



Innovative solutions specific to your needs

Onvio's corporate headquarters are located in Salem, New Hampshire USA in a brand new 45,000 sq ft facility which houses all engineering and design of Onvio products, including cycloidal reducers, planetary gearboxes and timing belt pulleys.

For nearly 30 years, Onvio products have served customers throughout the precision automation industries.

Markets served include:

- Medical Automation - Imaging, Diagnostics, Pharmaceuticals
- Robotics – Military / Defense, Industrial, Unmanned Vehicles
- Packaging and Food Processing
- Postal Automation and Sortation
- Material Handling and Conveying
- Machine Tool and Precision Indexing
- Printing and Converting
- Semiconductor Fabrication and Handling
- All Sectors of Automation and Motion Control

We view our customers as partners in business

- Your success is our success!

We manufacture a complete range of standard products and our solutions group can offer unique, innovative solutions specific to your needs.

Cycloidal Speed Reducers

Onvio's Dojen™ cycloidal speed reducer is the highest precision servo reducer available on the market. It offers TRUE Zero backlash by combining a compound reduction cam with preloaded, full compliment needle bearing cam followers. All force transmitting components are in constant contact!

Features include:

- Compound Reduction Cam
- Compact, pancake design
- Needle bearing cam followers
- TRUE Zero Backlash
- Integral High Capacity Output Bearing

- Greased for life
- Optional thru-hole

Standard Pancake Reducer

Over 25 years, Onvio's Dojen reducer has been the standard for TRUE ZERO BACKLASH speed reduction.

Features include:

- 9 Frame sizes
- Ratios from 10:1-225:1
- Compound Reduction Cam
- Compact, pancake design
- Needle bearing cam followers
- TRUE Zero Backlash
- Integral high capacity output bearing
- Greased for life
- Optional thru-hole



High Torque Hollow Shaft Reducer

Onvio's new HT series offers 20% higher torque and a large diameter hollow shaft for passing wires, etc. – available in 3 frame sizes, 10 standard ratios from 25:1 to 225:1.

Features include:

- 3 Frame Sizes
- 10 Standard ratios from 25:1-225:1
- Compound Reduction Cam
- Compact, pancake design
- Needle bearing cam followers
- TRUE Zero Backlash
- Integral capacity output bearing
- Greased for life
- Large Diameter hollow shaft



AH Series Helical Tooth Planetary

Onvio's new helical planetary gearbox offers unparalleled performance in the marketplace. We utilize a single piece ring gear for both single and two stage gear ratios. Dual row, full compliment needle bearings provide excellent load carrying capability and guarantee the longest life possible. The AH gearbox offers the largest tapered roller bearing construction in the industry!



Additional Features:

- Carburized and ground helical gears
- Common crown gear for both single and two stage reduction
- High capacity, dual row needle bearings
- High capacity taper roller bearings
- Input shaft integral to housing
- Greased for life

AP Series

Onvio's AP planetary combines the precision of ground tooth gearing in an economical package. We use a cast aluminum housing combined with a steel ring gear. The AP gearbox is the most flexible product line in Onvio's precision family and can be customized to meet any application quickly and cost effectively.



Features:

- Carburized and ground gears
- Cast aluminum housing
- Optional stainless steel housing
- Caged needle bearings
- High capacity ball bearings
- Greased for life



AL Series

Onvio's value line gearbox family consists of in-line, NEMA, and right angle gearboxes that offer exceptional torque ratings, bearing capacity and low backlash for many of today's servo and stepper applications.

The modular concept allows engineers to select from single or two stages of planetary gearing to create 14 standard ratios from 3:1 to 100:1. A 1:1 right angle stage can be added for tight spaces.



Features include:

- Four frame sizes
- Carburized and skived spur gearing
- Steel housing and ring gear
- Backlash as low as 10 arc-minutes
- High capacity output bearings
- Optional NEMA output dimensions
- 20,000 hour life
- Grease filled for life and maintenance free



PL Series

Onvio's PL reducer offers a unique variation to our value line product offering. A flange mount and machined housing allows customers to bolt a timing pulley directly to the reducer. The belt contact area of the pulley is centered over the gearbox output bearings providing higher capacity and more rigidity for high speed, high dynamic belt applications.



The modular concept allows engineers to select from single or two stages of planetary gearing to create 4 standard ratios from 3:1 to 10:1. A 1:1 right angle stage can be added for tight spaces.

Features include:

- Four frame sizes
- Carburized and skived spur gearing
- Steel housing and ring gear

- Backlash as low as 10 arc-minutes
- High capacity output bearings
- Optional NEMA output dimensions
- 20,000 hour life
- Grease filled for life and maintenance free

NEMA Series

Onvio's value line gearbox family consists of in-line, NEMA, and right angle gearboxes that offer exceptional torque ratings, bearing capacity and low backlash for many of today's servo and stepper applications.



The modular concept allows engineers to select from single or two stages of planetary gearing to create 14 standard ratios from 3:1 to 100:1. A 1:1 right angle stage can be added for tight spaces.

