



About Talos

Established in 1985, **Talos Steel Ltd.'s** purpose is to offer high quality machine shop services complimentary to our customer's specific needs and requirements. At Talos, we possess the capability of custom fabrication, custom machine work, rejuvenation of products and component repairs along with an experienced field services team suited to the mining and steel industry. Talos is also able to assist in the fabrication of tool and die parts for all areas of the manufacturing sector.



Talos Steel is committed to producing and supplying the highest quality of products and services at a competitive price. We work hard to ensure that the requirements of our customers are upheld while identifying and managing human or physical factors in the work environment.

Safety & Quality Programs

Health & Safety Policy

- Talos Steel Ltd. Currently implements a safety philosophy and program which parallels the Ontario & Canadian standards, with all reporting structure required.



Quality Assurance Program

- Talos Steel Ltd. Conforms to the QMI-SAI Global **ISO 9001:2008** management system standard. (see attached ISO Certificate)
- Talos Steel Ltd. has a **CWB** certification in place (see attached CWB certification)
- We also have a full Quality Assurance inspection team in place that can perform all the necessary requirements of ISO 9001:2008, as well as full engineering & Non-destructive testing services

Quality Assurance Procedure

At **Talos Steel Ltd.** we are committed to a higher level of quality in our products that exceed industry standards. We have developed a quality assurance system that ensures our products meet these standards, and we operate our business according to this system on a daily basis.

An outline of the Process is as follows:

- Customer request for quote
- Quote Job / Assess materials required (No substitute of materials unless client approves)
- Create P.O.'s according to requirements (materials – stock/order)
- Materials received – checked for discrepancies and tags to job – takes pictures
- Material good Y/N
- Talos then checks material again Y/N – if NO, takes pictures and sends to supplier and returns materials. Creates NCR and re-orders materials.
 1. Client is notified of delays if any
 2. New Materials received, process repeated

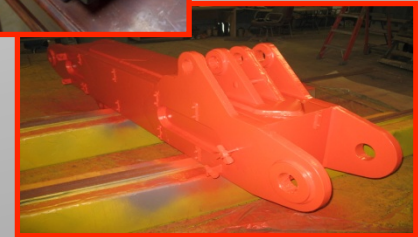
Quality Assurance Procedure continued...

- Working work order created – complete job package with drawings and specific ITP plan if required
- QA checks materials - Y/N (see above)
- Work completed according to working work order, ie. drawings
 1. Each level of manufacturing receives a QA check before proceeding to next step
- Upon completion, product is checked according to QD checklist by QA designate (according to DWGs) and ITP plan if provided
- Pictures are then taken of complete product and specific areas highlighted
- Product is packaged and protected as required to be shipped

Custom Machining & Fabrication

Talos Steel is capable of handling large items such as large mining equipment chassis, frames, booms, axles, axle cradles, truck boxes, buckets and associated linkage components. Our boring mill has a universal attachment for vertical and horizontal machining on very large items. The largest engine lathe can turn up to 30 feet in length, with a double gap bed to handle larger circumferences. The drill press is large enough to drill on parts up to twenty feet in diameter. We maintain many medium to small sizes of equipment to handle the smaller tasks.

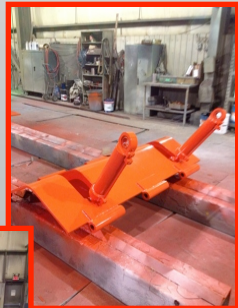
- CNC Boring Mill, Bore Welding & Line Boring of all Booms, Cradles & Frames and components
- Re-Working of All Types of Steel/Casting Bodies
- Rebuild & Fabrication of Hydraulic Cylinders
- Refurbishing All Types of Hydraulic & Pneumatic Rock Drill Components & Drill Cradles
- Onsite machining & welding services for the custom rebuild requirements
- Custom new fabrication & rebuild services to OEM specifications
- Onsite Mechanical Engineering services, which include a full service AutoCAD drafting department & Non-destructive testing processes
- Full Transport Float Service – Fleet of three (3) Transports with 70,000 lbs trailer and one (1) 5 ton flat deck truck.



