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MBR Industrial & Structural Tube & Pipe MARKET TRACKER

HSS – mechanical tubing – precision tubing – standard pipe

International market analysis of industrial & structural tubes and pipes and their substrate

CONTENTS

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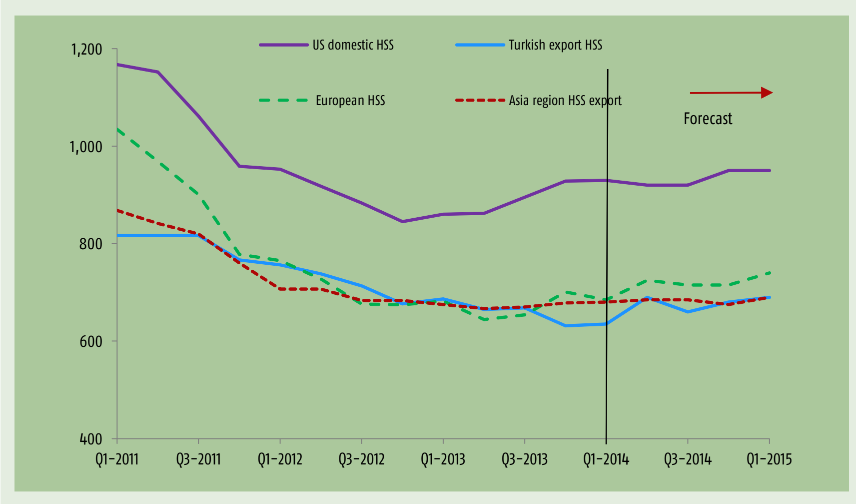
GLOBAL HSS PRICES ($/TONNE) SOURCE: METAL BULLETIN RESEARCH



US market struggles to maintain Q4 2013 prices through Q1 2014

North American structural and industrial tubing markets strengthened in the fourth quarter of 2013, but mills will likely experience falling prices by the end of the first quarter. The fundamentals in the structural markets will not outpace the weakening effects of falling raw materials and substrate costs. Mechanical tubing markets are understood to be holding a bit firmer than the structural markets, although we suspect that steep coil price cuts will weigh on prices for welded material. Demand from the manufacturing sector remains strong as imports remain subdued compared to previous years.

Improved fundamentals signal a move for higher pricing in Europe by next quarter

Structural and industrial tube markets in Northern Europe are starting to exhibit strengthening fundamentals through the first quarter. Attempts at further price hikes in HSS and gas and water tubes could be attempted before April. The success of these moves is still in question, but the recovery in confidence is a signal itself. Meanwhile, MBR examines the relative structures of the mechanical and precision tube markets in the USA and Europe in regard to the utilization of seamless or welded material. While the USA has experienced a greater shift to ERW usage than in Europe, alloy applications continue to drive seamless demand.

Chinese markets look to rebound from slow start to year

Trading activity was quiet in China for the annual Lunar New Year holiday. Even so, economic growth concerns continue to weigh on market sentiment. Prices are unchanged for now but slowing downstream demand will weigh on further offers.

This is the first issue of MBR's new Industrial & Structural Tube & Pipe Market Tracker

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CURRENT AND FORECAST SEAMLESS TUBE & PIPE PRICES

Current and forecast tube and pipe prices

		Feb-14		Jan-14		Feb-13		Q1 2014f	Q2 2014f
Country	**Currency**	**Local**	**$/tonne**	**Local**	**$/tonne**	**Local**	**$/tonne**	**$/tonne**	**$/tonne**
EU									
Hollow structural sections (1) ex-mill	€/tonne								
ERW gas and water pipe (EN10255)	€/tonne								
Seamless gas and water pipe (EN10255)	€/tonne								
Cold-formed welded precision tube (EN10305-3)	€/tonne								
Cold-drawn welded precision tube (EN10305-2)	€/tonne								
Structural LSAW pipe	€/tonne								
Seamless mechanical tube (EN10297)	€/tonne								
Cold-drawn seamless precision tube (EN10305-1)	€/tonne								
Seamless boiler tube (EN10216b)	€/tonne								
Turkey export									
Hollow structural sections (1) fob	$/tonne								
Gas and water pipe (EN10255) fob	$/tonne								
Spiral SAW fob	$/tonne								
USA									
Midwest domestic hollow sections (2) ex-mill	$/ton								
Seamless mechanical tube (ASTM A519)	$/ton								
Seamless boiler tube (ASTM A106b)	$/ton								
South East Asia export									
Hollow structural sections (1) fob	$/tonne								
Welded galvanised pipe fob	$/tonne								
China export									
Hollow structural sections (1) fob	$/tonne								
Sprial SAW fob	$/tonne								
Seamless mechanical tube (ASTM A519) fob	$/tonne								
Seamless boiler tube (ASTM A106b) fob	$/tonne								
Seamless stainless tube (TP 304) fob	$/tonne								

