

# Materials Market

# Digest<sup>©</sup>

For February, 2018 Jim Olsztynski, Editor

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# **About this Report**

Published monthly by the <u>American Supply Association</u> (ASA), this report provides comprehensive insight about qualified market data for a half-dozen key materials, especially recent changes in pricing or price-influencing action(s). Also included are price changes announced by major producers, action in applicable commodity markets, factors affecting supply and demand, etc. <u>LEARN MORE</u>

(630) 467-0000 | info@asa.net | AdvanceYourAbility.com

# **About the Editor**

For more than 40 years, Jim Olsztynski has covered the plumbing-heating-cooling-piping and industrial and mechanical pipe-valve-fitting (PHCP-PVF) industry as an award-winning journalist and editor for a variety of industry publications. He is an accomplished author having published several *Essentials* courses for ASA University and plans to publish his own book, Bumps on the Road to Riches: How to Avoid Big Mistakes that Kill Small Businesses. Jim has also made numerous appearances and presentations about the industry and its rich history before live audiences as well as on television.

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# What Does China Have Against Foreign Scrap?

Last November, China officially notified the <u>World Trade</u> <u>Organization (WTO)</u> that it will adopt strict thresholds for impurities contained within scrap that it imports. The standard it came up with for metals and most other products is 0.5 percent to 1.0 percent, which scrap sellers say is virtually impossible to meet and, which in effect, will ban most scrap exports to China.

The first data coming in after the restrictions were announced shows that last December, China imported 19.8 percent less copper scrap compared with December, 2016, and 14.4 percent less in 4Q17. Despite the fourth quarter lag, China's copper scrap imports rose 6.2 percent for the year as a whole.

The restrictions will prove devastating to the scrap recycling industry. As of 2016, China consumed half or more of the world's exports of many scrap commodities, including copper and plastics. The country spent more than \$18 billion on scrap products, of which American companies supplied almost a third.

The restrictions were drawn up by China's Ministry of Environmental Protection, claiming to live up to its name. Officials with the <u>Bureau of International Recycling (BIR)</u> argue that processed scrap already is regulated to a point that renders the products harmless to human health or the environment. In fact, many scrap industry participants note that by eliminating foreign scrap, Chinese firms will end up buying supplies from far less regulated domestic scrap producers.

The obvious interpretation is that China's government is simply in a protectionist mode to boost the fortunes of its own scrap suppliers. Whatever the motives, scrap exporters are in a world of hurt.

# **Still No Section 232 Decision**

In early January, the U.S. Secretary of Commerce, Wilbur Ross, submitted his crucial report to President Trump on the <u>Section 232</u> investigation assessing national security implications of foreign material and whether tariffs are warranted. The President has 90 days to act or not act on the recommendations. So far, no word has come out of the White House, and President Trump said nothing about it in his lengthy State of the Union address on January 30<sup>th</sup>. ASA's *Materials Market Digest* will do its best to detail the implications for the various markets once decisions are announced.

# **Carbon Steel**

Hot-rolled coil prices are on a roll, with domestic product surpassing \$700 a ton for the first time since 2012. <u>American</u> <u>Metal Market's (AMM)</u> hot-rolled coil index reached \$715.80 per ton on January 25<sup>th</sup>. The index had risen in 13 of the last 15 weeks. The rise came after most sheet mills announced \$40 per ton price increases, and importers were quaking over the pending <u>Section 232</u> report from the U.S. Secretary of Commerce, Wilbur Ross. Rising scrap prices are also helping to support higher prices. *AMM's* hot-rolled coil index averaged \$620 per ton in 2017, a steep rise of 18.5 percent from the prior year. Steel industry observers see no end in sight to the price increases, and some are predicting HRC to reach as high as \$800 a ton, a level not seen since 2011.



Imported hot-rolled coil was also selling at highs not seen in six years. <u>AMM</u> assessed imports from Mexico, Western Europe and Turkey at Houston docks selling for between \$640-670 a ton in late January. The spread between domestic HRC and imports was not deemed sufficient for most buyers to buy foreign.

