RAPid Tooling Components[™]

Shims, Blocks, Plates, Risers, and Caps





RENTAPEN LLC. Weld Fixture Specialists (414) 355-5221 www.rentapen.com



Die - Shims

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

Authorized Distributor or Represented By:

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)

		Table of C	ontents
Page	Description	Page	Description
1-1	General Information	1-4	RAPid Tooling Components sample usage
1-2	RAPid Tooling Components sample usage	1-5	RAPid Tooling Components sample usage
1-3	RAPid Tooling Components sample usage		
RAP	Pid Blocks		
2-1	RAPid Blocks style 00 (8) holes	2-4	RAPid Blocks style 05 (4) holes
2-1	RAPid Blocks style 02 (8) holes	2-5	RAPid Blocks style 11 - up to 3mm shim pack
2-2	RAPid Blocks style 00 (4) holes	2-5	RAPid Blocks style 12 - up to 3mm shim pack
2-2	RAPid Blocks style 02 (4) holes	2-6	RAPid Blocks style 16 - 3mm to 6mm shim pack
2-3	RAPid Blocks style 03 (8) holes	2-6	RAPid Blocks style 19 - 3mm to 6mm shim pack
2-3	RAPid Blocks style 05 (8) holes	2-7	Customized RAPid Tooling Components
2-4	RAPid Blocks style 03 (4) holes		
RAP	Pid Plates		
3-1	RAPid Plates style 00	3-2	RAPid Plates style 04
3-1	RAPid Plates style 02	3-3	RAPid Plates style 05
3-2	RAPid Plates style 03		
RAP	Pid Shims		
4-1	RAPid Shims that MATCH other shim shapes	4-3	Die Sharpening/Detailing Shims
4-2	RAPid Shims for EXISTING components		
Us	er Defined Shims		
4-4	RAPid Shims style 03	4-7	RAPid Shims style 39
4-4	RAPid Shims style 29	4-8	RAPid Shims style 40
4-4	RAPid Shims style 30	4-8	RAPid Shims style 41
4-5	RAPid Shims style 32	4-9	RAPid Shims style 42
4-5	RAPid Shims style 33	4-9	RAPid Shims style 43
4-6	RAPid Shims style 36	4-10	RAPid Shims style 44
4-6 4-7	RAPid Shims style 37 RAPid Shims style 38	4-10	RAPid Shims style 45
	-		
	rew Defined Shims		
4-11	RAPid Shims style 05	4-13	RAPid Shims style 17
4-11	RAPid Shims style 06	4-13	RAPid Shims style 23
4-11	RAPid Shims style 07	4-14	RAPid Shims style 24
4-12	RAPid Shims style 13	4-14	RAPid Shims style 25
4-12 4-12	RAPid Shims style 14	4-15 4-15	RAPid Shims style 26 RAPid Shims style 27
4-12 4-13	RAPid Shims style 15 RAPid Shims style 16	4-15	RAPID Shinis siyle 21
Wi	dth Defined Shims		
4-16	RAPid Shims style 08	4-18	RAPid Shims style 19
4-16	RAPid Shims style 09	4-18	RAPid Shims style 20
4-16	RAPid Shims style 10	4-18	RAPid Shims style 21
4-17	RAPid Shims style 11	4-19	RAPid Shims style 22
4-17	RAPid Shims style 12	4-19	RAPid Shims style 34
4-17	RAPid Shims style 18	4-19	RAPid Shims style 35
RAP	Pid Risers		
5-1	RAPid Riser style 00	5-2	RAPid Riser style 00 selection chart
	-		•

RTC Story

6-1 History



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 or custom 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 promise what it can deliver. Sometimes situations can arrise that are beyond our control. Rentapen LLC. 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 LLC. 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 LLC. 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 LLC. 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 may be returned with a restocking charge of 25%. Return requests must be made within 30 days after shipment with a *Return Material Authorization Number*. Custom RTC Components, shims, etc will be determined on an individual basis.

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 LLC.

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 Rentapen for current pricing. Feel free to visit our web site for authorized distributors and Sales Representatives

Additional catalogs

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

Plating

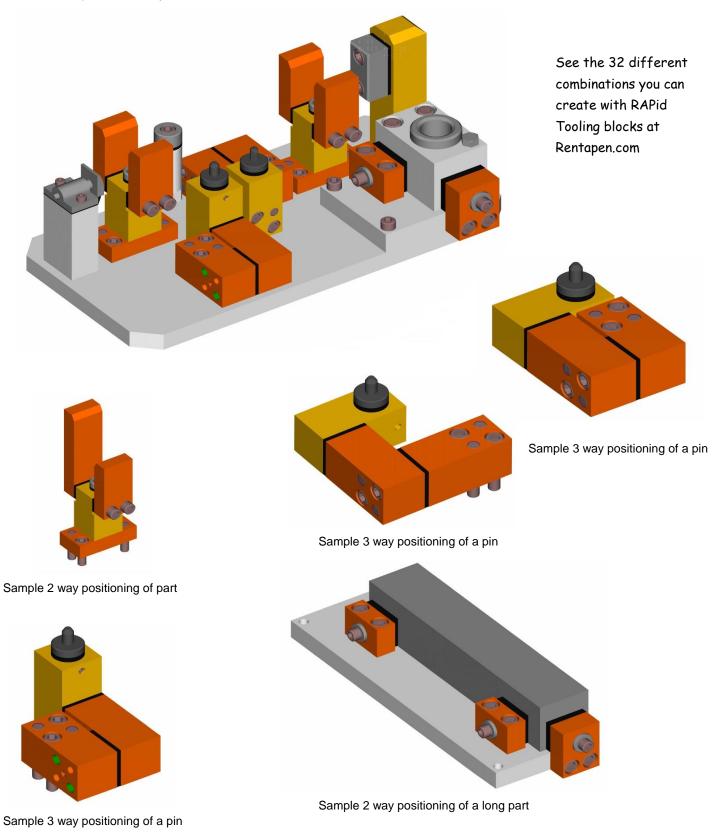
Our shims come conveniently packaged and labeled. Many of our customers find the need for plating is no longer necessary, however check with Rentapen for your specific plating needs.



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.

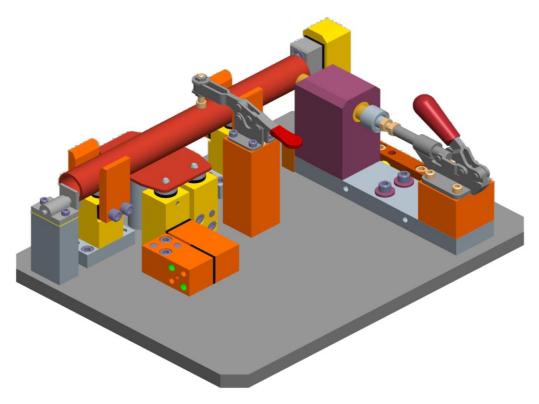




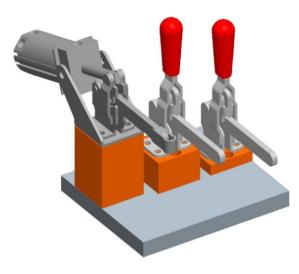
RAPid Tooling Components (RTC)

RAPid Tooling Components Sample Usage

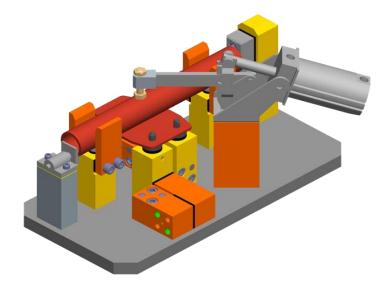
The Orange components are RAPid Blocks, RAPid Plates, and RAPid Risers. The yellow components are Altered RAPid Blocks.



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)

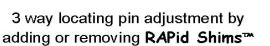
RAPid Tooling Components Sample Usage



RB02 4 Holed altered to create goal post using **Rapid Plates**[™]



RB02 4 Holes altered to hold rest pad.





RB02 4 Hole With a drawing from you we ship to you an altered block complete. (Why handle it twice?)

RB00 4 Holes

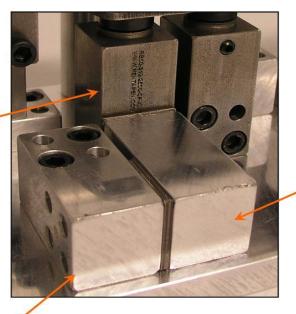


RB00 with 4 Holes including an alteration for a pin.

