Precision Motion Control Pulleys

onvio

EXPRESS SERVICE

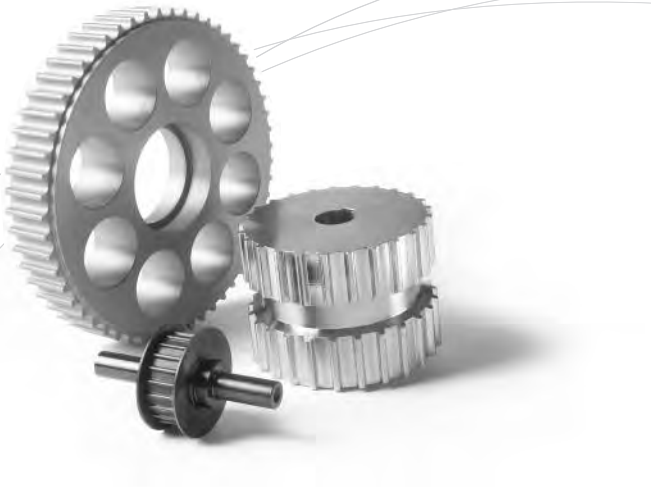
- Automated design tools
- Instant quoting
- Fastest delivery

QUALITY

- Belt and pulley know how
- Consistent design standards
- World class “LEAN” manufacturing
- Precise machining standards

CAPABILITY

- Focused on motion control
- Made to order is standard
- Multiple material choices
- All popular pitches



Applications for timing belts are becoming more and more demanding every day. As these demands evolve beyond every day power transmission applications, engineers are forced to optimize all system elements including pulleys.

At Onvio, we specialize in producing customized pulleys, produced precisely to the engineer’s design. Issues such as minimizing inertia, close fitting spaces, light weight, special coatings, tight tolerances as well as total package responsibility are exactly what we are good at.

Our pulleys are produced in virtually all pitch types — inch and metric, AT and curvilinear. Our strengths lie in our quality, our speed of quoting, as well as fast and efficient delivery.

With years of experience in not only timing belts and pulleys; but vast knowledge in high precision motion control components, Onvio can deliver virtually any custom timing belt pulley and insure that it will be the right one.

Onvio is a manufacturing company with locations in the United States and Mexico. By employing World Class manufacturing standards we are able to control all aspects of the manufacturing process which means we will deliver the right product — on time. You can count on it.

onvio

Onvio Precision Pulleys
Made To Your Specifications

Custom Timing Belt Pulleys

Pulleys

Custom for you, standard for us. At Onvio, the only pulleys we produce are made specifically to our customer's requirements. That means that our entire business process is set up to deliver exactly what you want — fast and at an economical price.

We can produce pulleys from steel, aluminum, stainless steel, special materials or plastics, with special coatings — all to your exact requirements. Available in wide widths, with or without flanges, and self tracking v-grooves.

Pulley Bar Stock

For customers who wish to final machine their own pulleys, especially for quick delivery of prototype custom pulleys, we produce a range of bar stock which allows you to produce your own pulleys.

Clamp Plates

Onvio produces a line of precision belt clamp plates as well as belt tension clamps. All clamp plates are designed to precisely match the belt they are clamping.

Power Pulley

We have combined the transmission strength of a speed reducer and the compact size of a pulley in our revolutionary gearbox in a pulley.

ISO9001:2000

Specs
Onvio Capabilities

Made to order timing pulleys in 1 to 2 weeks.

- Globally competitive pricing.
- Delivered when YOU need them.

Standard pulley features available:

- Flanges, hub, pilot bore, finished bore / counterbores, keyways, set screws, V-guides (K6, K13, A, O).

Value added features include:

- Precision machining for bushings, bearings, retaining rings, slip clutches, spline bore, etc.

Extensive "Made to Order" product line

- All standard pitches / profiles and tooth counts.
- Pulleys up to 12" / 305mm in diameter.

Onvio is continually upgrading and expanding the pulley manufacturing, please contact us at (866) 685-0404 for more information.

Standard Timing Belt Profiles:

MXL	(.080")	standard tooth clearance
40DP	(.0816")	standard tooth clearance
XL	(.200")	standard tooth clearance
L	(.375")	standard tooth clearance
H	(.500")	standard tooth clearance
XH	(.875")	standard tooth clearance
T2.5	(2.5mm)	standard tooth clearance
T5	(5mm)	standard and zero backlash tooth clearances
T10	(10mm)	standard and zero backlash tooth clearances
T20	(20mm)	standard tooth clearance
AT5	(5mm)	standard and zero backlash tooth clearances
AT10	(10mm)	standard and zero backlash tooth clearances
AT20	(20mm)	standard and zero backlash tooth clearances
HTD 3	(3mm)	standard tooth clearance
HTD 5	(5mm)	standard tooth clearance
HTD 8	(8mm)	standard tooth clearance
STS 3	(3mm)	standard tooth clearance
STS 5	(5mm)	standard tooth clearance
STS 8	(8mm)	standard tooth clearance
Gates 3MGT*	(3mm)	contact Onvio for details
Gates 5MGT*	(5mm)	standard tooth clearance — Powergrip
Gates 8MGT*	(8mm)	standard tooth clearance — Powergrip / Polychain
Gates 14MGT*	(14mm)	contact Onvio for details

