



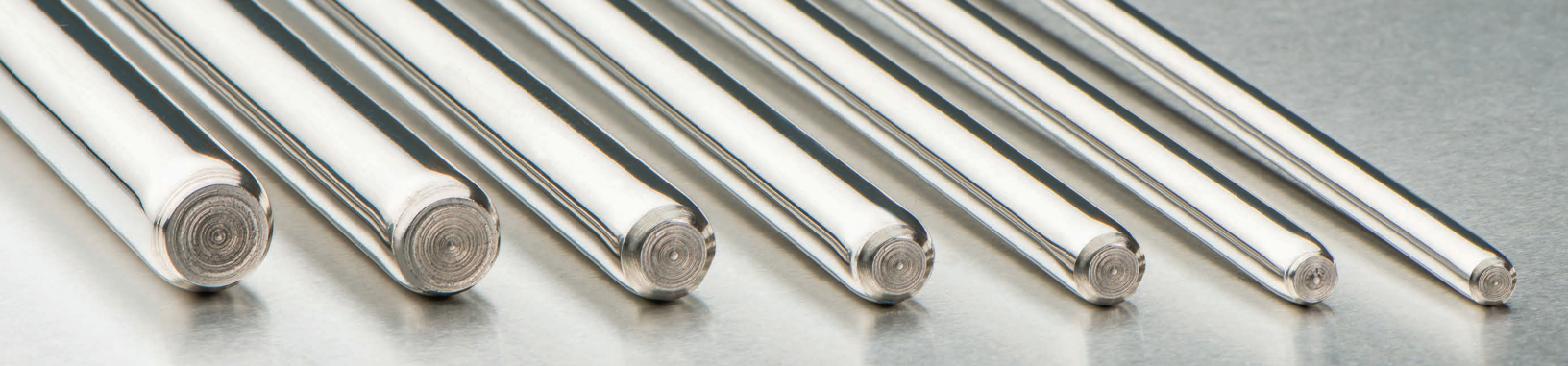
Project 70[®]+PDB[®]

Stainless Machining Bar



**Engineered for Your
CNC Swiss-Style Screw Machine**





Project 70[®]+PDB[®] Stainless Machining Bar

You need a stainless machining bar that delivers the exact characteristics necessary to optimize the productivity of your CNC Swiss-style screw machines. Carpenter PROJECT 70[®]+ PDB[®] stainless is the next generation in premium, precision drawn stainless machining bar.

PROJECT 70+ PDB stainless is Carpenter's family of premium precision drawn bar enhanced through a refined drawing process to meet your Swiss-style screw machining needs. Available in five grades, drawn to half-standard or ISO h9 dimensional tolerances, it delivers the productivity and efficiency that you need while retaining the superior processing characteristics you have come to rely on from PROJECT 70+ stainless.

Unmatched Technical Expertise

For nearly a century, Carpenter has been developing stainless steels and helping customers with their advanced machining needs.

It began with the introduction of the world's first free-machining stainless in the 1920s. In 1962, Carpenter metallurgists developed PROJECT 70[®] stainless, the pre-eminent machining bar of its time. The 21st century brought PROJECT 70[®]+ stainless, the best in class for machinability. And today, Carpenter offers PROJECT 70+ PDB stainless, a cold drawn alternative to ground bar.

Carpenter can help you maximize productivity to make your business a success.

Carpenter's Custom 630 grade is now available in a precision bar. This alloy offers superior machinability compared with standard 17Cr-4Ni stainless, and longer tool life boosts the productivity of your operation.

Carpenter Project 70[®]+ PDB[®] stainless machining bar is offered in five precision drawn grades:

Type 303 Stainless

UNS Number: S30300

An improved-machining version of Carpenter Stainless No. 8 (Type 303) that is a good general-purpose product offering a wide range of machining speeds.

Type 304/304L Stainless

UNS Number: S30400/S30403

Meets most industry specifications for Type 304/304L and minimizes carbide precipitation during welding.

Type 316/316L Stainless

UNS Number: S31600/S31603

A good general purpose product for simple and complex parts at a wide range of machining speeds.

Type 416 Stainless

UNS Number: S41600

An improved modification of Carpenter Stainless No. 5, the first free-machining stainless steel, with low frictional properties that minimize scratching and galling in service.