RB00 8 Holes



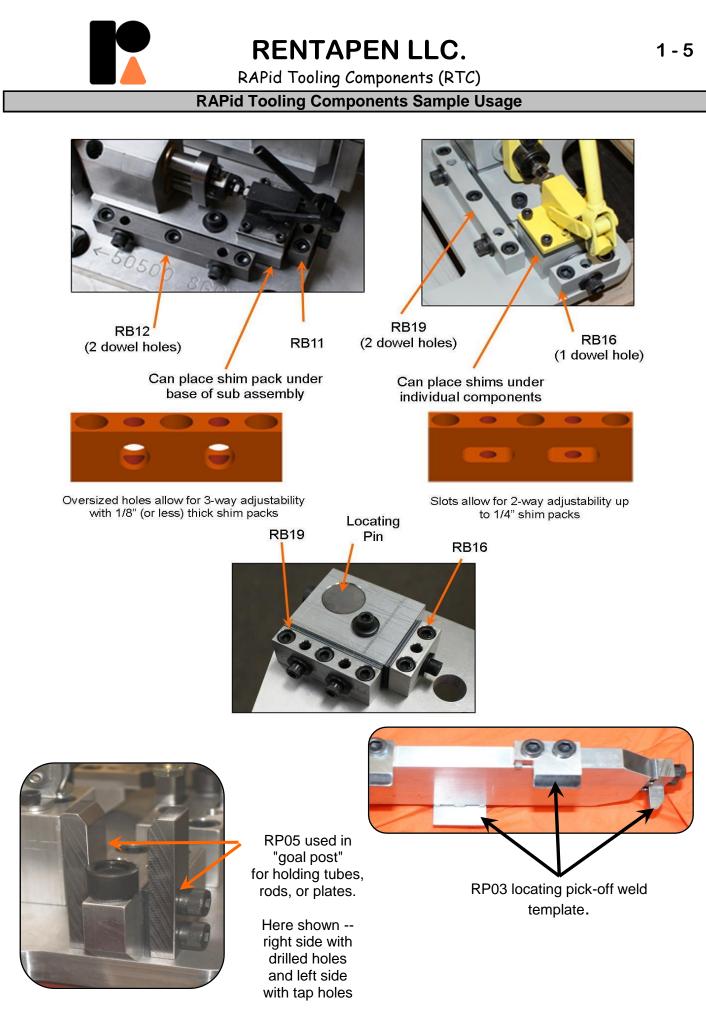
RB00 with 8 Holes Mounted to base plate



RB02 8 Holes



RB02 8 Hole used For adjustability



Fax: (414) 355-5256

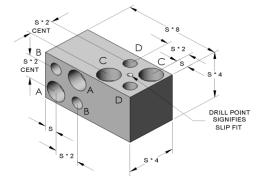


RAPid Tooling Components (RTC)

RAPid Blocks

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

(8) Holes

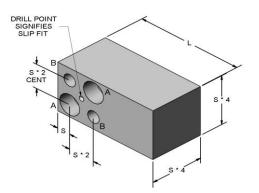


Part number example for ordering a block RB00-M10-M80-CPCPS

(Screw) S	(Length) L*	(Hole) A	(Hole) B	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 8000					
312	2500 ~ 8000					
375	3000 ~ 8000					
500	4000 ~ 8000	C C'Bore both sides	P Press fit	C C'Bore both sides	P Press fit	S Mild Steel
M6	M48, M50 ~ M200	D Drill thru	S Slip fit	D Drill thru	S Slip fit	A Aluminum
M8	M64, M65 ~ M200	T Tap thru		T Tap thru		3 300 Stainless
M10	M80 ~ M200					
M12	M96, M100 ~ M200					

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)	(Length)	(Hole)	(Hole)	(Hole)	(Hole)	(Material)
S	L*	Α	В	С	D	М
250	1000 ~ 8000					
312	1250 ~ 8000					
375	1500 ~ 8000					
500	2000 ~ 8000	C C'Bore both sides	P Press fit	X No Hole	X No Hole	S Mild Steel
M6	M25 ~ M200	D Drill thru	S Slip fit			A Aluminum
M8	M35 ~ M200	T Tap thru				3 300 Stainless
M10	M40 ~ M200					
M12	M50 ~ M200					

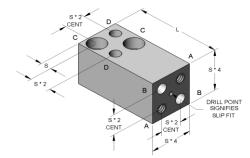


RAPid Tooling Components (RTC)

RAPid Blocks

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

(8) Holes

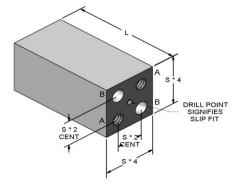


Part number example for ordering a block RB02-312-3500-TSCP3

(Screw) S	(Length) L*	(Hole) A**	(Hole) B**	(Hole) C	(Hole) D	(Material) M
250	1750 ~ 8000					
312	2000 ~ 8000					
375	2500 ~ 8000					
500	3250 ~ 8000	т Тар	S Slip fit	C C'Bore both sides	P Press fit	S Mild Steel
M6	M45 ~ M200			D Drill thru	Slip fit	A Aluminum
M8	M55 ~ M200			T Tap thru		3 300 Stainless
M10	M65 ~ M200					
M12	M80 ~ M200					

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)	(Length)	(Hole)	(Hole)	(Hole)	(Hole)	(Material)
S	L*	A**	B**	C	D	M
250	1000 ~ 8000					
312	1250 ~ 8000					
375	1500 ~ 8000					
500	2000 ~ 8000	T Tap	S Slip fit	X No Hole	X No Hole	S Mild Steel
M6	M25 ~ M200					A Aluminum
M8	M35 ~ M200					3 300 Stainless
M10	M40 ~ M200					
M12	M50 ~ M200					

* Length increments are .250" for inch, or 5mm for metric

** Tap & Slip fit depth is (2 * Screw)

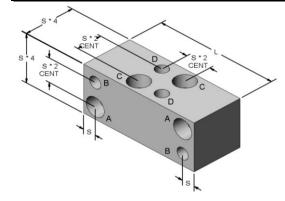


RAPid Tooling Components (RTC)

RAPid Blocks

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

(8) Holes

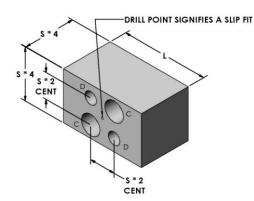


Part number example for ordering a block RB03-250-2000-CPCPS

(Screw) S	(Length)	(Hole)	(Hole) B	(Hole) C	(Hole) D	(Material) M
250	 2000 ~ 8000	A	В	L L	D	IVI
312	2500 ~ 8000 2500 ~ 8000					
375		C C'Bore both sides		C C'Bore both sides		S Mild Steel
500		D Drill thru	P Press fit	D Drill thru		A Aluminum
M6	M50 ~ M200	T Tap thru	Slip fit	T Tap thru		3 300 Stainless
M8	M70 ~ M200	i rup unu		i rup unu	C onp in	
M10	M80 ~ M200					
M12	M100 ~ M200					

 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)	(Hole)	(Hole) B	(Hole)	(Hole) D	(Material) M
250	1000 ~ 8000	A		C C	0	IVI
312	1250 ~ 8000	1				
375	1500 ~ 8000			C C'Bore both sides		S Mild Steel
500	2000 ~ 8000	X No hole	X No hole	D Drill thru	P Press fit	A Aluminum
M6	M25 ~ M200			T Tap thru	S Slip fit	3 300 Stainless
M8	M35 ~ M200					
M10	M40 ~ M200					
M12	M50 ~ M200					

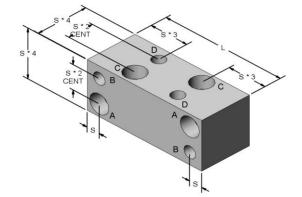


RAPid Tooling Components (RTC)

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

(8) Holes

(4) Holes



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

(Screw) S	(Length) L	(Hole) A	(Hole) B	(Hole) C	(Hole) D	(Material) M
250	2000 ~ 8000			-		
312	2500 ~ 8000					
375	3000 ~ 8000	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 ~ M200	T Tap thru	S Slip fit	T Tap thru	S Slip fit	3 300 Stainless
M8	M65 ~ M200					
M10	M80 ~ M200					
M12	M100 ~ M200					

S * 2 CENT DRILL POINT SIGNIFIES SLIP FIT

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

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

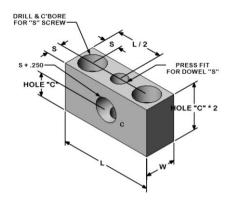
(Screw)	(Length)	(Hole)	(Hole)	(Hole)	(Hole)	(Material)
5	L	A	В	ل د	D	М
250	1000 ~ 8000					
312	1250 ~ 8000					
375	1500 ~ 8000	C C'Bore both sides				S Mild Steel
500	2000 ~ 8000	D Drill thru	P Press fit	X No hole	X No hole	A Aluminum
M6	M25 ~ M200	T Tap thru	S Slip fit			3 300 Stainless
M8	M35 ~ M200					
M10	M40 ~ M200					
M12	M50 ~ M200					



RAPid Tooling Components (RTC)

RAPid Blocks

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

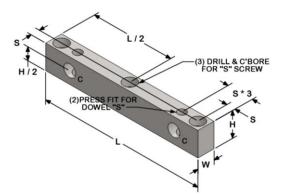


Part number example for ordering a block RB11-250-3

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
M6	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	C	М
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
M6	75 ~ 145	12	24	12	3 300 Stainless
M8	80 ~ 190	16	28	14	
M10	100 ~ 245	20	32	16	
M12	120 ~ 290	24	36	18	

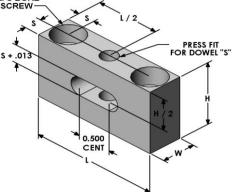


RAPid Tooling Components (RTC)

RAPid Blocks

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

(2) DRILL & C'BORE FOR "S" SCREW-

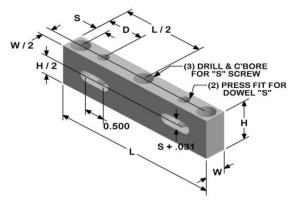


Part number example for ordering a block RB16-250-3

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) S	(Length) L	(Width) W	(Height) H	(Distance) D	(Material) M
250	3000 ~ 6000	500	1000	875	
312	3500 ~ 7500	625	1125	1031	
375	4000 ~ 9000	750	1250	1188	S Mild Steel
500	5000 ~ 12000	1000	1500	1500	A Aluminum
M6	75 ~ 145	12	24	21.75	3 300 Stainless
M8	90 ~ 190	16	28	26.5	
M10	105 ~ 245	20	32	30.75	
M12	120 ~ 290	24	36	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.

