

# VORTAKT

BARREL · WORKS

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## BEST PRICE AND IMMEDIATE DELIVERY



Driven by a commitment to operational excellence and advanced manufacturing, Vortakt's Air-Drop Program reduces costs and lead times on our most requested barrels. Select 200, 400, or 500 Series options with flexible configurations, volume pricing, and same-day shipping. Minimum order and configuration options vary by performance series.

### 200 SERIES BARREL BLANKS

ORDER MINIMUMS: 250 PCS TOTAL PER ORDER			
CALIBER	TWIST RATE	MATERIAL	LENGTH X OD
7.62mm	1:10	4150 CrMoV	17.0" x 1.00"
.223	1:7		
.223	1:8		
.223	1:9		

### 400 SERIES BARRELS

ORDER MINIMUMS: 10 PCS PER CONFIGURATION   30 PCS TOTAL			
CALIBER	TWIST RATE	MATERIAL	LENGTH X OD
.22 RF	1:16	416R SS	29" x 1.200"
.223	1:8		
6mm (.243)	1:7.5		
6.5mm (.264)	1:8		
7mm (.284)	1:8		
.30	1:10		

### 500 SERIES BARRELS

ORDER MINIMUMS: 10 PCS PER CONFIGURATION   20 PCS TOTAL			
CALIBER	TWIST RATE	MATERIAL	LENGTH X OD
.223	1:8	416R SS	29" x 1.200"
6mm (.243)	1:7.5		
6.5mm (.264)	1:8		
7mm (.284)	1:8		
.30	1:10		

\*Product offerings are subject to change without notice. Check the website for the latest product updates.



# IT'S NOT BLACK MAGIC IT'S MANUFACTURING TECHNOLOGY

Firearm manufacturers rely on Vortakt Barrel Works to consistently produce quality barrels designed to exact specifications with world-class manufacturing technology. Whether this involves using state-of-the-art robotics in automated rifling cells or delivering single setup solutions for contouring, chambering, and external machining operations, Vortakt is on the bleeding edge of technological innovation.

# BARREL BLANK MANUFACTURING

Vortakt's barrel blank production process is efficiently managed by consolidating all operations within a single manned or automated CNC machining cell.

## STEP 1

### MATERIAL SELECTION

Strong business relationships with steel mills ensure consistent availability, pricing, and well-defined material specifications.



## STEP 2

### GUN DRILLING

Drilling is carried out on dual-spindle CNC gun drilling machines that allow for hole diameters as large as 25mm.



## STEP 3

### REAMING

CNC reaming machines with high-pressure chip flushing oil guarantee a smooth bore for the rifling operation.

## STEP 4

### RIFLING

Vortakt offers both button and single-point cut rifling options based on finish preferences and volume requirements.



## STEP 5

### STRESS RELIEVING

Each barrel is heat-treated in-house with a rigidly controlled process to ensure bore uniformity throughout all finishing operations.



## STEP 6

### LAPPING

Various lapping options are available for 300, 400, and 500 Series barrel blanks based on internal finish requirements.

# FINISHING OPERATIONS

Vortakt's S<sup>3</sup> (Single Setup Solution) technology allows for the consolidation of contouring, chambering, and finish machining operations based on unique dimensional requirements.

## STEP 7

### CONTOURING

Blanks are robotically loaded into multi-tasking CNC lathes with in-process inspection to execute turning operations.



