## rafasvs Direct Manufacturing

#### **Technology Comparison**

	FDM	SLS	MJF	SAF	PJ	SLA	Origin P3
Maximum Build Size	Large Print Size 36" x 24" x 36"	Large Print Size 26" x 13.5" x 20"	Mid Print Size 14.95" x 11.25" x 14.95"	Mid Print Size 12.2" x 8.1" x 12.4"	Mid Print Size 19.3" x 15.4" x 7.9"	Large Print Size 25" x 29" x 21"	Small Print Size 7.5" x 4.25" x 14.5
Ideal Part Size	All	Mid-Large size	Small-Mid size	Small-Mid	Small- Mid size	Mid to large size	Small
Segmentation & Bonding	Yes	Yes				Yes	
Material highlights	Engineering grade materials (FR, HDT, ESD, etc)	Engineering grade materials (FR, HDT, ESD, etc)	<ul><li>High Impact &amp; Strength</li><li>Chemical resistance</li></ul>	<ul> <li>High Impact &amp; Strength</li> <li>Chemical Resistance</li> <li>Ecofriendly</li> </ul>	<ul><li>Multi-Color</li><li>Multi-Material</li><li>Clear/Transparent</li><li>Elastomer</li></ul>	<ul><li>Clear/Transparent</li><li>High Strength</li><li>Watertight</li></ul>	Engineering grade materials (HDT, ESD, elastomer, etc.)
Fine features (Min Feature size)	0.032"	0.040"	0.030"	0.030"	0.020"	0.030"	0.020"
Smooth finish Surface Roughness less than 3µm	Requires post processing ~22.5µm	Requires post processing ~8µm	Requires post processing ~10-12µm	Requires post processing ~10-12µm	Yes 2.1μm	Yes ∼1.5µm	Yes ∼1.22µm
Minimum Lead Time				3 Days		5 Days	
Average Lead time (Varies by size for quantities less than 100 with no additional post processing or requirements)	3-9 Days	3-6 Days	3-5 Days	3-5 Days	3-12 Days	3-5 Days	3-10 Days

# Stratasys Direct Manufacturing

#### Lead Time comparison by size

~ 3 Days

~5-10 Days

> 10 Days

			FDM	SLS	MJF	SAF	PJ	SLA	Origin
			Large Bed 36" x 24" x 36"	Large Bed 26" x 13.5" x 20"	Mid Size Bed 14.95" x 11.25" x 14.95"	Mid Size Bed 12.2" x 8.1" x 12.4"	Mid Size Bed 19.3" x 15.4" x 7.9"	Large Bed 25" x 29" x 21"	Small Bed 7.5" x  4.25" x 14.5
	Small components 1"x 1" x 1"	Quantities 1							
		Quantities 10							
		Quantities 50							
		Quantities 1000							
(0)	Mid Size 1.45 x 3.74 x 6.21"	Quantities 1							
		Quantities 10							
		Quantities 50							
		Quantities 1000							
	Large Size 10.37 x 3.78x 10.55"	Quantities 1							
		Quantities 10							
		Quantities 50							
		Quantities 1000							

#### Cost per part comparison by size

<\$80 <\$160 >\$170

				FDM	SLS	MJF	SAF	PJ	SLA	Origin
				Large Bed 36" x 24" x 36"	Large Bed 26" x 13.5" x 20"	Mid Size Bed 14.95" x 11.25" x 14.95"	Mid Size Bed 12.2" x 8.1" x 12.4"	Mid Size Bed 19.3" x 15.4" x 7.9"	Large Bed 25" x 29" x 21"	Small Bed 7.5" x  4.25" x 14.5
		Small components 1"x 1" x 1"	Quantities 1	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$\$
			Quantities >10	\$	\$	\$	\$	\$	\$	\$
L			Quantities >1000	\$	\$	\$	\$	\$	\$	\$
Γ		Mid Size 1.45 x 3.74 x 6.21"	Quantities 1	\$	\$	\$\$	\$\$	\$\$\$	\$\$	\$\$
			Quantities >10	\$	\$	\$	\$	\$\$	\$	
+			Quantities >1000	\$	\$	\$	\$	\$\$	\$	
+ + + + + + + + + + + + + + + + + + + +		Large Size 10.37 x 3.78x 10.55"	Quantities 1	\$\$\$	\$\$	\$\$	\$\$	\$\$\$	\$\$	
			Quantities >10	\$\$	\$\$				\$	
			Quantities >1000	\$\$\$	\$\$				\$	

### ratasys Direct Manufacturing

### At Stratasys Direct, we believe quality is essential part of production which is why we offer the following services:

	Inspection	Testing	Reporting	Certifications	<b>Quality Control</b>
•	Six Point Standard  Inspect per Drawing w/ no report  Inspect per Drawing w/ report  Customer Source Inspection	<ul> <li>Tensile Test</li> <li>Flexural Test</li> <li>Compression Test</li> <li>Density Verification</li> <li>Microstructure Verification</li> <li>Shore Hardness Test</li> <li>Surface Roughness Test</li> <li>Custom Testing (Roeing.)</li> </ul>	<ul> <li>SDM First Article         Inspection Report     </li> <li>AS9102 First Article         Inspection Report     </li> <li>Customer FAI</li> </ul>	<ul> <li>Certificate of Conformance*</li> <li>Certificate of Analysis*</li> <li>Material Certification</li> <li>ReaCH*</li> <li>RoHS*</li> <li>*Additional charges may occur if customized</li> </ul>	<ul> <li>Bag and Tag</li> <li>In Process Inspection</li> </ul>
		<ul> <li>Custom Testing (Boeing)</li> </ul>			