



## METALS MARKET OUTLOOK 2007

International metals prices have risen substantially the last three years and are at all time highs, in some cases prices match or exceed the highest real levels seen in the last thirty years. Prices are significantly above long-run average costs of production. The recent run-up in prices is broadly consistent with the pattern of past metal price cycles, although prices have risen more strongly and high prices could be extended longer than has been typical in the past. Prices have been driven up by a number of factors including demand growth increasing sharply, particularly in China. This caught the industry by surprise and helped drive inventories to low levels. Investment and expansion of mining capacity had earlier been discouraged by a long period of low metals prices with uncertain future prospects and poor corporate returns. More recently prices have been driven even higher by technical and labor problems, and delays in bringing on new capacity.

High metals prices do not appear to pose any urgent short-term issues for the global economy. While higher metal prices may impact inflation, the scale of the metals industry is relatively small in relation to the size of the global economy and international trade. The metals industry is much smaller in this respect than the oil industry, and the world has coped well with high oil prices. Moreover, the current period of high metals prices is not necessarily out of line with past price cycles. Base metals finished the year with strong gains. Strong supply/demand fundamentals attracted buying from investors and speculators. The strongest performer was nickel which registered gains of 140%, followed by zinc (120%), tin (73%), lead (55%) and then copper (43%).

Nickel prices are in an exceptionally high cyclical phase. The price is expected to remain well above the average of the 1990s because of a shift upwards in the cost structure of the industry as it moves from sulphide to laterite ores. Going forward, most growth will occur in New Caledonia, Australia, and Brazil where large projects are now under development. China will increase its production of refined nickel from imported concentrates. The year 2006 ended with LME nickel at \$15.10 / lb (\$33,300 / ton). A big jump from the \$6.18 / lb it began the year in January 2006.

Copper prices recently have hit post World War II highs. Surpluses are forecast for 2008 - 2010, and the price is expected to fall, but not to the levels prevailing in the 1990s. Global copper mining capacity is forecast to increase to 19.3m tons by 2010. Almost three quarters of the expansion is expected to be in North and South America.

Iron ore prices for internationally traded iron ore are at their highest levels for 25 years. No major price changes and modest growth in demand for international trade were seen in the 1990s, but demand growth began to accelerate in 2002 and drove prices higher. Prices are forecast to decline, as increases in supply come on stream in 2008 - 2010, but remain higher than 1990s averages. Most of the supply increases will come from regions that today produce iron ore, and from companies that now dominate international trade. Brazil and Australia are expected to further increase their shares of world production. Smaller increases are expected from the CIS (Russia), India and South Africa.

Don Caffee of ValPers shared the following information in comments from the December 2006 newsletter:

*The mood of the fluid flow industry is very upbeat as we head into 2007. Everyone expects 2007 to be a banner year and, in fact, some of the manufacturers have already booked their forecast for the year. That can be a "good news" "bad news" situation. We have our factories booked for the coming year, with a profitable backlog. The bad news is that we cannot satisfy customer requirements for timely shipment of products that are needed for operation of their plants. Hopefully, the US companies will not develop an "attitude" and simply ignore the customer needs. An "attitude" will surely open the doors to more foreign products that might not gain acceptance if normal supplies were readily available.*

*(Continued on page 4)*

Information for this article was provided by Don Caffee of ValPers Performance Partners, Inc. from the December 2006 newsletter. ValPers offers management consulting services to the flow control industry. Additional information was produced by the Oil, Gas Mining and Chemicals Department of the World Bank Group as a background paper for the G20 Deputies Meeting, Sydney, 2006.

## STAINLESS STEEL PIPE

**Pricing** ↑ - Stainless Steel pipe manufacturers are predicting increases of 2-1/2% - 7-1/2% for the 1<sup>st</sup> quarter of 2007 due to raw material costs, supply and demand. The increase should be industry wide due to surcharges and strong demand.

**Lead Times** Stainless commodity material is currently shipping at 20% - 40% fill rates. Deliveries are forecast for 12 - 20 weeks for commodity material not in stock and 16-20 weeks for non-stock specials. Some flat rolled producers have limited capacity available as a result of year-end inventory adjustments by service centers.

Mills note that there are some very small inventory builds, but they will cut capacity before building too much.

**Comments** One manufacturer comments on increasing competition from east Asia. Another manufacturer notes that many new mills in China are sending unsolicited offers of commodity pipe product. There has been a slight year-end lull, but project activity should pick-up during the first quarter resulting in capacity shortages at least thru the first half of 2007.