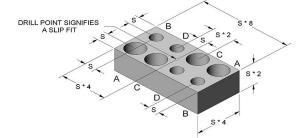




RAPid Tooling Components (RTC)

RAPid Plates

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

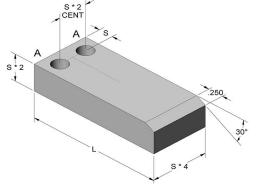


Part number example for ordering a plate RP00-250-2000-NPNPS

Length is (S) Screw * 8

(Screw) S	(Hole) A (2)	(Hole) B (2)	(Hole) C (3)	(Hole) D (3)	(Material) M
250					
312					
375	N C'Bore near side	P Press fit	N C'Bore near side	P Press fit	S Mild Steel
500	D Drill thru	S Slip fit	F C'Bore far side	S Slip fit	A Aluminum
M6	T Tap thru	X No Hole	D Drill thru	X No Hole	3 300 Stainless
M8	X No Hole		T Tap thru		
M10			X No Hole		
M12					

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



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

(Screw) S	(Length) L (1)	(Hole) A	(Material) M
250	1000 ~ 3000		
312	1250 ~ 4000		
375	1500 ~ 5000	D Drill thru	
500	2000 ~ 6500	T Tap thru	S 4140PH DCF *
M6	M25 ~ M70		B Ampco 18
M8	M25 ~ M110		3 300 Stainless
M10	M30 ~ M130		
M12	M35 ~ M150		

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

(2) If hole "A" is an "X", then hole "B" must also be an "X"

(3) If hole "C" is an "X", then hole "D" must also be an "X" $\,$

* Note:

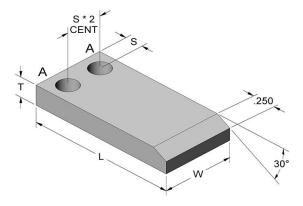
4140 material is supplied from the mills in an oversize condition. The height and width will not be machined to exact size. If an exact finish is required please add -F to the end of the part number and the part will be machined to nominal dimensions.



RAPid Tooling Components (RTC)

RAPid Plates

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



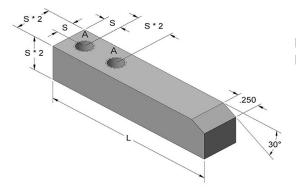
Part number example for ordering a plate RP03-250-1000-DS

(Screw)	(Length)	(Width)	(Thickness)	(Hole)	(Material)
S	L	w	т	Α	М
250	1000 ~ 3000	1000	250		
312	1250 ~ 4000	1250	375		
375	1250 ~ 5000	1500	375		S 4140PH DCF *
500	1500 ~ 6500	2000	500	D Drill thru	
M6	M25 ~ M70	1000	250	T Tap thru	B Ampco 18
M8	M25 ~ M110	1250	375		3 300 Stainless
M10	M30 ~ M130	1500	375		
M12	M35 ~ M150	2000	500		

* Note:

4140 material is supplied from the mills in an oversize condition. The height and width will not be machined to exact size. If an exact finish is required please add -F to the end of the part number and the part will be machined to nominal dimensions.

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



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

(Screw) S	(Length) L	(Hole) A	(Material) M
250	1500 ~ 3000		
312	1750 ~ 4000		
375	2000 ~ 5000		S 4140PH DCF *
500	2500 ~ 6500	D Drill thru	
M6	M35 ~ M70	T Tap thru	B Ampco 18
M8	M45 ~ M110		3 300 Stainless
M10	M50 ~ M130		
M12	M60 ~ M150		

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

Note:

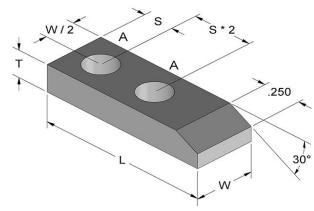
4140 material is supplied from the mills in an oversize condition. The height and width will not be machined to exact size. If an exact finish is required please add -F to the end of the part number and the part will be machined to nominal dimensions.



RAPid Tooling Components (RTC)

RAPid Plates





Part number example for ordering a plate

RP05-250-1500-DS

(Screw) S	(Length)	(Width) W	(Thick) T	(Hole) A	(Material) M
250	 1500 ~ 3000	500"	250	~	141
312	1750 ~ 4000	625"	375	1	
375	2000 ~ 5000	750"	375]	
500	2500 ~ 6500	1000"	500	D Drill thru	S 4140PH DCF *
M6	M35 ~ M70	500"	250	T Tap thru	B Ampco 18 3 300 Stainless
M8	M45 ~ M110	625"	375		3 300 Stainless
M10	M50 ~ M130	750"	375		
M12	M60 ~ M150	1000"	500		

^r Note:

4140 material is supplied from the mills in an oversize condition. The height and width will not be machined to exact size. If an exact finish is required please add -F to the end of the part number and the part will be machined to nominal dimensions.

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

3 - 3



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.

				your Thickne	ss choices are			
Letter	Α	В	С	D	Е	J	К	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	±.003	± .0004	± .005	± .002	± .0015	± .005
		300 series Stainless Steel (could be slightly magnetic)						
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	± .0004	±.00043	± .0006	±.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 Rentapen 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
Jergens
American Drill Bushing
Carr Lane Mfg Co.
Masterline

All American Misumi TE-CO Fixtureworks Fairlane Peerless Tooling Components

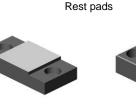
Locating pins

Partial Components list

Flat feet









Jig feet



				your Thickne	ss choices are	Э		
Letter	Α	В	С	D	E	J	К	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	ated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	±.003	± .0004	± .005	± .002	± .0015	± .005
			300 series S	Stainless Steel	(could be slig	ghtly magneti	c)	
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	±.00035	±.0005	± .0006	± .0004	±.00043	±.0006	± .003

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 available

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 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	±.003	± .0004	± .005	± .002	± .0015	± .005
			300 series St	ainless Steel (could be sligh	tly magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	± .0004	±.00043	± .0006	±.003
_								
F		How to orde	er [Prefix] ·	- [Shim numl	ber] - [Thickr	ness]		





			RAPid Too	ling Compor	ents (RTC)		
				hims - Use	-	,		
STYLE 03	How to order	· R[Material		[ID] - [Thickn				
	See below for M				666			
			Metric					
		minimum	maximum	increments				
outside dia.	OD	4mm	292mm	0.1mm		(
inside dia.	ID	2mm	290mm	0.1mm				OD
			Inch					
		minimum	maximum	increments				
outside dia.	OD	3/16"	11.500"	.001"		ID -		
inside dia.	ID	1/16"	11.375"	.001"				
Individual shim r RS03-1000-536	number example -1C		Shim pack num RM03-M30.8-M	ber example 10.5-2A3B2C1D				
] - [W] - [D] ·	 [Thickness] 			
	See below for M	laterial and Thick					ĩ	
			Metric			7400	· .	
		minimum	maximum	increments				
screw size	S	1.6mm	24mm	<u> </u>		7		
length	L	S * 4	292mm	1mm		D		
width	W	<u>S*4</u>	292mm	1mm				
distance	D	S	W - S *	0.1mm				
			Inch	in an arrest of				
oore	0	minimum #C	maximum	increments			Xar	
screw size	S	#6	1"	4/40"		METRIC (S+1mm) INCH (S+1/32")		V w
length	L	S * 4	11.500"	1/16"		110FT (0+1/32)		D
width	W	<u>S*4</u>	11.500"	1/16"				
distance	D	S	W-S *	.001"	l			
	number example		Shim pack num		2015			
RM29-#10-1000 * L ≥ W	-1000-312-1A		RS29-M1.6-M7	5-M50-M10-2A3E	32C1D			
	How to and	D[Mataria]			Thickness	1		
				<u>] - [W] - [D]</u>	- [THICKNESS]			
	See below for M	aterial and Thick	mess choices Metric		1			
		minimum	maximum	inoromonto				
scrow sizo	S			increments				
screw size	5 L	1.6mm S * 4	24mm	1mm		, L		
length width	U L W	S*4 S*4	292mm	1mm		L L		
width	D W	5°4 S	292mm W/2 - S *	1mm		Ť		
distance	U	5	Inch	0.1mm				
		minimum		incromente		$\mathbf{\mathbf{v}}$		
sorow cizo	S	#6	maximum 1"	increments		/		
screw size	L	#6 S * 4	1" 11.500"	1/16"		N N		▼ ↓
length		-				METRIC (S		_ ï
width	W	S * 4	11.500"	1/16"		INCH (S+		
distance	D	S	W/2 - S *	.001"	l			
	number example		Shim pack num	•	20010			
RM30-#10-1000 * L ≥ W	-1000-312-1A		кәзи-м1.6-М7	5-M50-M10-2A3E	2610			
"∟≥vv Material choice	•			1				
		inless steel - pla	in					
S M		•						
		steel - oiled, nor						
Thickness choi		P			-		L.	
Letter	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"
	005"	040"		1010 Full Hard (004"	000"
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	±.002	± .0015	± .005
Actual	005"	010"	300 series	Stainless Steel (075"	y magnetic)	031"	060"

