



Market Condition & Activity Bulletin

Piping & Equipment, Inc.— A Member of AD & supplyFORCE.com

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NICKEL PRICES IMPACT STAINLESS

The present phase of high nickel prices began in 1999. The stainless as well as the nickel industries have become very concerned about possible substitution processes. The best indicator for this impact is the development of the austenitic/ferritic ratios of certain countries for which this data is regularly available. Stainless can be divided into three basic groups based on their crystalline structure: austenitic, ferritic, and martensitic. Martensitic stainless has a relatively high carbon content containing between 12 and 18% chromium used for cutlery, surgical instruments, etc. Ferritic stainless is magnetic non heat-treatable steels that contain chromium (between 11 and 18%) but not nickel, known as the 400 series stainless used in automotive, material handling, hot water tanks, etc. **Austenitic** contains 18% chromium and 8% nickel, and is the 300 series stainless used in pharmaceuticals, petrochemical, food processing, architectural, chemical plants, etc. They are the most widely used steels known as 18-8(Cr-Ni) steels. The chromium nickel ratio can be increased to improve formability; carbon content can be reduced to improve corrosion resistance.

Austenitic Ratio %	1999	2000	2001	2002	2003
United States	59.8	59.0	58.4	62.3	60.8
Germany	68.8	66.2	68.7	72.7	69.3
Italy	79.8	76.9	77.1	76.9	79.5
Japan	60.5	60.0	61.6	62.2	60.9
TOTAL	64.5	63.3	64.5	66.5	65.3

As the chart shows, the stainless demand structure has drastically changed, on both a regional basis as well as end use applications. China and India outperformed stainless demand growth in the US, W. Europe and Japan. Remarkably, during 1999 – 2000, the stainless industry saw the nickel price development just as a short-term speculative bubble. From mid 2000 until late 2001, however, demand for austenitic stainless steel began driving nickel prices. From early 2002, the counter reaction of the stainless industry to high nickel prices was triggered by the strike at Inco, the Canadian nickel producer.

The health of the worldwide nickel market is heavily dependent upon stainless steel production. Two-thirds of all nickel mined and produced in the world will make its way into stainless steel. A rebound in stainless steel in 1999 caught nickel producers off guard. Inco suffered another shut down due to a strike and was reportedly too strapped for cash to re-open closed mines. Canadian Falconbridge, the world's third largest producer suffered smelter problems and Australian producer, WMC, had to shut down for two months. Once again, with demand exceeding supply, prices increased until production caught up in 2000 and prices peaked. The year 2001 saw prices fall, but a strike at Inco once again brought them back up in 2003.

Average Nickel Price – LME – USD /LB

01/03	02/03	03/03	04/03	05/03	06/03	07/03	08/03	09/03	10/03	11/03	12/03	01/04
3.6424	3.9130	3.8022	3.5897	3.7802	4.0270	3.9922	4.2434	4.5217	5.0129	5.4843	6.4272	6.8567
01/02	02/02	03/02	04/02	05/02	06/02	07/02	08/02	09/02	10/02	11/02	12/02	
2.7430	2.7363	2.9670	3.1578	3.0683	3.2310	3.2415	3.0483	3.0136	3.0881	3.3191	3.2643	

Trading for the first day of 2004 ended at \$7.63/lb, flirting with the \$17M/ton level for much of the day. The January 5th closing of \$7.76/lb is a new 14 year record closing and \$.41/lb off the all time record high set in 1989. On January 6th, the LME nickel dropped from a new 14 year high of \$17,720 to close at \$15,200/ton (\$6.89/lb). On January 22nd, nickel closed at \$6.68/lb. All eyes are fixed on the Falconbridge talks with a possible union strike on the horizon.

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STAINLESS STEEL PIPE

Pricing ↑ Stainless steel pipe manufacturers are announcing increases of 10% – 12% on basic prices plus a 50%+ increase in surcharges according to manufacturers. Manufacturers indicate raw material supply shortages and increasing export demand pushing increase and increased prices are likely to stick. Raw material lead times are long, surcharges are up, and imports are down, as well as energy and transportation costs increasing.

Lead Times – Fill rates are running at 50% – 60% with lead times out 10 – 12 weeks on commodity material.

