

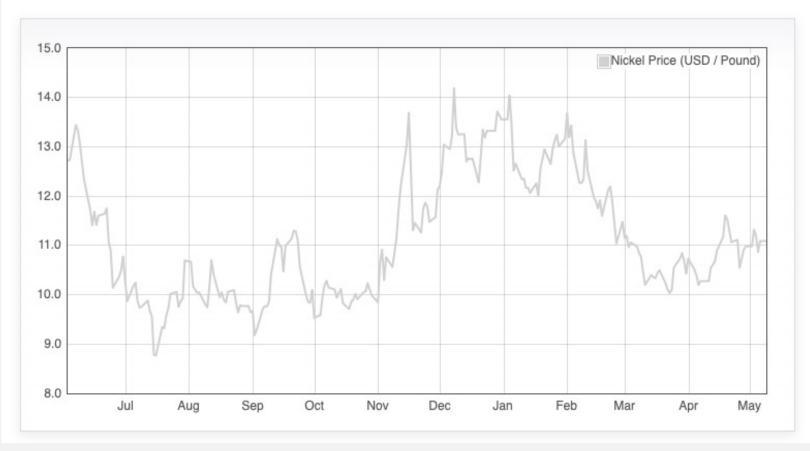
# PENN STAINLESS PRODUCTS, INC.

### STAINLESS PRICING UPDATE MAY 1, 2023



## NICKEL

#### Nickel Prices for the Last Year



Date	USD/lb.
4/1/22	\$15.07
5/1/22	\$14.54
6/1/22	\$12.73
7/1/22	\$9.87
8/1/22	\$8.95
9/1/22	\$9.18
10/3/22	\$9.59
11/1/22	\$10.67
12/2/22	\$12.47
1/2/23	\$13.56
2/1/23	\$13.20
3/1/23	\$11.19
4/3/23	\$10.51
5/1/23	\$10.98



## CHROME

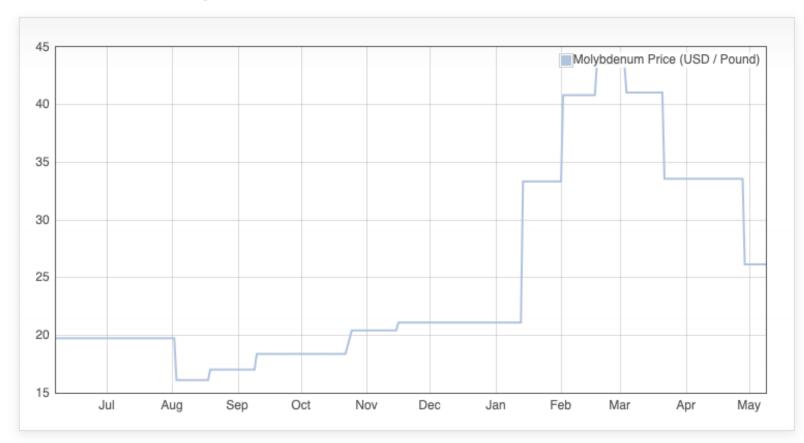


Chrome \$/lb



## **MOLYBDENUM**

#### Molybdenum Prices for the Last Year





## RAW MATERIAL SURCHARGES (304/304L)

2.0000 1.9031 1.7280 1.8000 **Current Surcharge** Grade 1.6043 1.6000 \$1.2495 304 1.3867 1.3638 1.3391 1.4000 2509 1.2495 1.2266 1.2250 1.2266 1.1767 1.2000 1.1117 **304** Surcharge **Date Range** Change 1.0000 Jan '23 – May '23 -7.2% 0.8000 May '22 – May '23 -34.3% 0.6000 0.4000 Note – Surcharges are for 0.2000 flat-rolled product. 0.0000 May-22 Jun-22 Jul-22 Aug-22 Dec-22 Feb-23 Mar-23 Apr-23 May-23 Sep-22 Oct-22 Nov-22 Jan-23 -----Nickel -----Chrome ------Energy ------Silicon 

304/304L Surcharges



## RAW MATERIAL SURCHARGES (316/316L)

2.5595 Grade **Current Surcharge** 2.5000 2.3824 2.3401 2.2928 316 \$1.8981 2.1548 2.1533 2.0330 1.8981 2.0000 1.7459 .7423 1.6979 1.6669 1.6500 **Date Range 316** Surcharge Change 1.5000 Jan '23 – May '23 -7.1% May '22 – May '23 -25.8% 1.0000 0.5000 Note – Surcharges are for flat-rolled product. 0.0000 May-22 Jun-22 Jul-22 Aug-22 Dec-22 Jan-23 Feb-23 Mar-23 Apr-23 May-23 Sep-22 Oct-22 Nov-22 -----Nickel Moly ——Iron ——Energy **—**316 Total -----Chrome

