



POLYTRONIX MACHINING & FABRICATION

Quality is Not the Goal, It's the Expectation!

www.poly-pmf.com

Polytronix Machining & Fabrication is headquartered in Richardson, TX, and has over 40 years of machining experience.

We maintain ISO9001:2015, AS9100D and ITAR certifications. Our shop is best known for our QPL7788 edge-lit panels, F-16 and H-60 aircraft parts, aircraft seats, and military products.

We have the capacity to run low-high volume parts and are continuously investing and growing our production capabilities.

OUR CORE CAPABILITIES INCLUDE:

- 3, 4, and 5 axis CNC Vertical and Horizontal Milling
- CNC Turning/Lathes
- High Speed CNC Router
- Sheet Metal Punch Press
- Sheet Metal Fabrication Brakes

ADDITIONAL SERVICES:

- Certified Welding/ Weldments
- Knurling, Threading, Engraving
- Cable Swaging
- Laser Etching
- Abrasive Blasting
- Proof Load Testing
- Precision Inspection Equipment
- Prime and Paint
- Ink Stamping
- Silk Screen-print
- Turn-Key Assembly



POLYTRONIX MACHINING AND FABRICATION



ENGINEERING SERVICE & SUPPORT

At Polytronix Machining and Fabrication, our engineers will work with you on product designs, material selection and guidelines to make sure your product meets your customer specifications.

At our facility our experienced staff build products specifically for you with the quality and service you would expect.



PANELS / BEZELS / KEYPANELS

- Acrylic or Aluminum
- Laser-etching, Engraving or Screen Print
- NVIS/NVG Compatibility
- Sunlight Readability
- Keys, Knobs and Switches
- Conform to all Customer Specifications

CLASS 1	CLASS 2	TYPE
1-R	2-R	III
1-W	2-W	IV
1-BW	2-BW	V
1-NVIS		VII

COMMONLY USED MATERIALS

HOT/ COLD ROLLED SHEETS OR PLATES

- 1018- Rounds, Hexagons, Squares, Flats
- 1213 & 1215 (Screw Machining Stock)
Rounds, Hexagons, Squares
- 1040-1045 Microalloy
Chrome Plated-Rounds
- 12114- Super Free Machining- Leaded-
Rounds, Hexagons, Squares

AIRCRAFT ALLOY SHEETS

- 4130 Bars, Sheets, Plates
- 4140 Bars
- E-4340 Bars and Plates
- 4142

STAINLESS STEELS AND SUPER ALLOYS

- Type 301
- Types 304 & 304l
- Types 303s & 303se
- Types 316, 316l, 317, & 317l
- Type 321
- Type 347

STRAIGHT CHROMIUM TYPES

- Type 410
- Type 416
- Type 418
- Type 431
- Type 440c

PRECIPITATION HARDENING TYPES

- 13-8 Var
- 17-4 Aisi 630
- 15-5 Var
- 17-7 Aisi 631

TUBING AND PIPE

- Mechanical Tubing- Commercial and Aircraft Quality
- Pipe- Steel and Aluminum
- Structural Steel Tubing-Square and Rectangular
- Hydraulic Line Testing

ALUMINUM

- 5052- Sheets and Plate
- 2024- Rounds, Hexagons, Squares, Rectangles, Sheet, Plate
- 6061- Rounds, Hexagons, Squares, Angles, Rectangles, Channels, 1 Beams, Tees, Sheets, Plates
- 7075- Rounds, Rectangles, Squares, Sheet, Plates

BRASS BAR AND TUBING

- C36000- ½ Hard Brass

PLASTICS

- Delrin
- Nylon
- Peak
- Fri0
- Makrolon

COPPER

GALVANIZED STEEL

GLASS

Manufacturing Capabilities

CNC HORIZONTAL MILLING

- 1 - MAZAK horizontal FH-480 82.6" x 61.4" x 62.2" X, I and Z travel, 30 tool magazine capacity
- 1 - SAEILO MACH 3 horizontal 15.75" x 13.78" x 15.75" X, Y and Z travel

CNC VERTICAL MILLING

- 1- 5-AXIS DMU 50 Mill Deckel MAHO 15"Wx8"Dx9"H
- 2- EXCEL 810 2 equipped with pallet changer systems Table size, 35.4" x 18.9". 32", 20", 22" X, Y and Z travel, automatic tool changer
- 1- EXCEL 810 Equipped for a 4th AXIS Table size, 35.4" x 18.9". 32", 20", 22" X, Y and Z travel, automatic tool changer, includes rotation (4th axis)
- 1- EXCEL 510 20.1" x 16.2" x 18.1" X, Y and Z machine travel. 27.5" x 16.5" table size
- 1- EXCEL PMC-5VT20 Vertical machining center, 27.56" x 16.54" table size. 20.08" x 16.14" x 18.11" X, Y, Z machine travel

CATIA, SOLID WORKS MASTERCAM PROGRAMMING SYSTEMS

Software for CAD, modeling, and 5-axis surfacing and machining for routers

CNC TURNING

- 1- Mazak qt 250 lathe 10" chuck, 2.800" thru hole, T64 Mazatrol Fusion control, 1180 IPM rapid
- 1- QT 20 lathe 10" chuck and a 2.800 thru hole, T+ Mazatrol control
- 1- Mazak qt 15 lathe 8" chuck and a 2.00" thru hole, T32 Mazatrol control. 1180 IPM rapid 16" between Centers max, cutting diameter 10"
- 1- QT 28 lathe 12" chuck and a 3.50 thru hole, T32 Mazatrol control 38" between centers for OD work, maximum cutting diameter 12"

SHEET METAL FABRICATION PUNCH PRESS

- 1- 2510 KING FANUC-18 PC control. 31 tool station turret, 22 ton capacity, sheet size 50" x 150", .130" THK SS or .187" THK ALU
- 2- 255 VIPROS 20 tons capacity 31 station, 3 auto-index ball table thick turret high speed hydraulic CNC punch press. 50" x 100", .130" THK SS or .187" THK ALU
- 1- PEGA PRINCE 244 fanuc-d system 6 m computer. 18 station turret, 20 ton. Capacity, sheet size 40" x 120" .090" THK SS or .125" ALU

SHEET METAL FABRICATION BRAKES

- 1- RG 80 80 ton with 93" x 18" NC back gage
- 2- RG 60 50 ton, with 77" x 18" NC back gage 2 — RG 35 35 ton with 45" x 18" NC 9 back gage

WELDING

- 1- MILER CP3000 with S-52E 115V
- 2- Miller Syncrowave 250 gas, Tungsten, arc welders 1 — 330 KVA Spot welder

INSPECTION EQUIPMENT

- 1- Mitutoyo QM-M353 with GEO MEASURE 3000 software
 - 4- Brown & Sharpe micro hites
 - 3- Precision granite tables
- Standard quality inspection instruments, tools and gauges Hand held micrometers, calipers, and thread gages for both ID and OD

ADDITIONAL SERVICES

- 1- Tool grinder for turret tools
 - 2- Hardware insertion presses
 - 2- Time savers/wet auto sanders
 - 3- Horizontal and vertical saws
- Certified for aluminum, T304, SS,1010-1020, CRS steel Mig, tig, and stick THK of .04"-125" certification

Polytronix Machining & Fabrication
735 N. Plano Rd. Ste 200, Richardson, TX 75081
972-436-0422