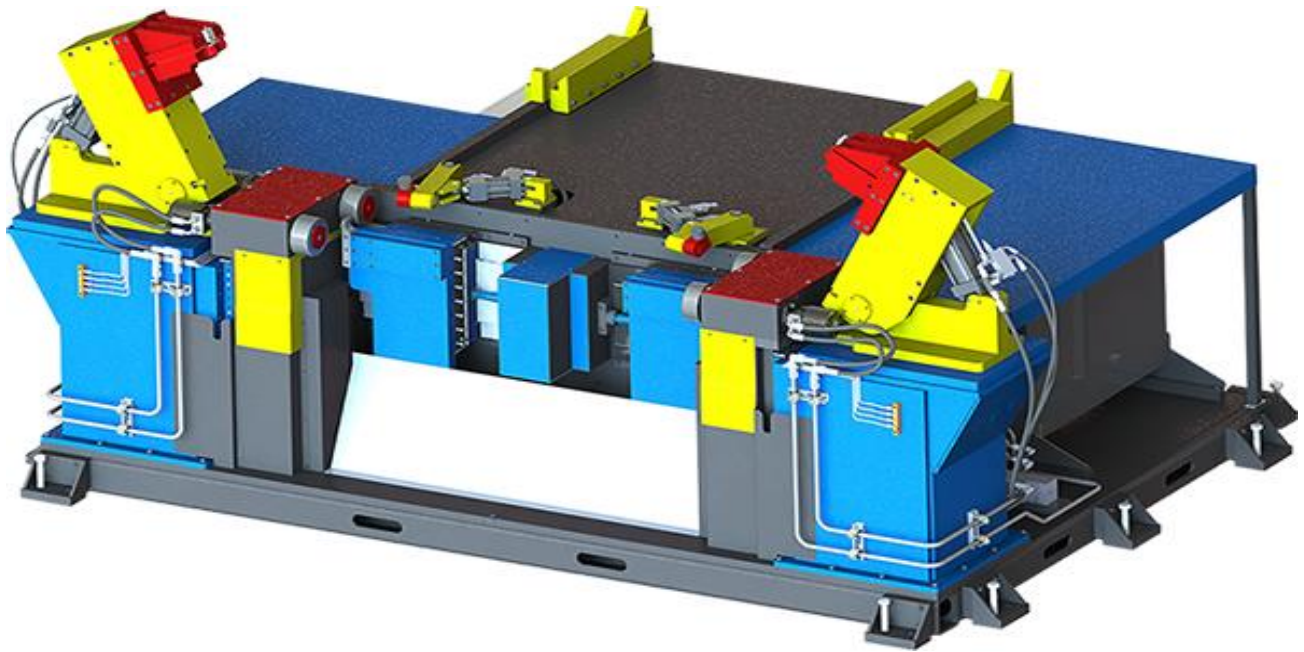


RTS2000H

ABOVE-FLOOR WHEEL TRUING SYSTEM

Machine Specifications



Delta Manufacturing

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TECHNICAL OPERATION SPECIFICATIONS:

Machine Function

- Machining of the worn wheel sets by re-profiling the wheels according to the measured wear and turning the profile to a nominal diameter. Eliminating flat spots, high flanges, tread hollows etc.
- The RTS2000H turns the wheels without needing to strip the wheels sets from the bogie.
- Single axles can also be turned on this system.

Machine Performance

- Holding an axle/truck in place achieved by using a hold down arm assemblies either on the trucks frame or on the journal box.
- Lateral movement arms prevent side-to-side movement.
- Rotation of the wheel set achieved by using hydraulically driven friction drive rollers.
 - The friction drive rollers also used for auto-centering and lifting.
- Now access the lathe controls and begin the re-profiling process.

Machine Operations

- Hold Down Arms:
 - The arms make contact on the top of the journal box or the truck frame, depending on the customer's truck specifications.
 - Move along a horizontal box way assembly that is automatically oiled.
 - Move in / out using a hydraulic cylinder.
- Lateral Movement Stops:
 - Rollers make contact on the back side of the wheel.
 - There are a total of 2 idle wheels which auto center.
 - Hydraulic cylinders keep constant pressure between the rollers and wheel.

TECHNICAL OPERATION SPECIFICATIONS (CONTINUED):

- Friction Drive Rollers:
 - Rollers contact on the wheel tread.
 - There are a total of 4 hydraulically driven friction drive rollers.
 - The friction drive rollers have a built in taper to match the wheel profile taper.
 - The areas in which the rollers make contact on the wheel prevent any flats from developing on the wheel.