## STAINLESS STEEL WELD FITTINGS, 150 & HI-PRESSURE FITTINGS

**Pricing** ↑ → Manufacturers of stainless weld fittings forecast a 3%-5% increase for the 1<sup>st</sup> quarter of 2007 due to supply and demand. Manufacturers of stainless pressure fitting indicate no change forecast during the first quarter of 2007. Manufacturers indicate specialty items may increase as much as 10%.

**Lead Times** Weld fitting manufacturers indicate fill rates are running 60% - 80% with forecast lead times of 6 - 12 weeks for commodity items not in stock. Pressure fittings are shipping at 90% fill rates and 1-2 week delivery on commodity product. Forecast lead times for specialty items are 16-20 weeks. Manufacturers comment that it is more difficult to get raw materials to produce product. The manufacturers are seeing some normal commodity sizes of pipe being quoted 18-20 weeks. Plate items that were normally in stock are now being quoted with 6-8 week deliveries. Bar stock is even more difficult to find due to limited supplies both domestic and overseas.

**Comments** Most manufacturers are pretty much booked up. Product availability has decreased especially in certain sizes. Depending on material grade, deliveries could go way out. The larger the OD, the longer the delivery is forecast. One manufacturer comments that they expect 2007 to be an interesting year. They do not expect prices to escalate like the past two years, but availability could become a major problem. Another manufacturer comments that stainless demand increased in 2006 due to the energy, chemical, and automotive industries. All have been using more stainless and higher alloys for corrosive purposes. Also, the increased demand for ethanol has caused the construction of more ethanol plants which consume stainless steel. The oil and gas industries are using more stainless due to harsher environments in drilling operations. The only concern at this time is the talk of more US producers investing to increase production. This could result in over supply for 2008.

## STAINLESS STEEL FLANGES

**Pricing** ↑ Flange manufacturers forecast an increase of 3% - 5% during the 1<sup>st</sup> quarter of 2007 due to raw material costs, supply and demand.

**Lead Times** Lead time are 1 - 2 weeks with fill rates of 80% - 90%

for commodity material. Non-stock specials are forecast for 20 or more weeks.

**Comments** - Manufacturers note that foreign competition is increasing from China, India, Malaysia and Korea.

## CARBON STEEL PIPE - ERW AND CONTINUOUS WELD

**Pricing** → Manufacturers comment that no change is forecast for carbon steel pipe. Market conditions continue to remain flat to slightly down.

**Lead Times** Commodity carbon steel pipe is forecast for delivery in 8-12 weeks with fill rates of 60%-80%. Non-stock specials are forecast for 8-12 weeks.

**Comments** Competition is reported to be increasing from China, Russia, Ukraine, Czech Republic, Romania, and Spain. China is the biggest competition concern for the domestic market. Mill orders softened in the last quarter of 2006. Oil country tubular goods pricing has also come down modestly. The big problem with the steel market is excessive inventories. Still

the current slowdown in demand and production is not expected to be long-lived. With production cuts instituted, it is expected that inventories will be worked down, the erosion of prices will be reversed and demand will increase as the expected recovery develops. United States Steel reports they are curtailing production and they will likely have three or four blast furnaces offline during all or part of 2007. The company had already planned for some outages to take advantage of the typical 4<sup>th</sup> quarter slow-down; however, the condition of the market has left them with no great rush to return some of the idled furnaces to production.

## CARBON STEEL WELD FITTINGS AND FLANGES

**Pricing** → Based on current data, prices for carbon steel weld fittings and flanges are expected to remain stable through the first quarter of 2007. There is a leveling of demand and supply.

**Lead Times** Fill rates are running 80%-90%. The forecast lead times are 2-3 weeks. Non-stock specials are forecast for 6 - 8 weeks.

**Comments** Energy costs continue to be of concern especially in

light of deregulation effects in 2007. Offshore imports continue to depress carbon steel markets for both carbon steel weld fittings and forged steel flanges according to manufacturers. The industry is currently evaluating accumulated data to determine if they wish to move forward with legal action for dumping suits against Mexico, Korea, India, Malaysia, Thailand, Brazil, Russia, Romania and Chile.

