - [M]



Part number example for ordering a block RB12-250-2500-3

Up to 3mm Shim Pack Spacing

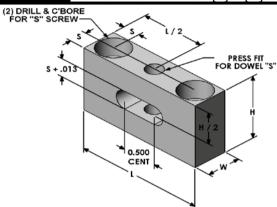
(Screw)	(Length)	(Width)	(Height)	(Hole)	(Material)
S	L	W	Н	С	M
250	2500 ~ 6000	500	1000	500	
312	3250 ~ 7500	625	1125	563	
375	3750 ~ 9000	750	1250	625	S Mild Steel
500	5000 ~ 12000	1000	1500	750	A Aluminum
М6	75 ~ 145	12	24	12	3 300 Stainless
М8	80 ~ 190	16	28	14	
M10	100 ~ 245	20	32	16	
M12	120 ~ 290	24	36	18	



RAPid Tooling Components (RTC)

RAPid Blocks

STYLE 16 How to order -- **RB16** - [S] - [M]

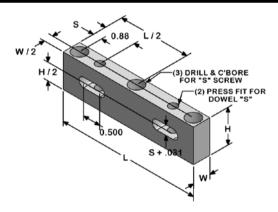


Part number example for ordering a block RB16-250-3

Use with 3mm to 6mm Shim Pack Spacing

(Screw) S	(Length) L	(Width) W	(Height) H	(Material) M
250	1750	500	1000	
312	2000	625	1125	
375	2250	750	1250	S Mild Steel
500	3000	1000	1500	A Aluminum
M6	45	12	24	3 300 Stainless
M8	55	16	28	
M10	65	20	32	
M12	75	24	36	

STYLE 19 How to order -- **RB19** - [S] - [L] - [M]



Part number example for ordering a block RB19-250-3000-3

Use with 3mm to 6mm Shim Pack Spacing

(Screw)	(Length)	(Width)	(Height)	(Material)
S	L	W	Н	M
250	3000 ~ 6000	500	1000	
312	3500 ~ 7500	625	1125	
375	4000 ~ 9000	750	1250	S Mild Steel
500	5000 ~ 12000	1000	1500	A Aluminum
М6	75 ~ 145	12	24	3 300 Stainless
М8	80 ~ 190	16	28	
M10	100 ~ 245	20	32	
M12	120 ~ 290	24	36	



RAPid Tooling Components (RTC)

Customized RAPid Tooling Components

We will customize your RAPid Blocks or RAPid Plates for you! Why handle the product twice!



To provide you with the best price, we make each RAPid Block when it is ordered. We save you time and money when we make your alterations to your blocks while we are working on it in our CNC! Just send us a drawing of your alterations to get a quote.

We work with our customer to keep RAPid tooling components FAST, FUN, and EFFICIENT.

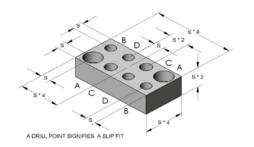
Add a bore for a locating pin or a tap for a rest pad.



RAPid Tooling Components (RTC)

RAPid Plates

STYLE 00 How to order -- **RP00 -** [S] - [L] - [A] - [B] - [C] - [D] - [M]

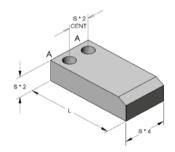


Part number example for ordering a plate RP00-2500-2000-NPNPS

Length is (S) Screw * 8

(Screw) S	(Length) L	(Hole) A	(Hole) B	(Hole) C	(Hole) D	(Material) M
250	2000					
312	2500					
375	3000	N C'Bore near side	P Press fit	N C'Bore near side	P Press fit	S Mild Steel
500	4000	D Drill thru	S Slip fit	F C'Bore far side D	S Slip fit	A Aluminum
M6	48	T Tap thru	X No Hole	Drill thru	X No Hole	3 300 Stainless
M8	64	X No Hole		T Tap thru		
M10	80			X No Hole		
M12	96					

STYLE 02 How to order -- **RP02** - [S] - [L] - [A] - [M]



Part number example for ordering a plate RP02-375-5000-TB

(Screw)	(Length)	(Hole)	(Material)
S	L	Α	M
250	1000 ~ 3000		
312	1500 ~ 4000		S 4140PH DCF
375	1500 ~ 5000		B Ampco 18
500	2000 ~ 6500	D Drill thru	
M6	M25 ~ M70	T Tap thru	
M8	M25 ~ M110		S 4140PH
M10	M30 ~ M130		B Ampco 18
M12	M35 ~ M150		

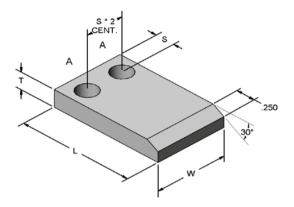
- (1) Length increments are .250" for inch, or 5mm for metric
- (2) If hole "C" is an "X", then hole "D" must also be an "X"
- (3) If hole "A" is an "X", then hole "B" must also be an "X"



RAPid Tooling Components (RTC)

RAPid Plates

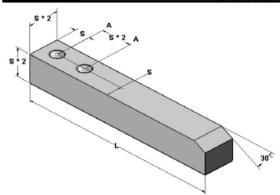
STYLE 03 How to order -- **RP03** - [S] - [L] - [A] - [M]



Part number example for ordering a plate RP03-250-1000-DS

(Screw)	(Length)	(Width)	(Thick)	(Hole)	(Material)
S	L	W	Т	Α	M
250	1000 ~ 3000	1000	0.25		
312	1500 ~ 4000	1250	0.375		S 4140PH DCF
375	1250 ~ 5000	1500	0.375		B Ampco 18
500	3750 ~ 6500	2000	0.5	D Drill thru	
M6	M25 ~ M70	1000"	.250"	T Tap thru	
M8	M25 ~ M110	1250"	.375"		S 4140PH DCF
M10	M30 ~ M130	1500"	.375"		B Ampco 18
M12	M35 ~ M150	2000"	.500"		

STYLE 04 How to order -- **RP04** - [S] - [L] - [A] - [M]



Part number example for ordering a plate RP04-250-1500-DS

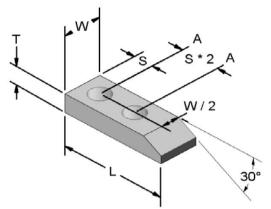
(Screw)	(Length)	(Hole)	(Material)
S	L	Α	М
250	1500 ~ 3000		
312	1750 ~ 4000		S 4140PH DCF
375	2000 ~ 5000		B Ampco 18
500	2500 ~ 6500	D Drill thru	
M6	M35 ~ M70	T Tap thru	
M8	M45 ~ M110		S 4140PH
M10	M50 ~ M130		B Ampco 18
M12	M60 ~ M150		



RAPid Tooling Components (RTC)

RAPid Plates

STYLE 05 How to order -- **RP05** - [S] - [L] - [A] - [M]



Part number example for ordering a plate RP05-250-1500-DS

(Screw) S	(Length) L	(Width) W	(Thick) T	(Hole) A	(Material) M
250 312 375 500	1500 ~ 3000 1750 ~ 4000 2000 ~ 5000 2500 ~ 6500	500" 625" 750" 1000"	0.25 0.375 0.375 0.5	D Drill thru	S 4140PH DCF B Ampco 18
M6 M8 M10 M12	M35 ~ M70 M45 ~ M110 M50 ~ M130 M60 ~ M150	500" 625" 750" 1000"	.250" .375" .375" .500"	T Tap thru	S 4140PH DCF B Ampco 18

⁽¹⁾ Length increments are .250" for inch, or 5mm for metric



RAPid Tooling Components (RTC)

RAPid Shims that MATCH existing shim shapes

There are three sections to the part number, the Prefix, the Shim number, and the Thickness combinations.

your Prefix choices are

RMM - 1010 full hard steel
RSM - 300 series stainless steel

your matched **Shim** number goes next

Use any shim number from any manufacturer which you would like to match. If the shim manufacturer isn't in the partial list, we can still match it. Provide us with the manufacturer's name and use their shim number (without thickness designations) to build the shim number.

Partial Manufacturers list

NAAMS spec GM spec Ford spec Douglas Stamping Company Precision Brands Misumi

Examples of stripping the thickness designations

To match a NAAMS ASH302 shim use ASH3 for the Shim number.