Projects

Custom Bucket Fabrication

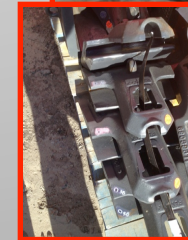
- Complete design and engineering of all bucket types
- Sizes – 1 Cubic Yard to 11 Cubic Yard
- Styles – Standard Buckets, Ejector Buckets & Mechanical Buckets



Projects

Bucket Lip Fabrication

- For all bucket sizes
- All castings used on the Lip Assemblies are Sandvik GET
- Styles – Half Arrow, Spade & Mechanical



Projects

Hydraulic/Pneumatic Cylinder Fabrication, Machining & Repair

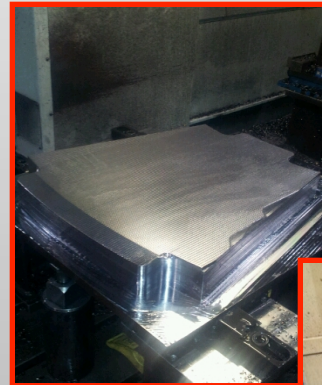
- For all equipment requirements
 - OEM
 - Custom (Trunion Mount Style)



Projects

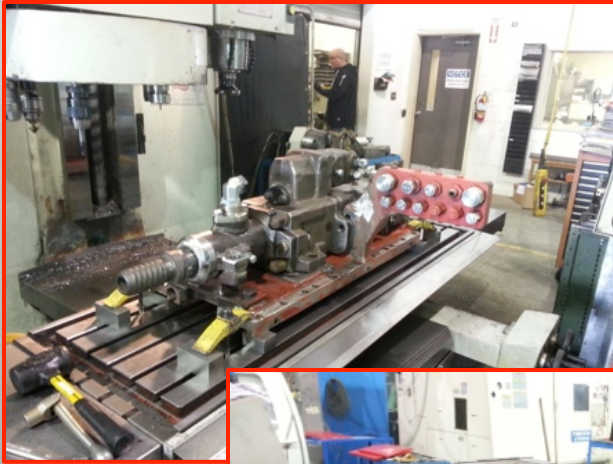
Custom Liner Plate & Wear Parts - Fabrication & Machining

- Kennametal Tricon Plate Products
- Custom Cast Feeder Pans



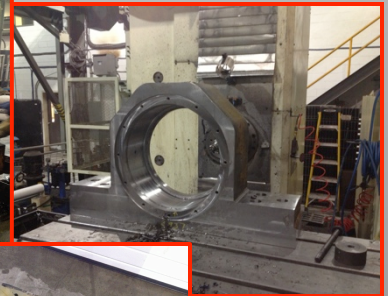
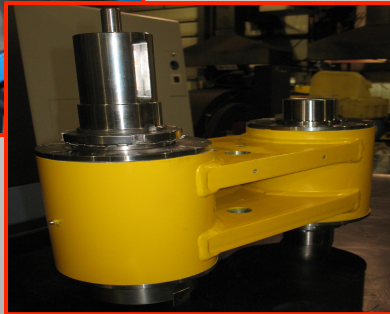
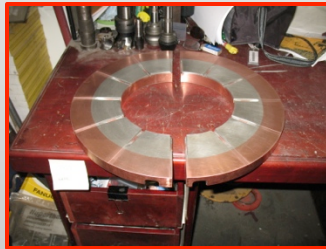
Projects

Hydraulic/Pneumatic Rock Drills & Cradles - Machining & Repair



Projects

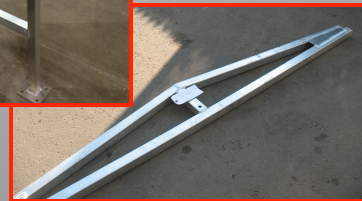
CUSTOM Machined Components



Projects

CUSTOM Fabrication

- Design, Detailing & Engineering as required
- Custom Assembly Fabrication (housings, bins, boxes, buckets, bases....etc.)
- Structural Steel Fabrication
- Aluminum & Stainless Fabrication



Rejuvenated Products & Parts Inventory

Talos Steel provides services to overhaul and rejuvenate equipment. We also manufacture and maintain an inventory of replacement parts for certain pieces of mining equipment including Drill Rod Taper Grinders, Bit Sharpeners, Rod Straighteners and Mixer parts.



