



MITCHEL & SCOTT MACHINE CO

*Precision Contract Manufacturing since 1933 - ISO 9001:2008 Certified—ITAR Registered
A registered Veteran-Owned Small Business and division of The Mitchel Group*

STABLE ~ FLEXIBLE ~ QUICK TURNAROUND

SPECIALIZED FINISHING PRECISION MACHINING CONTRACT MANUFACTURING

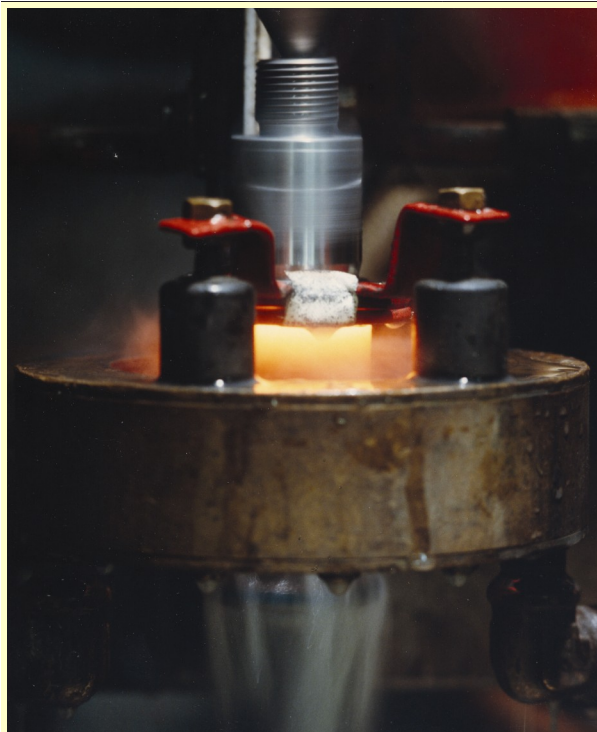
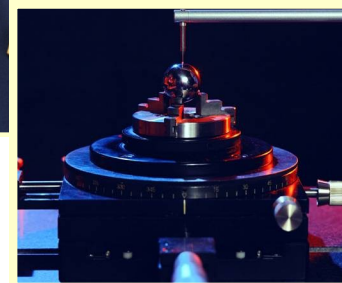
Offering various volumes, and precision contract manufacturing experience since 1933, **Mitchel & Scott** relies on application knowledge, experience, and education to develop the processes that ensure quality and delivery.

Mitchel & Scott Machine Company accepts the trust afforded by our customers and responds with ensured results.

Quality Parts



Precision Tolerances



Induction Hardening Capabilities

INFLUENCES

- On-site degreed Engineers
- On-site gaging Technicians
- On-site Metallurgist
- On-site warehousing
- Personalized customer focus
- Domestic production

SPECIALIZED FINISHING

Mass Finishing

- Steel shot blasting
- Chemical accelerated mass finishing
- Glass bead blasting
- Vibratory deburring
- Vibratory finishing

Thermal Deburring

- Up to 4" diameter X 5" length

Straightening

- Up to 2" diameter X 36" length
- Small shaft (<5/8") at 600+ pcs/hour



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CNC Machines:



Rotary Transfer Capabilities

CNC (Fixed head stock)

Index ABC Speedlines up to 2.047"
Index MS-32 up to 1 1/4"
Traub TNA up to 2 1/2"
Others up to 2 1/2"
Traub TNL-26 up to 1"
Citizens 1 machine @ 5/8"
2 machines @ .787"

CNC (Swiss)

Hydromat Rotary Transfer:

Medium to high volume manufacturing
Cross drilling & milling
CNC turning
High precision (Tol. <.001")

Brown & Sharpe Servocams:

Low to medium volumes
Quick changeovers
For low to medium volume families of parts

Multi-spindle

5-6-8 Spindle

CAM Machines:



Precision Manufacturing

Davenport

up to 3/4"

Acmes

up to 3 1/2"

Euroturns

up to 1 1/4"

Brown & Sharpe Servocams

up to 2 3/8"

Gaging & Testing:

Talyrond 250

Resolution up to 0.012 μm (0.47 μin)

Sunnen

Resolution of 0.000050"

Surfcom 570A

Measuring Range (Max: $\pm 400 \mu\text{in}$)

Pratt & Whitney Supermic

Measure 0-6" - Resolution of 0.000010"

Optical Comparators

Up to 30" and Up to 100X

Brown & Sharpe Microval CMM

Up to 17" X 15" at 0.00001" resolution

MicroVu Video Measuring System

Up to 6" X 6" at 0.0001" resolution



Heat Treat

Other Services:

Induction Hardening

Up to 4" diameter X 36" length

Grinding

Surface grinders (Elb)
Centerless grinding: thru-feed/ in-feed grinding
Internal & External grinding
Centerless lapping
Superfinishing

Honing

Sunnen bones
Engis multi-stage honing table

In-house Metallurgical Lab

Microstructure & case depth analysis
Certified Magnaflux
Eddy Current
Rockwell A-C scale hardness testing
Micro-hardness checking
Certification of heat treat through outside supplier

Hard Turning

3-Hardinge GT-27 Conquest machines for
ID & OD "hard turning"

Heat Treat

1000# Integral Quench Furnace
Carburizing with direct oil quench
Carbonitride with direct oil quench
Thru hardening
Cryogenic capability

Location

75% of the US population can be reached within a 1 day truck drive from Mitchel & Scott.



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