

Manufacturing and Engineering Capabilities

Caster Concepts Inc.
The Machine Center
Reaction Industries
Fabricating Concepts
CasterShoX, LLC
Triple E, LLC

Precision Machining

- Turning
 - 9 CNC lathes with ability to turn up to 22"
 - Daewoo 12 L-B
 - Daewoo 250
 - Daewoo 250 MS (live tooling and bar feeding)
 - Daewoo 8S
 - Daewoo 200C
 - Haas SL 20 (bar feeding)
 - Haas SL 20 (30hp and 5,000 rpms)
 - Mazak QT 10
 - Murata MR12
 - 2 CNC twin spindle machine for high production machining
 - Daewoo 200 2SP
 - Daewoo 250 2SP
 - 3 engine lathes for short run prototype and shafts up to 100"
 - Off line programming with Gibbs Cam software
- Automatic Screw Machines
 - Acme 2 5/8"
 - Acme 2"
 - Acme 1 5/8" (2)
 - Acme 1"
 - Acme 3/4"
 - Acme 9/16" (2)
- Milling
 - 4 CNC mills for short run or production milling
 - Daewoo Mynx 500
 - Haas VF-5 (4th axis)
 - Haas VF-2 (4th axis)
 - Haas VF-1 (4th axis)
 - Haas TM-1 (4th axis)
 - 1 DMV 400 turn table mill for high production milling/drilling
 - 6 knee mills for tool room work
 - Off line programming with Gibbs Cam software
- Surface Grinding
 - Chevalier 6X18 table
 - Splitback 6X18 table
- ID Grinding up to 8"

- OD Grinding up to 10"
- Rotary Grinding
- Centerless Grinding
- Surface Grinding 18"X72"
- Broaching
 - 24" (2)
 - 48" (3)
 - 72"
- Drilling
 - Solberga 3 HP power feed heavy duty drill Press
- Boring Mill-Devileg

Surface Cleaning/Preparation

- Bronco 6.5 cu ft blaster
- Bronco 3.5 cu ft blaster
- Hot parts washing

Fabricating

- Laser Cutting
 - 2-Amada FO3015NT laser with 5X10 shuttle table, continuous 4000 watt cutting, Metamation software driven
 - Steel to 1.125"
 - Aluminum to 0.375"
 - Stainless to 0.5"
 - Call for other cutting capabilities
- Forming
 - Amada 240 ton brake press
 - 8 axis back gauging
 - 14 foot bed
 - Short or long run capabilities
- Welding
 - 4 Lincoln PowerWave Pulse welders (Mig)
 - 1 Lincoln Precision Tig 375
 - 1 multiple cell Fanuc 100i Robot powered by a Lincoln PowerWave welder
- Cutting
 - Amada 350W automatic band saw

Polyurethane Processing

- Meter mixing capabilities for MDI and TDI material
- Standard durometer of 70A/85A/95A/70D
- Ability to pour varying durometers to meet specifications
- Bonding expertise of polyurethane to metal
- Batch capabilities for a variety of materials and for R&D
- Special and Custom mold designs

Engineering and Product Development

- Four Degreed Mechanical Engineers
- One Degreed Polymer Materials Engineer
- Full time SolidWorks/CAD technician.

- SolidWorks platform
- AutoCAD capabilities
- Gauging and fixturing capabilities from design to development

Tool Room Capabilities

- Broach machine building
 - Broach fixturing
 - Automation Integration
- Broach cutter development and manufacture
- Prototype development and build

Inspection and Quality Control

- CMM-Sheffield RS50 Cordax DDC with Open DIIMS software
- Comparator
- Profilometer
- ISO 9001-2000 certified
- Rockwell hardness testing
- Full SPC documentation on production runs

Testing

- Wheel endurance and fatigue analysis on drum testing machine with 24/7 monitoring using multiple sensor feedbacks
- Bond and peel testing and qualification using custom designed, 20,000lb max, pull testing machine.
- Dynamic and static performance evaluation of shock absorption wheel products.