Drill Rod
Taper
Grinder



Strategic Partnerships/Alliances

Over the last two (2) years, Talos has taken to time and careful consideration to align ourselves with strategic partners in order to add additional value to our core business and service umbrella.

Our Trusted Partners are listed below:



- **Horsburg & Scott Co.**

- Gear Box Rebuild and Repair
- Replacement and Spare Parts (gearing, etc.)
- Field & On-Site Services (technical inspections.....)
- Condition Monitoring (all equipment, not limited to gear boxes)



- **Kennametal/Tricon.**

- Tricon Wear PL Solutions
- Liner PL's, Tribraze PL
- Engineered Solutions



- **Sanland Mining.**

- Custom Cast & Forged Parts
- Crusher Parts, OEM & Wear Products
- EQUIPMENT MANUFACTURING

Manpower, Capacity & Scheduling

Manpower & Capacity

- currently operating two (2) eight (8) hour shifts, have the ability to run a third (3rd) shift if required. We will implement the shifts and manpower to conform to the customers requirements & demand.
- Equipment Capacity – equipment specifications can be provided upon requirement.
- Facility Capacity – Talos will grow as the customers requirements grows (room for volume growth)

Scheduling Requirements

- **Turnaround Time** – through our regular production meetings, goals will be established and reported to the customers requirements which will conform to the quotation documents. For example, working schedule and/or scheduling matrix for each individual project.
- **Product Lead Time** – Talos will develop a production schedule according to the customers requirements, which will include all lead times for material requirements, welding and machining services.
- **Fixed Lead Times** – Talos to work closely with the customers requirements and our suppliers to ensure optimum price/delivery. Again, Talos will maintain a open line of communication with the customers in order to meet the master schedule requirements.

Equipment Overview

Reinforcing Talos Steel as your *One Stop Machine Shop*, we have installed a complete range of equipment capable of providing machining services to various specification and complexity levels.



- **Crane Boring Mill, Model THK-6511 (Full CNC Control) 5 AXIS**
 - 100"+ X Travel
 - 80" Y Travel
 - 59" Z Travel
 - 20" W Travel (Spindle)
 - 360 degrees of B Travel
 - 10,000 KG Table Load
 - 5" Spindle diameter
- **Milltronics RH30 CNC Bed Mill with Conversational Programming**
 - 60" X Travel
 - 30" Y Travel
 - 28" Z Travel
 - 4 Axis – 360 degrees of rotation

Equipment Overview (cont'd)

- **KAO MING KMC 3000SV CNC VERTICAL MACHINING CENTER**

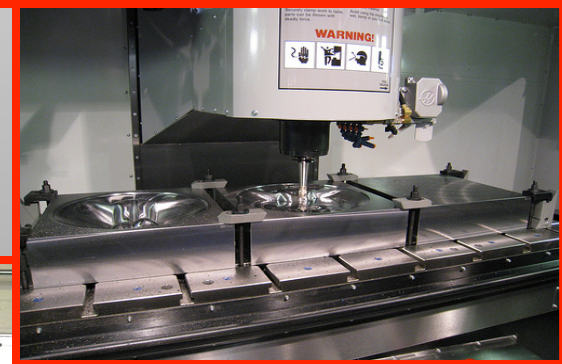
- FANUC 18iM CNC Control
- Table Size – 55" x 140"
- Table Travel X-Axis 127"
Y-Axis 55"
Z-Axis 35"
- CAT #50 Tap Spindle
- Spindle Speed 5200 RPM
- 24 ATC – Tool Changer
- Spindle Horse Power – 35HP
- Table Capacity – 9800 KG



Equipment Overview (cont'd)