## STEP 8

### CHAMBERING

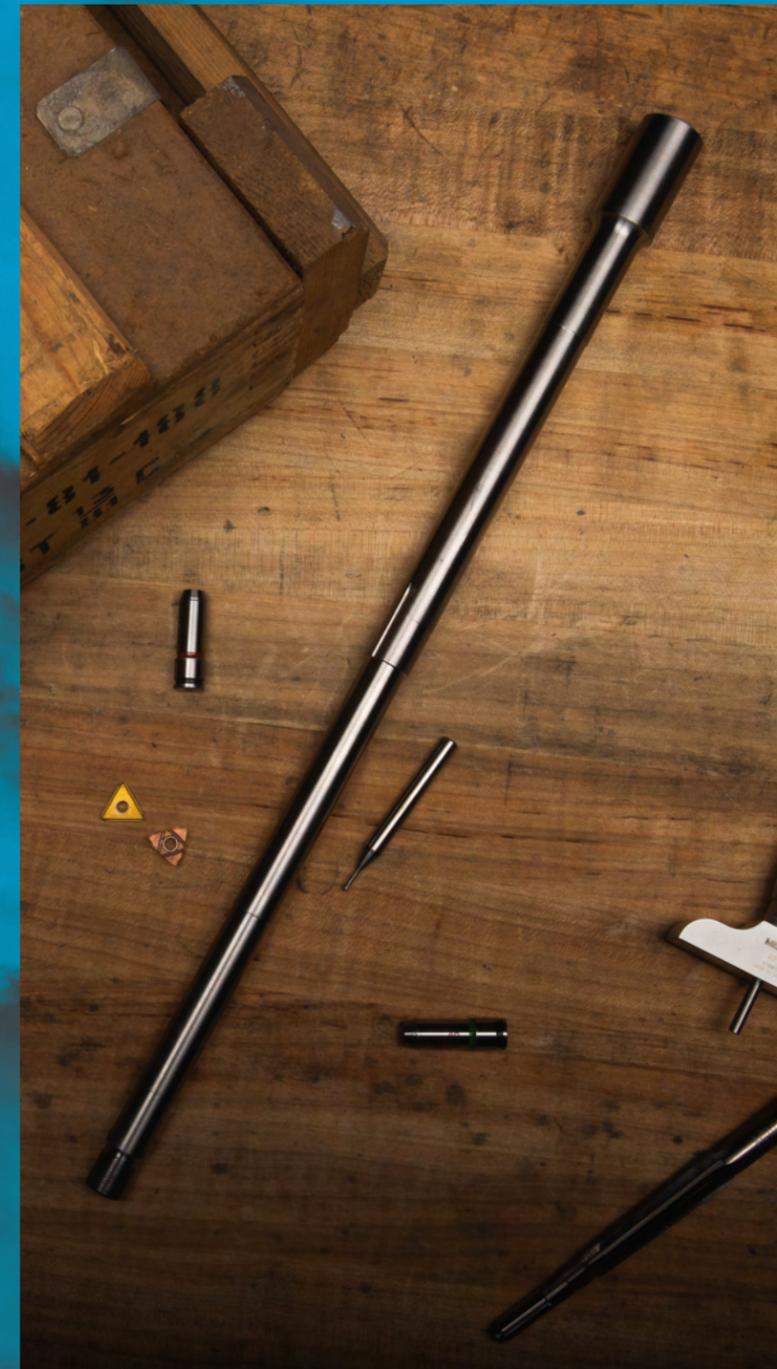
Consolidating contouring and chambering operations guarantees uniform concentricity of the chamber and bore.



## STEP 9

### MACHINED FEATURES

S<sup>3</sup> ensures precise relational indexing of machined features, a process that previously required additional milling operations.



# BARREL BLANKS



Vortakt produces barrel blanks to accommodate all budgets, designs, and performance requirements. Vortakt supplies barrel blanks to both large and small OEMs, from 50-piece batches of 500 Series cut rifled barrels to 10,000+ piece blanket orders of 200 Series button rifled barrels.

## BARREL BLANK OPTIONS:

- Define your material specifications
- Gain twist available
- Button or single-point cut rifling
- Flexible finishing capabilities
- Standard or custom rifling profiles
- In-stock quick ship inventory

# BARREL PERFORMANCE SERIES

The following series options are engineered and manufactured at defined quality levels to best suit the unique precision and economic requirements of our OEM clients:

## 100 SERIES

**100 SERIES BARRELS** are gundrilled and reamed faster with fewer tool changes, leading to cost-effective production. Maintaining Vortakt's rigorous standards and SAAMI specifications, Series 100 barrels yield consistent quality at production quantities.

PRECISIONPOTENTIAL  PRODUCTIONTIME  COST

## 200 SERIES

**200 SERIES BARRELS** are our most popular – balance affordability without sacrificing performance. These barrels are manufactured and tested above industry standards, meeting the needs of most firearm OEMs.

PRECISIONPOTENTIAL  PRODUCTIONTIME  COST

## 300 SERIES

**300 SERIES BARRELS** are match-grade quality. Gundrilled and reamed at slower feeds and lapped to remove tooling marks, Series 300 barrels adhere to improved tolerance standards with straighter bores, a superior finish, and improved accuracy, even at high production levels.