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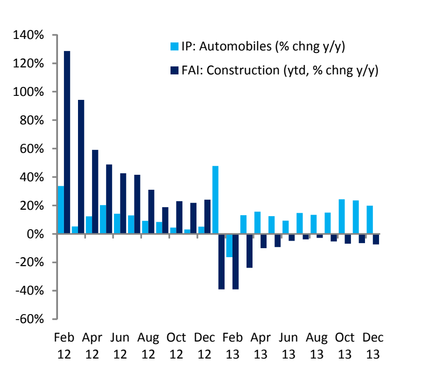
(1) 50mm X 3mm (2) 2" x 1/8"

SOURCE: MBR

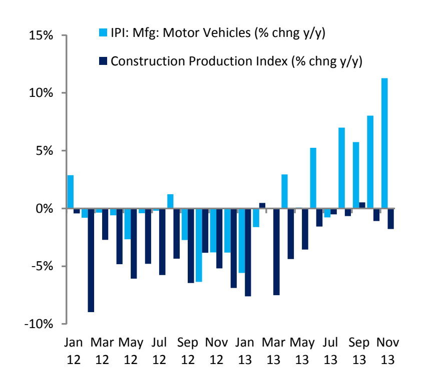
INDUSTRIAL & STRUCTURAL TUBE AND PIPE INDICATORS

China



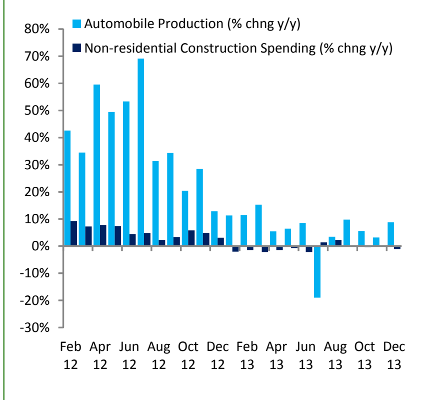
SOURCE: MBR

EU 28



SOURCE: MBR

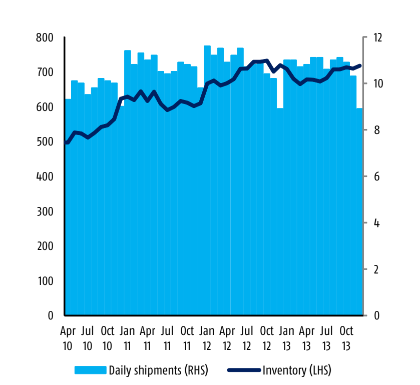
USA



SOURCE: MBR

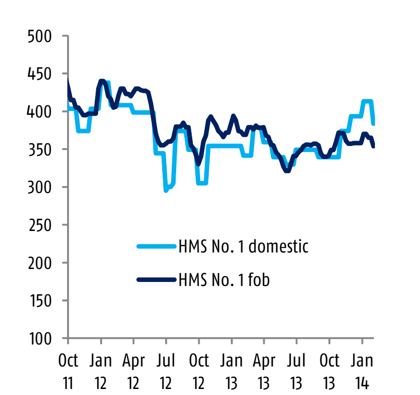
Structural tubing markets still waiting for Q1 gains

Total carbon steel pipe and tube inventories and shipments ('000 tons)



SOURCE: MSCI and MBR

US scrap prices ($/tonne)



SOURCE: MBR

HSS prices firm as cost pressures retreat

North American HSS pricing is generally holding firm through the start of February, although a few factors are threatening to undermine prevailing price levels. Prices are around $950/ton, with actual transaction prices depending on the size of the orders and whether the product sizes are common. Downside price risks continue to be associated with slow demand growth, high inventories and import concerns. Meanwhile, declining scrap and HR coil prices are now creating a price drag. In February, both scrap and HR coil prices declined with scrap falling as much as $30/l.ton and HR coil down $10-15/ton from January pricing. MBR expects HSS pricing to lose footing over the course of the coming weeks as the supply-demand balance can not uphold prices in an environment of falling substrate costs.

