



Von Ruden Manufacturing, Inc.
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Von Ruden® "A Proven Source..."

Fluid Power, Power Train, Custom Products

Von Ruden Manufacturing, Inc.

Since 1946, the name Von Ruden®, has been significant in the design and manufacture of drive components, beginning with right angle gear boxes and parallel shaft-mounted reducers. In 1973, the Von Ruden Company was purchased by Washington Scientific Industries (WSI), and the product line was combined with WSI Rol-Seal® and Axial Vane hydraulic motors, motor planetaries and brakes.

In 1989, the WSI Power Components Division was sold to the division General Manger, Al Anderson, who formed the present Von Ruden Manufacturing, Inc. to manufacture the combined lines of WSI hydraulic and Von Ruden® mechanical drive components.

Today, Von Ruden Manufacturing is a prime source of drive components, combining the best elements of quality, pricing and delivery in a product line constantly added to and refined to meet ever-increasing performance requirements in every industry.



The Mazak Mazatrol Flexible Machining System (FMS). The FMS cell features three horizontal mill machining centers, each served with a 120 tool capacity automatic tool changer. A vertical pallet staker crane robot delivers pallets to the machining centers. Set-up time is reduced to zero. Raw casting to finished, inspected parts all completed within the FMS cell, making very short lead times possible.



The modern manufacturing plant, located in Buffalo, Minnesota is kept competitive with the addition of new machinery and technology as it becomes available. A SYMIX, fully integrated MRPII manufacturing business system operates on a UNIX file server supporting a PC network. A CIM (computer integrated manufacturing) system handles manufacturing by controlling the engineering information to the teams and their equipment on the shop floor. Designs are developed using the latest SolidWorks Modeling software.

QUALITY SINCE 1946

Von Ruden® has been designing and producing drive components for over fifty years. Von Ruden® now manufactures and distributes complete lines of bevel gear boxes, machine tool gear boxes, parallel reducers, hydraulic motors, planetary gear boxes, brakes and overhung load adapters. These quality product lines cover a wide variety of requirements to meet nearly all performance and cost specifications.



The Multiplex cell features two CNC lathes. Each lathe utilizes dual horizontally opposed spindles allowing for first and second-process machining simultaneously. Option equipment being utilized includes external bar feeder and gantry robot loading. The dual spindles provide the quality required in manufacturing hydraulic and power transmission components while increasing machine throughput and reducing the costs of manufacture.

TEAM MANAGEMENT

Von Ruden® stands apart in modern management methods. Teams oriented to specific manufacturing or support functions control all aspects of their contributions. The teams determine their own work schedules and even hire their own members, reviewing applications, interviewing and making the final hiring decisions. There are no foremen or shop supervisors. Company advisors support the teams with information, expertise and a common focus.

MANUFACTURING CELLS

While the employees are organized into teams, the manufacturing efforts are organized into cells. Each cell acts as an autonomous unit controlling almost all facets in the manufacture of its parts or product.

This cellular method allows special or unique parts and configurations to be completed in a fraction of the time required when the entire facility was involved in each special order.



The CNC grinding cell has reduced set-up time by 60% and increased thru' put by 20% while holding more constant tolerances.

CUSTOM MANUFACTURING

Because of the flexible nature of our manufacturing system we are capable of incorporating your project into our schedule. We offer a modern, well equipped facility with a well trained enthusiastic work force. Put our efficient operation to work on your next project.



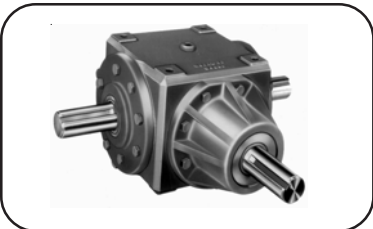
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HYDRAULIC AND MECHANICAL DRIVE COMPONENTS

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GEAR BOXES



o RIGHT ANGLE BEVEL

- 13 model families.
- Spiral, straight and forged gears
- Ratios 1-1:3 to 1-3:1, up to 200 HP.
- SAE, NEMA or shaft inputs and outputs



o MACHINE TOOL

- Live and static tooling.
- Tools maximized to machine parameters.
- Industry standard clamping systems.
- Ratios 1:1, 1:2 & 2:1, specials available.



o PARALLEL REDUCERS

- Two model families.
- Helical gears.
- Ratios 1:1 to 25.96:1, up to 277 HP.
- SAE and shaft inputs, variety of outputs.

HYDRAULIC MOTORS



o ROL-SEAL®

- Low and high speed, high torque.
- Smooth, highly efficient starting torque.
- To 10 in.³, 3,500 RPM, 3,750 PSI.
- W/ Integral brake, planetary gearbox.



o MRS ROL-SEAL®

- High speed, high pressure.
- Increased bearing support.
- To 1 in.³, 7,000 RPM, 5000 PSI.
- W/ HP seal, integral bearing block.



o AXIAL VANE (SERVO GRADE)

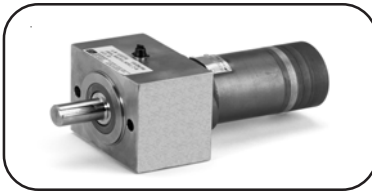
- Very low and high speed, high torque.
- Smooth, precise repeatable positioning.
- To 7 in.³, 3,000 RPM, 3,000 PSI.
- W/ Integral brake, planetary gearbox.

HYDRAULIC MOTOR PACKAGES OR ACCESSORIES



o INTEGRAL BRAKE

- Compact and cost effective package.
- Static, rear mounted, normally-on.
- Integral w/ Von Ruden® motors.



o OVERHUNG LOAD ADAPTOR

- 7 model families.
- Higher side/thrust loading, increase life.
- 5/8" - 1 3/4" keyed shafts and splines.
- SAE 'A' - SAE 'C-C' or special mounts.



o PLANETARY GEAR BOX

- 9 model families.
- To 3,000 RPM, 1,000,000 lb-in.
- Ratios 4:1 to 90,000:1.
- Single to quad stage reductions.

CUSTOM MACHINING

As an established Products Manufacturer with the goal of being a world class manufacturer, we can assure quality results with your parts and/or assemblies. Flexible facility, equipment, processes and team members that adjust to your changing requirements. J.I.T. delivery and fast response in small or large lot fabrication. Flexible manufacturing system (F.M.S.) and cellular manufacturing for competitive pricing with minimal set-up cost to reduce your inventory dollars for the best value in service. Self directed work teams are involved, empowered and flexible insuring your satisfaction. Manufacturing engineering support along with design engineering available for optimum results. Quality assurance systems and teams to support your quality requirements. Full service materials team of purchasing, production and inventory control with shipping/receiving committed to continuous improvements using the latest equipment and methods for improved service. Assembly, testing and R & D facilities available to support proper results.