PRECISIONPOTENTIAL  PRODUCTIONTIME  COST

## 400 SERIES

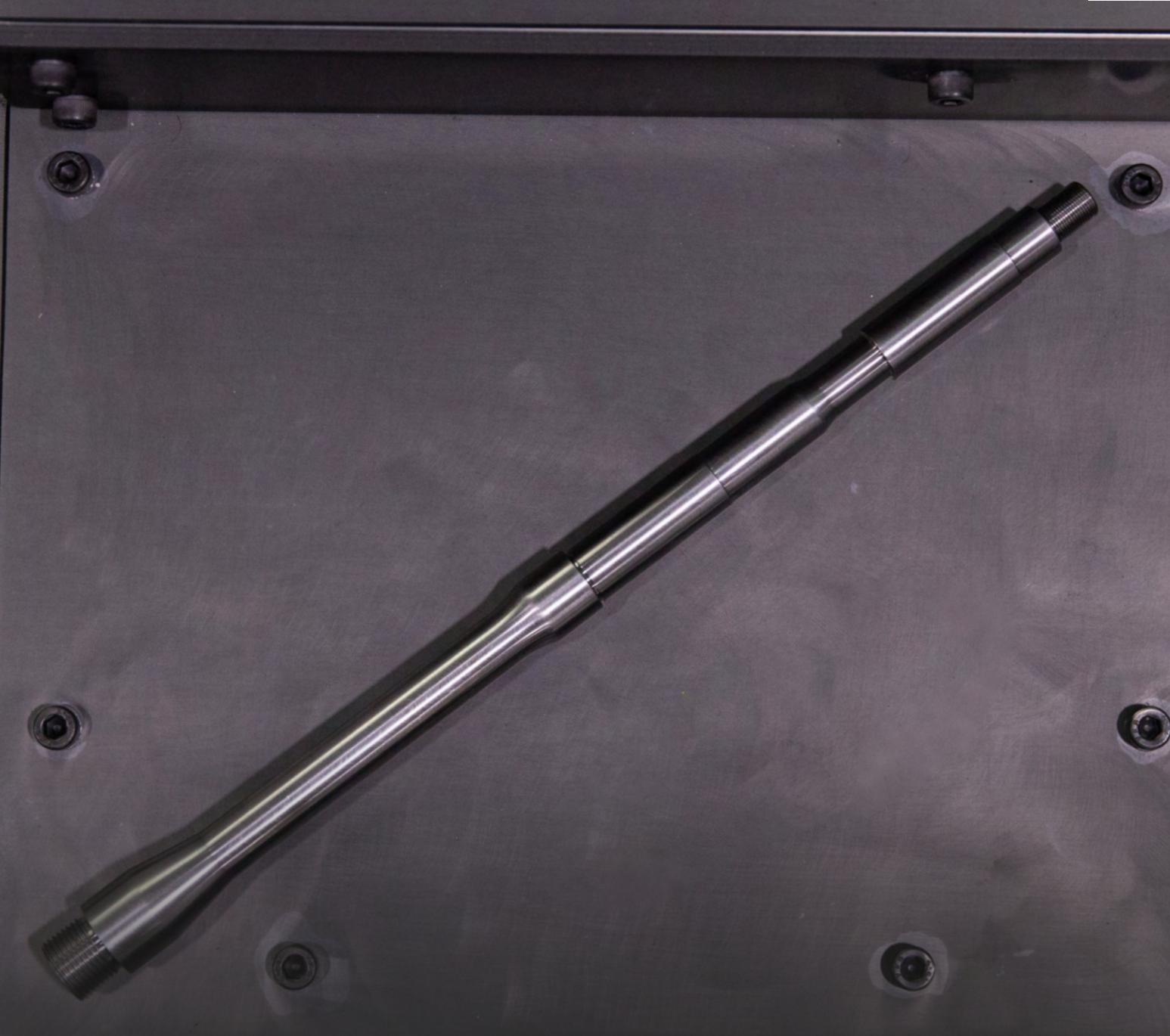
**400 SERIES BARRELS** offer the same match-grade quality as Series 300 barrels with the added process of lead lapping. This removes nearly all tooling marks, resulting in a premium surface finish and consistent bore and groove diameters.