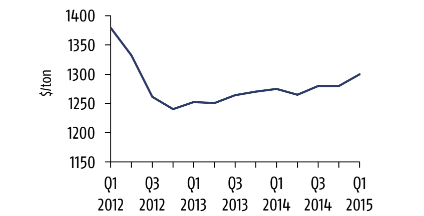
Overall, the structural tubing market is struggling to achieve significant growth as non-residential construction spending remains static with year-ago levels, wavering between positive and negative growth from month to month. The sector has been unable to maintain year-over-year growth over 2% over the past year. Market participants told MBR that, unlike the manufacturing sector which has exhibited moderate gains over the near term, uncertainty in the US budget is having a negative effect on demand for structural steel tubing.

Government uncertainty weighs on piling market

The piling market, which is strongly affected by infrastructure building, is suffering under the weight of excess supply and meager demand growth. Infrastructure expenditure is dependent on government spending which has been held up in budget negotiations and government shutdowns where each short term agreement to avoid fiscal cliff or shutdown situation only extends the time before a long-term solution is reached. Without a long-term budget plan, piling suppliers are left waiting for a recovery. For 2013, including preliminary data for December, total non-residential construction spending fell slightly year-over-year while expenditure for highway and street construction was nearly equal to the spending levels in 2012, rising less than 0.1% for the year.

Meanwhile the market is oversupplied, especially in the large-diameter sizes. MBR understands that while few tube mills ship pipe directly as piling, much of the material is originally intended as linepipe or OCTG. Mill over-runs, material not up to API specifications, or excess tonnage in need

US SEAMLESS MECHANICAL TUBE



SOURCE: MBR

MBR Outlook

Structural and industrial tubing markets strengthened in the fourth quarter of 2013, but mills will likely look to just maintain stability through the end of the first quarter. The fundamentals in the structural markets are still not strong enough to support pricing in the face of falling raw materials and substrate costs. Scrap and HR coil prices declined through the start of February and we believe HSS prices are vulnerable to decline by the end of the quarter.

Mechanical tubing markets are understood to be holding a bit firmer than the structural markets, although we suspect that steep coil price cuts will weigh on welded material. Seamless mechanical tubing may get some support from SBQ pricing which has been upheld despite the decline in scrap pricing, given that billet for SBQ can also supply the seamless tubing market. Overall demand from the manufacturing sector remains strong while imports in 2013 were 11% lower than in 2012 and January preliminary data suggests no surge in arrivals yet.

of a buyer will enter the piling market as it easily meets the specifications for piling, such as ASTM A252.

Slack linepipe market shedding tonnage into pilings

With the prevailing excess supply in the OCTG and linepipe markets, which has been weighing on the pricing outlook, more material is entering the piling market. Distributors and dealers continue to field calls to take excess materials off the books of the sellers – either mills or field services companies. We have also heard that material from Italy has been sold to buyers in the USA at extremely low prices in order to move material. Nevertheless, market participants have a brighter outlook for this year than for 2013. Many are reporting increased sales to Central and South America which is starting to alleviate the overhang of material. The expectation is that it will take through much of the first half of the year to work down the excess tonnage.

Seamless mechanical tubing market may have more underlying cost support...

Mechanical tubing prices held firm into February, maintaining support from sustained demand from automotive manufacturing. In fact, seamless material is likely to display modest strength as scrap's price decline is mitigated by support from the SBQ market. Seamless tubing and SBQ, which share similar billet-quality needs, can move in tandem, due to raw materials costs movements. SBQ producers are floating base price increases in line with the $30/l.ton cut in February scrap prices, which will likely keep SBQ transaction prices unchanged. If these prices are successful, seamless mechanical tubing producers will have stable footing on which to maintain their own pricing.

Total mechanical tubing imports through December 2013 were down more than 72,000 tons from arrivals recorded for the year in 2012. This has mainly taken pressure off domestic supplies, although imports remain a concern for the US west coast market. Prices there are more vulnerable to decline than in the Midwest market where demand is stronger as well.