316/316L Surcharges

3.0000

# **PSP**

## **LINE CARD**

3/16° through 6° thick – Mill Finish & # A Palish – Diamond Pate 3/16° to 12° Grades Available 302 - 303 - 303 - 304 - 304 + 304 + 2014 + 2015 - 3105 - 316 - 317	INV	ENTORY OVERVIEW
22 through 7 Gauge - 36*-72* Wide - 28 Finish + 84 Fin	Grades Available: 302 • 303 • 304 • 304/	L • 304H • 304 #4 Polish • 309S • 310S • 316L • 317L
Size Range: Round 3/32" thru 26" - 12" 20" R/L - Accuracy & Bearing Quality Grades Available: 302 - 303 - 304 - 3105 - 316/L - 321 - 327 - 020 Puplex 2205 - Alloy 20 STRUCTURAL: ANGLES - UNEVEN LEG ANGLES - CHANNEL - TEES - BEAMS Laser-fused & Hor-Joiled Structurals - Ornamentals in Recs, Squares and Rounds Grades Available: 304 - 304 / L - 316 / L TUBING: SEAMLESS & WELDED - SANITARY TUBE (304/316 only) - HEAVY WALL HOLLOW BAR Size Range: 17/6" OD through 14" OD - Light gauge up to 2" thick wall Grades Available: 304 / L - 304 /L - 316 / L TUBING: SEAMLESS & WELDED - SANITARY TUBE (304/316 only) - HEAVY WALL HOLLOW BAR Size Range: 17/6" OD through 14" OD - Light gauge up to 2" thick wall Grades Available: 304/L - 304 /L - 304 /L - 301 - 316 /L - 321 - 347 - Duplex 2205 - Alloy 20 - Nickel Alloys PIPE: WELDED & SEAMLESS Size Range: 17/6" through 24" - Sch: 5 thru DXH Grades Available: 304/L - 304 /L - 304 /L - 307 /L - 321 / H - 347 /H - Duplex 2205 - Nickel Alloys PENMET 2000 MACHINING BAR Available: and , square and hex Improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability MEATERIAL PROCESSING SPECIALTY PIPE AND TUBE Supply of non-standard tube, pipe and structural items with reduced lead times. Size range 14" through 96" diameter, with wall thicknesses through 3" Grades Available: 300 Series - Duplex Grades - 6-Moly - Nickel Alloys PLATE PROCESSING Waterjet cutting through 1-1/4" - Cutting envelope 13" x 40" (six waterjet stations) Laser plate cutting through 1-1/4" - Cutting envelope 13" x 40" (six waterjet stations) Laser plate cutting through 1-1/4" - Cutting envelope 8" x 20" Shear cutting - Plate saw cutting - HQ Plasma cutting - Machine cut rings & discs - Processed flat bar BAR & LONG PRODUCT PROCESING	Grades Available: 302 • 304 • 304/L	• 304 #4 Polish • 304 #8 Mirror • 309S • 310S • 316L • 316L #4 Polish
Laser-fixed & Hot-rolled Structurals - Ornamentals in Recs, Squares and Rounds Grades Available: 304 - 304/L - 316/L TUBING: SEAMLESS & WELDED - SANITARY TUBE (304/316 only) • HEAVY WALL HOLLOW BAR Size Range: 1/8' to through 14" Ob - Light gauge up to 2" thick wall Grades Available: 304/L - 304 - 309 - 310 - 316/L - 321 - 347 - Duplex 2205 - Alloy 20 - Nickel Alloys PIPE: WELDED & SEAMLESS Size Range: 1/8' through 24" - Sch: 5 thru DXH Grades Available: 304/L - 304 - 309 - 310 - 316/L - 317/L - 321/H - 347/H - Duplex 2205 - Nickel Alloys PENMET 2000 MACHINING BAR Available in round, square and hex improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability DENEMET 2000 MACHINING BAR Available: in round, square and hex improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability DENEMET 2000 MACHINING BAR Available: in round, square and hex improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability DENEMET 2000 MACHINING BAR Available: in round, square and hex improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability DENEMET 2000 MACHINING BAR Available: 300 Series - Duplex Grades - 6-Moly - Nickel Alloys PLATE PROCESSING Waterjet cutting through 8-1/2" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 8-1/2" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 1-3/4" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 1-3/4" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 1-3/4" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 1-3/4" - Cutting envelope 13' x 40' (six waterjet stations) Laser 140 - LOTING BAR BAR & LONG PRODUCT PROCESSING	Size Range: Round 3/32" thru 26" Grades Available: 302 • 303 • 304/L	– <b>12'-20' R/L – Accuracy &amp; Bearing Quality</b> • 3105 • 316/L • 321 • 347 • Duplex 2205 • 410 • 410HT • 416