Features include:

- Four frame sizes
- Carburized and skived spur gearing
- Steel housing and ring gear
- Backlash as low as 10 arc-minutes
- High capacity output bearings
- Optional NEMA output dimensions
- 20,000 hour life
- Grease filled for life and maintenance free

SL Series

Onvio's new SL series gearbox provides an economical 1:1 spiral bevel gearbox for applications that require high speed motion directly to the load in tight fitting spaces. The SL utilizes a cast aluminum housing and precision bevel gears that provide high torque and low backlash and is ideal for many of today's servo and stepper motor applications.



Additional Features include:

- Cast Aluminum housing

- Carburized spiral bevel gears
- High capacity ball bearing support
- Grease filled for life and maintenance free
- 20,000 hour life
- NEMA output flanges available
- Interchangeable with many brands

RL Series

Onvio's RL series gearbox combines our SL technology together with our Value Line planetary gearbox to provide a low backlash, economical right angle solution. The RL is available in four frame sizes with either a single or two stage planetary integrated closely to the bevel stage.

Additional Features include:

- Steel Housing
- Carburized spiral bevel gears
- Four frame sizes
- Carburized and skived spur gearing
- Steel housing and ring gear
- Backlash as low as 10 arc-minutes
- High capacity output bearings
- Optional NEMA output dimensions
- 20,000 hour life
- Grease filled for life and maintenance free



FL Series

Onvio's FL series gearbox is perfect for high dynamic belting applications that put a heavy radial load on the gearbox. Onvio has combined our SL bevel gearbox with our PL flanged gearbox to provide a compact belt drive that can be installed in the tightest spaces. Onvio's pulleys are made fit in almost any pitch style make the FL a versatile right angle solution for high speed motion control applications.

Additional Features include:

- Steel Housing
- Carburized spiral bevel gears



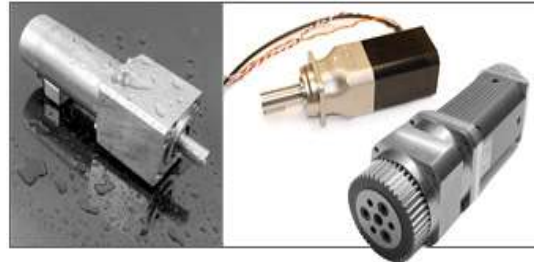
- Four frame sizes
- Carburized and skived spur gearing
- Steel housing and ring gear
- Backlash as low as 10 arc-minutes
- High capacity output bearings
- Optional NEMA output dimensions
- 20,000 hour life
- Grease filled for life and maintenance free

Specialty Products

Onvio's philosophy is to provide the widest range of standard products available based on modular design concepts. This has allowed us to provide high quality standard products at the lowest cost in the fastest time.

In addition, it provides the foundation with which Onvio can create cost effective custom OEM products with very short lead times.

Integrated Servo Motors – Onvio works with several motor manufacturers that provide make to order frameless parts for many applications including AGV's, military robots, bottling equipment, among others.



Low Temperature Gearboxes – It is critical that gearboxes operating in extreme low temperature environments have as little friction as possible in order to maximize motor torque. Onvio has developed some simple design enhancements and special grease to allow for outstanding performance at both extreme low temperatures (down to -50 C).

Washdown environments – In packaging and food processing, gearboxes and gearmotors must be completely sealed to keep out water and other harsh chemicals that can shorten gearbox life. Onvio offers a full line of IP67 rated products designed to meet individual application requirements.



Washdown Environments

AGV Drives – Light weight designs with integrated motors provide outstanding peak torque and speed performance for many of today's AGV's and military robots.



AGV Drives

Precision Hobbed Pulleys, Sprockets, Bar Stock, Clamp Plates

Onvio pulley products are the result of decades of manufacturing experience in timing belts and precision motion control products. World Class facilities in Salem, NH (Corporate Headquarters) and Puebla, MX (ISO 9001:2000) provide globally competitive products. We offer a wide selection of materials and can provide complete secondary machining and "value added services" on all products.

Standard Pulleys / Sprockets

Precision hobbled in all popular belt pitch configurations

- Stamped Steel Flanges
- Standard Hubs
- Pilot Bore or Finished Bore



Modified Pulleys

Precision hobbled in all popular belt pitch configurations

- Stamped Steel or Custom Flanges
- Double, and Triple Pulleys
- Keyways, Set Screws, Counter-bores, Custom Hubs, Snap Ring Grooves, Precision Shafting, Tapered Bushing prep, V-Guides, Precision Drilling / Tapping



Timing Pulley Bar Stock

- Manufactured for all popular belt pitch configurations – Precision Hobbed
- Lengths up to 24 inches (based on pitch and tooth count)
- ...or let Onvio provide finished pulleys to your drawing!





Timing Belt Clamp Plates

- Manufactured for all popular belt pitch configurations
- Groove Plate and Flat Plate
- Complete sub-assembly products



Value-Added Services & Sub Assemblies



Modified Pulleys, Sprockets and Machined Components

- Bearings, Snap Rings, Dowel Pins, Spring Pins, Thread Inserts, Bushings, Specialty Hardware, Precision Shafting, "Kitting", ...and more
- E-M Integration (includes planetary gearing, motors, clutches, brakes, etc.)



For more detailed information please visit:

www.motion-designs.com

and

www.onviolc.com