...although welded tonnage is gaining market share

Nevertheless, seamless price support in relation to the potential for welded mechanical prices to decline may further the shift in applications for welded tubing over seamless. In the USA, applications for welded mechanical tubing are broader than in Europe as welded tubing producers improve quality and manufacturers look to control costs. Market participants suggest that the properties of DOM tubing can be superior to seamless material in certain applications. We have been told that around 90% of cylinders are now welded rather than seamless. Nevertheless, seamless still dominates in high-pressure and gear-box applications, applications that require high-alloy material where the raw materials for such tubing would not be available in coil to form welded tubing and only as round billet to produce seamless.

Meanwhile, we are aware that car manufacturers can also leave their welded tubing purchases to suppliers or stamping plants rather than from distributors or producers, opting to purchase only seamless tonnage directly. This reflects the fragmented nature of the mechanical tubing market in the USA, especially the welded market where there is a large number of suppliers. Nevertheless, cost pressures will continue to weigh on manufacturers, which will continue to sway the market to welded when possible.

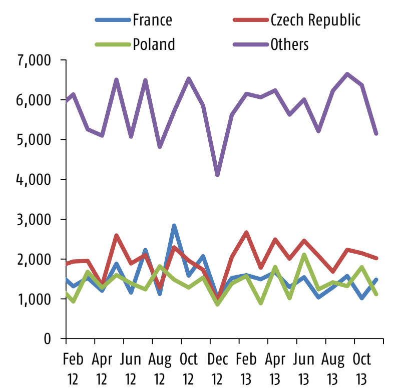
Apparent consumption of industrial and structural pipes in North America by product ('000 tonne)

Country	2011	2012	Q3 2013	Oct-13	year-to-date	y-o-y % chg
USA						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
Canada						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
Mexico						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						

SOURCE: Customs Statistics, ISSB, MBR estimates

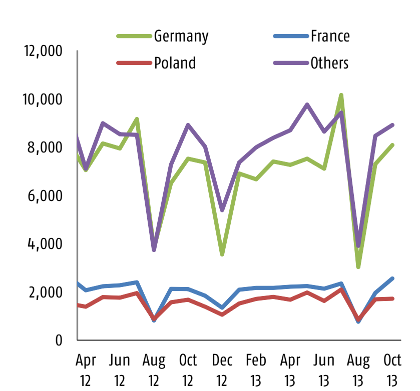
Northern European markets begin to see the signs of recovery

German welded precision tube exports ('000 tonnes)



SOURCE: ISSB and MBR

Italian welded precision tube exports ('000 tonnes)



SOURCE: ISSB and MBR

The Northern European construction tube markets begin to recover...

Northern Europe, led by the UK, continue to see an improving market for ERW hollow sections and gas/water (EN10255) tubes which are now at around €620/tonne and €640/tonne respectively in the UK and €590/tonne and €610/tonne in Germany. This price is based on HSS being of a dimension of 40X40X3mm and gas and water tubes at 60.3mm X 3.6mm. Recent price increases of around €30/tonne brought through in January have held in the market. Turkey has also increased its delivery price to these markets supporting the domestic price increase. However, these prices in recent days are understood to have come under increasing pressure suggesting further price hikes attempted at the start of the second quarter will be unsuccessful.

...while the Southern European markets continue to struggle

ERW tubes are commonly being used in Northern Europe for EN10255 applications. However, in Spain and Italy seamless tubes are used in this application. Prices for EN10255 seamless tubes are naturally higher than welded at around €850/tonne currently in the domestic Italian market, with imports arriving from Eastern Europe at around €800-820/tonne. Demand currently though is reported to be extremely poor as a result of very low investment in infrastructure in the country currently planned by the Italian government.

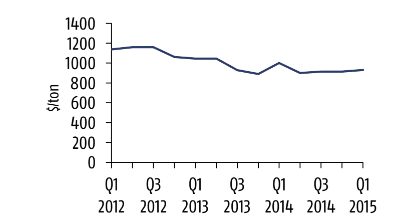
The German precision tube market begins to see signs of recovery...

While constructional tube products begin to show recovery in North Europe, this is also starting to be seen in the precision tube markets, with EN 10297, EN 10305-1 and EN 10305-2 seamless and ERW drawn and non-drawn precision tubes seeing increasing demand in the German market. Both tubular products are heavily utilised in the automotive sector. Currently EN 10297 seamless precision tubes (non-drawn) are selling at around €900/tonne, using a steel grade of S355. The drawn grade of seamless tubes, EN 10305-1 is being offered at around €1,170-1,350/tonne. The price range refers the different diameter of the drawn tubes. Smaller diameters such as 20-40mm used in applications like camshafts will demand higher prices as they have required further working than larger OD's such as 60-80mm used for hydraulic cylinders etc.