#### Finished steel imports rose 12.2 percent in 2017,

according to the <u>American Iron & Steel Institute (AISI)</u>. AISI estimated finished steel market share at 27.0 percent for the year. Major products with significant increases for full year 2017 versus 2016 include oil country goods (up 196.0 percent), line pipe (up 63.0 percent) and standard pipe (up 40.0 percent), plus mechanical tubing (up 30.0 percent). Imports were on a downward trend as the year drew to a close, with December's finished steel dropping (13.5) percent from November. Analysts attribute the falloff to concern over the pending <u>Section 232</u> report.

U.S. service center steel shipments in December, 2017, increased 2.8 percent from December, 2016, according

to the <u>Metals Service Center Institute (MSCI)</u>. Steel product inventories increased 6.8 percent from December, 2016. For the full year of 2017, MSCI data shows shipments increased by 3.8 percent over 2016 totals.

**World crude steel production increased 5.3 percent for the year 2017 compared to 2016** for the 66 countries belonging to the <u>World Steel Association (WorldSteel</u>). Global capacity utilization was at 69.5 percent in December, far below the record 86.0 percent achieved in 2006. Observers believe a utilization rate of 75.0 to 80.0 percent is needed to sustain healthy steel prices worldwide.

### **Stainless Steel & Alloys**

**Most domestic stainless base prices appear firm for now,** although on January 31<sup>st</sup>, Universal Stainless announced it was raising base prices by 3.0-10.0 percent for new non-contract specialty steel long product orders effective February 5<sup>th</sup>. Producers are increasing surcharges in February for all types after declines in January. Higher nickel, iron and moly prices are overriding stable chrome and manganese. The surcharges range from almost 12.0 percent for Type 316 down to less than 1.0 percent for Type 430.



The LME's cash nickel contract averaged \$12,880 per tonne in January, up 12.9 percent from December's average of \$11,409 per tonne. Selling hit a peak of \$13,890 on January 24<sup>th</sup>, the highest close since May, 2015, before ending the month closing at \$13,630.

Three-and-a-half year highs were being reported in late January for molybdic oxide and ferro-molybdenum prices. Slowing demand may help to quash the rally, which was triggered, in large part, by robust demand from Asia. <u>American Metal Market (AMM)</u> pegged moly as gaining around 21.0 percent since the first of the year.

Manganese was headed in the opposite direction, with reports of lower demand from China and high inventories

U.S. Pipe & Tube Imports Landed duty-paid value (in \$1,000s)									
Annual & Year-To-Date Data (Jan Nov. 2017)	2016	YTD 2016	YTD 2017	% Change YTD	% Change 2012-16				
Total Carbon and Alloy Pipe & Tube	5,106,277	4,640,264	7,914,367	70.6%	-59.1%				
Carbon Seamless Tubular Products (Other than OCTG)	845,781	780,327	1,202,665	54.1%	-67.0%				
Carbon Seamless OCTG	806,506	702,610	1,673,175	138.1%	-75.6%				
Welded Tubular Products (Other than OCTG)	2,134,646	1,960,071	2,659,069	35.7%	-30.4%				
Welded OCTG	282,224	240,448	1,241,294	416.2%	-85.5%				
Flanges, Fittings & Tool Joints	896,985	822,629	1,035,340	25.9%	-35.3%				
Stainless Seamless Tubular Products	258,858	237,327	336,295	41.7%	-59.5%				
Stainless Welded Tubular Products	380,919	349,866	404,995	15.8%	-10.3%				
Stainless Flanges, Fittings & Tool Joints	535,973	490,675	540,535	10.2%	-19.5%				
Source: U.S. International Trade Commission / U.S. Department of Commerce									

# at smelters. Chinese imports have slowed, thanks to robust stocking of manganese ore, which <u>AMM</u> reported jumping a whopping 51.3 percent last November over the same month for 2016.

**Silicon prices have been rising ever since March of last year,** due to dumping and countervailing duty investigations by the <u>U.S. Department of Commerce (DOC)</u>, <u>AMM</u> reported. They gained another 2.5 percent in January, according to <u>AMM's assessment</u>.