To match a Douglas Stamping Company DSCP018-M100 shim use DCSP018 for the Shim number.

				vour Thicknes	ss choices are			
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			10	10 Full Hard (oiled, not plate	ed)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+/0005	+ /00075	+ /001	+ /0015	+/002	+ /00075	+ /0015	+ /002
			300 series St	ainless Steel (could be sligh	tly magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	+ /00025"	+ /0005	+ /001	+/003	+/004	+/0009	+ /001	+/003

How to order -- [Prefix] - [Shim number] - [Thickness]

Part number examples for ordering a single shim

RMM-ASH3-1A 1/8 mm thick 1010 full hard steel shim that matches an ASH3 NAAMS shape. **RSM-M FS 15-R-1D** 1 mm thick, 300 series stainless shim that matches an M FS 15-R shape.

RSM-DSCH077-1D The same shim as the previous one using the Douglas Stamping Company part number.

Part number examples for ordering a shim pack

RSM-ASH5-2B3C1D1E (2) 1/4 mm, (3) 1/2 mm, (1) 1 mm, & (1) 2 mm thick shims for a total of 5mm, 300 series stainless steel

that matches an ASH5 NAAMS shape.

RMM-DSCP018-6C (6) 1/2 mm, 1010 full hard shims that match the DSCP018 Douglas Stamping Company shape.

Ask your distributor about additional charges for plating.



RAPid Tooling Components (RTC)

RAPid Shims for use with EXISTING Components

There are three sections to the part number, the **Prefix**, the **Component** number, and the **Thickness** combinations.

your Prefix choices are

RMH - 1010 full hard steel with HOLES

RMS - 1010 full hard steel with SLOTS (not available with round components)

RSH - 300 series stainless steel with HOLES

RSS - 300 series stainless steel with SLOTS (not available with round components)

your Component choice goes next

Use any component number from any manufacturer which you would like to use a shim with. If the component manufacturer isn't in the partial list, we can still make a shim for it. Provide us with manufacturer's name and use their component number to build the shim number.

Partial Manufacturers list

Essentra Components All American Misumi

Jergens TE-CO
American Drill Bushing Fixtureworks
Carr Lane Mfg Co. Fairlane

Masterline Peerless Tooling Components

Partial Components list

Flat feet Locating pins Rest pads Jig feet

	your Thickness choices are								
Letter	Α	A B C D E J K L							
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"	
			1	010 Full Hard	(oiled, not pla	ted)			
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"	
Tolerance	+/0005	+/00075	+ /001	+ /0015	+/002	+ /00075	+ /0015	+ /002	
			300 series S	tainless Steel	(could be slig	htly magnetic	:)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"	
Tolerance	+ /00025"	+ /0005	+ /001	+/003	+ /004	+/0009	+ /001	+ /003	

How to order	[Prefix] -	[Component number] -	· [Thickness]	

Part number example for ordering a single shim

RMH-JRP-9-1A 1/8 mm thick 1010 full hard steel shim with HOLES to be used with a Reid # JRP-9 Rest Pad

Part number example for ordering a shim pack

RMH-19302-2A3B2C1D (2) 1/8 mm, (3) 1/4mm, (2) 1/2 mm, & (1) 1 mm thick shims for a total of 3mm, 1010 full hard steel

with HOLES to be used with a Jergens # 19302 Flat Foot



RAPid Tooling Components (RTC)

Die Sharpening / Die Detail Shims

Custom Laser-cut to order

No minimum quantity, you can order one shim at a time

Eight standard thicknesses to choose from with optional thicknesses of .025" and .050"

Cut as thin as .001" (.02mm) up to .078" (2.0mm)

150 watt Kern Laser

Table size: 52" by 50"

Stainless steel and 1010 Full Hard Mild Steel

AutoCAD 2000, DWG, or DXF files accepted and preferred

For quicker turn around and cutting accuracy include:

All dimensions Thicknesses Quantity for each thickness Material preferred

RAPid Tooling Component laser cut shims are better Quality and More Accurate than Water Jet Cut Shims

Rapid Tooling Component Shims are LESS EXPENSIVE than shims made by EDM.





	your Thickness choices are							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			10	10 Full Hard (d	oiled, not plate	ed)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+/0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+ /002
			300 series St	ainless Steel (could be sligh	tly magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	+ /00025"	+/0005	+ /001	+/003	+/004	+/0009	+ /001	+ /003

Ho	w to order	[Prefix] -	[Shim number] -	 [Thickness] 	1



RAPid Tooling Components (RTC)

RAPid Shims - User Defined

How to order -- R[Material] 03 - [OD] - [ID] - [Thickness]

See below for Material and Thickness choices

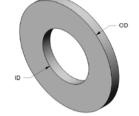
			Metric				
		minimum	maximum	increments			
outside dia.	OD	4mm	292mm	0.1mm			
inside dia.	ID	2mm	290mm	0.1mm			
			Inch				
		minimum	maximum	increments			
outside dia.	OD	3/16"	11.500"	.001"			
inside dia.	ID	1/16"	11.375"	.001"			

Individual shim number example

RS03-1000-536-1C

Shim pack number example

RM03-M30.8-M10.5-2A3B2C1D



STYLE 29 How to order -- **R**[Material] **29 -** [S] - [L] - [W] - [D] - [Thickness]

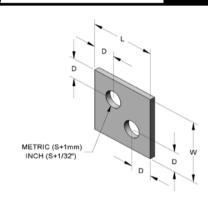
See below for Material and Thickness choices

		Metric				
		minimum maximum increments				
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	1mm		
width	W	S * 4	292mm	1mm		
distance	D	S	L-S	0.1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0		increments		
screw size length	S L		maximum	increments 1/16"		
	S L W	#0	maximum 1"			

Individual shim number example RM29-#10-1000-1000-312-1A

Shim pack number example

RS29-M1.6-M75-M50-M10-2A3B2C1D



METRIC (S+1mm) INCH (S+1/32")

STYLE 30 How to order -- R[Material] 30 - [S] - [L] - [W] - [D] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	1mm		
width	W	S * 4	292mm	1mm		
distance	D	S	L-S	0.1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0	_	increments		
screw size length	S L		maximum	increments		
	S L W	#0	maximum 1"			

Individual shim number example RM30-#10-1000-1000-312-1A

Shim pack number example

RS30-M1.6-M75-M50-M10-2A3B2C1D



- 300 series stainless steel - plain

M	 1010 full hard 	l steel - oiled, non	plated					
kness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			•	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+/002	+ /00075	+ /0015	+/00
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+ /001	+/00



RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 32 How to order -- **R**[*Material*]**32** - [S] - [L] - [W] - [D] - [E] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum maximum increments				
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	1mm		
width	W	S * 4	290mm	1mm		
distance	D	S * 2	L - (S * 2)	0.1mm		
distance	E	S * 2	W - (S * 2)	0.1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0		increments		
screw size	S L		maximum	increments 1/16"		
	S L W	#0	maximum 1"			
length	Ĺ	#0 S * 4	maximum 1" 11.500"	1/16"		

METRIC (S+1mm)
INCH (S+1/32")

E
CENT

D
CENT

Individual shim number example RM32-#10-250-250-120-120-1A

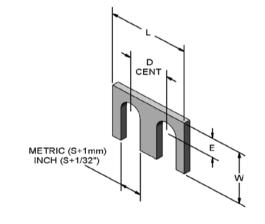
Shim pack number example

RS32-M2-M9-M8-M4-M4-2A3B2C1D

STYLE 33 How to order -- **R**[*Material*] **33** - [S] - [L] - [W] - [D] - [E] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 4	292mm	1mm
width	W	S * 4	290mm	1mm
distance	D	S * 2	L - (S * 2)	0.1mm
distance	E	S	W - S	0.1mm
			Inch	
		minimum	maximum	increments
screw size	S	#0	1"	
length	L	S * 4	11.500"	1/16"
width	W	S * 4	11.500"	1/16"
distance	D	S * 2	L - (S * 2)	0.001"



Individual shim number example

Shim pack number example

RM33-#10-250-250-120-120-1A

RS33-M2-M9-M8-M4-M4-2A3B2C1D

Material choices

300 series stainless steel - plain

nickness choice		Steer - Olled, Hori	Diatod					
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			,	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+/002	+/00075	+ /0015	+/002
			300 series	Stainless Steel (could be slightly	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+ /0005	+ /001	+/003	+ /004	+/0009	+/001	+/003

