

# COLUMBIA GEAR EQUIPMENT

## TURNING EQUIPMENT

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- (2) Okuma Crown BB CNC Lathes w/Robotic Loader
- (3) Okuma Cadet LNC8 CNC Lathes
- (3) Okuma L1420 BB CNC Lathes
- Okuma LB15 CNC Lathe
- (2) Okuma CNC Lathes Model LR25-C-25
- (2) Doosan Puma 400 CNC Lathe
- (2) Okuma Lathes Model LR45-C-2S
- (2) Okuma Lathes Model LU45-C-2S
- (2) Okuma Lathes Model LB45II-1000
- Okuma-Howa Model 2SP-V80 Twin Spindle VTL
- Doosan 850 VTL
- (2) Doosan 850T Twin Spindle VTL
- Mazak Super Quick Turn 18M CNC Lathe
- Mazak Twin Spindle Lathe Dual Turn 20
- Mazak Quick Turn 35XS CNC Lathe
- (2) Daewoo Puma 300LC CNC Lathes
- (4) Daewoo 700 CNC Lathes
- Daewoo Puma 250-2SPGL w/Robotic Loader
- Mori-Seiki MT25002S Multi-Function CNC Lathe
- (2) Pratt & Whitney Model 12-60 CNC Chuckers
- Alpha CNC Engine Lathe
- (2) Okuma LU35 CNC Lathes
- Okuma LT25-M Twin Spindle CNC
- Milltronics ML26 CNC Lathe
- Hankook 140E VTL w/Live Tools
- Hankook 160E VTL w/Live Tools
- (2) Okuma V100R-M VTL's

## SHAVING EQUIPMENT

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- (2) Churchill Model GS12SA Shavers
- National Broach GCV-12 Shaver w/Crowning
- National Broach GCU-18 Shaver
- Michigan Model No. 873A-18 Shaver w/Crowning

## SHAPING EQUIPMENT

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- Lorenz LS420 CNC Shaper
- Lorenz LS424 CNC Shaper
- Fellows 10-4 Gear Shapers w/4" Risers
- Fellows 10-2 Gear Shaper w/6" Riser
- (7) Fellows Model 20-4 Gear Shapers
- (8) Fellows 36" Gear Shapers w/2" to 8" Risers
- Fellows 36" Gear Shapers w/12" Tilting Riser w/Range 0 to 8-1/2 °
- Fellows 36-6 Gear Shaper w/14" Riser
- Fellows 48-8 Gear Shaper
- (3) Gleason 600/800ES Guideless CNC Gear Shaper w/8" Riser
- Gleason 600/800S CNC Gear Shaper 4" Riser
- (2) Gleason 500 CNC Gear Shapers
- Gleason 1200/1600S Hydro Stroke

## HOBBIING EQUIPMENT

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- (5) Gleason GH400 CNC Hobbers w/Loader
- Pfauter P-403 Gear Hobber w/CNC Crowning
- Pfauter PE500 w/Loader & CNC Crowning
- Liebherr L901 w/Template Crown Attachment
- Liebherr L902 w/Template Crown Attachment
- (2) Liebherr L252 w/Carousel Loader
- (3) Liebherr L752 CNC Hobbers
- Barber-Colman 16-36 Hobber
- Pfauter 1501 Hobber
- (2) Liebherr L402 Hobbers
- Gleason 1200H External/Internal Hobber/Gasher
- Gleason 1600/2000 External/Internal Hobber Gasher

## GEAR GRINDING EQUIPMENT

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- (2) Gleason Tag 400 Gear Grinders
- (2) Gleason Pfauter 600/800 CNC Gear Grinders - 1 w/int
- Oerlikon Maag Opal 420 CNC VIT/CBN Gear Grinder
- Oerlikon Maag Opal 800 CNC VIT/CBN Gear Grinder
- Hofler 400KK CNC Gear Grinder
- Niles 630 ZE CNC VIT/CBN Gear Grinder
- Okamoto SHG360NC Gear Grinder
- Niles 400ZE Gear Grinder
- Hofler Rapid 900 Gear Grinder
- Gleason 1600 CNC VIT/CBN Gear Grinder w/int
- Gleason 1200/1450 CNC VIT/CBN Gear Grinder w/int

## MISCELLANEOUS GEAR CUTTING EQUIPMENT

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- (2) Gleason No. 16 Hypoid Generators
- Cross No. 55 Tooth Rounding & Pointing Machine
- Cross No. 65 Tooth Rounding Machine
- (2) Cross No. 75 Tooth Chamfering Machines
- Osborn No. 3A Brush Finishing Machine
- (4) Redin Model 20 Top and Bottom Head Gear Deburring Machines
- Mutschler Model 711 Gear Deburring Machine
- (7) Chamfermatic Deburring Machines
- Marand Spline Roller