**Global production of molybdenum rose 9.0 percent in the third quarter of last year** compared with the same period in 2016, while usage was up 6.0 percent. The U.S. used 9.0 percent more moly in the third quarter than the year-ago period, according to the <u>International Molybdenum</u> <u>Association (IMOA)</u>.

# **Tubular Products**

**Domestic standard pipe prices continued to rise in January,** reflecting the run-up in hot-rolled coil substrate. *American Metal Market's (AMM)* pricing assessment for domestic A53, grade B, standard pipe rose to a range of \$1,000-1,050 per ton, gaining about \$80 per ton from December's assessment. Additional increases of \$50 per ton were announced in late January by Nucor and <u>EXLTUBE</u>. Meantime, imported standard pipe remained unchanged at \$840-860 a ton in *AMM's* January assessment.

**It was a similar story for energy tubulars.** Soaring HRC caused most OCTG categories to go up by at least \$50, and in some cases, all the way up by \$100 a ton. *American Metal* 

*Market (AMM)* pegged domestic J55 casing at \$975-1,000 per ton from \$925-975 per ton previously. Domestic seamless and welded L80 casing were both unchanged, averaging \$1,260-1,300 per ton and \$1,200-1,255 per ton, respectively. The range for domestic seamless high-collapse P110 casing narrowed to \$1,300-1,350 per ton from \$1,265-1,400 per ton in December's measurements. Imported seamless highcollapse P110 casing was selling for \$1,200-1,275 per ton, up by \$100 on the high end.

*AMM's* pricing assessment for domestic X52 line pipe leaped to a range of \$1,100-1,125 per ton on January 30<sup>th</sup> from a range of \$1,060-1,085 on December 26<sup>th</sup>. *American Metal Market's (AMM)* assessment of imported X52 line pipe rose even more sharply to \$900-930 per ton from \$850-880 in December.

Wheatland Tube announced price increases for line pipe and OCTG by approximately \$50 per ton effective January 29<sup>th</sup>. The price hikes apply to ERW and continuous-welded line pipe and OCTG, <u>Wheatland</u> said in a letter to customers on that date. The same increase applies to OCTG green tube.

The <u>American Line Pipe Producers Association</u> has filed trade petitions against six nations charging that imports of large-diameter welded line pipe were dumped, and some received unfair support from government subsidies. The targeted countries are China (no surprise), Canada (surprising), Turkey, Greece, India and South Korea. Alleged dumping margins range from 23.52 percent against South Korea up to 138.61 percent for China. Petitioners include Stupp Bros./Stupp Corp., American Cast Iron Pipe, Berg Spiral Pipe/Berg Steel Pipe and Dura-Bond Industries. Skyline Steel is an additional petitioner but not an association member. The press release said the petitions are also supported by Trinity Products.

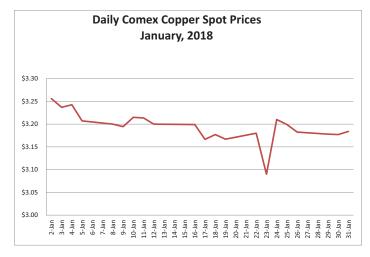
**South Korean line pipe has been assigned new dumping margins** ranging from 2.3 percent up to 19.42 percent after a preliminary administrative review by the <u>U.S. Department</u> of <u>Commerce (DOC)</u> of a 2015 anti-dumping case. Initially, South Korean firms were penalized in a range of 2.52 to 2.67 percent. <u>American Metal Market's (AMM)</u> latest pricing assessment for imported X52 line pipe showed a range of \$850-880 per ton, compared with \$1,060-1,085 per ton for comparable domestic product.

**Canada is poised to also level anti-dumping duties on South Korean line pipe,** following a ruling by the <u>Canadian</u> <u>International Trade Tribunal</u> that such imports are harming Canadian firms. The injury determination applies to carbon and alloy steel line pipe, both welded and seamless. This follows a December determination by the <u>Canada Border</u> <u>Services Agency (CBSA)</u> that dumping margins of 4.1 to 88.1 percent should be assigned to imports of certain carbon and alloy steel line pipe from South Korea.