Size Range: 17.16° OD through 14° OD - Light gauge up to 2° thick wall Grades Available: 304/L · 304H · 309 · 310 · 316L · 321 · 347 · Duplex 2205 · Alloy 20 · Nickel Alloys PIPE: WELDED & SEAMLESS Size Range: 178° through 24° - Sch: 5 thru DXH Grades Available: 304/L · 304H · 309 · 310 · 316/L · 317/L · 321/H · 347/H · Duplex 2205 · Nickel Alloys PENNET 2000 MACHINING BAR Available in round, square and hex Improved machinability · Consistent performance from lot to lot · Longer tool life · Improved surface finish · Excellent availability PECIALTY PIPE AND TUBE Supply of non-stendard tube, pipe and structural items with reduced lead times. Size range ¼" through 96" diameter, with wall thicknesse through 3" Grades Available: 300 Series · Duplex Grades · 6-Moly · Nickel Alloys PLATE PROCESSING Waterjet cutting through 8-1/2" · Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting 1-N/2" · Cutting envelope 8' x 20' Shear cutting · Plate saw cutting · HQ Plasma cutting · Machine cut rings & discs · Processed flat bar BAR & LONG PRODUCT PROCESING Cutting through 26' diameter · Production cutting with precision tolerances through 4" diameter	Laser-fused & Hot-rolled Structure	nls • Ornamentals in Recs, Squares and Rounds
Size Range: 178" through 24" - Sch: 5 thru DXH Grades Available: 304/L - 304 + 309 - 310 - 316/L - 317/L - 321/H - 347/H - Duplex 2205 - Nickel Alloys PENNMET 2000 MACHINING BAR Available in round, square and hex Improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability PACE PROCESSING SPECIALTY PIPE AND TUBE Supply of non-stendard tube, pipe and structural items with reduced lead times. Size range ¼" through 96" diameter, with wall thicknesses through 3" Grades Available: 300 Series - Duplex Grades - 6-Moly - Nickel Alloys PLATE PROCESSING Waterjet cutting through 8-1/2" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 8-1/2" - Cutting envelope 8' x 20' Shear cutting - Plate saw cutting - HQ Plasma cutting - Machine cut rings & discs - Processed flat bar BAR & LONG PRODUCT PROCESSING Cutting through 26" diameter - Production cutting with precision tolerances through 4" diameter	Size Range: 1/16" OD through 14'	OD • Light gauge up to 2" thick wall
Available in round, square and hex Improved machinability - Consistent performance from lot to lot - Longer tool life - Improved surface finish - Excellent availability <b>MATERIAL PROCESSING</b> SPECIALTY PIPE AND TUBE Supply of non-stendard tube, pipe and structural items with reduced lead times. Size range ¼" through 96" diameter, with wall thicknesses through 3" Grades Available: 300 Series - Duplex Grades - 6-Moly - Nickel Alloys PLATE PROCESSING Waterjet cutting through 8-1/2" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 8-1/2" - Cutting envelope 8' x 20' Shear cutting - Plate saw cutting - HQ Plasma cutting - Machine cut rings & discs - Processed flat bar BAR & LONG PRODUCT PROCESSING Cutting through 26' diameter - Production cutting with precision tolerances through 4" diameter	Size Range: 1/8" through 24" – Sc	
SPECIALTY PIPE AND TUBE Supply of non-standard tube, pipe and structural items with reduced lead times. Size range ¼" through 96" diameter, with wall thicknesses through 3" Grades Available: 300 Series - Duplex Grades - 6-Moly - Nickel Alloys PLATE PROCESSING Waterjet cutting through 8-1/2" - Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 8-1/2" - Cutting envelope 8' x 20' Shear cutting - Plate saw cutting - HQ Hasma cutting - Machine cut rings & discs - Processed flat bar BAR & LONG PRODUCT PROCESSING Cutting through 26' diameter - Production cutting with precision tolerances through 4" diameter	Available in round, square and he	x
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Waterjet cutting through 8-1/2" • Cutting envelope 13' x 40' (six waterjet stations) Laser plate cutting through 1-3/4" • Cutting envelope 8' x 20' Shear cutting • Plate saw cutting • HQ Plasma cutting • Machine cut rings & discs • Processed flat bar BAR & LONG PRODUCT PROCESSING Cutting through 26' diameter • Production cutting with precision tolerances through 4" diameter	wall thicknesses through 3"	
Cutting through 26" diameter • Production cutting with precision tolerances through 4" diameter	Laser plate cutting through 1-3/4	• Cutting envelope 8' x 20'
	BAR & LONG PRODUCT PROCI Cutting through 26" diameter • Pr	SSING aduction cutting with precision tolerances through 4" diameter
24-HOUR EMERGENCY SERVICE - CALL 267-374-6463	24 Цент 1	THEREFUSY SERVICE CHIL 267 274 6462

