

SHAPES AND SOME COMMON METHODS OF PRODUCTION

Shape or feature	Production method
<i>Flat surfaces</i>	Rolling, planing, broaching, milling, shaping, grinding
<i>Parts with cavities</i>	End milling, electrical-discharge machining, electrochemical machining, ultrasonic machining, casting
<i>Parts with sharp features</i>	Permanent-mold casting, machining, grinding, fabricating, powder metallurgy
<i>Thin hollow shapes</i>	Slush casting, electroforming, fabricating
<i>Tubular shapes</i>	Extrusion, drawing, roll forming, spinning, centrifugal casting
<i>Tubular parts</i>	Rubber forming, expanding with hydraulic pressure, explosive forming, spinning
<i>Curvature on thin sheets</i>	Stretch forming, peen forming, fabricating, assembly
<i>Openings in thin sheets</i>	Blanking, chemical blanking, photochemical blanking
<i>Cross-sections</i>	Drawing, extrusion, shaving, turning, centerless grinding
<i>Square edges</i>	Fine blanking, machining, shaving, belt grinding
<i>Small holes</i>	Laser, electrical-discharge machining, electrochemical machining
<i>Surface textures</i>	Knurling, wire brushing, grinding, belt grinding, shot blasting, etching, deposition, laser texturing
<i>Detailed surface features</i>	Coining, investment casting, permanent-mold casting, machining
<i>Threaded parts</i>	Thread cutting, thread rolling, thread grinding, chasing
<i>Very large parts</i>	Casting, forging, fabricating, assembly
<i>Very small parts</i>	Investment casting, machining, etching, powder metallurgy, nanofabrication, LIGA, micromachining