Actual

Tolerance

.005"

±.00024

.010"

±.00035

.020"

±.0005

.042"

± .0006

.075"

±.0004

.015"

±.00043

.060"

± .003

.031"

± .0006



RAPid Tooling Components (RTC)

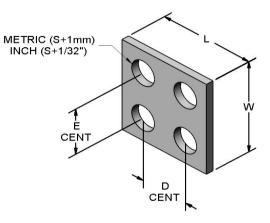
٦

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

			Wethc	
		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	maximum	increments
screw size	S	minimum #6	-	increments
screw size length	S L		maximum	increments 1/16"
	S L W	#6	maximum 1"	
length	L	#6 S * 4	maximum 1" 11.500"	1/16"
length width	L W	#6 S * 4 S * 4	maximum 1" 11.500" 11.500"	1/16" 1/16"



RM32-250-1000-1000-500-500-1A

RS32-M6-M24-M24-M12-M12-2A3B2C1D

	STYLE 33	How to order R[Material]33 - [S] - [L] - [W] - [D] - [E] - [Thi					
		See below for M	_				
			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		
	distance	E	S	W - S	0.1mm		

minimum

#6

S*4

S*2

S * 2

S

Inch

maximum

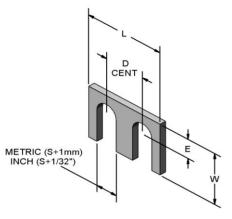
1"

11.500'

11.500"

L - (S * 2)

W - S



Individual shim number example RM33-250-1000-500-500-250-1A

S

L

w

D

Ε

screw size

length

width

distance

distance

Shim pack number example RS33-M6-M24-M12-M12--M6-2A3B2C1D

increments

1/16'

1/16"

0.001"

0.001'

Material cl	hoices
S	 - 300 series stainless steel - plain
м	- 1010 full hard steel - oiled, non plated

hickness choice	es							
Letter	А	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	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	± .0004	±.00043	± .0006	± .003

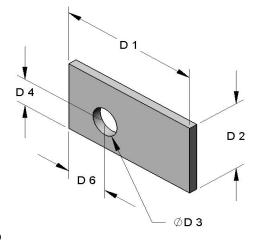


RAPid Tooling Components (RTC)

RAPid Shims - User Defined

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

		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	Minimum of 2	X Shim Stock	0.1			
hole loc.	D4	Thickness Between All Shim		0.1			
hole loc.	D6	Features & Edges		0.1			
			Inch				
		minimum	Inch maximum	increments			
length	D1	minimum Maximum lei	maximum	increments 0.001"			
length width	D1 D2		maximum ngth 11.500"				
Ű.		Maximum ler	maximum ngth 11.500" idth 11.500"	0.001"			
width	D2	Maximum lei Maximum w	maximum ngth 11.500" idth 11.500" X Shim Stock	0.001" 0.001"			

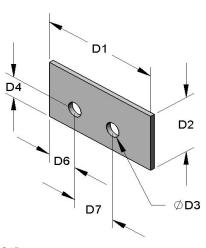


Individual shim number example RM36-1000-750-250-250-250-1A

Shim pack number example RS36-M20-M15-M7-M6-M6-2A3B2C1D

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

	See below for M	Material and Thickness choices					
		Metric					
		minimum	maximum	increments			
length	D1	Maximum length 292mm		0.1			
width	D2	Maximum w	idth 292mm	0.1			
hole size	D3	Minimum of 2	V Shim Stock	0.1			
hole loc.	D4	Minimum of 2X Shim Stock Thickness Between All Shim Features & Edges		0.1			
hole loc.	D6			0.1			
hole loc.	D7	i catales	a Luges	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	Minimum of 2	X Shim Stock	0.001"			
hole loc.	D4		ween All Shim	0.001"			
hole loc.	D6		& Edges	0.001"			
hole loc.	D7	i eatures	a Lugos	0.001"			



Individual shim number example RM37-1500-1000-250-250-250-500-1A Shim pack number example

RS37-M60-M25-M6-M6-M6-M12-2A3B2C1D

Material choices								
S -	300 series sta	ainless steel - plai	'n					
Μ -	1010 full hard	steel - oiled, non	plated					
Thickness choice	es							
Letter	А	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	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	±.0004	±.00043	± .0006	± .003



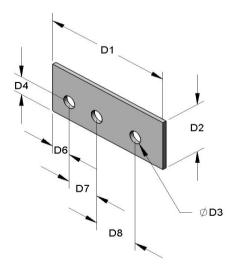
RAPid Tooling Components (RTC)

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

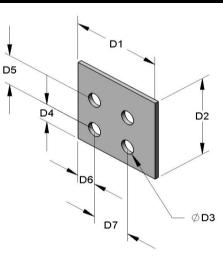
			Metric			
		minimum	maximum	increments		
length	D1	Maximum le	ngth 292mm	0.1		
width	D2	Maximum w	idth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2	X Shim Stock	0.1		
hole loc.	D6	Thickness Bet	ween All Shim	0.1		
hole loc.	D7	Features	& Edges	0.1		
hole loc.	D8			0.1		
		Inch				
			Inch			
		minimum	Inch maximum	increments		
length	D1	minimum Maximum lei	maximum	increments 0.001"		
length width	D1 D2		maximum ngth 11.500"			
9		Maximum le	maximum ngth 11.500"	0.001"		
width	D2	Maximum lei Maximum w	maximum ngth 11.500"	0.001" 0.001"		
width hole size	D2 D3	Maximum lei Maximum w	maximum ngth 11.500" idth 11.500" X Shim Stock	0.001" 0.001" 0.001"		
width hole size hole loc.	D2 D3 D4	Maximum lei Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001" 0.001"		
width hole size hole loc. hole loc.	D2 D3 D4 D6	Maximum ler Maximum w Minimum of 2 Thickness Bet	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001" 0.001" 0.001"		



Individual shim number example RM38-1750-750-250-250-250-500-1A Shim pack number example RS38-M60-M20-M6-M6-M6-M12-M12-2A3B2C1D

STYLE 39 How to order -- R[Material]39 - [D1] - [D2] - [D3] - [D4] - [D5] - [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	Minimum of 2	V Shim Stock	0.1		
hole loc.	D4	Minimum of 2X Shim Stock Thickness Between All Shim Features & 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"			
Ŭ		Maximum lei Maximum w	maximum ngth 11.500" idth 11.500"	0.001"		
width	D2	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock	0.001" 0.001"		
width hole size	D2 D3	Maximum ler Maximum w Minimum of 2 Thickness Bet	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001"		
width hole size hole loc.	D2 D3 D4	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001" 0.001"		



Shim pack number example RM39-1500-1000-250-250-500-250-500-1A

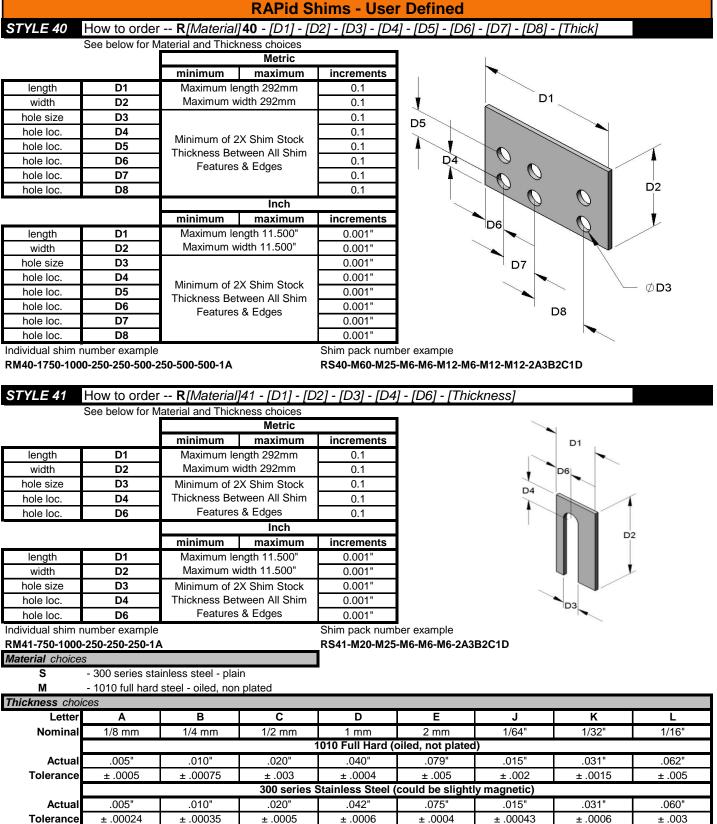
RS39-M60-M25-M6-M6-M12-M6-M12-2A3B2C1D

Material choi	ices						
S	- 300 series s	tainless steel - pla	lin				
м	- 1010 full hai	d steel - oiled, no	n plated				
Thickness c	Thickness choices						
		P	0				