- Lifting:
 - The lifting assembly is attached to the base of the friction drives.
 - Move along a vertical box way assembly that is automatically oiled.
 - Move up / down using a hydraulic cylinder.

- Lathes:
 - 2 heavy duty lathes for re-profiling the wheel.
 - The lathes are independent of each other but will work together to re-profile both wheels at the same time.
 - Each lathe uses 1 large tool containing 2 inserts.
 - The lathes are automatically oiled.
 - Each lathe consists of 1 x-axis slide (left/right) and 1 y-axis slide (up/down).



TECHNICAL OPERATION SPECIFICATIONS (CONTINUED):

- Controls / Software:
 - System uses Fanuc controls for operating the system and measuring device for measuring the wheel.
 - Control system indicates the minimum material removal needed to bring back to specification the diameters of the wheels of each single wheel set, four wheels of a single bogie as well as all the bogies of the entire vehicle.
 - Both the software and the measuring device work together in calculating all information about that wheel including measurement, operator, truck number, location, date etc. All this information can be saved and exported. The controls will come preloaded with the customers profile; more can be added if requested.
 - Hydraulic Controls
 - Display with push button controls.
 - Hold Down Arms: In / Out
 - Lateral Stops: In / Out
 - Lifting: Up / Down
 - Friction Drives: On / Off
 - Friction Drive RPM: Increase / Decrease
 - CNC Lathe Controls
 - Fanuc iPendent Control
 - Touch Screen
 - Full operational keyboard
 - Emergency Stop
 - Handheld
- Automatic Tool Stopping:
 - The cutting tool automatically stops during the cutting process if power is lost to prevent damage to the system or wheel.
 - The lathe controls have a tool retract button to retract the tool from the cutting process any time it is pressed. This sends the lathe to its home position. This feature is used for rotating or replacing the insert on the tool holder during the cutting process.

TECHNICAL OPERATION SPECIFICATIONS (CONTINUED):

- Hydraulic Unit:
 - Feeds oil to all the hydraulic cylinders and/or hydraulic motors on the system.
 - Heat exchanger turns on once oil reaches a certain temperature.
 - Oil filtration system.
 - 150 gallon reservoir tank.

- Lubrication:
 - All lubrication points controlled by injectors to feed the exact amount of oil needed.
 - Injectors controlled using automatic oilers set with timers.
 - A centralized automatic lubrication system provides adequate lubrication to all moving components including both lathes.



GENERAL INFORMATION:

- Minimum of 12" of reinforced concrete at the base of the machine recommended.
- Wheel Size: Diameter 28" – 45"
- Wheel Profile: Includes up to 20 different profiles per customers specifications.
- Maximum Axle Load: 90,000lbs
- Wheel types:
 - Monobloc wheel
 - Resilient wheel
- This machine is suitable for re-profiling the following:
 - Free wheel sets
 - Wheelsets disassembled from the vehicle

POWER REQUIREMENTS

Lathe Controls:

- Console:
 - Max Power Rating: 20amp, 230vac, 1 Phase, 50/60hz
- Controller:
 - Max Power Rating: 60amp, 230vac, 1 Phase / 3 Phase, 50/60hz

Machine Controls:

- 200amp, 460vac, 3 Phase, 50/60hz
 - Hydraulic Pump Motor
 - Hydraulic Cooling Fan Motor
 - Conveyor Motor
 - Control Power

HYDRAULIC COMPONENTS:

- Hydraulic Drive Motors: TG080AS030AAAB (4)
- Hydraulic Cylinders:
 - Drive Assembly: 3.25SB2HLT27Ax18.00 (4)
 - Hold Down Arm Assembly: 3.25SB2HLT27Ax8.00 (2)
 - Sliding Rail: 1.50C2HL29Ax36.00 (2)
 - Lifting: 5.00JJ2HLT48Ax12.00 (2)
- 150 Gallon HPU
 - 100hp, 460vac, 3 Phase, 404/5TC TEFC, C-Face w/ Feet, 1.25SF
- VVPC Piston Pump, 8 GPM
- VVPC Piston Pump, 46 GPM



ASSEMBLY SPECIFICATIONS:

Machine Size (not including chip conveyor):

- Length: 160"
- Width: 109"
- Height: 75"
- Weight: Approximately 20,000 LBS.

Hold Down Assemblies (2):

- Removable Adapter Plates.
 - Accommodate proper holding position for different trucks.
- Ability to adjust to accommodate customer requirements.