Non-stock specials are quoting 12 – 16 weeks on standard grades and 16 – 20 weeks on special grades.

Comments – With nickel already reaching historical highs and moly staying at higher levels than last year, the surcharges will likely reach 60% – 70% of the transaction price for pipe according to one stainless steel pipe manufacturer. (See Surcharge Historical Graph.) Manufacturers are providing quotations with one-week validity due to the unpredictable cost variations of elements.

STAINLESS STEEL WELD FITTINGS

Pricing ↑ Stainless steel weld fittings are predicting increases of 5% – 10% or more. One manufacturer has recently withdrawn all published discount schedules from their price list. Until further notice, they are quoting prices on a net basis with raw material subject to prior sale. They also note that prices are not considered firm until time of order placement.

Lead Times – Forecast lead times are 2 – 3 weeks for commodity material with fill rates of 80% – 90%. Deliveries on non-stock specials are going out slightly with quotations of 6 – 8 weeks.

Comments – Manufacturers feel that imports will start to decrease slightly by the end of the first quarter. This is due primarily to China's increased consumption of stainless steel. In addition, the exchange rate of the dollar to the Euro is also a factor. Manufacturers are cautiously optimistic for 2004. With nickel increasing and imports decreasing, manufacturers are looking for slight increases in demand for domestic butt weld fittings. Economic conditions in the U. S. continue to improve, which could also help improve demand.

STAINLESS 150 AND HI-PRESSURE FITTINGS

Pricing ↑ Stainless pressure fittings have announced increases of 4% – 10% or more this quarter.

Lead Times – Two to three week lead times are forecast with fill rates at 90%.

Comments – Manufacturers comment on nickel and scrap prices skyrocketing. Foreign product in the U.S. will continue to decline according to manufacturers, as foreign producers focus on the market in China.

STAINLESS STEEL FLANGES

Pricing ↑ Manufacturers indicate price increases of 10% or more due to raw material costs.

Lead Times – Manufacturers are quoting fill rates of 50% – 80% and lead times from 3 – 6 weeks. Non-stock specials are running 6 – 8 weeks and this will continue to get longer. Some exotics are already out to 12 – 14 weeks.

Comments – Manufacturers feel that commodity stock is going to be affected by shortages of raw material. Also, lack of business has caused manufacturers not to stock

like in the past. World manufacturers will be affected by nickel and moly shortages. Due to the number of projects outside of the U.S., manufacturers feel that foreign material coming in to the U.S. will be shrinking. Foreign manufacturers can make more by staying out of the U.S. Nickel prices are expected to continue rising. Moly mines are on strike. All manufacturers (U. S. and foreign) will be forced to continue with these rising prices according to several manufacturers expectations.

CARBON STEEL PIPE (CONTINUOUS WELD, ERW & SEAMLESS)

Pricing ↑ Manufacturers are predicting price increases of 3% to 10% and more. One manufacturer notes that we are starting to see import mills follow domestic increases. Increasing raw material costs are necessitating the need for higher prices.

Lead Times – Lead times are currently 3 to 4 weeks. Fill rates are 60% – 90%.

Comments – One manufacturer indicates that the market is slowly picking up. More jobs that are domestic are being quoted. One manufacturer indicates rising steel prices, shortage of steel, higher energy costs, and rising scrap prices with shrinking availability of scrap are driving the price increases. Increases are not demand driven.

Please note that arrows inserted after pricing is only a "Best Guess" of pricing direction after compiling information from select suppliers. It does not reflect input from all mfgs. nor does it include study of national economic indicators.

CARBON STEEL WELD FITTINGS AND FLANGES

Pricing ↑ The prices for carbon steel fittings and flanges are predicted to increase 5% – 7½%.

Lead Times – Fitting and flange manufacturers indicate lead times of 2 – 4 weeks. Fill rates are running about 90%.

Comments – Scrap prices up sharply. The scrap prices are affecting mill pipe costs to fitting manufacturers. More increases are expected. Manufacturers are also indicating heavy demand in China, as well as the Euro/Dollar currency valuation effecting U.S. imports.

FORGED STEEL FITTINGS

Pricing ↑ Manufacturers are predicting forged steel fittings to increase this quarter by 10% due to the increase of steel and bar, as well as raw material costs. These increases are affecting both domestic and foreign manufacturers. This is the first increase in forged steel pricing in over five years.

