Xometry

MANUFACTURING TECHNOLOGY SELECTION GUIDE

		Subtractive		3D Printing							Tooled			
		CNC Machining	Sheet Metal Fabrication	FDM	MJF	SLA	SLS	Carbon DLS	DMLS	Polyjet	Injection Moulding	Die Casting	Vacuum Casting	Compression Molding
	Quantity range	1-10,000	1-10,000	1-10,000	1-1,000	1-100	1-1,000	1-1,000	1-100	1-100	500-1,000,000	500-1,000,000	1-20	1 - 10,000
	Manufacturing from (days)	15	15	8	3	7	3	5	14	7	10-20	10-20	10-20	10-20
Applications	Prototyping	★★☆	★★☆	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★☆☆	★☆☆	★★★	★☆☆
Applications	Jigs, fixtures & tooling	★★★	★☆☆	★★★	★★☆	★★★	★★☆	★★☆	★★★	★★★	★☆☆	★☆☆	★☆☆	★☆☆
Applications	End-use products	★★★	★★★	★★☆	★★★	★★☆	★★★	★★★	★★★	★★★	★★★	★★★	★★☆	★★★
Materials	Selection of metals	★★★	★★☆	—	—	—	—	—	★☆☆	—	—	★★☆	—	—
Materials	Selection of plastics	★★★	—	★★☆	★☆☆	★★★	★☆☆	★★☆	—	★☆☆	★★★	—	★★☆	★☆☆
Manufacturing considerations	Complex geometry	★★☆	★☆☆	★★☆	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★☆☆
Manufacturing considerations	Quantity discount	★★★	★★☆	★☆☆	★★★	★★☆	★★☆	★★★	★★☆	★★☆	★★★	★★★	★☆☆	★★☆
Manufacturing considerations	Easily scalable	★★★	★★☆	★☆☆	★★★	★★★	★★★	★★★	★★☆	★★☆	★★★	★★★	★☆☆	★★☆
Manufacturing considerations	Precision tolerance	★★★	★★☆	★★☆	★★☆	★★★	★★☆	★★★	★★★	★★★	★★☆	★★☆	★☆☆	★☆☆
Manufacturing considerations	Good for fine details	★★☆	★★☆	★☆☆	★★☆	★★★	★★☆	★★★	★★★	★★★	★★★	★★★	★★☆	★☆☆
Manufacturing considerations	Good for large parts	★★★	★★★	★★★	★★☆	★★☆	★★☆	—	★★☆	★★★	★★★	★★★	★★☆	★☆☆
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★☆☆ - Good ★★☆ - Better ★★★ - Best

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