A sunset review resulted in continuation of anti-dumping and countervailing duties on imports of circular-welded pipe and tube from seven countries. In early January, the U.S. International Trade Commission (ITC) ruled that imports from Brazil, India, Mexico, South Korea, Thailand, Taiwan and Turkey "would likely lead to continuation or recurrence of material injury" to domestic producers.

The <u>Baker Hughes</u> U.S. drilling rig count closed the week of January 26<sup>th</sup> at 947, a gain of 11 rigs from the prior week and up 235 rigs (33.0 percent) from the same week in 2017.

# Copper



**Copper prices retreated a bit in January after climbing in December to a seven-year high.** Analysts attribute the pullback in large measure to rising stock levels in the U.S. and around the globe. On the <u>LME</u>, copper's three-month contract price gained 30.8 percent in 2017, reaching a high of \$7,312.50 per tonne on December 28<sup>th</sup>. The yearly average LME selling price was \$6,165.97 per tonne in 2017, which is 27.0 percent higher than in 2016. The closing price on January 31<sup>st</sup> in the new year was \$7,048.



Most copper analysts were predicting at least a shortterm pullback for copper prices in 2018, although their forecasts had more hedges than the French countryside. The bears think copper's gains were a little too heady in 2017. Those inclined toward a more bullish outlook cite continuing global production deficits and a plethora of labor unrest at copper mines around the world that could curtail production still further.

The world refined copper balance for the first 10 months of 2017 indicates a deficit of about 150,000 tonnes (t), according to the <u>International Copper Study Group (ICSG)</u>. ICSG projects a deficit of 105,000 t for 2018.

# Scrap

**U.S. ferrous scrap markets fell back in January after showing signs of life at year-end.** Falling export prices reverberated domestically, and it didn't help that frigid winter temperatures and snowfall wreaked havoc with deliveries.

**U.S. stainless scrap prices started the year with a bang,** but by month's end, they were reported holding steady or gaining a few pennies a pound despite a recent run-up in nickel. Slack demand continues to restrain the market.

**Brass scrap was reported on an upswing at January's end** due to firm demand from exports, in particular, while copper scrap sales were lackluster due to ample supply and limited demand, according to <u>American Metal Market (AMM)</u>. The month's downturn in the <u>Comex</u> was not helping matters.

Predictably, copper scrap import tonnage dropped by more than (94.0) percent in the first two rounds of licensing by the Chinese government following its new "purity" regulations (refer to lead item in this report). For the first 11 months of last year, before the new regulations took effect, China's copper scrap imports were up 9.0 percent.

### **Plastics**

Severe winter weather was causing some municipal pipe suppliers to lower prices in late January, according to PetroChem Wire's Weekly PVC and Pipe Report. The respite is likely to be short-lived, however, as resin prices are on the rise, and producers want to raise prices accordingly.

**PVC plumbing pipe prices** were reported by <u>PetroChem</u> <u>Wire's Weekly PVC and Pipe Report</u> to still be selling off the September 5<sup>th</sup> price sheet the last week of January, with the majority of sales in the East and Central regions continued to be made at discounts of 10.0-12.0 percent off the sheet, which put prices in a range of \$1.45-1.49/ft. Sales in more competitive areas, particularly in the South, were seen at 15.0 percent discounts (\$1.40/ft.). Price sheets issued for February by NAPCO, <u>Charlotte</u>, Silver Line and <u>Sanderson</u> pegged PVC pipe at \$1.73/ft. for the East and Central regions and \$2.02/ ft. in the West. Also, JM Eagle announced a three cents per pound (cpp) price increase effective February 1<sup>st</sup> for both plumbing pipe and conduit pipe.

**Refinery-grade propylene (RGP) pipeline prices** gained a whopping 73.2 percent in 2017, rising from 20.5 cpp at the start and ending the year at 35.5 cpp, according to <u>PetroChem Wire</u>. RGP's high of the year came in early March when it peaked at 45.0 cpp.