PENN STAINLESS PRODUCTS, INC.

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#### STAINLESS ROUND BAR PER ASTM COLD ROLLED SHEET / COIL PER ASTM A480 CF Tolerances Permitted Variations in Thickness for Cold-Rolled, Narrow, Coll-Processed Product a Plus Minus Coils and Cut Lengths (exclusive) 0.001 0.001 to 1/2" (exclusive) 0.0015 0.0015 5/16" 1/2" (exclusive) 0.002 0.002 (exclusive) 0.0025 0.0025 cified Thick (inclusive) 0.003 0.003 to 4\* Minus Plus Over 2\* to 2-1/2" (inclusive) 1/32 0.000

Over 2-1/2"	to	3-1/2"	(inclusive)	3/64	0.000
Over 3-1/2"	to	4-1/2"	(inclusive)	1/16	0.000
4-1/4"	to	5-1/2"	(inclusive)	5/64	0.000
5-1/2*	to	6-1/2"	(inclusive)	1/8	0.000
6-1/2"	to	8*	(inclusive)	5/32	0.000
8"	to	12"	(inclusive)	3/16	0.000
12"	to	15"	(inclusive)	7/32	0.000
15"	to	25"	(inclusive)	1/4	0.000

STAINLESS HOT FINISHED FLATS ROLLED AS BAR PER ASTM A479 / A484

Width	Width		Thick	iness Tolerance in Inches			
(inches)	Tolerance	1/8 - 1/2	over 1/2 - 1	over 1-2	over 2-4	over 4-6	over 6-8
to 1 (incl)	+0.015	+0.008	+0.010	=	$\equiv$	=	
over 1 to 2	+0.031 -0.031	+0.012 -0.012	+0.015	+0.031 -0.031	=		
over 2 to 4	+0.062	+0.015 -0.015	+0.020	+0.031 -0.031	+0.062	=	
over 4 to 6	+0.093	+0.015	+0.020	+0.031 -0.031	+0.062	+0.093	
over 6 to 8	+0.125 -0.156	+0.016 -0.016	+0.025	+0.031 -0.031	+0.062 -0.031	+0.093 -0.062	+0.128
over 8 to 10	+0.156	+0.020	+0.031	+0.031	+0.062	+0.093	+0.125

STAINLESS SEAMLESS & WELDED STANDARD PIPE PER ASTM A312 / A999 / A1016

	Ou				
Nominal Pipe Size Inches	A312 S	amless	A312 Welded		
	Plus	Minus	Plus	Minus	Specifie
1/8 IPS to 1-1/2 IPS incl.	.015	.031	.015	.031	
>1-1/2 IPS to 4 IPS incl.	.031	.031	.031	.031	
>4 IPS to 8 IPS incl.	.062	.031	.062	.031	3
>8 IPS to 18 IPS incl.	.093	.031	.093	.031	
Wall Tolerances	By Wt.	12.5%	By Wt.	12.5%	
Weight Tolerances	10.0%	3.5%	10.0%	3.5%	

STAINLESS SEAMLESS & WELDED STANDARD TUBING PER ASTM A269

(75P)

PENN STAINLESS PRODUCTS, INC.