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"
			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	± .0004	± .00043	± .0006	± .003



RAPid Tooling Components (RTC)





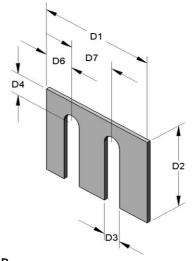
RAPid Tooling Components (RTC)

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 le	ngth 292mm	0.1
width	D2	Maximum w	idth 292mm	0.1
hole size	D3	Minimum of 2	V Chim Ctook	0.1
hole loc.	D4	Minimum of 2X Shim Stock Thickness Between All Shim Features & 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"	
5		Maximum lei Maximum w	maximum ngth 11.500" idth 11.500"	0.001"
width	D2	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock	0.001" 0.001"
width hole size	D2 D3	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001"

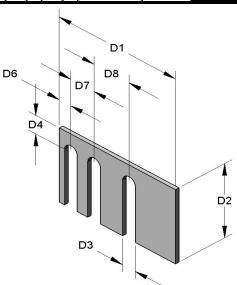


Individual shim number example RM42-1000-750-250-250-250-500-1A

Shim pack number example RS42-M20-M15-M5-M5-M10-2A3B2C1D

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 w	vidth 292mm	0.1		
hole size	D3			0.1		
hole loc.	D4	Minimum of 2	X Shim Stock	0.1		
hole loc.	D6	Thickness Bet	Thickness Between All Shim			
hole loc.	D7	Features & Edges		0.1		
hole loc.	D8			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 2	X Shim Stock	0.001"		
hole loc.	D6	Thickness Bet	ween All Shim	0.001"		
hole loc.	D7	Features	& Edges	0.001"		
hole loc.	D8			0.001"		



Individual shim number example RM43-2000-750-250-250-250-500-500-1A Shim pack number example RS43-M75-M15-M6-M6-M6-M12-M12-2A3B2C1D

Material cl	noices
S	 - 300 series stainless steel - plain
м	- 1010 full hard steel - oiled, non plated
Thickness	choices

Thickness choic	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	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	±.0004	± .00043	± .0006	± .003



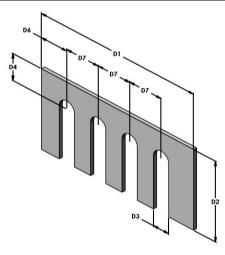
RAPid Tooling Components (RTC)

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 le	ngth 292mm	0.1
width	D2	Maximum w	idth 292mm	0.1
hole size	D3	Minimum of O	V Chim Charle	0.1
hole loc.	D4	Minimum of 2X Shim Stock Thickness Between All Shim Features & 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"	
5		Maximum lei Maximum w	maximum ngth 11.500" idth 11.500"	0.001"
width	D2	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock	0.001" 0.001"
width hole size	D2 D3	Maximum ler Maximum w Minimum of 2	maximum ngth 11.500" idth 11.500" X Shim Stock ween All Shim	0.001" 0.001" 0.001"



Individual shim number example RM44-2500-750-250-250-250-500-1A

Shim pack number example RS44-M75-M15-M6-M6-M6-M12-2A3B2C1D

STYLE 45 How to order -- R[Material]45 - [D1] - [D2] - [D3] - [D4] - [D6] - [D7] - [Thickness] See below for Material and Thickness choices Metric

		Wiethie		
		minimum	maximum	increments
length	D1	Maximum le	ngth 292mm	0.1
width	D2	Maximum w	idth 292mm	0.1
hole size	D3	Minimum of 2	X Shim Stock	0.1
hole loc.	D4		ween All Shim	0.1
hole loc.	D6			0.1
hole loc.	D7	Features & Edges		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	Minimum of 2	X Shim Stock	0.001"
hole loc.	D4		ween All Shim	0.001"
hole loc.	D6		& Edges	0.001"
hole loc.	D7	i catures	a Lagos	0.001"

Dé D4

Individual shim number example RM45-3000-750-250-250-250-500-1A Shim pack number example



Material choices

- S - 300 series stainless steel - plain М
 - 1010 full hard steel oiled, non 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	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	± .0004	±.00043	± .0006	± .003



RAPid Tooling Components (RTC)

RAPid Shims - Screw Defined

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

	See below for M	aterial 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	#6	1"			
length	L	S * 4	11.500"	1/16"		
width	W	S * 4	11.500"	1/16"		

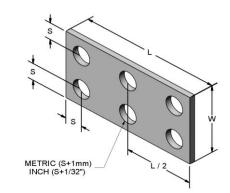
Individual shim number example RM05-250-1000-1000-1A

Shim pack number example RS05-M6-M24-M24-2A3B2C1D

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	maximum	increments			
screw size	S	#0	1"				
length	L	S * 6	11.500"	1/16"			
width	W	S * 4	11.500"	1/16"			
1 12 2 1 1 1 2 2					_		

Individual shim number example RM06-250-1500-1000-1A

Shim pack number example RS06-M6-M50-M24-2A3B2C1D

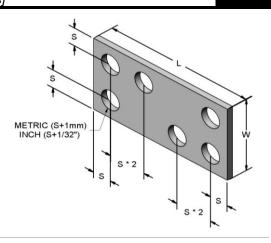


METRIC (S+1mm) INCH (S+1/32")

a second s							
STYLE 07	How to order R[Material]07 - [S] - [L] - [W] - [Thicknes						
	See below for M	aterial and Thicl	kness 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	#6	1"				
length	L	S * 8	11.500"	1/16"			
width	W	S * 4	11.500"	1/16"			
Individual shim	number example		Shim pack num	ber example	-		

RM07-250-2000-1000-1A

RS07-M6-M48-M24-2A3B2C1D



			 -
Material	choices		

- 300 series stainless steel - plain S

- 1010 full hard steel - oiled, non plated М

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"
			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	±.0004	±.00043	± .0006	± .003

S



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

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	#6	1"				
length	L	S * 2	11.500"	1/16"			
width	W	S*2	11.500"	1/16"			

Individual shim	number example		Shim pack num	ber example	
RM13-250-500-	500-1A		RS13-M6-M12-	M12-2A3B2C1D	
STYLE 14	How to order	R[Material] 14 - [S] - [L]	- [W] - [Thickr	iess]
	See below for M	laterial and Thick	ness 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	#6	1"		
length	L	S * 4	11.500"	1/16"	
width	W	S * 2	11.500"	1/16"	

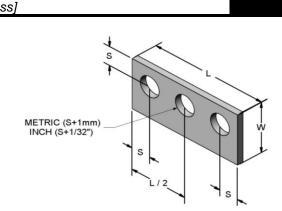
Individual shim number example RM14-250-1000-500-1A

Shim pack number example RS14-M6-M24-M12-2A3B2C1D

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	#6	1"			
length	L	S*6	11.500"	1/16"		
width	W	S * 2	11.500"	1/16"		
Individual shim number example Shim pack number example						

RM15-250-1500-500-1A

RS15-M6-M36-M12-2A3B2C1D



S

L/2

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

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

Material choices S - 300 series stainless steel - plain

- 1010 full hard steel - oiled, non plated М

Thickness choice	es							
Letter	А	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"
E				1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
E			300 series	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	±.0004	± .00043	± .0006	± .003



RAPid Tooling Components (RTC)

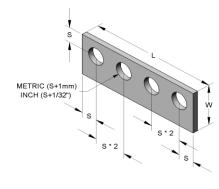
RAPid Shims - Screw Defined

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

	See below for M	laterial and Thick	ness 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	#6	1"	
length	L	S * 8	11.500"	1/16"
width	W	S*2	11 500"	1/16"

Individual shim number example RM16-250-2000-500-1A

Shim pack number example RS16-M8-M64-M16-2A3B2C1D

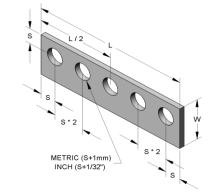


STYLE 17 How to order -- R[Material]17 - [S] - [L] - [W] - [Thickness] See below for Material and Thickness choices Metric

		Metric				
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 10	292mm	1mm		
width	W	S * 2	292mm	1mm		
		Inch				
		minimum	maximum	increments		
screw size	S	#6	1"			
length	L	S * 10	11.500"	1/16"		
width	W	S * 2	11.500"	1/16"		