"A withdrawal from NAFTA would have a significant impact on the North American PVC market," writes Donna Todd, editor of <u>PetroChem Wire's Weekly PVC and Pipe</u> <u>Report</u>. She explains, "Resin currently moves between the three countries with no duties. Canada's PVC converters rely almost completely on imported resin. In Mexico, Mexichem's 2010 acquisition of PVC producer Policyd and pipe converter Plasticos Rex resulted in it becoming the only PVC supplier in the country. The deal was approved by Mexico's antitrust authorities on the condition that all duties on U.S. PVC be removed, allowing U.S. resin producers to compete on a level playing field; thus, preventing Mexichem from holding a monopoly on the market."

# **News of Note**

Average sales in December for ASA's industrial PVF distributors gained an average 3.9 percent above the same month in 2016 (4.0 percent median), according to the association's *Monthly Pulse Report*. On a trailing 12-month basis (same as calendar year 2017), sales were up by an average 1.5 percent, but the median dropped (3.1) percent, due to a (6.8) percent decline by distributors in the upper quartile of sales. On average, inventory levels were 7.3 percent higher in December, 2017, compared with December, 2016.

Biofuels blamed for Philadelphia Refinery's bankruptcy.

The biggest refinery on the East Coast, responsible for about a quarter of fuel-refining capacity in the region, filed for Chapter 11 in late January. The CEO of its parent company, Philadelphia Energy Solutions, blamed it on the need to spend \$832 million dollar since 2012 on "compliance credits" from the <u>U.S. Environmental Protection Agency (EPA)</u>, created to enforce ethanol quotas on blended fuels. Philadelphia Refinery manufactured fuel rather than blending it, so they had to pay the EPA what amounts to a penalty for not using ethanol.

**Counterfeit stainless steel sinks seized by Customs.** A shipment from Malaysia of 2,990 stainless steel sinks worth an estimated \$1.1 million at retail were confiscated in mid-January by <u>U.S. Customs and Border Protection (CBP)</u> officers in Baltimore. Earlier in the month, the CBP seized a shipment of 1,256 stainless steel sinks worth an estimated \$944,000 coming in from Canada at a port of entry in northwestern North Dakota. CBP officers examined the shipments for anti-dumping and countervailing duties enforcement and discovered the UPC shield logo issued by <u>IAPMO</u>, which determined that the use of the logo was unauthorized. The <u>U.S. International Trade Commission (ITC)</u> slapped duties on imports of stainless steel sinks from China in March, 2013.

**New construction starts in 2017 grew 3.0 percent in contract value,** according to <u>Dodge Data & Analytics</u>. Nonresidential building gained 7.0 percent, while residential construction rose by 2.0 percent, including an 8.0 percent gain for single-family housing.

**The Dodge Momentum Index grew 3.6 percent in December.** The <u>Momentum Index</u> is a monthly measure of the first (or initial) report for nonresidential building projects in planning, which have been shown to lead construction spending for nonresidential buildings by a full year. For the full year 2017, the Momentum Index was up 10.7 percent from the full year average for 2016.

The Architecture Billings Index (ABI) also concluded last year in positive terrain, with the December reading capping off three straight months of growth in design billings. The American Institute of Architects (AIA) reported the December ABI score was 52.9 (any score above 50.0 indicates an increase in billings). The new projects inquiry index was 61.9, up from a reading of 61.1 the previous month, while the new design contracts index decreased slightly from 53.2 to 52.7.

