

TSG
Tooling Systems Group

ETS
Engineered

Engineered Tooling Systems, Inc.
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Equipment List

CAD/CAM

| Quantity | Equipment |
|----------|-----------------------------|
| 3 | CATIA licenses |
| 1 | Work NC license |
| 1 | Unigraphics license |
| 3 | Unigraphics viewer licenses |
| 1 | MasterCam license |
| 9 | Enovia Licenses |

Milling Machines

| Quantity | Equipment | Work Area |
|----------|---|------------------|
| 1 | Dah Lih DL-MCV 2100 CNC mill | 82"x 32"y 27.5"z |
| 1 | Daewoo DMV-500 CNC mill | 40"x 19"y 20"z |
| 1 | Mazak Nexus 510C CNC mill | 41"x 20"y 20"z |
| 1 | Johnford DMC 1200H CNC mill | 47"x 35"y 30"z |
| 1 | Cincinnati No. 550 vertical mill w/ digital readout | 94"x 20"y |
| 1 | Willis Microcut 1050 w/ readout | 50"x 10"y |
| 1 | Milwaukee #2 vertical mill | 56"x 12"y |
| 1 | Cincinnati horizontal mill | 54"x 12"y |
| 3 | Bridgeport mills w/ readout | 48"x 9"y |
| 1 | Vision Wide Bridge Mill | 40" x 160" Bed |
| 1 | Vision Wide Bridge Mill | 98" x 98" Bed |

Wire EDM

| Quantity | Equipment | Work Area |
|----------|-------------------------------------|--------------------|
| 1 | Charmilles Robofil 290 AWT wire EDM | 15.75"x 9.85"y 8"z |

Handling Equipment

| Quantity | Equipment |
|----------|--|
| 1 | 15-ton overhead crane |
| 3 | 10-ton overhead cranes |
| 1 | Hyster 150A lift truck w/ 15,000 lb. capacity |
| 1 | Allis Chalmers C40X lift truck w/ 4,000 lb. capacity |
| 1 | Crown E-Z lift w/ 1,500 lb. capacity |

QC Department

| Quantity | Equipment |
|----------|--|
| 1 | Brown & Sharpe 26"x 39"y 18"z w/ PC - Demis software |
| 1 | 18" height gauge |
| 1 | 14" height gauge |
| 2 | 12" height gauge |
| 1 | Complete set of gauge blocks |
| 1 | Complete set of gauge pins |
| 1 | White Light Scanner |
| 1 | 40" x 82" Brown & Sharpe CMM |

Drill Presses

| Quantity | Equipment | Size |
|----------|----------------------------------|----------------------|
| 1 | Fosdick square column power feed | 24" |
| 1 | Carlton radial arm drill | 9" column 48" arm |

| | | |
|---|----------------------------------|-----------------------|
| 1 | Carlton Drill | 22" colum 96" arm |
| 1 | Cincinnati Bickford radial press | 12" column 60" arm |
| 2 | Cleerman Drill Press | |

Tryout Equipment

| Quantity | Equipment | Bed Size | Shut Height | Other |
|----------|---|-------------|-------------|---|
| 1 | 1,350-ton Danly press* | 100" x 200" | 65" max | rollout bolster w/ 56" coil feeder system |
| 1 | 900-ton Hamilton straight side press w/ bolster* | 100" x 180" | 65" max | |
| 1 | 800-ton USI Clearing straight side press | 72" x 156" | 96" max | w/ 48" coil feeder |
| 1 | 450-ton USI Clearing straight side press* | 81" x 126" | 48.5" max | w/ 56" coil feeder |
| 1 | 300-ton Bliss straight side press* | 60" x 120" | 48.5" max | |
| 1 | 250-ton Verson gap frame press | 60" x 120" | 54" max | |
| 1 | 200-ton Verson straight side press | 53" x 120" | 35" max | |

* Press located at TSG Tryout facility

Grinders

| Quantity | Equipment |
|----------|--|
| 1 | Gallmeyer 450 12" x 24" hydraulic feed grinder |
| 1 | Gallmeyer 280 8" x 24" hydraulic feed grinder |
| 1 | Clausing 4002 5" x 10" dry grinder |
| 1 | Okomoto 6" x 18" dry grinder |
| 1 | GMN end grinder |
| 1 | Gallmeyer 12" x 36" cylindrical grinder |
| 1 | 20" x 48" Thompson Surface Grinder |

Cut-Off Equipment

| Quantity | Equipment |
|----------|--|
| 1 | GROB 4V-18 band saw w/ 11" throat |
| 1 | Marvel cut-off saw w/ 10" throat |
| 1 | Parma cut-off saw w/ 16" throat |
| 1 | Wallace Speedycut 8995 cut-off saw w/ 10" throat |

Miscellaneous

| Quantity | Equipment |
|----------|-------------------------------------|
| 1 | Miller TIG Welder |
| 1 | Trinco 36/BP media blasting cabinet |
| 1 | LeBlond 42" lathe |
| 1 | Miller MIG Welder |
| 1 | Flame hardening table & torch |

Shop Size

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|--|
| Main Facility - Approx. 23,000 sq. ft. |
| Tryout Facility - Approx. 25,000 sq. ft. |