Individual shim number example RM17-250-2500-500-1A

Shim pack number example RS17-M6-M60-M12-2A3B2C1D



STYLE 23	How to order R[Material]23 - [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	#6	1"					
length	L	S * 2	11.500"	1/16"				
width	W	S * 2	11.500"	1/16"				
Individual shim	number example		Shim pack num	ber example				

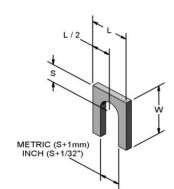
Individual shim number example RM23-250-500-500-1A Shim pack number example RS23-M6-M12-M12-2A3B2C1D

 Material choices

 S
 - 300 series stainless steel - plain

S - 300 series stainless steel - plain
 M - 1010 full hard steel - oiled, non plated

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"	
			1	010 Full Hard (oiled, not plated)			
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"	
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005	
		300 series Stainless Steel (could be slightly magnetic)							
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"	
Tolerance	±.00024	± .00035	± .0005	± .0006	±.0004	±.00043	± .0006	± .003	





RAPid Tooling Components (RTC)

4 - 14

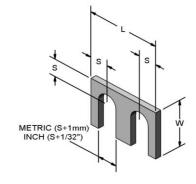
RAPid Shims - Screw Defined

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	maximum	increments			
screw size	S	#6	1"				
length	L	S * 4	11.500"	1/16"			
width	W	S*2	11 500"	1/16"			

Individual shim number example RM24-250-1000-500-1C

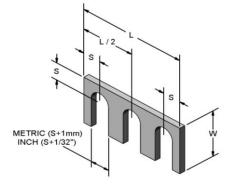
Shim pack number example **RS24-M6-M24-M12-2A3B2C1D**



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	#6	1"				
length	L	S*6	11.500"	1/16"			
width	W	S * 2	11.500"	1/16"			

Individual shim number example RM25-250-1500-1000-1A

Shim pack number example **RS25-M6-M36-M12-2A3B2C1D**



Material choic	es
S	- 300 series stainless steel - plain

M - 1010 full hard steel - oiled, non plated

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"
			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
		300 series Stainless Steel (could be slightly magnetic)						
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	±.0004	±.00043	± .0006	± .003



RAPid Tooling Components (RTC)

4 - 15

RAPid Shims - Screw Defined

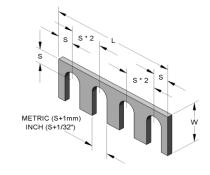
STYLE 26 How to order -- R[Material]26 - [S] - [L] - [W] - [Thickness]

See below for M	laterial 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 #6	-	increments			
screw size length	S L		maximum	increments 1/16"			

Individual shim number example RM26-250-2000-500-1A

Shim pack number example RS26-M6-M48-M12-2A3B2C1D

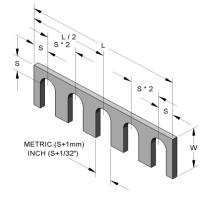


STYLE 27	How to order	How to order R [Material] 27 - [S] - [L] - [W] - [Thicknes				
	See below for M	laterial and Thick	ness choices		-	
			Metric			
		minimum	maximum	increments		
screw size	S	1.6mm	24mm			
length	L	S * 10	292mm	1mm		
width	W	S * 2	292mm	1mm		
			Inch			
		minimum	maximum	increments		
screw size	S	#6	1"			
length	L	S * 10	11.500"	1/16"		
width	W	S * 2	11.500"	1/16"		

Individual shim number example RM27-250-2500-500-1A

Shim pack number example





Material cho	ices
S	- 300 series stainless steel - plain

				•	
м	- 1010	full hard :	steel - c	oiled, nor	n plated

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"
			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
		300 series Stainless Steel (could be slightly magnetic)						
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	± .0004	±.00043	± .0006	± .003



RAPid Tooling Components (RTC)

4 - 16

RAPid Shims - Width Defined

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

	See below for M	laterial and Thick	ness 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	#6	1"	
length	L	S * 2	11.500"	1/16"
width	W	S * 2	11.500"	1/16"

Individual shim number example RM08-250-500-500-1A

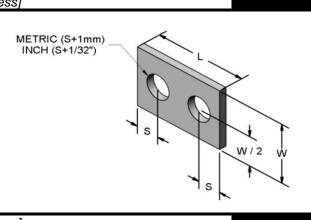
Shim pack number example **RS08-M6-M12-M12-2A3B2C1D**

STYLE 09 How to order -- **R**[*Material*]**09** - [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	#6	1"				
length	L	S * 4	11.500"	1/16"			
width	W	S * 2	11.500"	1/16"			

Individual shim number example RM09-250-1000-500-1A

Shim pack number example **RS09-M6-M24-M12-2A3B2C1D**



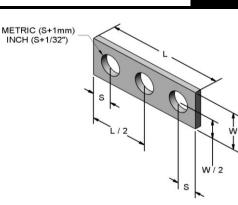
METRIC (S+1mm) INCH (S+1/32")

2

STYLE 10	How to order	R[Material	1 10 - [S] - [L] -	- [W] - [Thickn	iessl
		laterial and Thick			
			Metric		1
		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	#6	1"		
length	L	S * 6	11.500"	1/16"	
width	W	S * 2	11.500"	1/16"	
Individual shim	number example		Shim pack numl	ber example	•

RM10-250-1500-500-1A

Shim pack number example RS10-M6-M36-M12-2A3B2C1D



 Material choices

 S
 - 300 series stainless steel - plain

M - 1010 full hard steel - oiled, non plated

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"
			1	010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
			300 series S	Stainless Steel (could be slightl	y magnetic)		
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	±.00024	± .00035	± .0005	± .0006	±.0004	± .00043	± .0006	± .003



4 - 17

				lina Compoi	nents (RTC)
				nims - Widt	
STYLE 11	low to order	R[Material		- [W] - [Thickı	
		aterial and Thick			METRIC (S+1mm)
			Metric		INCH (S+1/32")
		minimum	maximum	increments	
screw size	S	1.6mm	24mm		
length	L	S * 8	292mm	1mm	
width	W	S * 2	292mm	1mm	
			Inch		s o o
		minimum	maximum	increments	
screw size	S	#0	1"		S*2
length	L	S * 8	11.500"	1/16"	
width	W	S * 2	11.500"	1/16"	s w/2
ndividual shim nu 11-250-2000-5	•		Shim pack num RS11-M6-M48-	ber example M12-2A3B2C1D	s·2
STYLE 12	low to order	R[Material	1 12 - [S] - [[]	- [W] - [Thickı	nessi
		aterial and Thick		[
			Metric		
		minimum	maximum	increments	
screw size	S	1.6mm	24mm		
length	L	S * 10	292mm	1mm	
width	w	S*2	292mm	1mm	s
		<u> </u>	Inch		
		minimum	maximum	increments	s*2
screw size	S	#6	1"		
length	L	S * 10	11.500"	1/16"	L/2 W
width	W	S * 2	11.500"	1/16"	
ndividual shim nu	Imber example		Shim pack num	ber example	METRIC (S+1mm) INCH (S+1/32") S*2 S W/2
RM12-250-2500-5	500-1A		RS12-M6-M60-	M12-2A3B2C1D	
					×.
				- [W] - [Thickı	ness]
5	see below for M	aterial and Thick	mess choices Metric		1
			-	incromonto	METRIC (S+1mm)
	0	minimum	maximum	increments	INCH (S+1/32")
screw size	S	1.6mm	24mm	1.000	
length	L W	S * 2 S * 2	292mm	1mm	
width	VV	52	290mm	1mm	
			Inch	in an an an ta	W/2
	0	minimum	maximum 1"	increments	
screw size	<u>S</u>	#6	-	1/16"	
length	L W	S*2	11.500"	1/16"	
width		S * 2	11.500"	1/16"	L/2
ndividual shim nu	•		Shim pack num	•	
M18-250-500-50	JU-1A		KS18-M6-M12-	M12-2A3B2C1D	· •
				_	
Intorial chainse					
	300 corico oto	inless stock also	in		
S -		inless steel - pla		1	
S - M -	1010 full hard	inless steel - pla steel - oiled, nor			
S - M - Fhickness choice	· 1010 full hard es	steel - oiled, nor	plated		
S M - - - - - - - - - - - - - - - - - -	• 1010 full hard es A	steel - oiled, nor B	plated	D	E J K L
S - M - Fhickness choice	· 1010 full hard es	steel - oiled, nor	plated C 1/2 mm	1 mm	2 mm 1/64" 1/32" 1/16"
S - M - Thickness choice Letter Nominal	- 1010 full hard es A 1/8 mm	steel - oiled, nor B 1/4 mm	c 1/2 mm	1 mm 1010 Full Hard (2 mm 1/64" 1/32" 1/16" (oiled, not plated)
M <i>hickness choice</i> Letter Nominal Actual	- 1010 full hard es A 1/8 mm .005"	steel - oiled, nor B 1/4 mm .010"	C 1/2 mm .020"	1 mm 1 010 Full Hard (.040"	2 mm 1/64" 1/32" 1/16" (oiled, not plated) .079" .015" .031" .062"
S - M - Thickness choice Letter Nominal	- 1010 full hard es A 1/8 mm	steel - oiled, nor B 1/4 mm	C 1/2 mm .020" ± .003	1 mm 1 010 Full Hard (.040" ± .0004	2 mm 1/64" 1/32" 1/16" (oiled, not plated) .079" .015" .031" .062" ± .005 ± .002 ± .0015 ± .005
S - M - <u>Thickness choice</u> Letter Nominal Actual Tolerance	- 1010 full hard es A 1/8 mm .005" ± .0005	steel - oiled, nor B 1/4 mm .010" ± .00075	C 1/2 mm .020" ± .003 300 series	1 mm 1010 Full Hard (.040" ± .0004 Stainless Steel	2 mm 1/64" 1/32" 1/16" (oiled, not plated) .079" .015" .031" .062" ± .005 ± .002 ± .0015 ± .005 (could be slightly magnetic) .015" .015 1.005
S - M - Thickness choice Letter Nominal Actual	- 1010 full hard es A 1/8 mm .005"	steel - oiled, nor B 1/4 mm .010"	C 1/2 mm .020" ± .003	1 mm 1 010 Full Hard (.040" ± .0004	2 mm 1/64" 1/32" 1/16" (oiled, not plated) .079" .015" .031" .062" ± .005 ± .002 ± .0015 ± .005