Product November Hecember	Producer Price Index - Key Industry Products									
Gates, globes, angles & check valves 1149-0201 341.2 342.4 0.4 2.1   Ball valves Bill valves 1149-0202 405.8 405.8 0.0 3.0   Butterfly valves 1149-0203 218.3 218.3 0.0 4.3   Industrial plug valves 1149-0204 226.5 226.5 0.0 1.8   Plumbing & heating valves (low pressure) 1149-0205 314.5 N/A N/A N/A   Solenoid Valves 1149-0208 340.0 340.0 0.0 3.5   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0201 285.7 288.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-067 N/A N/A N/A N/A   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, fianges & unions 0721-0604 115.4 115.7 -0.3 9.2   Copper & copper-base alloy pi	Pipe, Valves & Fittings				% Change	% Change December 2016				
Ball valves 1149-0202 405.8 405.8 0.0 3.0   Butterfly valves 1149-0203 218.3 218.3 0.0 4.3   Industrial plug valves 1149-0204 226.5 226.5 0.0 1.8   Plumbing & heating valves (low pressure) 1149-0205 314.5 N/A N/A M/A   Solenoid Valves 1149-0206 340.0 340.0 0.0 3.5   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0201 180.2 180.2 0.0 2.3   Otter industrial valves, including nuclear 1149-0201 180.2 180.2 0.0 2.3   Otter industrial valves, including nuclear 1149-0201 180.2 0.0 2.3   Otter industrial valves, including nuclear 1149-0201 180.2 10.0 2.3   Otter industrial valves, including nuclear 1017-067 298.7 298.7 1.0 4.2   Otter is standard, line pipe, carbon 1017-0673	Metal valves, except fluid power	1149-02	317.3	317.7	0.1	2.7				
Butterfly valves 1149-0203 218.3 218.3 0.0 4.3   Industrial plug valves 1149-0204 226.5 226.5 0.0 1.8   Plumbing & heating valves (low pressure) 1149-0205 314.5 N/A N/A N/A   Solenoid Valves 1149-0205 314.5 N/A N/A N/A   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.0 2.3   Other industrial valves, including nuclear 1149-0201 180.2 180.2 0.0 2.3   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.5 -0.5 7.2   Copper & copper-base allop pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plastic pipe fittings & unio	Gates, globes, angles & check valves	1149-0201	341.2	342.4	0.4	2.1				
Industrial plug valves 1149-0204 226.5 226.5 0.0 1.8   Plumbing & heating valves (low pressure) 1149-0205 314.5 N/A N/A N/A   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0211 180.2 180.2 0.00 2.3   Steel pipe & tube 1149-0211 180.2 180.2 0.00 2.3   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, stainless steel 1017-0671 N/A N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.6 N/A N/A N/A   Plastic pipe fittings flanges & unions 1017-0673 94.6 N/A 0.0 2.2   Copper & coppe	Ball valves	1149-0202	405.8	405.8	0.0	3.0				
Plumbing & heating valves (low pressure) 1149-0205 314.5 N/A N/A N/A   Solenoid Valves 1149-0208 340.0 340.0 0.0 3.5   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0201 180.2 180.2 0.0 2.3   Steel pipe & tube 1149-0301 295.7 298.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-0671 N/A N/A N/A   Steel pipe & tube, alloy 1017-0671 N/A N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.6 N/A N/A N/A   Metal pipe & tube, stainless steel 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054	Butterfly valves	1149-0203	218.3	218.3	0.0	4.3				
Solenoid Valves 1149-0208 340.0 340.0 0.0 3.5   Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0211 180.2 180.2 0.0 2.3   Steel pipe & tube 1149-0301 295.7 298.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, stainless steel 1017-0671 N/A N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.0 2.2   Lavatory & sink fittings<	Industrial plug valves	1149-0204	226.5	226.5	0.0	1.8				
Other industrial valves, including nuclear 1149-0209 295.5 295.8 0.1 1.4   Automatic valves 1149-0211 180.2 180.2 0.0 2.3   Steel pipe & tube 1149-0301 295.7 298.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, stainless steel 1017-0671 N/A N/A N/A N/A   Metal pipe fittings, ftanges & unions 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, ftanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 1054-021 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & me	Plumbing & heating valves (low pressure)	1149-0205	314.5	N/A	N/A	N/A				
Automatic valves 1149-0211 180.2 180.2 0.0 2.3   Steel pipe & tube 1149-0301 295.7 298.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, alloy 1017-0671 N/A N/A N/A N/A   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.0 2.4   Bath & shower fittings 1054-021 303.2 303.1 0.0 2.4   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware <	Solenoid Valves	1149-0208	340.0	340.0	0.0	3.5				