## MACHINING CENTERS

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- (3) Mazak Model V515/40 CNC Vertical Machining Centers
- Mazak H630N HMC
- (5) Mazak 680FH HMC Pallettech System
- (2) Cincinnati Maxim 630 CNC HMCs w/Pallet Exchange
- Cincinnati Maxim 630 CNC HMC w/Pallet Pool
- (4) Cincinnati Magnum 800 CNC HMC Flexible Machining Centers
- KIA 630 HMC
- Johnford Model SV45H-Vertical Machining Centers
- Kitamura 500 HX CNC HMC
- Okuma MX55VB VMC
- (2) Milltronics VMC
- Mazak HCN 8800 HMC
- Mazak HCN 10800 HMC
- Haas VF2 VMC
- (2) Haas VF3 VMC

## MILLING, DRILLING AND BROACHING EQUIPMENT

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Giddings & Lewis Fraser Endomatic MC Milling and Centering Machine  
Bridgeport Model 124606 Vertical Mill  
Dadson DS6500-36 Gun Drill  
Clausing Drill No. 22284 (4) Spindle Gang Drill  
Detroit Broach Model 10 ton/54" Vertical Pull Broach  
Colonial 10 ton/66" Vertical Pull Broach  
Colonial Model RFD 25 ton/66" Vertical Pull Broach  
Colonial 25 ton/72" Vertical Pull Broach  
American Model H 15 ton/66" Horizontal Pull Broach  
Colonial 30 ton/72" Vertical Pull Broach  
APEX 30 ton/72" Vertical Pull Broach  
Broaching Machine Specialties - Hi-Speed Broach  
Detroit 30Ton/72 Vertical Pull Broach

## GRINDING EQUIPMENT

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(2) Okamoto IGM-WM MDI Internal Grinders  
Okamoto IGM-15N C-2 Internal Grinder  
(2) Okuma GI-20N VIT/CBN Bore and Face Grinders  
Okuma GI-20N 1WS CNC Internal Grinders  
USACH 300 CNC VIT/CBN Bore and Face Grinder  
USACH/Tripet 150 CNC VIT/CBN Bore and Face Grinder  
Cincinnati Milacron Heald Model 2EF73 Sizematic Internal Grinder  
(2) Mitsubishi RD 32-B100A 12x40 CNC External Grinders  
Mitsubishi RD32-B75A CNC External Grinder  
(2) Precise Products Corporation Super 60 Center Hole Grinders  
Excello No. 174A Center Lapper  
Blanchard 18-30 Grinder  
Cincinnati No. 2 Centerless Grinder w/Automatic In-Feed  
(2) Mitsubishi PD32-100 CNC Groove Grinders  
Mitsubishi PD32-32 CNC Groove Grinder  
Studer S33 CNC Plunge/Anglehead Grinder  
SMTW Centerless Grinder  
(2) USACH 200 40"x60" Internal/External Grinder  
Okuma GA-47 FII

## INSPECTION EQUIPMENT

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M&M Model 3040-4 25-25 Gear Analyzer  
M&M Model 3540 Gear Analyzer  
M&M Model 3515 Gear Analyzer  
M&M Sigma 15 Gear Analyzer  
Gleason 3000 GMM Gear Analyzer  
Klingenberg P100  
Fellows No. 8M Red Liner w/Recorder  
(3) Parkson Gear Checkers  
(8) National Broach Model SIC Gear Checkers  
ITW Over Pin Gear Checker w/Read-Out  
(2) Brown & Sharpe Validator Excel 9x15x9 CMMs  
Brown & Sharpe 15-24-14 CMM  
Zeiss Contura CMM  
Kodak Model No. 2A Contour Projector  
Video Probe Welch Allyn  
(11) Federal Air Gages Model D-200  
(3) Profilometers (Taylor Hobson, Mitsotoyo, Federal)  
Magnaflux Type ANQ-483-A Magnetic Inspection Machine  
Magnaflux Type SB-1416 DeMagnetizer  
(2) Nital Etch Inspection Stations  
Rockwell Hardness Tester  
Wilson/Rockwell Model 5TT Hardness Tester  
Service Model No. 1255A Diameter Hardness Tester  
Tukon Model MO Microhardness Tester  
King Brinell Hardness Tester  
Macromet/Buehler Hardness Tester  
Olympus SZ Microscope  
Olympus PME Metallograph  
Barkhausen Roll Scan  
Brown & Sharpe MVAL PFX 4-5-4 CMM  
Emco Test N7P Tooth Profile Hardness Tester

## BALANCING EQUIPMENT

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Hofmann PCXZ100.1 Balancer  
Hofmann 18-1 Two Plane Dynamic Balancer  
Gisholt Static Balancer  
Hofmann PCHV100.1 Balancer



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