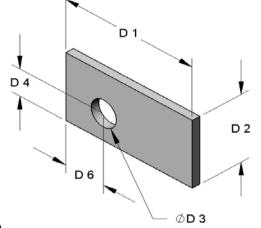
RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 36 How to order -- R[Material] 36 - [D1] - [D2] - [D3] - [D4] - [D6] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
length	D1	D3 + 4mm	292mm	0.1
width	D2	D3 + 4mm	292mm	0.1
hole size	D3	2mm	288mm	0.1
hole loc.	D4	D3 / 2 + 2mm	D2 - Min	0.1
hole loc.	D6	D3 / 2 + 2mm	D2 - Min	0.1
			Inch	
		minimum	maximum	increments
length	D1	D3 + 0.16"	11.500"	0.001"
width	D2	D3 + .016"	11.500"	0.001"
hole size	D3	0.080"	11.440"	0.001"
hole loc.	D4	D3 / 2 + 0.08"	D2 - Min	0.001"



Individual shim number example RM36-1000-250-250-120-120-1A

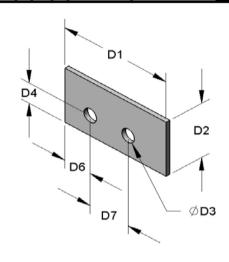
Shim pack number example

RS36-M20-M9-M8-M4-M4-2A3B2C1D

STYLE 37 How to order -- R[Material] 37 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
length	D1	Maximum le	ngth 292mm	0.1		
width	D2	Maximum w	idth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2	mm wall stock	0.1		
hole loc.	D6	between all feat	ures and edges	0.1		
hole loc.	D7			0.1		
	_		Inch			
		minimum	maximum	increments		
length	D1	Maximum le	ngth 11.500"	0.001"		
width	D2	Maximum w	idth 11.500"	0.001"		
hole size	D3			0.001"		
hole loc.	D4	Minimum of 0.0	080" wall stock	0.001"		
hole loc.	D6	between all feat	ures and edges	0.001"		
hole loc.	D7			0.001"		



Individual shim number example

Shim pack number example

RM37-1000-250-250-120-120-120-1A

RS37-M20-M9-M8-M4-M4-M4-2A3B2C1D

Material choices

S - 300 series stainless steel - plain

10 10 Idii Ildid	otoor onou, non	piatoa					
es							
Α	В	С	D	E	J	K	L
1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
		•	1010 Full Hard (oiled, not plated)		
.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
+ /0005	+ /00075	+/001	+ /0015	+/002	+/00075	+ /0015	+ /002
		300 series S	Stainless Steel (could be slightl	y magnetic)		
.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
- /00025"	+ /0005	+/001	+/003	+ /004	+ /0009	+/001	+/003
	A 1/8 mm .005" + /0005	A B 1/8 mm 1/4 mm .005" .010" + /0005 + /00075	A B C 1/8 mm 1/4 mm 1/2 mm .005" .010" .020" +/0005 +/00075 +/001 300 series \$.005" .010" .020"	Norm	Norm	Name	Note Note



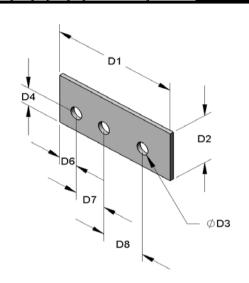
RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 38 How to order -- R[Material] 38 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [D8] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
length	D1	Maximum le	ngth 292mm	0.1		
width	D2	Maximum w	ridth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2	mm wall stock	0.1		
hole loc.	D6	between all feat	0.1			
hole loc.	D7	between an real	0.1			
hole loc.	D8		0.1			
			Inch			
		minimum	maximum	increments		
length	D1	Maximum le	ngth 11.500"	0.001"		
width	D2	Maximum w	ridth 11.500"	0.001"		
hole size	D3			0.001"		
hole loc.	D4	Minimum of 0	080" wall stock	0.001"		
hole loc.	D6			0.001"		
hole loc.	D7	botween an real	between all features and edges			
hole loc.	D8			0.001"		



Individual shim number example

Shim pack number example

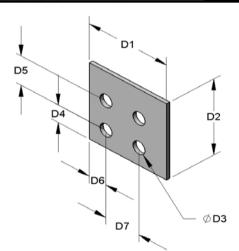
RM38-1000-250-250-120-120-120-1A

RS38-M20-M9-M8-M4-M4-M4-2A3B2C1D

STYLE 39 How to order -- R[Material] 39 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
length	D1	Maximum le	ngth 292mm	0.1
width	D2	Maximum w	ridth 292mm	0.1
hole size	D3			0.1
hole loc.	D4	Minimum of 2	mm wall stock	0.1
hole loc.	D6	between all feat	ures and edges	0.1
hole loc.	D7			0.1
			Inch	
		minimum	maximum	increments
length	D1	Maximum le	ngth 11.500"	0.001"
width	D2	Maximum w	idth 11.500"	0.001"
hole size	D3			0.001"
hole loc.	D4	Minimum of 0.0	080" wall stock	0.001"
hole loc.	D6	between all feat	ures and edges	0.001"
hole loc.	D7			0.001"



Individual shim number example

Shim pack number example

RM39-1000-250-250-120-120-120-1A

RS39-M20-M9-M8-M4-M4-M4-2A3B2C1D

Material choices

S - 300 series stainless steel - plain

IVI	1010 Iuli Hulu	oteci olica, non	piatou					
Thickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
				1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+ /002
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+ /0005	+ /001	+ /003	+ /004	+ /0009	+ /001	+/003



RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 40 How to order -- R[Material] 40 - [D1] - [D2] - [D3] - [D4] - [D5] - [D6] - [D7] - [D8] - [Thick]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
length	D1	Maximum le	ngth 292mm	0.1
width	D2	Maximum w	ridth 292mm	0.1
hole size	D3			0.1
hole loc.	D4			0.1
hole loc.	D5	Minimum of 2	0.1	
hole loc.	D6	between all feat	tures and edges	0.1
hole loc.	D7			0.1
hole loc.	D8			0.1
			Inch	
		minimum	maximum	increments
length	D1	Maximum length 11.500"		0.001"
width	D2	Maximum w	idth 11.500"	0.001"
hole size	D3			0.001"
hole loc.	D4			0.001"

D5 D4	D1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D2 ØD3
	D8	— \$b3

Individual shim number example

hole loc

hole loc.

hole loc.

hole loc.

Shim pack number example

RM40-1000-250-250-120-120-120-120-1A

D5

D6

D7

D8

RS40-M20-M9-M8-M4-M4-M4-M4-2A3B2C1D

0.001"

0.001"

0.001"

0.001"

STYLE 41 How to order -- R[Material]41 - [D1] - [D2] - [D3] - [D4] - [D6] - [Thickness]

Minimum of 0.080" wall stock

between all features and edges

See below for Material and Thickness choices

		Metric					
		minimum	maximum	increments			
length	D1	D3 + 4mm	292mm	0.1			
width	D2	D3 + 4mm	292mm	0.1			
hole size	D3	2mm	288mm	0.1			
hole loc.	D4	D3 / 2 + 2mm	D2 - Min	0.1			
hole loc.	D6	D3 / 2 + 2mm	D1 - Min	0.1			
		Inch					
		minimum	maximum	increments			
length	D1	D3 + 0.16"	11.500"	0.001"			
width	D2	D3 + 0.16"	11.500"	0.001"			
hole size	D3	0.080"	11.440"	0.001"			
hole loc.	D4	D3 / 2 + 0.08"	D2 - Min	0.001"			
hole loc.	D6	D3 / 2 + 0.08"	D1 - Min	0.001"			

Individual shim number example RM41-1000-250-250-120-120-1A

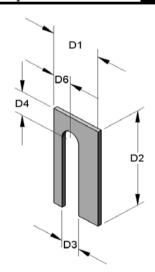
Shim pack number example

RS41-M20-M9-M8-M4-M4-2A3B2C1D



S - 300 series stainless steel - plain

		Steer - Ollea, Hori	plated					
hickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
	1010 Full Hard (oiled, not plated)							
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+/002	+ /00075	+ /0015	+/002
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	/00025"	+ /0005	+ /001	+ /003	+ /004	+ /0009	+ /001	+ /003



D₂



RENTAPEN INC.

RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 42 How to order -- R[Material] 42 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness]

See below for Material and Thickness choices

		Metric			
		minimum	maximum	increments	
length	D1	Maximum lei	ngth 292mm	0.1	
width	D2	Maximum w	idth 292mm	0.1	
hole size	D3			0.1	
hole loc.	D4	Minimum of 2mm wall stock between all features and edges		0.1	
hole loc.	D6			0.1	
hole loc.	D7			0.1	
		minimum	maximum	increments	
length	D1	Maximum lei	ngth 11.500"	0.001"	
width	D2	Maximum w	idth 11.500"	0.001"	
hole size	D3			0.001"	
hole loc.	D4	Minimum of 0.0	080" wall stock	0.001"	
hole loc.	D6	between all feat	ures and edges	0.001"	
hole loc.	D7			0.001"	

D1 D2 D2

D1

D7

Individual shim number example

Shim pack number example

RM42-1000-250-250-120-120-1A

RS42-M20-M9-M8-M4-M4-M4-2A3B2C1D

STYLE 43 How to order -- **R**[*Material*]43 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [D8] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum maximum		increments		
length	D1	Maximum le	ngth 292mm	0.1		
width	D2	Maximum width 292mm		0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2	mm wall stock	0.1		
hole loc.	D6	between all feat		0.1		
hole loc.	D7	between an reat	ara cages	0.1		
hole loc.	D8			0.1		
		Inch				
		minimum	maximum	increments		

		Inch			
		minimum	maximum	increments	
length	D1	Maximum le	Maximum length 11.500"		
width	D2	Maximum width 11.500"		0.001"	
hole size	D3				
hole loc.	D4	Minimum of 0.0	180" wall stock	0.001"	
hole loc.	D6	between all feat		0.001"	
hole loc.	D7	between an reatures and edges		0.001"	
hole loc.	D8			0.001"	

Individual shim number example RM43-1000-250-250-120-120-120-120-1A

Shim pack number example

A RS43-M20-M9-M8-M4-M4-M4-M4-2A3B2C1D

Material choices

S - 300 series stainless steel - plain

Thickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
	1010 Full Hard (oiled, not plated)							
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+ /002
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+ /001	+/003



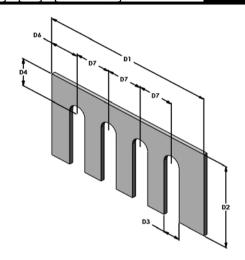
RAPid Tooling Components (RTC)

RAPid Shims - User Defined

STYLE 44 How to order -- R[Material] 44 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
length	D1	Maximum lei	ngth 292mm	0.1		
width	D2	Maximum w	idth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2mm wall stock between all features and edges		0.1		
hole loc.	D6			0.1		
hole loc.	D7			0.1		
			Inch			
		minimum	Inch maximum	increments		
length	D1	minimum Maximum lei	maximum	increments 0.001"		
length width	D1 D2		maximum ngth 11.500"			
		Maximum lei	maximum ngth 11.500"	0.001"		
width	D2	Maximum lei	maximum ngth 11.500" idth 11.500"	0.001" 0.001"		
width hole size	D2 D3	Maximum lei Maximum w	maximum ngth 11.500" idth 11.500"	0.001" 0.001" 0.001"		



Individual shim number example

Shim pack number example

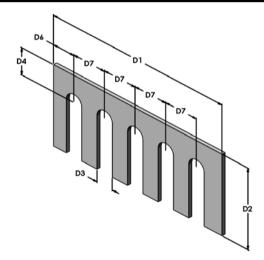
RM44-1000-250-250-120-120-120-1A

RS44-M20-M9-M8-M4-M4-M4-2A3B2C1D

STYLE 45 How to order -- R[Material]45 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
length	D1	Maximum le	ngth 292mm	0.1		
width	D2	Maximum w	idth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2r	mm wall stock	0.1		
hole loc.	D6	between all features and edges		between all features and edges 0.1		0.1
hole loc.	D7			0.1		
		minimum	maximum	increments		
length	D1	Maximum lei	ngth 11.500"	0.001"		
width	D2	Maximum w	idth 11.500"	0.001"		
hole size	D3			0.001"		
hole loc.	D4	Minimum of 0.080" wall stock		0.001"		
hole loc.	D6	between all feat	ures and edges	0.001"		
hole loc.	D7			0.001"		



Individual shim number example

Shim pack number example

RM45-1000-250-250-120-120-120-1A

RS45-M20-M9-M8-M4-M4-M4-2A3B2C1D

Material choices

S - 300 series stainless steel - plain

	1010 Iuli Harc	1 Steel Olled, Hol	piatoa					
Thickness choic	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
	1010 Full Hard (oiled, not plated)							
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+/0005	+ /00075	+ /001	+ /0015	+ /002	+/00075	+ /0015	+/002
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+/0005	+ /001	+/003	+ /004	+ /0009	+/001	+/003



RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

STYLE 05 How to order -- R[Material] 05 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

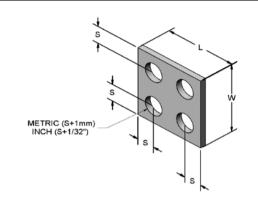
		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	0.1		
width	W	S * 4	292mm	0.1		
			Inch			
		minimum	maximum	increments		
screw size	S	#0	1"			
length	L	S * 4	11.500"	1/16"		
width	W	S * 4	11.500"	1/16"		

Individual shim number example

RM05-#0-250-250-1A

Shim pack number example

RS05-M1.6-M9-M8-2A3B2C1D



STYLE 06 How to order -- **R**[Material]**06** - [S] - [L] - [W] - [Thickness]

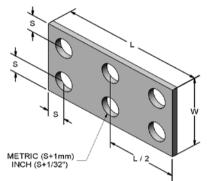
See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 6	292mm	1mm		
width	W	S * 4	290mm	1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0	_	increments		
screw size	S L		maximum	increments 1/16"		

Individual shim number example

RM06-#0-375-250-1A

Shim pack number example RS05-M1.6-M9-M8-2A3B2C1D



STYLE 07 How to order -- **R**[Material]**07** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 8	292mm	1mm
width	W	S * 4	290mm	1mm
			Inch	
		minimum	maximum	increments
screw size	S	minimum #0	maximum 1"	increments
screw size length	S L			1/16"
	S L W	#0	1"	

Individual shim number example

RM07-#1-625-292-1A

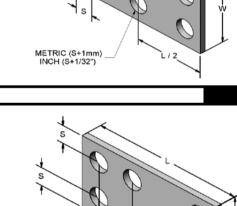
Shim pack number example

RS07-M2-M13-M8-2A3B2C1D

Material choices

- 300 series stainless steel - plain

M -	 1010 full hard 	l steel - oiled, non	plated					
hickness choice	es es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			,	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+/0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+/002
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	/00025"	+ /0005	+ /001	+ /003	+ /004	+ /0009	+ /001	+/003



METRIC (S+1mm) INCH (S+1/32")



RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

STYLE 13 How to order -- R[Material]13 - [S] - [L] - [W] - [Thickness]

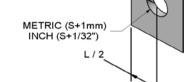
See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 2	292mm	1mm		
width	W	S * 2	292mm	1mm		
			Inch			
		minimum	maximum	increments		
screw size	S	#0	1"			
			4.4.500	4/401		
length	L	S * 2	11.500"	1/16"		

Individual shim number example

RM13-#0-120-120-1A

Shim pack number example RS13-M2-M4-M4-2A3B2C1D



How to order -- R[Material]14 - [S] - [L] - [W] - [Thickness] STYLE 14

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	1mm		
width	W	S * 2	290mm	1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0		increments		
screw size	S L		maximum	increments 1/16"		

Individual shim number example

Shim pack number example RS14-M1.6-M7-M4-2A3B2C1D

RM06-#0-240-120-1A

STYLE 15 How to order -- R[Material]15 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 6	292mm	1mm		
width	W	S * 2	290mm	1mm		
			Inch			
		minimum	maximum	increments		
screw size	S	#0	1"			
length		S * 6	11.500"	1/16"		
	_	0 0	11.000	.,		
width	W	S * 4	11.500"	1/16"		

Individual shim number example

Shim pack number example

RM15-#1-360-120-1A RS15-M2-M12-M4-2A3B2C1D

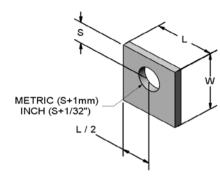
Material choices

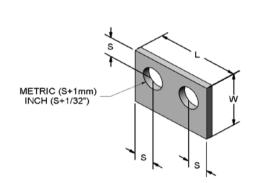
T

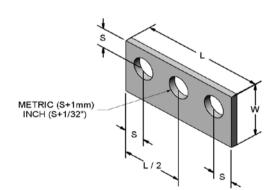
S 300 series stainless steel - plain

1010 full hard stool golded non plated

IVI	- 1010 Iuli nard	steel - olled, non	biated					
Thickness choice	ces							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+/002	+/00075	+ /0015	+ /002
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	+ /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+/001	+/003









RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

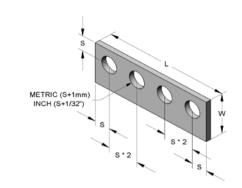
STYLE 16 How to order -- **R**[*Material*]**16** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 8	292mm	1mm		
width	W	S * 2	292mm	1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0		increments		
screw size	S L		maximum	increments 1/16"		

Individual shim number example RM16-#10-1000-500-1A

Shim pack number example RS16-M1.6-M20-M10-2A3B2C1D



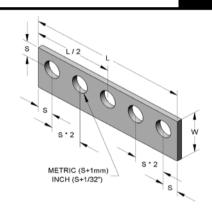
How to order -- **R**[Material]**17** - [S] - [L] - [W] - [Thickness] STYLE 17

See below for Material and Thickness choices Metric minimum maximum increments 24mm screw size 1.6mm length S * 10 292mm

- 9				
width	W	S * 2	292mm	1mm
			Inch	
		minimum	maximum	increments
screw size	S	#0	1"	
length	L	S * 10	11.500"	1/16"
width	W	S * 2	11.500"	1/16"
	width screw size length	width W screw size S length L	width W S * 2 minimum screw size S #0 length L S * 10	width W S * 2 292mm Inch minimum maximum screw size S #0 1" length L S * 10 11.500"

Individual shim number example RM17-#10-1000-500-1A

Shim pack number example RS17-M1.6-M20-M10-2A3B2C1D



How to order -- R[Material] 23 - [S] - [L] - [W] - [Thickness] STYLE 23

See below for Material and Thickness choices Metric minimum maximum increments screw size S 1.6mm 24mm length L S * 2 292mm 1mm W width S * 2 290mm 1mm Inch minimum maximum increments screw size #0 S S * 2 length 11.500" 1/16" S * 2 11.500" 1/16" width

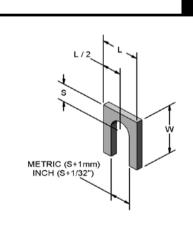
RS23-M2-M4-M4-2A3B2C1D

Individual shim number example Shim pack number example RM23-#0-120-120-1A

Material choices

S - 300 series stainless steel - plain

Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			•	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+ /002	+/00075	+/0015	+/00
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	/00025"	+ /0005	+ /001	+ /003	+ /004	+ /0009	+ /001	+ /003





RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

STYLE 24 How to order -- **R**[*Material*]**24** - [S] - [L] - [W] - [Thickness]

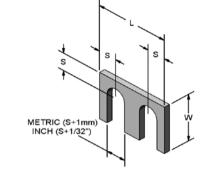
See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 4	292mm	1mm		
width	W	S * 2	290mm	1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0	_	increments		
screw size length	S L		maximum	increments 1/16"		

Individual shim number example

RM24-#2-375-250-1A

Shim pack number example RS24-M2-M8-M4-2A3B2C1D



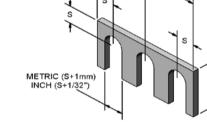
STYLE 25 How to order -- **R**[*Material*] **25** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 6	292mm	1mm		
width	W	S * 2	290mm	1mm		
			Inch			
		minimum	maximum	increments		
screw size	S	minimum #0	maximum 1"	increments		
screw size length	S L			1/16"		

Individual shim number example RM26-250-1000-1000-1A

Shim pack number example RS25-M3-M18-M6-2A3B2C1D



Material choices

300 series stainless steel - plain

Thickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			•	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+/002	+/00075	+ /0015	+ /002
			300 series	Stainless Steel (could be slightly	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	- /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+ /001	+/003



RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

STYLE 26 How to order -- **R**[*Material*]**26** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

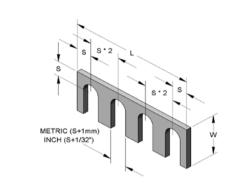
			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 8	292mm	1mm
width	W	S * 2	292mm	1mm
			Inch	
		minimum	Inch maximum	increments
screw size	S	minimum #0	_	increments
screw size length	S L		maximum	increments 1/16"

Individual shim number example

RM26-#10-1000-500-1A

Shim pack number example

RS26-M1.6-M20-M10-2A3B2C1D



STYLE 27 How to order -- **R**[*Material*]**27** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 10	292mm	1mm
width	W	S * 2	292mm	1mm
			Inch	
		minimum	Inch maximum	increments
screw size	S	minimum #0		increments
screw size length	S L		maximum	increments

Individual shim number example

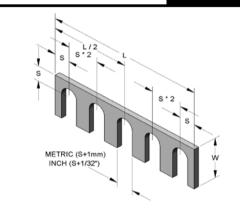
RM27-#10-1000-500-1A

Shim pack number example

RS27-M1.6-M20-M10-2A3B2C1D

Material choices

300 series stainless steel - plain



Thickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
				1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+/0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+/002
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance +	/00025"	+ /0005	+ /001	+/003	+ /004	+/0009	+ /001	+/003
_	•	•	•	•	•			•



RAPid Tooling Components (RTC)

RAPid Shims - Width Defined

STYLE 08 How to order -- R[Material] 08 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

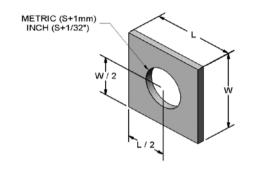
			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 2	292mm	1mm
width	W	S * 2	290mm	1mm
			Inch	
		minimum	maximum	increments
screw size	S	#0	1"	
length	L	S * 2	11.500"	1/16"
width	W	S * 2	11.500"	1/16"

Individual shim number example

RM8-#5-500-500-1A

Shim pack number example

RS08-M2-M5-M5-2A3B2C1D



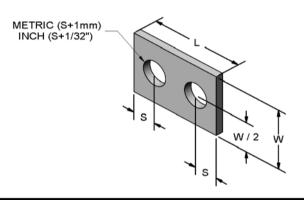
How to order -- R[Material] 09 - [S] - [L] - [W] - [Thickness] STYLE 09

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 4	292mm	1mm
width	W	S * 2	290mm	1mm
			Inch	
		minimum	Inch maximum	increments
screw size	S	minimum #0		increments
screw size length	S L		maximum	increments 1/16"

Individual shim number example RM09-#0-250-120-1A

Shim pack number example RS09-M2.5-M14-M6-2A3B2C1D



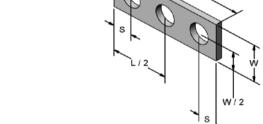
STYLE 10 How to order -- R[Material] 10 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 6	292mm	1mm		
width	W	S * 2	290mm	1mm		
			Inch			
		minimum	maximum	increments		
		minimum	maximum	Increments		
screw size	S	#0	1"	morements		
screw size length	S L			1/16"		
	S L W	#0	1"			

Individual shim number example RM10-#10-360-120-1A

Shim pack number example RS10-M1.6-M11-M6-2A3B2C1D



METRIC (S+1mm) INCH (S+1/32")

Material choices

S 300 series stainless steel - plain

1010 full hard stool golded non plated

IVI	- 1010 full hard	steel - ollea, non	piated					
Thickness choice	es							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			•	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+ /002
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance -	+ /00025"	+ /0005	+ /001	+/003	+ /004	+/0009	+/001	+/003



RAPid Tooling Components (RTC)

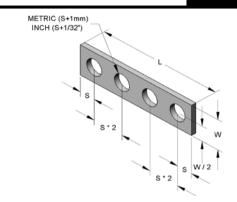
RAPid Shims - Width Defined

STYLE 11 How to order -- **R**[*Material*]**11** - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices Metric minimum increments maximum screw size S 1.6mm 24mm S * 8 length п 292mm 1mm width W S * 2 292mm 1mm Inch minimum maximum increments screw size #0 S * 8 11.500" 1/16" length 1/16" width S * 2 11.500"

Individual shim number example RM11-#10-1000-500-1A

Shim pack number example RS11-M1.6-M20-M10-2A3B2C1D



How to order -- R[Material] 12 - [S] - [L] - [W] - [Thickness] STYLE 12

See below for Material and Thickness choices Metric minimum maximum increments 24mm screw size S 1.6mm length S * 10 292mm 1mm width W S * 2 292mm 1mm Inch minimum maximum increments screw size S #0 S * 10 11.500" 1/16" length