Steel pipe & tube 1149-0301 295.7 298.7 1.0 4.2   OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, alloy 1017-0671 N/A N/A N/A N/A   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe fittings & unions 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.0 2.4   Plastic pipe fittings & unions 1054-021 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-021 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-021 249.8 249.8 0.0 2.2   Enameled iron & metal sanitary ware <td>Other industrial valves, including nuclear</td> <td>1149-0209</td> <td>295.5</td> <td>295.8</td> <td>0.1</td> <td>1.4</td>	Other industrial valves, including nuclear	1149-0209	295.5	295.8	0.1	1.4				
OCTG, standard, line pipe, carbon 1017-06 248.3 246.0 -0.9 10.0   Steel pipe & tube, alloy 1017-0671 N/A N/A N/A N/A   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-021 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 178.0 179.9 1.1 2.7   Cast iron heating boilers, radiators	Automatic valves	1149-0211	180.2	180.2	0.0	2.3				
Steel pipe & tube, alloy 1017-0671 N/A N/A N/A N/A   Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061-0106 178.0 179.9 1.1 2.7   Cast iron heating bo	Steel pipe & tube	1149-0301	295.7	298.7	1.0	4.2				
Steel pipe & tube, stainless steel 1017-0673 94.6 N/A N/A N/A   Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water hea	OCTG, standard, line pipe, carbon	1017-06	248.3	246.0	-0.9	10.0				
Metal pipe fittings, flanges & unions 1017-0674 96.7 96.5 -0.5 7.2   Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-011 379.1 378.9 -0.1 2.5   Electric water heaters	Steel pipe & tube, alloy	1017-0671	N/A	N/A	N/A	N/A				
Copper & copper-base alloy pipe and tube 1025-0239 221.8 221.1 -0.3 9.2   Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-011 379.1 378.9 -0.1 2.5	Steel pipe & tube, stainless steel	1017-0673	94.6	N/A	N/A	N/A				
Plastic pipe 0721-0603 121.0 111.7 -7.7 9.2   Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Metal pipe fittings, flanges & unions	1017-0674	96.7	96.5	-0.5	7.2				
Plastic pipe fittings & unions 0721-0604 158.4 157.3 -0.7 7.5   Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-021 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-011 367.0 366.9 0.0 4.0	Copper & copper-base alloy pipe and tube	1025-0239	221.8	221.1	-0.3	9.2				
Plumbing Fixtures, Fittings & Trim 1054-02 303.2 303.1 0.0 2.4   Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-010 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Plastic pipe	0721-0603	121.0	111.7	-7.7	9.2				
Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-011 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Plastic pipe fittings & unions	0721-0604	158.4	157.3	-0.7	7.5				
Bath & shower fittings 1054-0211 249.8 249.8 0.0 1.5   Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-011 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0				•						
Lavatory & sink fittings 1054-0218 150.9 150.9 0.0 2.2   Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Plumbing Fixtures, Fittings & Trim	1054-02	303.2	303.1	0.0	2.4				
Enameled iron & metal sanitary ware 1056 226.5 227.5 0.4 1.6   Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Bath & shower fittings	1054-0211	249.8	249.8	0.0	1.5				
Steam & Hot Water Equipment 1061 281.4 283.7 0.8 2.2   Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Lavatory & sink fittings	1054-0218	150.9	150.9	0.0	2.2				
Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Enameled iron & metal sanitary ware	1056	226.5	227.5	0.4	1.6				
Cast iron heating boilers, radiators and convectors 1061-0106 178.0 179.9 1.1 2.7   Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0										
Domestic water heaters 1066-01 379.1 378.9 -0.1 2.5   Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Steam & Hot Water Equipment	1061	281.4	283.7	0.8	2.2				
Electric water heaters 1066-0101 367.0 366.9 0.0 4.0	Cast iron heating boilers, radiators and convectors	1061-0106	178.0	179.9	1.1	2.7				
	Domestic water heaters	1066-01	379.1	378.9	-0.1	2.5				
Non-electric water heaters 1066-0114 235.1 234.9 -0.1 1.4	Electric water heaters	1066-0101	367.0	366.9	0.0	4.0				
	Non-electric water heaters	1066-0114	235.1	234.9	-0.1	1.4				
Warehousing, Storage & Related Services32-1105.2105.1-0.14.8	Warehousing, Storage & Related Services	32-1	105.2	105.1	-0.1	4.8				