Group	Size, Outside Diameter, in.	Permissible Variations in Outside Diameter, in.	Permissible Variations in Wall Thickness,%
1	Up to 1/2	±0.005	±15
2	1/2 to 1-1/2, excl	±0.005	±10
3	1-1/2 to 3-1/2, excl	.±0.010	±10
4	3-1/2 to 5-1/2, excl	±0.015	±10
5	5-1/2 to 8, excl	±0.030	±10
6	8 to 12, excl	±0.040	±10
7	12 to 14, excl	±0.050	±10

PENN STAINLESS PRODUCTS, INC. + 190 KELLY ROAD + QUAKERTOWN, PA 18951 USA TOLL FREE: 1-800-222-6144 • PHONE: 215-536-3053 • FAX: 215-536-3255

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#### Over 0.012 to 0.015, incl. 0.0015 0.0015 0.0015 Over 0.016 to 0.020, incl. 0.0015 Over 0.020 to 0.024, incl. 0.002 0.002 Over 0.025 to 0.032, incl. 0.002 0.002 Over 0.033 to 0.040, incl. 0.0025 0.0025 0.003 Over 0.041 to 0.047, incl. 0.003 0.003 Over 0.048 to 0.059, incl. 0.003 0.003 0.003 0.004 Over 0.060 to 0.079, incl. 0.004 0.004 0.0045 Over 0.099 to 0.118, incl. 0.005 0.005 0.006 Over 0.119 to 0.157, incl. 0.007 0.007 Over 0.158 to 0.197, incl. 0.007 0.007 0.007 0.0075 Over 0.198 to 0.236, incl. 0.007 0.008 0.009 Over 0.236 to 0.3125, incl. 0.007 0.009 0.010 Note 1 — Thickness measurements are taken at least 3/8 in. in from the edge of the product, except on widths less than 1 in. the measurements should be taken at least 1/8 in. from the product edge. Note 2 — The tolerances in this table include crown tolerances

ances, for the T

40 < w ≤ 50 50 < w ≤84

Widths Given, Over and Under, In.

Width (w), in.

Thickness Tole

HOT ROLLED SHEET / COIL PER ASTM A480

= 40

		1101110000000	and a source of the state of th	
		Specified Thickness*, in,	Permitted Variation, in., C Indicated Otherwise, fo	iver and Under, Except a r Specified Width (w) in.
		Thickness", in.	w ≤ 60	w > 60
		>0.1875 to 0.250	-0.010, +0.020	-0.010, +0.020
	+0.125	>0.250 to 0.3125	-0.010, +0.022	-0.010, +0.022
2	-0.156	>0.3125	-0.010, +0.030	-0.010, +0.030
	+0.125	*Thickness measurement	s are taken at least 3/8 in. fron	the edge of the sheet.

PLATE THICKNESS PER ASTM A480

		Width (w), in.				
	Specified Thickness (t), in.	w ≤ 84	84 < w ≤ 120	120< w ± 144	w>144	
		Tol	erance Over Sp	ecified Thickne	ss, in.	
	t < 3/16	0.055	0.070	-	-	
	3/16 ≤ t < 3/8	0.045	0.050	0.085	-	
	3/8≤ t < 3/4	0.055	0.060	0.085	0.090	
	3/4 ≤ t < 1	0.060	0.065	0.085	0.100	
	1≤t<2	0.070	0.075	0.095	0.115	
_	2 ≤ t < 3	0.125	0.150	0.175	0.200	
	3≤1<4	0.150	0.160	0.200	0.225	
_	4 ≤ t < 6	0.180	0.200	0.335	0.355	
•	6≤t<8	0.235	0.255	0.355	0.435	
	8 ≤ 1 < 10	0.315	0.335	0.435	0.550	
	* Thickness is measured alo but not more than 3 in., from			f the plate at leas	t 3/8 in.,	
1	** For plates up to 10 in. excl, is 0.010 in.	in thickne	ss, the tolerance	under the specifi	ed thickne	
	*** Flatness of plate mill plate i surface with concavity of th tolerance on cut plate.	s measun e curvatur	ed in any 36° are e upward. Full pi	a while the plate i lates only. <b>There</b> i	ests on fla is no AST	
	****Flatness of coil plate is med	asured on	a flat surface wit	h curvature upwa	rd and	

measuring the deviation from a horizontal flat surface.



#### PENN STAINLESS PRODUCTS, INC.

LONG PRODUCT TOLERANCES FLAT ROLLED TOLERANCES

>0.1875 to 0.250	-0.010, +0.020	-0.010, +0.020
>0.250 to 0.3125	-0.010, +0.022	-0.010, +0.022
>0.3125	-0.010, +0.030	-0.010, +0.030

Tolerance below apply to the following alloys: 300 Series and 400 Series Stainless, 17-4, Duplex Grade. Tolerances listed were taken from ASTM A480 (Reference On Permitted Variation in Thickness of Hot-Rolled Mill Plate (Quarto Plate)\*, \*\*

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### THANK YOU.