PRECISIONPOTENTIAL  PRODUCTIONTIME  COST

## 500 SERIES

**500 SERIES BARRELS** offer the ultimate in performance and accuracy. Every barrel is pre-lapped, single-point cut rifled, and finish lapped. The end result is a stress-free barrel made with the tightest bore and groove diameter tolerances and uniformity.

PRECISIONPOTENTIAL  PRODUCTIONTIME  COST



# INDUSTRY-WIDE MANUFACTURING SUPPORT

**CHAMBERING** – Vortakt supports a wide selection of SAAMI and custom chamber options.

**CUSTOM CONTOURING** – AR barrels are profiled to match your desired specifications.



**LAPPING** – 300 and 400 Series AR barrels feature a match-grade rifling finish.

**FINISH PREP** – Barrels can be prepared for chrome-lining, salt bath nitriding, or other finish treatments.

## AR BARRELS

An industry-leading OEM barrel source for “America’s Rifle,” Vortakt has established itself as a reliable supplier for some of the industry’s most well-known AR rifle manufacturers. The unparalleled use of manufacturing technology and flexibility in barrel performance series options sets Vortakt apart.



	MORE COMMON	LESS COMMON
SERIES	<b>200</b>	<b>100 300 400</b>
MATERIAL	4150 CrMoV, 416R SS	4140 GBQ
CHAMBER	.223 Wylde, 5.56 NATO, .308 Win, .300 Blackout, 9mm Luger, .350 Legend	.223 Rem, .224 Valkyrie, 5.7x28, 6mm ARC, 6mm Creedmoor, 6.5 Creedmoor, 6.8 SPC, 7.62x39, 8.6 Blackout, .40 S&W, 10mm, .45 ACP, 450 Bushmaster, .458 SOCOM

*\*Additional custom options are available upon request*



# AK BARRELS

Like any major platform design, the Kalashnikov family of barrels has its fair share of unique production requirements with the added caveat of price sensitivity. Vortakt can accommodate AK designs with tight dimensional tolerances on precision-finished surfaces, chamfered gas ports, and unique milling operations.



## THE NATION'S LEADING AK BARREL MANUFACTURER

**PRECISION MACHINING** – In-process gauging with closed-loop feedback eliminates secondary operations like grinding with press-fit surfaces.

**S<sup>3</sup> TECHNOLOGY** – Chamfered gas ports and unique milling operations are supported through Vortakt's single setup solutions.



**CUSTOM DESIGN** – All Vortakt AK barrels are machined to match your desired specifications.

**VARIANT SUPPORT** – Vortakt can provide OEM support for any number of AK patterns and designs.

	MORE COMMON	LESS COMMON
SERIES	<b>100</b>	<b>200</b>
MATERIAL	4150 CrMoV	4140 GBQ
CHAMBER	7.62x39, 7.62x54R	.308 Win, 5.56 NATO, 9x39mm

*\*Additional custom options are available upon request*



# BOLT BARRELS

Whether your rifles are designed for plinking, hunting, competition, or military/government applications, Vortakt Barrel Works can produce finished button and single-point cut barrels in volume. From carbon fiber-wrapped contours to profiles with unique machined features, Vortakt can support your OEM production needs.



## REPEATABLE AND SCALABLE PRECISION

**PRE-FIT DESIGNS** – Precise tolerancing allows Vortakt to deliver shouldered pre-fit barrels to match receiver specifications.

**MATCH-GRADE PERFORMANCE** – 300, 400, and 500 Series bolt action barrels feature incremental enhancement through finish lapping operations.



**RIFLING METHODS** – Bolt action barrels can be produced with button or single-point cut rifling methods.

**REPEATABILITY** – Vortakt's prowess in leveraging automation technology delivers dimensional consistency in volume production.

	MORE COMMON	LESS COMMON
SERIES	<b>300 400</b>	<b>200 500</b>
MATERIAL	416R SS	4150 CrMoV
CHAMBER	.22 LR, .223 Rem, .243 Win, 6 Creedmoor, 6.5 Creedmoor, 6.5 PRC, .270 Win, 7mm PRC, 7mm Rem Mag, 7mm WSM, .308 Win, .30-06, .300 Win Mag, .338 Lapua Mag, .50 BMG	.22-250, 6 Dasher, 6BR, 6GT, .257 Weatherby, .260 Rem, .270 WSM, 6.8 Western, .300 PRC, .338 Federal, 8.6 Blackout

*\*Additional custom options are available upon request*

# PISTOL BARRELS

Vortakt produces pistol barrels for all platforms. As a partner in the manufacturing process, Vortakt supplies finished barrels, semi-finished “lollipops”, and precision barrel blanks.