## FORGED STEEL FITTINGS

**Pricing** → Forged steel fitting manufacturers are not forecasting any change thru the first quarter of 2007.

**Lead Times** Fill rates for forged steel fittings are running 90% or more with lead times of 2 - 3 weeks.

**Comments** The import push from European product continues to decrease. The weak dollar prevents them from soliciting new market share and decreasing existing orders. The Asian influence continues but at higher selling levels than the 3<sup>rd</sup> quarter of 2006 according to manufacturers. It appears that the Asian market has rationalized their pricing strategy causing a 5% multiplier increase. Scrap pricing has increased approximately \$20 per ton, but manufacturers are reducing

the base price of material to prevent a price increase.

The mild winter weather is causing an anxious natural gas industry. If the mild weather continues, gas prices will continue to decrease potentially delaying drilling and capital projects. One manufacturer comments they forecast the first two quarter of 2007 to be consistent with 2006 results. The 2007 price point for Iron Ore has increased 9 1/2% which may affect the general steel pricing as the year continues. The high inventory levels at service centers coupled with increased imports has kept the pricing at moderate levels for many products. However, as the inventories decrease, prices may change in the second quarter of 2007.

## STAINLESS STEEL GATES, GLOBES, CHECK VALVES

**Pricing** ↑ Stainless steel valves may see a 5% - 10% increase in the first quarter of 2007 due to raw material costs.

**Lead Times** Lead times are running 6 - 12 weeks with fill rates of 60% - 70%. Fill rates for non stock specials are forecast for 8 - 16

weeks or more.

**Comments** Raw material costs continue to pressure the selling prices to increase on stainless steel valves. Competition from foreign markets continues to increase.

## BRONZE AND IRON GATES, GLOBES AND CHECK VALVES

**Pricing** ↑ - Bronze manufacturers forecast price increases of 3% - 5% due to increasing raw material costs for both bronze and iron valves for the 1<sup>st</sup> quarter of 2007.

**Lead Times** Forecast lead times are running 4 - 6 weeks on bronze

and iron valves. Fill rates are running 70%-80% for bronze valves and 80%-90% for iron valves.

**Comments** Raw material costs for bronze valves have steadied, but are forecast to continue to increase during the year.

## CAST STEEL GATES, GLOBE AND CHECK VALVES

**Pricing** → Manufacturers predicts no change for cast steel valves in the 1<sup>st</sup> quarter of 2007.

**Lead Times** Forecast lead times are 3-6 weeks with fill rates of 70% - 80% on commodity valves. Non-stock specials are forecast for 6-12 weeks or more.

**Comments** According to the US Department of Labor Bureau of Labor Statistics, the following data has been released as of January 2007:

### Producer Price Index for Industrial Valve Manufacturing for the period of 2005 to November 2006

Series Id: pcu332911332911

Industry: Industrial valve mfg

Product: Industrial valve mfg

Base Date: 9106

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2005	138.1	142.9	143.8	144.7	144.7	145.6	145.9	145.9	147.2	147.7	147.4	147.8	145.1
2006	148.7	152.8	152.5	153.5	154.6	159.2	160.1	161.0(P)	162.4(P)	164.9(P)	164.9(P)		

**P** : Preliminary. All indexes are subject to revision four months after original publication.

## FORGED STEEL GATES, GLOBES AND CHECK VALVES

**Pricing** ↑ Forged steel valve manufacturers indicate a price increase of 2% - 5% during the first quarter of the year due to raw material costs.

**Lead Times** Fill rates are running 30% - 50% for commodity valves. Lead times are forecast for 4-6 weeks on commodity items and 8-12 weeks for non-stock specials.

**Comments** Foreign competition is seen as increasing from Italy, Korea, and China. Molybdenum, chromium, and carbon steel have been fairly stable according to manufacturers. Nickel has been more volatile with spiking prices and lower stocks. This is expected to continue thru this quarter of 2007. Manufacturers are seeing more demand for exotic valves.

## QUARTER TURN VALVES - BALL AND WAFER

**Pricing** → No change in pricing for quarter turn ball and wafer-sphere valves is forecast for the first quarter of 2007.

**Lead Times** Lead times are running 3-4 weeks for commodity valves. There are longer lead times on basic products because demand has not subsided. Specialty valve lead times are forecast at 12-16 weeks. Fill rates are running 40%-50% for commodity valves.

**Comments** Lead times are longer because of foundry lead times. Exotic materials are being impacted by much longer deliveries. Foreign imports continue to increase. One manufacturer comments that as demand for process valves surge, import levels will likely increase.