RAPid Tooling Components (RTC)

RAPid Shims - Width Defined

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

See below for N	Aaterial 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 #6	maximum 1"	increments
screw size length	S L			increments 1/16"

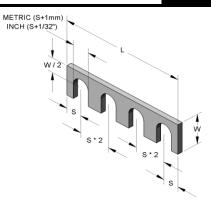
Individual shim number example RM19-250-1000-500-1A

Shim pack number example RS19-M6-M24-M12-2A3B2C1D

STYLE 20	How to order R[Material]20 - [S] - [L] - [W] - [Thickness]					
	See below for M	laterial and Thick	ness 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	maximum	increments		
screw size	S	#6	1"			
length	L	S * 6	11.500"	1/16"		
width	W	S * 2	11.500"	1/16"		
Locally Astronomy in the Second	and the second s		01.1	h a n a constant a	-	

Individual shim RM20-250-150	number example 0-500-1A	Shim pack number example RS20-M6-M36-M12-2A3B2C1D			
STYLE 21	How to order	· R [Material] 21 - [S] - [L]	- [W] - [Thickr	iess
	See below for N	laterial and Thick	ness 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	#6	1"		
length	L	S * 8	11.500"	1/16"	

S * 2



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

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

M

Individual shim number example

RM21-250-2000-500-1A

width

Shim pack number example RS21-M6-M48-M12-2A3B2C1D

11.500"

Material choices S - 300 series stainless steel - plain

W

- 1010 full hard steel - oiled, non plated Μ

Thickness choice	es							
Letter	А	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"
E			1	1010 Full Hard (oiled, not plated)		
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
E	300 series Stainless Steel (could be slightly magnetic)							
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	±.0004	± .00043	± .0006	± .003

1/16"





RAPid Tooling Components (RTC)

RAPid Shims - Width Defined

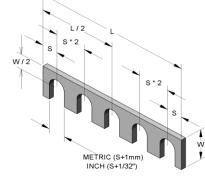
STYLE 22 How to order -- R[Material]22 - [S] - [L] - [W] - [Thickness] See below for Material and Thickness choices Metric minimum maximum

		minimum	maximum	Increments
screw size	S	1.6mm	24mm	
length	L	S * 10	292mm	1mm
width	W	S * 2	292mm	1mm
			Inch	
			Inen	
		minimum	maximum	increments
screw size	S	minimum #6	_	increments
screw size length	S L		maximum	increments 1/16"

Individual shim number example RM22-250-2500-500-1A

STYLE 34

Shim pack number example **RS22-M6-M60-M12-2A3B2C1D**



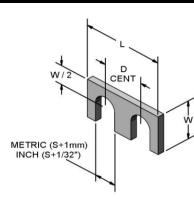
How to order R[Material]34 - [S] - [L] - [W] - [D] - [Thickness]							
	How to order	R[Material]3	4 - [S] - [[L] - [W] -	[D] -	[Thickness]	ſ

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	292mm	1mm		
distance	D	S * 2	L - (S * 2)	0.1mm		
		Inch				
			Inch			
		minimum	Inch maximum	increments		
screw size	S	minimum #6	-	increments		
screw size length	S L		maximum	increments 1/16"		
	S L W	#6	maximum 1"			
length	L	#6 S * 4	maximum 1" 11.500"	1/16"		

Individual shim number example RM34-250-1000-500-500-1A

RS34-M6-M24-M12-M12-2A3B2C1D

STYLE 35	How to order R[Material]35 - [S] - [L] - [W] - [D] - [Thickness						
	See below for M	laterial and Thick	ness 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				
			IIICII				
		minimum	maximum	increments			
screw size	S	minimum #6	-	increments			
screw size length	S L		maximum	increments 1/16"			
	S L W	#6	maximum 1"				
length	L	#6 S * 4	maximum 1" 11.500"	1/16"			



D CENT

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

RM35-250-1000-500-500-1A

RS35-M6-M24-M12-M12-2A3B2C1D

Material choices

S - 300 series stainless steel - plain

M - 1010 full hard steel - oiled, non plated

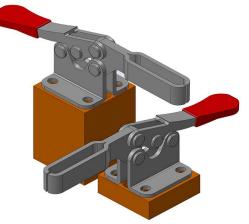
Thickness choice	es							
Letter	А	В	С	D	E	J	K	L
Nominal	1/8 mm	1/4 mm	1/2 mm	1 mm	2 mm	1/64"	1/32"	1/16"
	1010 Full Hard (oiled, not plated)							
Actual	.005"	.010"	.020"	.040"	.079"	.015"	.031"	.062"
Tolerance	± .0005	± .00075	± .003	± .0004	± .005	± .002	± .0015	± .005
	300 series Stainless Steel (could be slightly magnetic)							
Actual	.005"	.010"	.020"	.042"	.075"	.015"	.031"	.060"
Tolerance	± .00024	± .00035	± .0005	± .0006	±.0004	±.00043	± .0006	± .003



RAPid Tooling Components (RTC)

RAPid Risers

How to order -- RR00 - Pre-defined - [H] - [C] - [M]



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

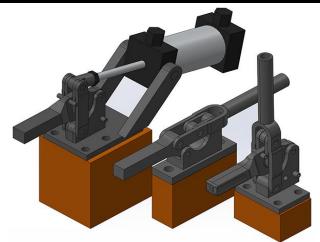
Part number example for ordering a riser:

Carr-Lane:
De-Sta-Co:
Essentra Comp:
TE-CO:
All-American:
Jergens:

RR00-312-4000-003-S RR00-312-3000-015-A RR00-312-250-011-3 RR00-375-1000-007-S RR00-250-1000-004-A RR00-312-2500-019-3

(Clamp Vendor)	(Height)	(Clamp Model)	(Material)
	H	C	M
Carr-Lane De-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

How to order -- **RR01** - [C] - [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)	(Wolverine Model) C	(De-Sta-C0 Model) C	(Height) H	(Material) M
	A-1905	*		
	A-1910	*		S 1018 CRS
Wolverine	A-1915		Minimum = 0.250"	A Aluminum
	C-305A	5305	Maximum = 4.000"	3 300 Stainless
De-Sta-Co	C-310A	5310		
	CQ-905A	5905		
	CQ-910A	5910		
	CQ-915A	5915		
		5131		



RAPid Tooling Components (RTC)