...ERW is increasingly claiming market share...

ERW increasingly in the last ten years has gained market share over seamless for automotive precision applications in the EU. The quality of

EUROPEAN SEAMLESS MECHANICAL TUBE



SOURCE: MBR

MBR Outlook

Structural and industrial tube markets in Northern Europe are starting to see improving market fundamentals moving towards Q2. Attempts at further price hikes in HSS and gas and water tubes could be attempted before April, although we think they are unlikely to be successful. Demand is beginning to improve for seamless and ERW precision tubes in Germany. The first quantity increases in purchases have been reported since the start of the year, which is starting to provide confidence that a recovery in demand is underway from the automotive market itself.

Out over the next few months, we believe that demand in the EU for precision and drawn tubes will continue to improve in the North. In 2014, automotive output across the Union is currently forecast to grow by 3%. The periphery markets such as Spain and Eastern Europe are likely to see higher demand growth, but premium car manufacturers in Germany and the UK are also expected to see strong growth in 2014, driving precision tube demand here.

the welding from European manufactures has been steadily improving coupled often with better finished tolerances in the ERW tubes than seamless. As a result, for a lot of lathe work and screw machining operators, welded tubes are often now preferred. ERW drawn tubes are now commonly used for such automotive applications as camshafts, rocket shafts, hydraulic lines and cylinder tubes, where once seamless dominated.

...in part, due to the cost advantage it has...

ERW has a significant price advantage over seamless in the EN10305 market. A seamless tube at the same diameter, wall thickness and grade to its ERW counterpart is currently typically €250-300/tonne higher placing EN 10305-2 drawn ERW tubes at around $870-1,100/tonne. It is this price advantage that has also allowed ERW tubes to steadily increase market share.

...although in certain applications seamless will always dominate

However, there are still certain applications in the automotive market in Europe where seamless tubes will continue to dominate. These include any applications which need bending operations, end-forming to the tubing and any increased widening of the tubes needed at its ends where there is a concern of cracking from using welded tubes.

Prices remain stable in the structural LSAW market...

The large-diameter structural LSAW market remains stable, with prices currently at around €900-1,200/tonne based on a steel grade of S355 and a typical diameter of 900-1,500mm OD. We anticipate that prices are likely to increase into the second quarter as plate producers look to push through price increases of around €40/tonne based on improving market fundamentals. These LSAW pipes are being commonly used in offshore jackets for wind turbines. The price differential is based both on the diameter of the pipe, but also the wall thickness which can be used which can range from 25 to 60mm based on the application.

...but are expected to increase as demand improves

There has been a lot of uncertainty in the future of offshore wind technology in Europe. The UK dominates this market. In January, however, the UK government has stated that it will increase its subsidies to offshore wind, at the expense of onshore wind and solar energy, this should encourage continued growth in this sector and stimulate the demand for LSAW pipe for these offshore structural applications.

Apparent consumption of industrial and structural pipes in key European countries by product ('000 tonne)

Country	2011	2012	Q3 2013	Oct-13	year-to-date	y-o-y % chg
Germany						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
France						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
Italy						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
Spain						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						
UK						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Seamless mechanical tube						
Seamless drawn tubes						

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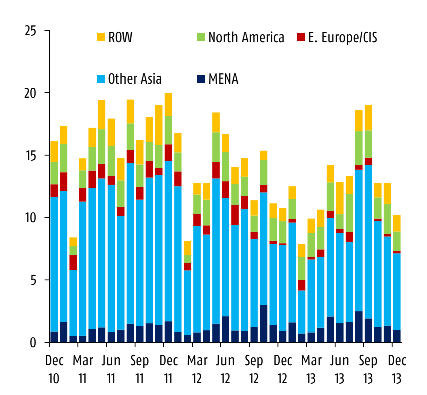
SOURCE: Customs Statistics, ISSB, MBR estimates

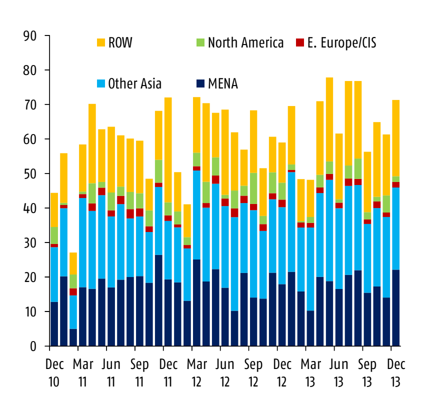
Chinese industrial tube market expected to pick up in February