Lead Times – Fill rates are 80% – 90% with forecast lead times of 1 – 2 weeks. Non-stock specials are

forecast for 2 – 3 weeks.

Comments – One manufacturer indicates that the European competition is decreasing due to the weak U. S. dollar valuation. Also, increases in ocean freight has added to foreign competitiveness in the U. S. Import forged steel fitting manufacturers are expected to announce increases as well. Since last August forging bar has increased over 22% including scrap surcharges.

STAINLESS GATES, GLOBES, CHECKS

Pricing ↑ Manufacturers indicate price increases from 8% – 10%.

Lead Times – Forecast lead times are 8 – 12 weeks with 60% – 70% fill rates. Non-stock specials are forecast for 12 – 16 weeks.

Comments – One manufacturer notes that the purchasing index is at a 20 year high. Raw materials are up from 15%

to 70%. In addition to rising metal prices is the soft dollar, which affects costs and selling prices. The Chinese Industrial Market is responsible for sucking up the world's raw materials; thereby, creating a demand situation that has driven costs up. This may slow down later in the year because the Chinese Government has decided to slow down their growth.

BRONZE AND IRON GATES, GLOBES, CHECKS

Pricing ↑ Manufacturers predict price increases this quarter of 3% – 7%.

Comments – Manufacturers indicate bronze increases are in the 3% – 5% range with iron increases of 5% – 7%. The increase is necessary to offset the substantial cost

increases of raw materials and other energy resources required for the manufacturing of product according to manufacturers.

Lead Times – Lead times are running 3 – 4 weeks, and non-stock specials are forecast for 4 – 6 weeks.

CAST STEEL GATES, GLOBES, CHECKS

Pricing ↑ Manufacturers predict price increases this quarter of 3% – 5%

Lead Times – Forecast 6 to 8 weeks for cast steel valves

and 16 to 20 weeks for high pressure cast steel valves.

Comments – All raw material costs increasing, scrap steel prices increasing, and especially chrome prices increasing.

FORGED STEEL GATES, GLOBES, CHECKS

Pricing ↑ Manufacturers predict price increases this quarter of 3% – 5%

Lead Times – Forged steel commodity valves are forecast 3 – 6 weeks, and non-stock specials are running 6 – 16 weeks.

QUARTER TURN VALVES – BALL AND WAFER

Pricing ↑ Manufacturers predict price increases this quarter on all product. The increase will be between 2% and 7%. Increases in raw material, energy, transportation, and insurance costs dictate that a price increase is necessary according to manufacturers. Raw material prices are up substantially.