Lathes (2):

- Adjustable Cutting Feed: 0 – 6.00" IPM
- Rapid Travel: 30" IPM
- Depth of Cut: 0.001 – 0.125" (0.025mm – 3.175mm)
- Average Cutting Time: 1 – 2 Hours per axle
- Max. X-Axis Travel: 11" overall
- Max. Y-Axis Travel: 8 1/2" overall
- Fanuc Motors
- 40:1 Reducers

ASSEMBLY SPECIFICATIONS (CONTINUED):**Measuring Device**

- Complete Integrated Measuring System

Paint Scheme:

- Stationary Components:
 - Macropoxy Safety Blue B58T604 (Tinted to SW4086)
 - Macropoxy Black B58B600 (Package color)
- Moving Components:
 - Macropoxy Safety Yellow B58Y600 (Package Color)
- Lathe Components:
 - Macropoxy Black B28B600 (Package Color)
 - Macropoxy Gray B58W610 (Tinted to SW7664)

JORGENSEN MUNCHMAN II CHIP CONVEYOR (OPTIONAL)

- Twin Belt Width Options: 3" to 24" -- as required
- Drive: Heavy duty motor and speed reducer size depending on belt speed and load
- Frame: Formed steel, stationary or portable/ 1.5" Pitch uses 12 Gage , 2.5" Pitch uses 11 Gage
- Bearings: Grease sealed, self-aligning ball bearings
- Safety Options: All MunchMan® conveyors now use current overload sensor with Jam Manager™ program as default safety device



CORAL JETCLEAN DUST COLLECTOR (OPTIONAL)

These portable cartridge dust and fume collectors are designed as a cost-effective, highly efficient, solution for OSHA compliant filtering of dusts, fumes, smoke, gasses, and vapors. Maintaining filters at optimum efficiency has always been a problem for traditional collectors, especially for welding fumes and dust. The JET CLEAN DF line of collectors offers a state-of-the-art system — a portable unit with long-lasting cartridges and a fully automatic compressed air cleaning system — exclusive of Coral design and like no others in its class.

Extremely quiet plug-n-go operation, combined with incredible maneuverability and a powerful 1, 1.5 or 3 horsepower motor (for up to an amazing 2100 CFM airflow), make the Jet Clean DF an ideal solution for a wide variety of process applications, including welding, sanding, grinding and deburring.

Fumes are captured by the patented evolution no-smoke extraction arm, travelling through a separate dirty air plenum, with removable dust bin, where heavier particulate drops from the air stream. The air is then filtered through high-efficiency cartridges, returning the clean air back into the environment.

Specifications:

- 1200 CFM
- Direct Drive 1.5 HP. High Pressure Motor/Blower
- 120V 60 Hz 1 PH
- or: 230/460V 60 Hz 3 PH
- Two washable spunbond cartridge filters 99% Efficiency @ .5 Microns
- Heavy-duty swivel locking castors
- Internal spark arrestor baffle
- 6" x 7' Extraction Arm
- In-line damper to adjust airflow
- Noise Rating 78dba
- Removable dust drawer
- Hour Meter filter gauge
- *Available as: 120/1/60 or 230/460/3/60*
- 6" x 7' Extraction Arm





VAC-U-MAX DUST COLLECTION SYSTEMS (OPTIONAL)

Overview:

- Complete self-contained Down Flow System with vertically positioned filters reducing footprint while eliminating particulate re-entrainment and improving filter life.
- Venturi and innovative cylindrical fan housing increases performance, attenuates noise, simplifies maintenance and eliminates the need for a discharge damper.
- Contaminated air is drawn through high-efficiency cartridge filters, where the particulate is collected on the outside of the media.
- Filtered air is pulled down through the system and exhausted helping maintain a clean air work environment.

Technical Specifications:

- Fan: 3 H/P fan with auxiliary start/ stop package
- Electrical connection: 115/230/460/3/60
- 7 ft. Long Source Capture Arm: "snorkel" style arm with 6"D tube and hood with light
- Nominal Air Flow (CFM): 900 @ 7" w.g.
- Continuous Bagging System: easy access for fast removal of dust, reducing operator exposure
- Filter Area: two 30" vertical, 80% Cellulose 20% Polyester Fire Retardant Filters
- Filter Cleaning: Digital pulse control with cycle down feature
- Filter Area: 500 Square Feet
- Air to Cloth Ratio: 1.8 to 1.0
- Optional HEPA Filter: 99.97% @ 0.3 microns
- Dimensions: 113"H x 47"D x 44" W
- VAC-U-MAX custom blue powder coat finish