## CUSTOMIZED FINISHED AND SEMI-FINISHED OPTIONS

**LOLLIPOPS** – Semi-finished “lollipop” barrels are delivered to manufacturers prepped for lug machining.



**LUG MACHINING** – Finishing operations performed on a 5-axis machine to your exact specifications. Customized text or logo engraving available.

**SECONDARY MACHINING** – Vortakt’s mill-turn machines allow for additional machining or threading in a single set-up.

**SERVICING ALL MODELS** – Vortakt provides pistol barrels for a wide range of platforms per an OEM’s specification.

	MORE COMMON	LESS COMMON
SERIES	<b>200</b>	<b>100 300</b>
MATERIAL	416R SS	4150 CrMoV
CHAMBER	.22LR, 9mm Luger, .45 ACP	.357 Magnum, 40 S&W, 10mm Auto, 5.7x28, .32 ACP

*\*Additional custom options are available upon request*



# RIMFIRE BARRELS

Firearms chambered for rimfire cartridges stand apart in a world of their own. With unique rifling, twist rates, chamber specifications, and exterior profiles, Vortakt has the experience needed to accommodate the nuances required to produce a high-quality rimfire barrel.



# SMALLBORE MANUFACTURING SOLUTIONS

**RELIABLE FEEDING** – Chamber designs like the “.22 Bentz” may be leveraged for repeatable feeding from semi-automatic designs.

**PLATFORM FLEXIBILITY** – Vortakt builds rimfire barrels to match your design requirements.



**INDEXED FEATURES** – Extractor grooves and machined features are aligned through Vortakt’s “S<sup>3</sup>” Single Setup Solution.

**RIFLING OPTIONS** – Vortakt can provide rimfire barrels with both SAAMI and custom polygonal rifling patterns.

	MORE COMMON	LESS COMMON
SERIES	<b>200</b>	<b>100 300</b>
MATERIAL	4150 CrMoV	4140 GBQ, 416R SS
CHAMBER	.17 HMR, .22 LR	.17 Mach 2, .17 WSM, .22 Bentz

*\*Additional custom options are available upon request*



# MIL-SPEC BARRELS

Vertical integration capabilities and enhanced scalability ensure Vortakt can support certified military or government contract opportunities relating to infantry small arms and crew-served platforms. Vortakt also offers the capability of producing larger bore barrels for aircraft or vehicle-mounted armaments.



# TRUE MIL-SPEC BARRELS FOR GOVERNMENT CONTRACTS

**PRECISE TOLERANCES** – Nearly all bore, groove, profile, and chamber tolerances on mil-spec barrels are held to around half of the industry standard.

**COMPLIANCE SPECIALISTS** – Vortakt accommodates unique drawings, quality clauses, processing, and shipping requirements.



**MATERIAL SELECTION** – Materials used for US military contracts meet all MIL-B-11595 key requirements.

**BORE FINISH** – Features like rifling leading/trailing edge surface finishes are held to better than 16 Ra.

	MORE COMMON	LESS COMMON
SERIES	<b>300</b>	<b>400</b>
MATERIAL	4150 CrMoV	SPECIALTY MATERIALS
CHAMBER	5.56 NATO, 7.62 NATO	7.62x54R, 7.62x39, 9mm Luger, .50 BMG

*\*Additional custom options are available upon request*



# PRE-FIT BARRELS

Vortakt delivers shouldered or barrel nut pre-fit barrels to custom action manufacturers and bolt-action rifle brands. Find out how our pre-fit barrel production capabilities will save you valuable time and labor in head spacing, finish machining, and barrel installation.



## DELIVERING CUSTOM PRE-FIT SOLUTIONS

**CUSTOM SHANK DESIGNS** – Share your engineering drawing, and Vortakt will deliver a pre-fit barrel line that meets your breech design specifications.

**INDEXED FEATURES** – S<sup>3</sup> (Single Setup Solutions) Technology allows for unmatched consistency in thread, shoulder, and machined feature alignment.



**TURNKEY HEADSPACING** – The pre-fit machining process enables precise relational tolerances with your receiver face and threads, eliminating the need for finish reaming.