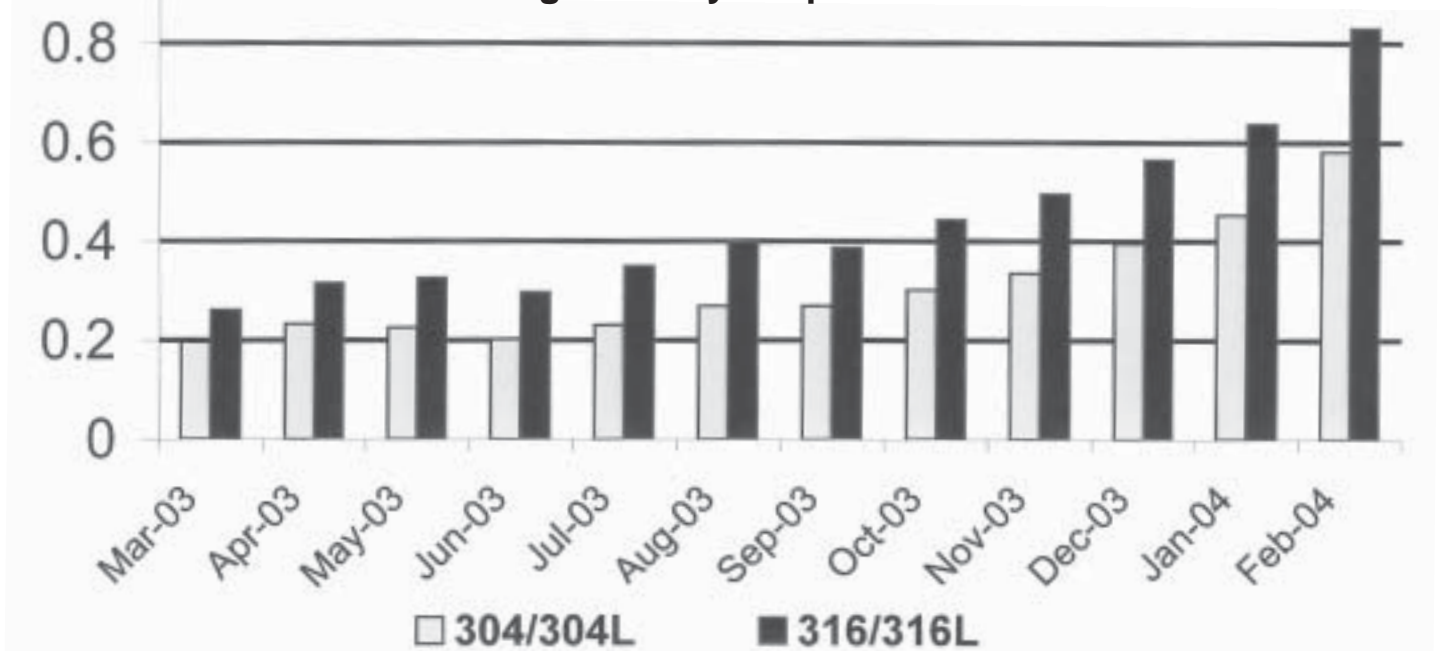
Lead Times – Standard material lead times are 1 – 2 weeks. Special order materials are forecast for 12 – 16 weeks.

Comments – Price increases should be seen across the entire industry according to manufacturers. The declining U.S. dollar and the recent China increases on steel products are impacting the industry, on top of raw material costs rising. One manufacturer notes that availability of product could become an issue with increased national security, and additional costs from foreign sources. One manufacturer indicates that pressure on pricing increases continues due to the impact of currency exchange rates.

While stainless is primarily made of chromium, nickel is less abundant and far more volatile. History has shown the pricing of stainless closely follows the cost of nickel. This is due in part to the fact that while nickel may make up a small percentage of stainless in mass (8% in 304); it contributes upwards of 60% of the cost. With the United States currently not mining any nickel or ferrochrome, and the U. S. Defense Logistical Agency selling off its strategic stockpile of nickel in 1999, the United States is now 100% dependent on foreign imports for these two key ingredients of stainless steel. Stainless steel and specialty steel consume 90% of the world processed ferrochrome. South Africa accounts for 60% of the world's production. There is 56 lbs. of stainless steel in the typical family vehicle. In 1977, the typical vehicle had only 26 lbs. of stainless according to data from the American Metal Markets. Stainless producers use raw material surcharges to offset the steep climb in nickel. (See Surcharge History Graph 2003 – 2004.)

Stainless steel demand is set to grow by 5% in 2003/2004, underpinned by growth in demand from China. Consolidation in the stainless steel industry has resulted in fewer, but bigger, customers for ferrochromium producers. Stainless steel scrap presently accounts for around 40% of chromium units. Scrap availability has a capping effect on chromium unit price. Scrap ratios are set to fall to around 30% as availability declines, resulting in more ferrochromium units being used. Although stainless steel consumption is growing everywhere, demand patterns are changing. There is a clear shift away from North America and to a lesser extent Europe, to Asia, excluding Japan. Asia, including Japan consumes 50% of cold rolled production, and of this, China consumes 20%. The stainless industry is aware that different economies have different consumption patterns, e.g. transportation applications are higher in the USA than in Europe, use in building construction is higher in Asia than in Europe.

Surcharge History Graph 2003 – 2004



	Mar. '03	Apr. '03	May '03	June '03	July '03	Aug. '03	Sep. '03	Oct. '03	Nov. '03	Dec. '03	Jan. '04	Feb. '04
304/304L	0.197	0.233	0.226	0.203	0.231	0.269	0.269	0.301	0.335	0.396	0.453	0.581
316/316L	0.262	0.315	0.326	0.297	0.350	0.399	0.388	0.444	0.496	0.565	0.638	0.831



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