Custom 630 (17Cr-4Ni) Stainless

UNS Number: S17400

A martensitic, precipitation/age-hardening stainless steel offering high strength and hardness along with excellent corrosion resistance. Can be age-hardened by a single-step, low temperature treatment. Exhibits excellent resistance to oxidation up to approximately 1100°F (539°C).

PROJECT 70+ PDB stainless grades meet most AMS and ASTM industry specifications.

Visit www.machiningzone.com for detailed datasheets or inquire for additional customer requirements.

Technically, We're Experts

In addition to high quality materials, Carpenter is known the world over for technical expertise. Carpenter can help you overcome almost any machining challenge. Just bring your question to Carpenter's experienced team of technical experts.

Customer Service: 800-654-6543 | machiningzone.com

ATTRIBUTES OF EXCELLENCE - PROJECT 70®+ PDB® stainless

Improved OD Tolerances

- Minimizes bulges by offering consistent size along the entire length of the bar, preventing hang-ups during operation.
- Reduced vibration facilitates precise part tolerance control.

Precision Straightness

- Minimizes vibration and wear on guides.
- Allows bar speed RPM to be optimized for enhanced productivity.
- Bar Straightness – 1/32" max bow in any 5 foot length.

Consistency

- Highly controlled chemistry and processing from heat-to-heat, lot-to-lot, and bar-to-bar.

Chamfered Ends

- Machine chamfered both ends – 45° on the lead end to facilitate feeding into bushing or collet and 30° on trailing end to accommodate bar “push” designs on certain bar feeder systems.

Minimal “Out of Round” Condition

- Facilitates accurate feeding into bushings.
- Minimizes vibration during machining.
- Out of Round – 1/3 of diameter tolerance max.

Surface Finish

- Uniformly smooth and bright finish for aesthetic beauty and consistency bar-to-bar.

Exact Length

- Bars are cut to 144.0" +/- .50", a standard for the CNC Swiss style screw machines to help minimize waste.

Packaging

- Boxed directly from the finishing line and only opened by the customer.
- Shipped in reinforced boxes to ensure “straightness critical” condition.



Boxed and In Stock

Carpenter maintains adequate inventory levels to help keep your operations running 24/7.

PROJECT 70+ PDB stainless is available from stock in standard 144" lengths and packaged in customer friendly boxed quantities. It is available in five commonly used grades, furnished in Condition A.

- PROJECT 70+ PDB Type 303 stainless
- PROJECT 70+ PDB Type 304/304L stainless
- PROJECT 70+ PDB Type 316/316L stainless
- PROJECT 70+ PDB Type 416 stainless
- **PROJECT 70+ PDB Custom 630 (17Cr-4Ni) stainless**

DIAMETERS FROM STOCK (ROUND)

Nominal Diameter	OD Tolerance
0.2500" rd.	+/-0.0005"
0.3125" rd.	+/-0.0007"
0.3750" rd.	+/-0.0007"
0.4375" rd.	+/-0.0008"
0.5000" rd.	+/-0.0008"
0.5625" rd.	+/-0.0008"
0.6250" rd.	+/-0.0008"

PACKAGES

PROJECT 70+ PDB stainless is sold in single boxed quantities (refer to chart). If your job requires smaller quantities or non-stock sizes, contact customer service at (800) 654-6543 for options to meet your needs, or visit machiningzone.com for additional sales information

Diameter (rounds)	Weight per Box (approx.)	Total Feet per Box (estimated)
0.2500"	200 lbs. to 300 lbs.	1,198' to 1,798'
0.3125"		767' to 1,151'
0.3750"		533' to 799'
0.4375"	350 lbs. to 450 lbs.	685' to 881'
0.5000"		524' to 674'
0.5625"		414' to 533'
0.6250"		336' to 431'



Carpenter Technology Corporation (U.S.A.)

101 West Bern Street

Reading PA 19601

Tel: 800-654-6543 / 610-208-2000

Email: service@cartech.com

Start the conversation:   

www.machiningzone.com | www.cartech.com

© 2014 CRS Holdings, Inc., a subsidiary of Carpenter Technology Corporation. All rights reserved. Printed in the U.S.A. 04-14/S83

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make his/her own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. There is no representation that the recipient of this literature will receive updated editions as they become available.

Unless otherwise specified, registered trademarks are property of CRS Holdings, Inc., a subsidiary of Carpenter Technology Corporation.