



## EQUIPMENT LIST

Minneapolis, Minnesota

### DIE CASTING EQUIPMENT

*All die cast cells are fully automated with ABB or Reis robots, as well as auto-ladles and reciprocators.*

10	Aluminum Die Casting Machines (3) 350 Ton Toyo (4) 600 Ton Colosio, HPM (1) 750 Ton Buhler (2) 950 Ton Buhler	Commission Date(s) 2010 2017, 2016, 1993, 1995 2012 2004 (x2)
----	---	---

Furnace  
 32,000 lb. Aluminum Central Remelt  
 11,000 lb. Aluminum Central Remelt

Trimming Equipment  
 (15) Presses ranging from 6 Ton to 75 Ton

### CNC EQUIPMENT

2	Horizontal Machining Centers (2) Mori Seiki NH-5000	Commission Date(s) 2004 (x2)
5	Vertical Machining Centers (2) Fanuc Robodrill PC2 (3) Haas VF-2SS	Commission Date(s) 2010 (x2) 2013
3	Turning Centers: (1) Mori Seiki NL1500 with Live Tooling (2) Murata Twin Spindle MW-50	Commission Date(s) 2007 2011 (x2)

### CNC SUPPORT EQUIPMENT

- 5 Fanuc robots, inspection stations, and vibratory finishing that support selected work centers
- 1 Zoller Venturi 600 tool pre-setter
- Gibbs CAM Software

### SECONDARY OPERATION EQUIPMENT

- 20 Various drilling and tapping machines

### INSPECTION EQUIPMENT

- X5000 Xray System; boasting an overall maximum resolution better than 500nm
- Zeiss Prismo CMM
- Trimos Vertical 500 – Electronic height gage
- Spectrometer – 181 Atom Comp
- Laser Scan Micrometer – Mitatoyo