S * 2

Individual shim number example RM12-#10-1000-500-1A

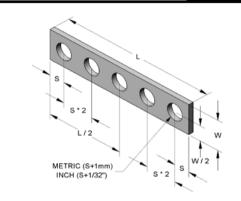
W

width

Shim pack number example RS12-M1.6-M20-M10-2A3B2C1D

1/16'

11.500"

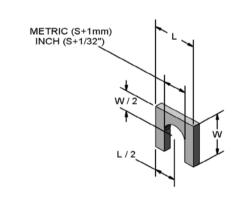


STYLE 18 How to order -- R[Material] 18 - [S] - [L] - [W] - [Thickness

See below for Material and Thickness choices Metric minimum maximum increments screw size S 1.6mm 24mm length L S * 2 292mm 1mm W width S * 2 290mm 1mm Inch maximum minimum increments screw size #0 S S * 2 length 11.500" 1/16' S * 2 W 11.500" 1/16" width

Individual shim number example

Shim pack number example RM18-#3-250-500-1A RS18-M2.5-M8-M6-2A3B2C1D



Material choices

S - 300 series stainless steel - plain

- 1010 full hard	steel - olled, non	plated					
es							
Α	В	С	D	E	J	K	L
1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
		•	1010 Full Hard (d	oiled, not plated)		
.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
+ /0005	+ /00075	+ /001	+ /0015	+ /002	+/00075	+/0015	+/002
		300 series	Stainless Steel (could be slightly	y magnetic)		
.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
+ /00025"	+ /0005	+ /001	+/003	+/004	+ /0009	+/001	+/003
	A 1/8 mm .005" + /0005	A B 1/8 mm 1/4 mm .005" .010" +/0005 +/00075	A B C 1/8 mm 1/4 mm 1/2 mm .005" .010" .020" +/0005 +/00075 +/001 300 series \$.005" .020"	A B C D 1/8 mm 1/4 mm 1/2 mm 1 mm 1010 Full Hard (c .005" .010" .020" .040" +/0005 +/00075 +/001 +/0015 300 series Stainless Steel (c .005" .010" .020" .042"	A B C D E 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1010 Full Hard (oiled, not plated .005" .010" .020" .040" .079" +/0005 +/00075 +/001 +/0015 +/002 300 series Stainless Steel (could be slightle) .005" .010" .020" .042" .075"	A B C D E J 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1/64" 1010 Full Hard (oiled, not plated) .005" .010" .020" .040" .079" .015" +/0005 +/00075 +/001 +/0015 +/002 +/00075 300 series Stainless Steel (could be slightly magnetic) .005" .010" .020" .042" .075" .015"	A B C D E J K 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1/64" 1/32" 1010 Full Hard (oiled, not plated) .005" .010" .020" .040" .079" .015" .031" +/0005 +/00075 +/001 +/0015 +/002 +/00075 +/0015 300 series Stainless Steel (could be slightly magnetic) .005" .010" .020" .042" .075" .015" .031"



RAPid Tooling Components (RTC)

RAPid Shims - Width Defined

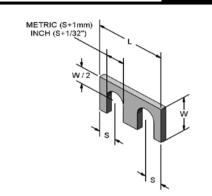
STYLE 19 How to order -- R[Material]19 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 4	292mm	1mm
width	W	S * 2	290mm	1mm
			Inch	
		minimum	maximum	increments
screw size	S	minimum #0	maximum 1"	increments
screw size length	S L			increments 1/16"

Individual shim number example RM19-#10-500-500-1A

Shim pack number example RS19-M2-M9-M5-2A3B2C1D



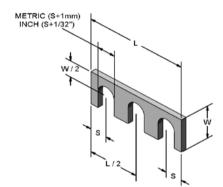
STYLE 20 How to order -- R[Material] 20 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 6	292mm	1mm		
width	W	S * 2	292mm	1mm		
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #0	_	increments		
screw size	S L		maximum	increments 1/16"		

Individual shim number example RM20-#0-360-120-1A

Shim pack number example RS20-M2-M14-M5-2A3B2C1D



STYLE 21 How to order -- R[Material] 21 - [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 8	292mm	1mm		
width	W	S * 2	292mm	1mm		
			Inch			
		minimum	maximum	increments		
screw size	S	#0	1"			
length	L	S * 8	11.500"	1/16"		
width	W	S * 2	11.500"	1/16"		
	**	0 -	11.000	17 10		

Individual shim number example RM21-#10-1000-500-1A

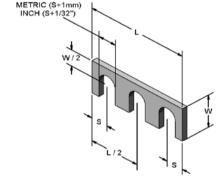
Shim pack number example

RS21-M1.6-M20-M10-2A3B2C1D

Material choices

- 300 series stainless steel - plain

 1010 full hard 	steel - oiled, non	plated					
es							
Α	В	С	D	E	J	K	L
1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
			1010 Full Hard (oiled, not plated	1)		
.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
+ /0005	+ /00075	+ /001	+ /0015	+/002	+ /00075	+ /0015	+/002
		300 series	Stainless Steel (could be slightl	y magnetic)		
.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
- /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+ /001	+/003
	A 1/8 mm .005" + /0005	A B 1/8 mm 1/4 mm .005" .010" + /0005 + /00075	A B C 1/8 mm 1/4 mm 1/2 mm .005" .010" .020" +/0005 +/00075 +/001 300 series .005" .020"	A B C D 1/8 mm 1/4 mm 1/2 mm 1 mm 1010 Full Hard (.005" .010" .020" .040" +/0005 +/00075 +/001 +/0015 300 series Stainless Steel (.005" .010" .020" .042"	A B C D E 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1010 Full Hard (oiled, not plated .005" .010" .020" .040" .079" +/0005 +/00075 +/001 +/0015 +/002 300 series Stainless Steel (could be slightle) .005" .010" .020" .042" .075"	A B C D E J 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1/64" 1010 Full Hard (oiled, not plated) .005" .010" .020" .040" .079" .015" +/0005 +/00075 +/001 +/0015 +/002 +/00075 300 series Stainless Steel (could be slightly magnetic) .005" .010" .020" .042" .075" .015"	A B C D E J K 1/8 mm 1/4 mm 1/2 mm 1 mm 2 mm 1/64" 1/32" 1010 Full Hard (oiled, not plated) .005" .010" .020" .040" .079" .015" .031" +/0005 +/00075 +/001 +/0015 +/002 +/00075 +/0015 300 series Stainless Steel (could be slightly magnetic) .005" .010" .020" .042" .075" .015" .031"



METRIC (S+1mm) INCH (S+1/32")



RAPid Tooling Components (RTC)

RAPid Shims - Width Defined

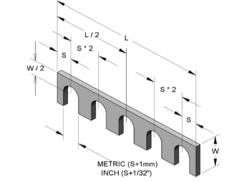
STYLE 22 How to order -- **R**[Material]**22**- [S] - [L] - [W] - [Thickness]

See below for Material and Thickness choices

			Metric	
		minimum	maximum	increments
screw size	S	1.6mm	24mm	
length	L	S * 10	292mm	1mm
width	W	S * 2	292mm	1mm
			Inch	
		minimum	Inch maximum	increments
screw size	S	minimum #0		increments
screw size length	S L		maximum	increments 1/16"

Individual shim number example

Shim pack number example RM22-#10-1000-500-1A RS22-M1.6-M20-M10-2A3B2C1D



STYLE 34 How to order -- **R**[Material]**34** - [S] - [L] - [W] - [D] - [Thickness]

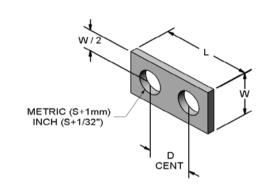
See below for Material and Thickness choices Metric minimum maximum increments screw size S 24mm 1.6mm length S * 4 292mm 1mm width W S * 2 292mm 1mm L - (S * 2) distance S * 2 0.1mm

		Inch		
		minimum	maximum	increments
screw size	S	#0	1"	
length	L	S * 4	11.500"	1/16"
width	W	S * 2	11.500"	1/16"
distance	D	S * 2	L - (S * 2)	0.001"

Individual shim number example RM34-#1-313-146-146-1A

Shim pack number example

RS34-M2-M8-M4-M4.0-2A3B2C1D



STYLE 35 How to order -- **R**[Material]**35** - [S] - [L] - [W] - [D] - [Thickness]

