

# **BAR PROGRAM**

NORTH AMERICAN VERSION • IMPERIAL UNITS

# Marcegaglia Stainless Richburg

Items shown are produced regularly for quick delivery from stock or within competitive industry lead-times. Please call a Marcegaglia representative for availability.

ROUND BARS										
	303	304 L	304 H	316 L	317 L	310	321	347	253 MA	416
1/4 -1 CDA	Р	Р	Р	Р	Р		х	х		
%16-1 CFA	Р	Р	Р	Р	Р	х	х	х	х	х
>1-3¾ CFA	Р	Р	Р	Р	Р	х	х	х	х	х
2-3½ HRART	Р	Р	Р	Р	Р	х	х	х	х	х
>3½-7 HRART	Р	Р	Р	Р	Р	х	х	х		х
>7-10 HRART	Р	Р		Р						
>10-15 HRART	Р	Р		Р						

	440 C	17-4	15-5ESR	15-5VAR	LDX 2101®	2205 +2	2507	304 HN	N60	XM-19	XM-25
1/4 - 1 CDA											
%16-1 CFA		Р	х	х	х				Χ <sup>A</sup>		Χ <sup>A</sup>
>1-3¾ CFA	х	Р	х	х	х	х	х	Χ <sup>B</sup>	ΧB	X <sup>B</sup>	x
2-31/2 HRART	х	Р	х	х	х	х	х	Χ <sup>B</sup>	х	X <sup>B</sup>	х
>3½-7 HRART		Р				х	х				х
>7-10 HRART											
>10-15 HRART											

**P**: PRODEC® Improved Machinability **A**: Alloy only available down to 1/4"

**CDA**: Cold Drawn Annealed

**B**: HS available from  $1^3/8$ " to  $3^1/2$ "

**CFA**: Cold Finished Annealed

**HRART**: Hot Rolled Annealed Rough Turned

HEXAGONAL					
	303	304 L	316 L	321	347
1/4"-1"	х	х	х	х	х
1"-11/2"	х	х	х		
2½"	х	х	х		

LENGTH CAPABILITIES							
1/4"-1	CDA	12' STD, 16' Max					
1/2"-33/4"	CFA	12' STD, 24' Max					
2"-31/2"	HRART	12' STD, 24' Max					
>31/2"-7"	HRART	12' STD, 30' Max					
>7"-15"	HRART	Inquire					

### OTHER VALUE FEATURES OF OUR BAR PROGRAM:

**PRODEC®**: For improved machinability 303, 304L, 316L and 17-4 P come standard as Prodec® Quality Material. **Complete program**: Standard and special grades, in sizes from

 $^{1}/_{4}$ " to 15" round and  $^{3}/_{8}$ " to  $^{2}/_{2}$ " hexagonal.

**Quality**: Marcegaglia Bar is ISO 9001/AS9100/PED approved. Each bundle is "XRF" grade assured.

**Conditions**: 17-4 & 15-5 aged conditions, strain hardened austenitics, and Q&T martensitics available upon inquiry. **DFARS Compliant**: All material produced is 225.7002-3B1 & 252.225.7014 compliant.

**Polished surface**: CD and CF products %/16" to 3" (including hexagonal to 1").

**Centerless Grinding**: 1/4 - to 1/2 -standard tolerance available in 1/4 to 4" diameters.

**Eddy Current testing**: Standard for 303 and 416 grades. Available upon request in other grades.

**Chamfering:** Both ends in drawn products and one end for CF products through 11/6".

**Defense**: Offering various grades to support the firearms industry.

#### **SPECIFICATIONS**

Grade	UNS	ASTM	ASME	Federal	AMS
303	S30300	A 582	NA	NA	5640
304 / 304L	S30400 / S30403	A 276, A 479	SA-479, SA-276	QQS 763F	5639, 5647, QQS 763
316 / 316L	S31600 / S31603	A 276, A 479	SA-479, SA-276	QQS 763F	5648, 5653, QQS 763
317 / 317L	S31700 / S31703	A 276, A 479	SA-479, SA-276	QQS 763F	QQS 763
309, 309S	S30900 / S30909 / S30908	A 276, A 479	SA-479, SA-276		5650
310, 310S	S31000 / S31009 / S31008	A 276, A 479	SA-479, SA-276		5651
321 / 321H	S32100 / S32109	A 276, A 479	SA-479, SA-276		5645
347 / 347H	S34700 / S34709	A 276, A 479	SA-479, SA-276		5646
253 MA	S30815	A 276, A 479	SA-479, SA-276		
410	S41000	A 276, A 479	SA-479, SA-276	QQS 763F	5612, 5613, QQS 763
416	S41600	A 582			5610
440C	S44004	A 276		QQS 763F	QQS 763, 5630, 5880
17-4	S17400	A 564	SA-564		5643
15-5 ESR/VAR	S15500	A 564	SA-564		5659
EN lean duplex 1.4162	S32101	A 276, A 479	SA-479, SA-276		
2205	S31803 / S32205	A 276, A 479	SA-479, SA-276		
2507	S32750	A 276, A 479	SA-479, SA-276		
304HN	S30452				
N60	S21800	A 276, A 479			5848
XM-19	S20910	A 276, A 479	SA-479, SA-276		

#### **TOLERANCES - STAINLESS STEEL BAR**

		Conforms to AS	TM A 484				
Round Bar/Cold Finishe	d	Round Bar/Hot Ro	lled and Roug	gh Turned	Square Bar and Hexagons/Cold Finished		
Size	Tolerances	Size	Tolerances	Out of Round	Size	Tolerances	
Under 5/16"	±0.001	Over 2" to 21/2"	+1/32-0	0.023	Under 5/16"	+.000-0.002	
5/16" up to but excluding 1/2"	±0.0015	Over 21/2" to 31/2"	+3/64-0	0.035	Over 5/16" to under 1/2"	+.000-0.003	
1/2" up to but excluding 1"	±0.002	Over 31/2" to 41/2"	+1/16-0	0.046	1/2" up to and including 1"	+.000-0.004	
1" up to but excluding 11/2"	±0.0025	Over 41/2" to 51/2"	+5/64-0	0.058	Over 1" up to and including 2"	+.000-0.006	
11/2" up to and including 31/4"	±0.003	Over 51/2" to 61/2"	+1/8-0	0.070	Over 2" up to and including 3"	+.000-0.008	
Over 31/4" up to and including 41/2"	±0.005	Over 61/2" to 8"	+5/32-0	0.085	Over 3"	+.000-0.010	
Over 41/2" up to and including 6"	±0.008	Over 8" to 12"	+3/16-0	0.094			

# STRAIGHTNESS TOLERANCES FOR MACHINE-STRAIGHTENED BAR

Rough Turned	Cold Finished
1/8" in any 5'	1/ <sub>16</sub> " in any 5'
but may not exceed $\frac{1}{8}$ " x $\frac{\text{length in feet}}{5}$	but may not exceed $\frac{1}{16}$ " x $\frac{\text{length in feet}}{5}$

# **WEIGHT FORMULAS FOR STEEL**

Weight estimates per linear foot
Rounds= D <sup>2</sup> x 2.6729
Hexagonals= D <sup>2</sup> x 2.9473

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