Chinese seamless cold drawn exports ('000 tonnes)



SOURCE: MBR

Chinese non-circular hollow sections exports ('000 tonnes)



SOURCE: MBR

Chinese prices little changed on sluggish demand

Structural and industrial steel tube prices remained broadly flat this month in China, but are at a low level by historical standards. On a month-on-month basis, spot prices of the ordinary seamless pipes in the grade of A106B with a wall thickness of 4.5mm were unchanged at RMB 4,250/tonne ($696/tonne) by mid-February. Meanwhile, in the welded market, 3.75mm (0.15in) wall-thickness, welded standard and structural pipe – Q235 (A53B) – traded at RMB3,690/tonne ($604/tonne) in the Shanghai spot market, compared with RMB3,700/tonne ($606/tonne) a month earlier.

Trading activity has quiet in the past month in China, as the market was closed in early February for the week-long Lunar New Year holiday. Moreover, China's economic growth showed further signs of the slowdown, with both official and HSBC purchasing managers' indices (PMI) for manufacturing sector declining to six-month lows in January, adding to the gloomy view on downstream demand.

China's automotive precision tube market strengthens

There are encouraging signs though for China's automotive precision tube manufacturers as the country's vehicle production saw a good start of the year, with sales hitting a new high. The country sold just under 2.2 million vehicles in January, up just over 1% from the previous month while the country produced 2 million units in the same month, down 4.0 % month-on-month, but this still represents an increase of 4.5% from a year ago.

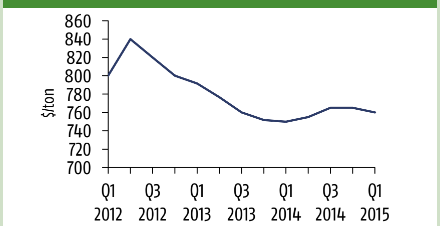
We understand that the automotive market is also providing opportunities for international precision manufacturers. As the quality of car production rapidly increases in China, German seamless precision tube manufactures have noticed an opportunity and have increased exports as OEM's in China demanding higher and higher precision qualities'.

Ordinary tube exports in relatively healthy growth

In the international market, the export price for Chinese ordinary seamless tubes increased by $5/tonne month on month to $695/tonne fob.

The structural and industrial tube market accounted for ~ 30% of China's total seamless and welded tube exports, and this share is likely to increase into 2014. An increasing number of trade disputes are reigning in the exports of OCTG and linepipe. China's non-energy tube exports increased 8.5% year-on-year to 2.9Mt in 2013. The increase in exports is mostly accountable to welded tubes, which posted a 12.7% year-on-year increase in exports to 2Mt.

CHINESE SEAMLESS MECHANICAL TUBE



SOURCE: MBR

MBR Outlook

China is currently seeing an economic slowdown in part related to seasonal weakness in the market which has impacted on the demand for structural and industrial tubes. We expect demand to recovery in late February/early March. In particular, construction structural tube demand should improve as warmer weather arrives in the country.

Demand from the automotive sector in China continues to reach new levels and production is up for January year-on-year. We expect automotive production to remain strong driving the demand for seamless and ERW precision tubes in the market into Q2 of this year.

However, even with improving demand, domestic non-energy tube prices are not expected to rebound significantly in price in the coming months. This is because pipe mills in the country are also expected to ramp up their production, which will increase supply into the market preventing price gains.

Apparent consumption of industrial and structural pipes in key Asian countries by product ('000 tonne)

Country	2011	2012	Q3 2013	Oct-13	year-to-date	y-o-y % chg
Japan						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Large-diameter spiral tube						
Seamless mechanical tube						
Seamless drawn tubes						
South Korea						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Large-diameter spiral tube						
Seamless mechanical tube						
Seamless drawn tubes						
China						
Welded square and rectangular sections						
Round welded tubes (under 406.4mm OD)						
Round welded tubes (over 406.4mm OD)						
Large-diameter spiral tube						
Seamless mechanical tube						
Seamless drawn tubes						

SOURCE: Customs Statistics, ISSB, MBR estimates

To download full data sets please click here

MBR INDUSTRIAL & STRUCTURAL TUBE AND PIPE MARKET TRACKER

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