See below for Material and Thickness choices

		Metric			
		minimum	maximum	increments	
screw size	S	1.6mm	24mm		
length	L	S * 4	292mm	1mm	
width	W	S * 2	290mm	1mm	
distance	D	S * 2	L - (S * 2)	0.1mm	
			Inch		
		minimum	Inch maximum	increments	
screw size	S	minimum #0	_	increments	
screw size	S L		maximum	increments 1/16"	
	S L W	#0	maximum 1"		

Individual shim number example

RM35-#4-500-250-225-1A

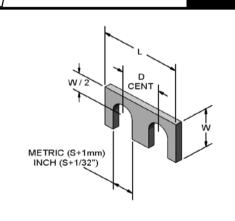
Shim pack number example

RS35-M2-M8-M4-M4.0-2A3B2C1D

Material choices

- 300 series stainless steel - plain

M	- 1010 full hard	steel - oiled, non	plated					
Thickness choi	ces							
Letter	Α	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
		1010 Full Hard (oiled, not plated)						
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	+ /0005	+ /00075	+ /001	+ /0015	+ /002	+ /00075	+ /0015	+ /002
		300 series Stainless Steel (could be slightly magnetic)						
	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
	+ /00025"	+ /0005	+ /001	+/003	+ /004	+ /0009	+ /001	+/003





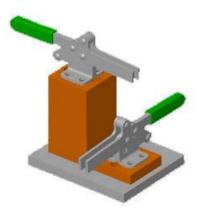
RAPid Tooling Components (RTC)



RAPid Tooling Components (RTC)

RAPid Risers

How to order -- **RR**00 - Pre-defined - [H] - [M] - [M]



Standard Rentapen Risers Using Rentapen Part Numbers Matched to Customer Clamp Model

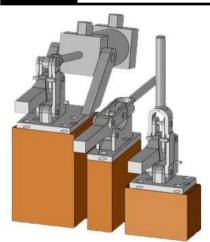
Part number example for ordering a riser:

Carr-Lane: RR00 - 312 - 4000 - 003 - S
Da-Sta-Co: RR00 - 312 - 3000 - 015 - A
Essentra Comp: RR00 - 312 - 250 - 011 - 3
TE-CO: RR00 - 375 - 1000 - 007 - S
All-American: RR00 - 250 - 1000 - 4 - A
Jergens: RR00 - 312 - 2500 - 019 - 3

(Clamp Vendor)	(Height)	(Clamp Model)	(Material)
	H	M	M
Carr-Lane Da- Sta-Co Essentra Comp TE-CO All-American Jergens	Minimum = 0.250" Maximum = 4.000"	See Spec Sheet	S 1018 CRS A Aluminum 3 300 Stainless

See Page 5-2 for model crossreferences. See Page 5-3 for dimensions.

How to order -- **RR01** - [M] - [H] - [M]



Standard Rentapen Risers Using Wolverine Part Number in the Rentapen Part Number

Part number example for ordering a riser:

RR01 - A - 1905 - 3000 - S RR01 - CQ - 905A - 4000 - A RR01 - C - 305A - 250 - 3

(Clamp Vendor)	(Clamp Model)	(Height)	(Material)
	M	Н	M
	A-1905		
	A-1910		S 1018 CRS
Wolverine	A-1915	Minimum = 0.250"	A Aluminum
	C-305A	Maximum = 4.000"	3 300 Stainless
	C-310A		
	CQ-905A		
	CQ-910A		
	CQ-915A		



RAPid Tooling Components (RTC)

RAPid Risers

for Carr Lane	Use this riser
CL-1000-PTC	RR00-312-xxx-003
CL-1000-VCC	RR00-375-xxx-009
CL-1001-PTC	RR00-312-xxx-003
CL-100-HVTC	RR00-312-xxx-001
CL-100-PC	RR00-312-xxx-012
CL-100-SPC	RR00-375-xxx-003
CL-101-TC	RR00-312-xxx-015
CL-103-TC	RR00-312-xxx-015
CL-111-TC	RR00-312-xxx-015
CL-113-TC	RR00-312-xxx-015
CL-11-TC	RR00-250-xxx-004
CL-1500-PPC	RR00-375-xxx-010
CL-150-HTC	RR00-250-xxx-004
CL-150-SPC	RR00-312-xxx-023
CL-150-VTC	RR00-312-xxx-011
CL-151-TC	RR00-312-xxx-014
CL-152-VTC	RR00-312-xxx-011
CL-2000-PTC	RR00-375-xxx-007
CL-2001-PTC	RR00-375-xxx-007
CL-200-PC	RR00-375-xxx-010
CL-200-VTC	RR00-250-xxx-004
CL-201-TC	RR00-312-xxx-003
CL-203-TC	RR00-312-xxx-003
CL-211-TC	RR00-312-xxx-003
CL-213-TC	RR00-312-xxx-003
CL-213-1C CL-21-TC	RR00-312-xxx-020
	RR00-312-xxx-020
CL-250-HTC	
CL-250-SPC	RR00-375-xxx-010
CL-250-VTC	RR00-312-xxx-015
CL-251-TC	RR00-312-xxx-002
CL-252-VTC	RR00-312-xxx-015
CL-253-VTC	RR00-312-xxx-015
CL-255-SPC	RR00-375-xxx-010
CL-260-HTC	RR00-250-xxx-002
CL-275-SPC	RR00-375-xxx-010
CL-285-SPC	RR00-375-xxx-010
CL-300-HTC	RR00-312-xxx-016
CL-300-HVTC	RR00-375-xxx-002
CL-300-PC	RR00-375-xxx-012
CL-301-TC	RR00-375-xxx-006
CL-303-TC	RR00-375-xxx-006
CL-311-TC	RR00-375-xxx-006
CL-313-TC	RR00-375-xxx-006
CL-350-HTC	RR00-312-xxx-016
CL-350-VTC	RR00-312-xxx-003
CL-351-TC	RR00-375-xxx-004
CL-352-VTC	RR00-312-xxx-003
CL-353-VTC	RR00-312-xxx-003
CL-400-PTC	RR00-312-xxx-011
CL-450-HTC	RR00-312-xxx-006
CL-450-VTC	RR00-312-xxx-003
CL-452-VTC	RR00-312-xxx-003
CL-453-VTC	RR00-312-xxx-003
CL-500-PTC	RR00-312-xxx-015
CL-50-SPC	RR00-250-xxx-006
CL-51-SPC	RR00-250-xxx-006
CL-51-TC	RR00-250-xxx-004
CL-53-TC	RR00-250-xxx-004
CL-550-AHTC	RR00-375-xxx-005
CL-550-HTC	RR00-375-xxx-010
CL-550-VTC	RR00-375-xxx-007
CL-552-VTC	RR00-375-xxx-007
CL-600-HTC	RR00-375-xxx-014
CL-600-PPC	RR00-250-xxx-006
CL-600-VTC	RR00-312-xxx-010
CL-650-ATC	RR00-375-xxx-007
CL-650-HTC	RR00-375-xxx-014
CL-650-VTC	RR00-375-xxx-007
CL-652-VTC	RR00-375-xxx-007
CL-750-VTC	RR00-375-xxx-007
CL-850-VTC	RR00-375-xxx-007

RR00-312-xxx-011 RR00-312-xxx-015
RR00-312-xxx-015
RR00-250-xxx-004
RR00-250-xxx-004
RR00-312-xxx-003
RR00-375-xxx-007
RR00-250-xxx-005
RR00-312-xxx-016
RR00-312-xxx-018
RR00-312-xxx-004
RR00-312-xxx-010
RR00-312-xxx-006
RR00-312-xxx-008
RR00-375-xxx-001
RR00-375-xxx-010
RR00-375-xxx-011
RR00-375-xxx-013
RR00-375-xxx-014
RR00-375-xxx-007
RR00-250-xxx-004
RR00-312-xxx-005
RR00-375-xxx-008
RR00-312-xxx-007
RR00-312-xxx-006
RR00-250-xxx-006
RR00-312-xxx-013
RR00-312-xxx-023
RR00-375-xxx-010
RR00-375-xxx-010
RR00-312-xxx-023
RR00-375-xxx-010
RR00-312-xxx-015
RR00-312-xxx-013
RR00-312-xxx-003
RR00-375-xxx-007
RR00-312-xxx-011
RR00-250-xxx-006
RR00-250-xxx-003