RAPid Risers

r Carr Lane	Use this riser	for De-Sta-Co	Use this riser	for TE-CO	Use this riser	for Jergens	Use this riser
000-PTC	RR00-312-xxx-003	201	RR00-312-xxx-011	34010	RR00-312-xxx-015	70210	RR00-250-xxx
1000-VCC	RR00-375-xxx-009	202	RR00-312-xxx-015	34012	RR00-312-xxx-015	70230	RR00-250-xxx
1001-PTC	RR00-312-xxx-003	205	RR00-250-xxx-004	34020	RR00-312-xxx-003	70240	RR00-312-xx
-100-HVTC	RR00-312-xxx-001	206	RR00-250-xxx-004	34022	RR00-312-xxx-003	70250	RR00-312-xx
-100-PC	RR00-312-xxx-012	207	RR00-312-xxx-003	34023	RR00-312-xxx-003	70260	RR00-250-xx
L-100-SPC	RR00-375-xxx-003	210	RR00-375-xxx-007	34025	RR00-312-xxx-003	70262	RR00-312-xx
L-101-TC	RR00-312-xxx-015	213	RR00-250-xxx-005	34030	RR00-375-xxx-007	70264	RR00-375-xx
L-103-TC	RR00-312-xxx-015	215	RR00-312-xxx-016	34035	RR00-375-xxx-007	70270	RR00-375-xx
L-103-10	RR00-312-xxx-015	213	RR00-312-xxx-018	34033	RR00-375-xxx-007	70280	RR00-250-xx
L-113-TC	RR00-312-xxx-015	217	RR00-312-xxx-010	34040	RR00-375-xxx-007	70280	RR00-250-33
L-11-TC	RR00-250-xxx-004	225	RR00-312-xxx-006	34069	RR00-250-xxx-004	70320	RR00-312-xx
L-1500-PPC	RR00-375-xxx-010	227	RR00-312-xxx-008	34081	RR00-312-xxx-020	70330	RR00-312-xx
L-150-HTC	RR00-250-xxx-004	229	RR00-375-xxx-001	34087	RR00-375-xxx-006	70340	RR00-312-xx
L-150-SPC	RR00-312-xxx-023	235	RR00-375-xxx-010	34101	RR00-250-xxx-006	70342	RR00-312-xxx
L-150-VTC	RR00-312-xxx-011	237	RR00-375-xxx-011	34105	RR00-250-xxx-006	70350	RR00-312-xxx
151-TC	RR00-312-xxx-014	240	RR00-375-xxx-013	34110	RR00-312-xxx-009	70360	RR00-312-xx
152-VTC	RR00-312-xxx-011	245	RR00-375-xxx-014	34120	RR00-312-xxx-006	70365	RR00-312-xx
-2000-PTC	RR00-375-xxx-007	247	RR00-375-xxx-007	34130	RR00-375-xxx-015	70380	RR00-312-xxx
-2001-PTC	RR00-375-xxx-007	305	RR00-250-xxx-004	34305	RR00-250-xxx-006	70390	RR00-312-xx
-200-PC	RR00-375-xxx-010	307	RR00-312-xxx-005	34310	RR00-312-xxx-023	70395	RR00-312-xxx
-200-VTC	RR00-250-xxx-010	309	RR00-375-xxx-008	34320	RR00-375-xxx-010	70420	RR00-375-xx
L-201-TC	RR00-312-xxx-004	516	RR00-312-xxx-007	34325	RR00-375-xxx-010	70420	RR00-375-XX
L-203-TC	RR00-312-xxx-003	518	RR00-312-xxx-006	34340	RR00-312-xxx-012	70440	RR00-375-xx)
L-211-TC	RR00-312-xxx-003	601	RR00-250-xxx-006	34350	RR00-375-xxx-010	70450	RR00-375-xxx
L-213-TC	RR00-312-xxx-003	603	RR00-312-xxx-013	34360	RR00-375-xxx-012	70460	RR00-375-xxx
L-21-TC	RR00-312-xxx-020	605	RR00-312-xxx-023	I		70470	RR00-375-xxx
L-250-HTC	RR00-250-xxx-004	608	RR00-375-xxx-010	for All American	Use this riser	70810	RR00-312-xxx
L-250-SPC	RR00-375-xxx-010	610	RR00-375-xxx-010	80-010	RR00-250-xxx-004	70818	RR00-250-xxx
L-250-VTC	RR00-312-xxx-015	615	RR00-312-xxx-023	80-012	RR00-250-xxx-004	70820	RR00-312-xxx
251-TC	RR00-312-xxx-002	620	RR00-375-xxx-010	80-020	RR00-312-xxx-016	70830	RR00-375-xxx
L-252-VTC	RR00-312-xxx-015	802	RR00-312-xxx-015	80-030	RR00-312-xxx-006	70840	RR00-375-xxx
L-253-VTC	RR00-312-xxx-015	803	RR00-312-xxx-013	80-040	RR00-375-xxx-010	70850	RR00-375-xxx
L-255-SPC	RR00-375-xxx-010	807	RR00-312-xxx-003	80-100	RR00-312-xxx-011	72160	RR00-312-xxx
L-260-HTC	RR00-250-xxx-010	810	RR00-375-xxx-003	80-102	RR00-312-xxx-011	72160	RR00-312-xx
L-200-HTC L-275-SPC	RR00-250-222-002	810	RR00-312-xxx-011	80-102	RR00-250-xxx-004		
						72162	RR00-375-xxx
L-285-SPC	RR00-375-xxx-010	816	RR00-250-xxx-006	80-110	RR00-312-xxx-015	-	
L-300-HTC	RR00-312-xxx-016	6001	RR00-250-xxx-003	80-112	RR00-312-xxx-015	4	
L-300-HVTC	RR00-375-xxx-002			80-121	RR00-312-xxx-003		
L-300-PC	RR00-375-xxx-012	for Essentra	Use this riser	80-123	RR00-312-xxx-003		
L-301-TC	RR00-375-xxx-006	TC-201	RR00-312-xxx-011	80-125	RR00-312-xxx-003		
L-303-TC	RR00-375-xxx-006	TC-202	RR00-312-xxx-015	80-127	RR00-312-xxx-003	1	
L-311-TC	RR00-375-xxx-006	TC-205	RR00-250-xxx-004	80-132	RR00-375-xxx-007	1	
313-TC	RR00-375-xxx-006	TC-206	RR00-250-xxx-004	80-133	RR00-375-xxx-007	1	
L-350-HTC	RR00-312-xxx-016	TC-207	RR00-312-xxx-003	80-140	RR00-375-xxx-007	1	
L-350-VTC	RR00-312-xxx-003	TC-210	RR00-375-xxx-007	80-141	RR00-375-xxx-007	1	
L-351-TC	RR00-375-xxx-003	TC-213	RR00-250-xxx-005	80-202	RR00-250-xxx-006	1	
L-352-VTC	RR00-312-xxx-004	TC-215	RR00-312-xxx-016	80-210	RR00-312-xxx-021	4	
			RR00-312-xxx-018		RR00-375-xxx-010	4	
L-353-VTC	RR00-312-xxx-003	TC-217		80-220		4	
400-PTC	RR00-312-xxx-011	TC-225	RR00-312-xxx-006	80-230	RR00-312-xxx-023	4	
-450-HTC	RR00-312-xxx-006	TC-227	RR00-312-xxx-008	80-240	RR00-375-xxx-010	J	
450-VTC	RR00-312-xxx-003	TC-229	RR00-375-xxx-001	J			
452-VTC	RR00-312-xxx-003	TC-247	RR00-375-xxx-007				
453-VTC	RR00-312-xxx-003	TC-305	RR00-250-xxx-004]			
L-500-PTC	RR00-312-xxx-015	TC-518	RR00-312-xxx-006				
50-SPC	RR00-250-xxx-006	TC-601	RR00-250-xxx-006				
L-51-SPC	RR00-250-xxx-006	TC-603	RR00-312-xxx-013				
-51-TC	RR00-250-xxx-004	TC-6001	RR00-250-xxx-003				
53-TC	RR00-250-xxx-004			1 1022			
		-					
-550-AHTC	RR00-375-xxx-005						
-550-HTC	RR00-375-xxx-010	_					
-550-VTC	RR00-375-xxx-007	4					
-552-VTC	RR00-375-xxx-007						
-600-HTC	RR00-375-xxx-014						
600-PPC	RR00-250-xxx-006						
-600-VTC	RR00-312-xxx-010						
-650-ATC	RR00-375-xxx-010	-					
		-					
650-HTC	RR00-375-xxx-014	-					
-650-VTC	RR00-375-xxx-007	_					
	RR00-375-xxx-007						
L-652-VTC L-750-VTC L-850-VTC	RR00-375-xxx-007 RR00-375-xxx-007						



RAPid Tooling Components (RTC)

RAPid Risers

	RTC Number	Α	В	Width	Length	Тар
Clamp direction relative	RR00-250-xxx-001	1.000	1/4	1.500	1.500	#10-24
to the riser.	RR00-250-xxx-002	1.000	1/4	1.500	1.500	#10-24
	RR00-250-xxx-003	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
WIDTH	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
WIDTH / 2	RR00-312-xxx-002	0.875	5/16	1.500	1.500	1/4-20
	RR00-312-xxx-003	1.375	5/16	2.000	2.000	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
A	RR00-312-xxx-007	1.375	5/16	2.000	2.000	1/4-20
CENT	RR00-312-xxx-008	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
DRILL THRU & C'BORE	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
HEIGHT	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
Replace XXX with height desired	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
minimum .250" maximum 4.000"	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

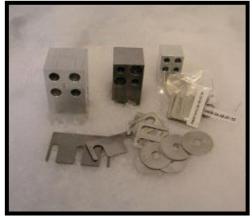
RR00-250-1500-006 1.5" tall riser for a Carr Lane CL-51-SPC clamp



RAPid Tooling Components (RTC)

The RTC Story

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 plus 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 - \$120 block can be bought for about \$30 - \$60. 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 Components™** in their designs when possible. They see clearly that **RAPid Tooling Components™** save time, money, and reduce errors.

RAPID TRUNNIONS A Quick & Easy Solution For Mounting Your Weld or Assembly Fixtures.

FEATURES:

Portability - Casters allow for easy movement over most shop floor obstacles and both head and tailstock can be moved to position independently.

Safety - Positive locking system on headstock (tailstock Optional) prevents accidental or unwanted rotation.

Reliability - Industrial quality gearbox, heavy duty bearings and casters for years of service.

Convenience - 360° rotation allows for optimum part orientation. Double sided gearbox allows for reposition of han crank.

Customizable - Choose from several available gear ratios, heights, and caster sizes. Even supply drawings for your own custom mounting or designs. Hydraulic and pneumatic motor options available on request.