**CARTRIDGE FEEDING** – Chamfers, feed ramps, and precise breech machining aid in reliable cartridge cycling.

	MORE COMMON	LESS COMMON
SERIES	<b>200 300</b>	<b>400 500</b>
MATERIAL	416R SS	4150 CrMoV
CHAMBER	6mm Creedmoor, 6.5 Creedmoor, 6.5 PRC, .270 Win, 7mm PRC, 7mm Rem Mag, .308 Win, .300 PRC, .338 Lapua Magnum	6.8 Western, 7mm WSM, .30-06, .300 Win Mag, .50 BMG

*\*Additional custom options are available upon request*



# .50 CALIBER BARRELS

When you need to stretch the limits of the .50 BMG cartridge, Vortakt is the barrel manufacturer to call. With the ability to handle very large workpieces up to 47" long and 3" in diameter, Vortakt is ready to support all .50 BMG barrel needs intended for civilian or military use.



## GEARED FOR HEAVY METAL BARREL PRODUCTION

**VOLUME PRODUCTION** – Robotics and CNC technology reduce cycle time, minimize labor costs, and optimize setup across the entire production batch.

**MATERIAL HANDLING** – Our gantry crane system is set up for the heaviest .50 caliber barrels, accommodating lengths of up to 47" and diameters of 3 inches.



**CONTRACT SUPPORT** – A commitment to engineering best practices, automation technology, and close adherence to tolerance ensures performance in-line with government standards.

**CUSTOM BORE DIMENSIONS** – Production of .50 BMG barrels can include a counterbore for Stellite liners or oversized bore/groove dimensions to allow for chrome lining.

	MORE COMMON	LESS COMMON
SERIES	<b>300</b>	<b>200 400</b>
MATERIAL	4150 CrMoV, 4140 GBQ	416R SS
CHAMBER	.50 BMG	.50 AE, .50 Beowulf

*\*Additional custom options are available upon request*



# BARRELS FOR EVERY PISTOL CALIBER CARBINE DESIGN

**DIVERSE PLATFORMS** – Share your engineering drawing, and Vortakt will deliver finished or semi-finished barrels for all PCC designs and configurations.

**MACHINED FEATURES** – Porting. Threading. Lug machining. S<sup>3</sup> (Single Setup Solutions) Technology allows for unmatched alignment and consistency.



**CHAMBER GEOMETRY** – PCC barrels are susceptible to stuck cases due to variances in ammunition. Vortakt's purpose-built reamer designs ensure case extraction.

**CARTRIDGE FEEDING** – Chamfers, feed ramps, and precise breech machining aid in reliable cartridge cycling.

## PCC BARRELS

Every pistol caliber carbine model is unique. Vortakt provides OEM barrel production for direct blowback, roller delayed, radial delayed, short-stroke gas piston, and proprietary PCC designs. It's your platform, and we're looking forward to supporting it!



	MORE COMMON	LESS COMMON
SERIES	<b>100 200</b>	<b>300</b>
MATERIAL	4150 CrMoV	416R SS
CHAMBER	9mm Luger, .45 ACP	.40 S&W, 10mm Auto, 5.7x28, .357 SIG

*\*Additional custom options are available upon request*



## PRECISION BARRELS FOR LIGHTWEIGHT DESIGNS

**LIGHTWEIGHT PROFILES** – Carbon fiber barrels feature some of the industry’s thinnest contours while maintaining accuracy.

**RIFLING PROFILE** – Bore & groove variance less than 0.0001” achieved through Vortakt’s proprietary lead lapping process.



**BUILT TO SPECIFICATION** – Chambered and threaded for drop-in assembly or prepped for in-house machining.

**STRAIGHTNESS** – Material processed and stress relieved to eliminate warping during contouring.

## CARBON FIBER BARRELS

Vortakt manufactures barrels for OEMs, offering lightweight carbon fiber-wrapped barrels. Each barrel delivers tight bore to OD concentricity with out-of-the-box accuracy. These barrels provide a sturdy foundation for lightweight hunting rifles or AR platforms.