*This report is published as a service to the PVF Industry indicating the direction of prices, lead times, and market conditions reported by various domestic and import manufacturers as they believe the direction the market is heading each quarter.*

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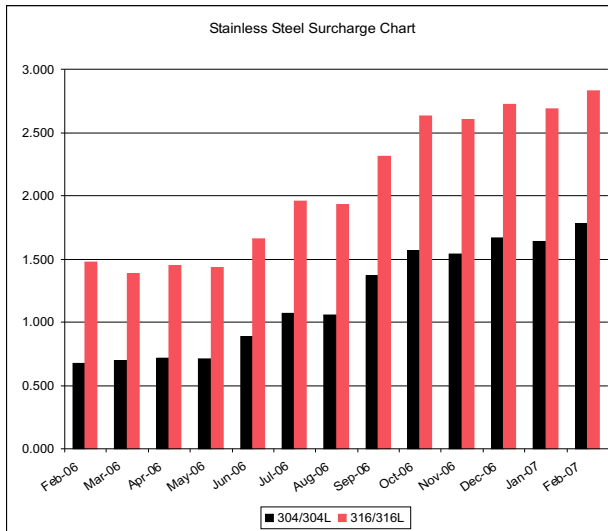
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In times of "Lean Manufacturing", valve makers have tended to try and push the inventory requirements downward to distribution. However, distributors have been hard pressed to keep their inventories current and some of the pricing of integrated supply contracts have not made larger inventories financially attractive. Unfortunately, those manufacturers importing their products from offshore sources cannot simply "ramp up" their orders to get more products because their manufacturing sources are not able to increase production to levels required to satisfy the need. The shortage of foundry capacity has worsened. US companies would like to return some manufacturing to this country; however, they are unable to locate US foundry sources. This problem has spread to overseas sources as well, so it is difficult to locate capable foundries throughout most parts of the world. As usual, when the supply is tight, the price goes up. Look for more price increases from foundries worldwide.

Even companies willing to "pay the price" and get castings (and forgings) from sources throughout the world to bring to the US for machining are still having another problem a severe shortage of skilled labor in the US. We believe the solution is to modify our educational system to begin teaching the younger generation how to work with their hands and become machinists, pipe fitters, electricians, and other skilled tradesmen. Everyone in the younger generation cannot, and in fact some do not want to be college graduates and work with computers in offices. Skilled trades' people are valuable to our economy and are generally well compensated. Citizens of the US and certainly US businesses should push city, state and federal educational and governmental offices to reactivate what was once our strength skilled labor.

Recent events in China show the economy booming, but they are under pressure from the US and many other countries to adjust the value of the Yuan Renminbi which is presently trading just short of 8 per US Dollar. They have recently announced plans to equalize their trade surplus by the end of 2010 and initiate that objective by the end of 2007. This will be a massive undertaking that could have severe repercussions inasmuch as the US/China trade surplus is projected at \$140 million UDS in 2006. American manufacturers will be forced to switch away from the high labor content focus of their products and change their manufacturing techniques. This will require more advanced equipment that will be used to lower the labor content of their exported products. Taking this action will eliminate a lot of cost advantages of having the manufacturing sources in China, but will do nothing to eliminate the costly infrastructure that is required for import/export of China products. However, China based manufacturers do not have to be concerned with OSHA and EPA; therefore, OSHA and EPA become a "cost equalizer" and inadvertently prevent returning some jobs to the US.

With material costs projected to continue to rise and the problems with offshore production in China, we believe you can expect continued price increases throughout 2007. Consolidations taking place in nickel and copper companies preclude upward price pressure. The increases may be smaller than 2006, but we expect them to occur at least quarterly. The acquisition and merger activity will continue in 2007. The major Investment Banking Firms have had an excessive amount of money to use in buying companies as big investors have looked for high yield opportunities. These investment firms are mostly short term players and have exit plans prepared before they do the acquisitions. The exits are generally timed for 3 to 5 years. Look for an increase in the exit activities of big banking firms and some strategic owners in 2007. Distribution acquisition activities have been active in the past year. We believe others will follow in 2007.



	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07
304/304L	0.673	0.693	0.717	0.707	0.887	1.068	1.060	1.370	1.570	1.540	1.670	1.640	1.780
316/316L	1.477	1.381	1.444	1.436	1.660	1.960	1.930	2.310	2.630	2.600	2.720	2.690	2.830



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