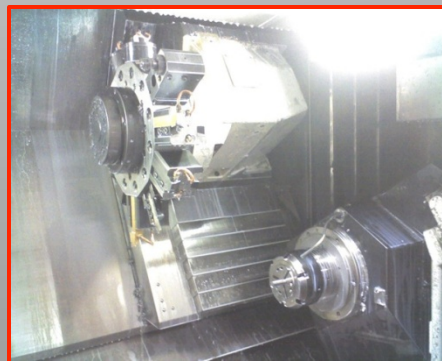
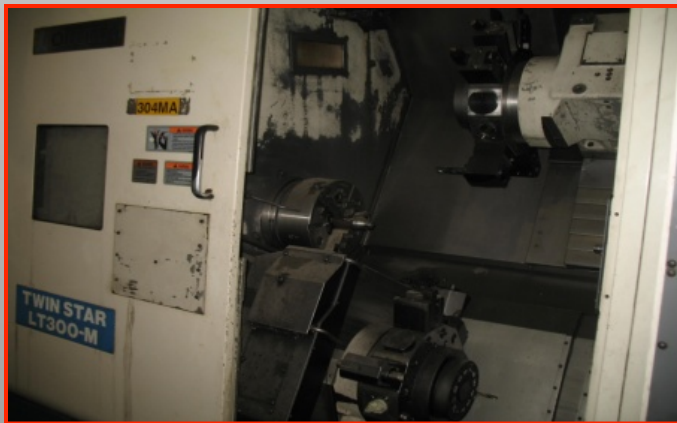
- **Haas VM-6 VMC CNC Mill**

- FANUC 18iM CNC Control
- Table Size – 64" x 32"
- Table Travel X-Axis 64"
Y-Axis 28"
Z-Axis 30"
- CAT #40 Taper Spindle
- Spindle Speed 12000 RPM
- 24+1 ATC – Tool Changer
- 2.8 sec Tool Change
- Spindle Horse Power – 30HP Vector Drive
- Table Capacity – 4200 LBS



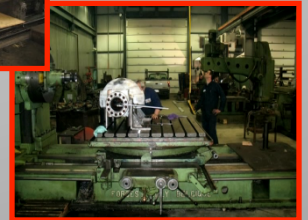
Equipment Overview (cont'd)

- **OKUMA TWIN STAR LT300-M CNC Production Lathe**
 - OKUMA OSP-E100L Control
 - True Slant Bed Technology (Extremely Ridged Design)
 - Twin 12" Hydraulic Spindles
 - Twin twelve (12) position Turrets
 - Live Y-Axis Milling
 - 5" Spindle Bore
 - 30" Between Centers
 - 18" Swing over bed



Equipment Overview (cont'd)

- **Milltronics ML16 CNC Lathe with Conversational Programming**
 - 80" Between Centers
 - 8" hydraulic chuck
 - 1.625" spindle bore
 - 20" Swing over bed
- **Clausing Semi Automatic Horizontal Band Saw**
 - 16" dia. capacity
 - 12" dia. capacity for miter cuts 0-85 degrees
- **30' McDougal Gap Bed Engine Lathe**
 - 30' between centers
 - 36" Swing over bed (can machine diameters up to 6' (feet))
- Various Engine Lathes & Milling Machines with DRO (Digital Readout Systems)
- **Bore TECH** portable ID Welder
- Three (3) **York Equipment** portable align boring machines



Equipment Overview (cont'd)

- **Machitech DC300 High Definition Plasma Cutting Table**

- **EDGE Pro Shape Cutting Control**
- Cutting Area – 60 x 120
- Cutting Capacity – Plasma 3" THK
- Oxy Flue 8" THK
- ArcGlide THC – torch height control
- Plasma Marking (Plasma Etching)
- True Hole Technology
- Software – MTC Pronest



- **DOOSAN PUMA 480L CNC Lathe**

- Fanuc 32iA Control
- True Slant Bed Technology (Extremely Ridged Design)
- 24" Hydraulic Chuck
- Twelve (12) position Turret w Automatic Tool Setter
- 60HP high-torque spindle drive
- Large 6.5" Spindle Bore capacity
- 80.4" Between Centers
- Large 25.6" Swing over bed



Equipment Overview (cont'd)

- 250 ton ENERPAC HYD. Press
- Hydraulic Surface Grinders (2)
- Radial Arm Drills (8' Arm & 5' Arm)
- Full Service Welding Bay – can weld mild steel to C276 Alloy including Cast Metals
- Full Service - Sandblasting & Painting for Equipment Needs



Design & Machining Software

- Full **CAD/CAM** Design Services for all your special equipment requirements

AutoCAD®

- **GibbsCAM** production Turning, Milling & 5-Axis Milling software.

GibbsCAM®