for REID	Use this riser
TC-201	RR00-312-xxx-011
TC-202	RR00-312-xxx-015
TC-205	RR00-250-xxx-004
TC-206	RR00-250-xxx-004
TC-207	RR00-312-xxx-003
TC-210	RR00-375-xxx-007
TC-213	RR00-250-xxx-005
TC-215	RR00-312-xxx-016
TC-217	RR00-312-xxx-018
TC-219	RR00-312-xxx-004
TC-225	RR00-312-xxx-006
TC-227	RR00-312-xxx-008
TC-229	RR00-375-xxx-001
TC-247	RR00-375-xxx-007
TC-305	RR00-250-xxx-004
TC-518	RR00-312-xxx-006
TC-601	RR00-250-xxx-006
TC-603	RR00-312-xxx-013
TC-6001	RR00-250-xxx-003

for TE-CO	Use this riser
34010	RR00-312-xxx-015
34012	RR00-312-xxx-015
34020	RR00-312-xxx-003
34022	RR00-312-xxx-003
34023	RR00-312-xxx-003
34025	RR00-312-xxx-003
34030	RR00-375-xxx-007
34035	RR00-375-xxx-007
34040	RR00-375-xxx-007
34041	RR00-375-xxx-007
34069	RR00-250-xxx-004
34081	RR00-312-xxx-020
34087	RR00-375-xxx-006
34101	RR00-250-xxx-006
34105	RR00-250-xxx-006
34110	RR00-312-xxx-009
34120	RR00-312-xxx-006
34130	RR00-375-xxx-015
34305	RR00-250-xxx-006
34310	RR00-312-xxx-023
34320	RR00-375-xxx-010
34325	RR00-375-xxx-010
34340	RR00-312-xxx-012
34350	RR00-375-xxx-010
34360	RR00-375-xxx-012

for All American	Use this riser
80-010	RR00-250-xxx-004
80-012	RR00-250-xxx-004
80-020	RR00-312-xxx-016
80-030	RR00-312-xxx-006
80-040	RR00-375-xxx-010
80-100	RR00-312-xxx-011
80-102	RR00-312-xxx-011
80-105	RR00-250-xxx-004
80-110	RR00-312-xxx-015
80-112	RR00-312-xxx-015
80-121	RR00-312-xxx-003
80-123	RR00-312-xxx-003
80-125	RR00-312-xxx-003
80-127	RR00-312-xxx-003
80-132	RR00-375-xxx-007
80-133	RR00-375-xxx-007
80-140	RR00-375-xxx-007
80-141	RR00-375-xxx-007
80-202	RR00-250-xxx-006
80-210	RR00-312-xxx-021
80-220	RR00-375-xxx-010
80-230	RR00-312-xxx-023
80-240	RR00-375-xxx-010

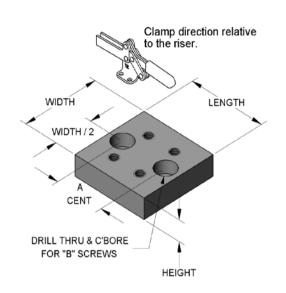
for Jergens	Use this riser			
70210	RR00-250-xxx-006			
70230	RR00-250-xxx-006			
70240	RR00-312-xxx-019			
70250	RR00-312-xxx-006			
70260	RR00-250-xxx-005			
70262	RR00-312-xxx-017			
70264	RR00-375-xxx-016			
70270	RR00-375-xxx-010			
70280	RR00-250-xxx-001			
70310	RR00-312-xxx-011			
70320	RR00-312-xxx-011			
70330	RR00-312-xxx-015			
70340	RR00-312-xxx-015			
70342	RR00-312-xxx-015			
70350	RR00-312-xxx-003			
70360	RR00-312-xxx-003			
70365	RR00-312-xxx-003			
70380	RR00-312-xxx-003			
70390	RR00-312-xxx-003			
70395	RR00-312-xxx-003			
70420	RR00-375-xxx-007			
70430	RR00-375-xxx-007			
70440	RR00-375-xxx-007			
70450	RR00-375-xxx-007			
70460	RR00-375-xxx-007			
70470	RR00-375-xxx-007			
70810	RR00-312-xxx-012			
70818	RR00-250-xxx-003			
70820	RR00-312-xxx-023			
70830	RR00-375-xxx-010			
70840	RR00-375-xxx-010			
70850	RR00-375-xxx-012			
72160	RR00-312-xxx-022			
72161	RR00-312-xxx-003			
72162	RR00-375-xxx-006			





RAPid Tooling Components (RTC)

RAPid Risers



Replace XXX with height desired

minimum .250" maximum 4.000"

RTC Number	Α	В	Width	Length	Тар
RR00-250-xxx-001	1.000	1/4	1.500	1.500	#10-24
RR00-250-xxx-001	1.000	1/4	1.500	1.500	#10-24
RR00-250-xxx-002	1.500	1/4	2.000	2.000	#10-24
RR00-250-xxx-004	1.000	1/4	1.500	1.500	#8-32
RR00-250-xxx-005	1.000	1/4	1.500	1.500	#8-32
RR00-250-xxx-006	1.000	1/4	1.500	1.500	#8-32
RR00-312-xxx-001	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-001	0.875	5/16	1.500	1.500	1/4-20
RR00-312-xxx-002	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-004	1.875	5/16	2.500	2.500	1/4-20
RR00-312-xxx-005	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-006	0.875	5/16	1.500	1.500	1/4-20
RR00-312-xxx-007	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-007	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-009	0.875	5/16	1.500	1.500	1/4-20
RR00-312-xxx-010	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-011	0.875	5/16	1.500	1.500	#8-32
RR00-312-xxx-012	1.875	5/16	2.500	2.500	1/4-20
RR00-312-xxx-013	1.375	5/16	2.000	2.000	1/4-20
RR00-312-xxx-014	0.875	5/16	1.500	1.500	#10-24
RR00-312-xxx-015	0.875	5/16	1.500	1.500	#10-24
RR00-312-xxx-016	0.875	5/16	1.500	1.500	#10-24
RR00-312-xxx-017	0.875	5/16	1.500	1.500	#10-24
RR00-312-xxx-018	1.375	5/16	2.000	2.000	#10-24
RR00-312-xxx-019	0.875	5/16	1.500	1.500	#10-24
RR00-312-xxx-020	0.875	5/16	1.500	1.500	#8-32
RR00-312-xxx-021	1.875	5/16	2.500	2.500	#10-24
RR00-312-xxx-022	0.875	5/16	1.500	1.500	#6-32
RR00-312-xxx-023	2.125	5/16	2.750	2.750	#10-24
RR00-375-xxx-001	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-002	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-003	1.750	3/8	2.500	2.500	#10-24
RR00-375-xxx-004	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-005	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-006	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-007	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-008	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-009	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-010	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-011	1.750	3/8	2.500	2.500	5/16-18
RR00-375-xxx-012	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-013	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-014	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-015	2.000	3/8	2.750	2.750	5/16-18
RR00-375-xxx-016	1.750	3/8	2.500	2.500	#10-24

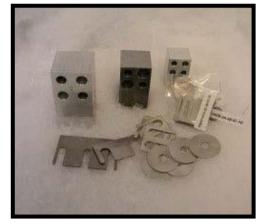
Part number examples:

RR00-312-3000-003 3" tall riser for a De-Sta-Co 207 clamp
RR00-250-1500-006 1.5" tall riser for a Carr Lane CL-51-SPC clamp



RAPid Tooling Components (RTC)

In 2000 all Rentapen did was design machines. We were designing a lot of production-part holding fixtures for welding and assembly processes. We found we were designing in the same blocks, plates and shims over and over again. One day we got a call from a customer. We had made a mistake on a detail of a block we had designed. The drawing image showed no hidden lines so a counter bore looked like it was coming from "this side", but the call out for the hole did say, "OPP SIDE". The customer



was upset because they had made the block with the counter bore on the wrong side and it was going to cost them \$100 to make a new one.

We thought, "Hmmm, bet we could make it cheaper than that!"

So we standardized those blocks, plates and shims. Now that \$100 block can be bought for about \$30. Our RAPid Tooling Components™ save our customers hundreds and even thousands of dollars per fixture in design and build costs.

And because they are counter bored on both sides they are more versatile and detail mistakes like the one we made are eliminated.

As we have grown we have developed our automated **RAPid Order Processing System™** that saves money and reduces order errors by taking orders straight from the order confirmation to the laser to the packing slip in a few short steps.

Now RAPid Tooling Components[™] are the **standard** for quality fixture designs.

And that customer that called us about the error in 2000 has since instructed all their engineers and machine shop vendors that they must use RAPid Tooling ComponentsTM in their designs when possible. They see clearly that RAPid Tooling ComponentsTM save time, money, and reduce errors.