	MORE COMMON	LESS COMMON
SERIES	<b>300 400 500</b>	<b>200</b>
MATERIAL	416R SS	4150 CrMoV
CHAMBER	.22 LR, .223 Rem, .243 Win, 6 Creedmoor, 6.5 Creedmoor, 6.5 PRC, .270 Win, 7mm PRC, 7mm Rem Mag, 7mm WSM, .308 Win, .30-06, .300 Win Mag	.22-250, 6 Dasher, 6BR, 6GT, .257 Weatherby, .260 Rem, .270 WSM, 6.8 Western, .300 PRC, .338 Federal, 8.6 BLK

*\*Additional custom options are available upon request*



# MUZZLELOADER BARRELS

Purpose-built to your print, Vortakt supports a variety of muzzleloader manufacturers with OEM barrel designs. Often thin and long in design with larger caliber bores, Vortakt's stress-relieving operations ensure maximum concentricity and straightness in each and every barrel.



# BARRELS FOR MODERN MUZZLELOADER MANUFACTURERS

**BREACH THREADING** – Female threads held to tight 3B class tolerances.

**INDEXED FEATURES** – Single setup for tapped holes and clocked features like sights and dovetails.



**COUNTERBORE ALIGNMENT** – Consistent work holding delivers concentric bullet engagement between rifling and counterbore.

**CONSISTENT TOLERANCES** – Vortakt ensures perpendicularity of the tenon shoulder of .001 to the bore.

	MORE COMMON	LESS COMMON
SERIES	<b>200 300</b>	<b>400</b>
MATERIAL	416R SS	CRMOV
CALIBER	.50	.45

*\*Additional custom options are available upon request*

# CALIBER & ORDERING INFORMATION

Common calibers and chambering options are available with an express lead time. Please request a quote for additional configuration options.

CALIBER	COMMON CHAMBERING OPTIONS	GROOVES	TWIST RATES
.17	.17 HMR, .17 WSM	6	1:9
4.6mm	4.6x30	6   6R	1:6
.22 RF	.22 LR, .22 Bentz, .22 Match	6   6R	1:9   1:16
5.7mm	5.7x28	8	1:9
.223	.223 Rem, .223 Wylde, 5.56 NATO, .22 Creedmoor	5R   6	1:5   1:6   1:6.5   1:7   1:8   1:9   1:12   1:14   1:16
6mm (.243)	6mm ARC, .243 Win, 6mm GT, 6mm Creedmoor	4   5R   6	1:7   1:7.5   1:8
.257	.25 Creedmoor, .257 Weatherby	5R   6	1:7.5   1:10
6.5mm (.264)	6.5 Creedmoor, 6.5 PRC, 6.5 Grendel	4   5R   6	1:7.5   1:8
6.8mm (.270)	.277 Fury, .270 Win, 6.8 SPC, 6.8 Western	4   6R	1:7.5   1:8   1:10
7mm (.284)	7mm PRC, 7mm Rem Mag, 7mm WSM	4   5R   6	1:8   1:8.5   1:9   1:9.5   1:10
.30	.308 Win, 7.62 NATO, .30-06, .300 Win Mag, .300 PRC, .300 BLK	4   5R   6	1:5   1:6   1:7   1:8   1:9   1:10   1:11.25   1:12
7.62mm	7.62x39, 7.62x54R	4R	1:10
8mm	8mm Mauser	4	1:9.5
.32	.32 ACP	6	1:16
.338	8.6 BLK, .338 Lapua Magnum, .338 Federal	5R   6	1:3   1:5   1:9.3   1:10
9mm	9mm Luger, .350 Legend, .357 Magnum	6R	1:10   1:14   1:16   1:10 LH   1:16 LH
.35	350 Buckhammer	5R	1:12
9.25mm	9x18 Makarov	6	1:7   1:10
.375	.375 Raptor, .375 H&H, .375 Ruger	5R	1:7
.40	.400 Legend, .40 S&W, 10mm	5   6R	1:10   1:16
.44	.44 Rem Mag, .444 Marlin	8	1:20
.45	.45 ACP, .450 Bushmaster	6R   8	1:10   1:16   1:24
.458	.458 SOCOM, .45-70	6R   8	1:14   1:18   1:24
.460	.460 S&W, .454 Casull	8	1:16
.498	.500 S&W, .500 S&W Magnum, .50 AE	8	1:20
.50	.50 BMG	8R	1:15   1:22   1:28

Export laws may restrict the sale of products. Please contact us for more information and to obtain a quote for barrel blanks, finished barrels, and related services.

## BARRELS MADE IN THE USA

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