* GT, Powergrip, and Polychain are registered trademarks of The Gates Corporation

Custom Pitch Design	contact Onvio for details
Flat Roller Pulley	contact Onvio for details
Crowned Roller Pulley	contact Onvio for details

Materials

Type of Material	Available Finishes
Aluminum	Clear Anodize, Black Anodize Hardcoat Anodize, Electroless Nickel
Steel	Clear Zinc, Black Oxide Electroless Nickel, Black Zinc
Stainless Steel	None
Delrin, Nylon, Nylamid, UHMW	

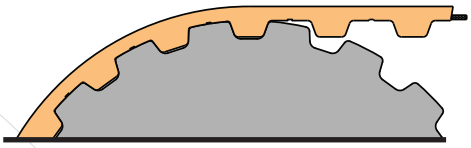
Pulleys

Ultimate Performance

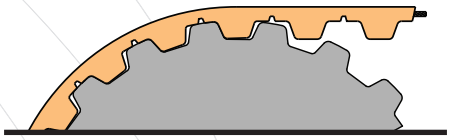
Proper meshing between belt and pulley is critical, especially in high precision motion control applications. The production methods used for making pulleys results in slight differences in the tooth profile as the tooth count varies. When a belt bends around a pulley, its tooth profile also changes and is dependent on the specific radius of that bend. Furthermore, the tooth profile of a belt can change from manufacturer to manufacturer.

To insure proper meshing of belt and pulley, it is crucial to understand these relationships. Onvio has a long history and deep knowledge of both belts and pulleys, and therefore can help to make sure that the belt and pulley function properly together. The following diagrams show each tooth profile in an ideal mesh with its corresponding pulley.

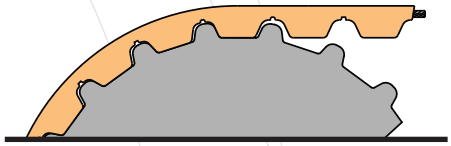
Onvio's years of experience guarantee the right mesh between belt and pulley



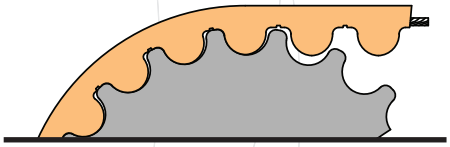
Imperial Section



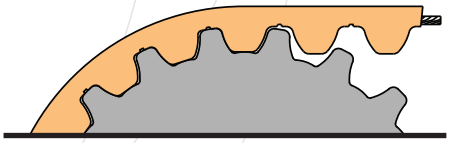
T Section



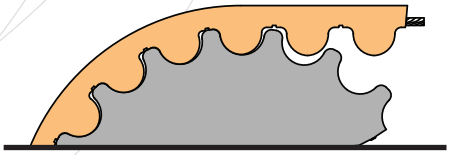
AT Section



HTD Section



STS Section



GT Section

Pulleys

Types and Options

The only pulleys we produce are made specifically to our customer's requirements.

Lightening Holes and Pockets

Keyway with Set Screws

Bearing Counter Bores

With QD Bushings

With Keyless Bushings

With Taper Bushings

Single Flange

Bolt on Flanges

Custom Bolt on Flanges

V-Guide

Hub with Counter Bores

Idler Roller

Onvio Worksheet

Complete this form and fax to 603 685-0405
or visit us online at www. onviollc.com.

Name: _____

Title: _____

Company: _____

Address: _____

_____

_____

Telephone: _____

Fax: _____

email: _____

Describe Application: _____

_____

_____

_____

_____

Tooth Form: _____

Belt Width: _____

Number of Teeth: _____

Tooth Clearance:

- ☐ Standard
- ☐ Zero Backlash

Material:

- ☐ Aluminum
- ☐ Steel
- ☐ Plastic
- ☐ Stainless Steel

Finish/Plating: _____

Flanges:

- ☐ 1 Flange Hub Side
- ☐ 1 Flange Opposite Hub
- ☐ 2 Flanges

Flange Material:

- ☐ Steel (standard)
- ☐ Aluminum
- ☐ Stainless Steel

Pulley Type:

- ☐ With Hub
- ☐ Without Hub
- ☐ Other: _____

V-Guide

- ☐ A-Section
- ☐ K 6 Section
- ☐ K 13 Section
- ☐ O Section

- ☐ **Standard Pilot Bore:** _____
- ☐ **English Bore:** _____
- ☐ **Metric Bore:** _____
- ☐ **Standard Keyway:** _____
- ☐ **Custom Keyway:** _____

Quantity of Set Screws:

- ☐ 1
- ☐ 2
- ☐ Other

Location of Set Screws:

- ☐ 90 Degrees Apart
- ☐ 120 Degrees Apart

Counterbores:

- ☐ None (standard)
- ☐ 1 C'bore Hub Side
- ☐ 1 C'bore Opposite Hub
- ☐ 2 C'bores

Other Features: _____

_____

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To speak with an Onvio representative please call 603 685-0404
or toll free 866 685-0404, or, e-mail to: engineering@onviollc.com.

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www.onviollc.com

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Pulley Brochure
ONV-PMCP-03