

Company Visit Note

Jindal SAW - A Pipeline of Growth

- We recently visited Jindal SAW (JSAW IN, Not Rated), a diversified pipe company with products across Sub-merged Arc Welded (SAW), Seamless and Ductile Iron (DI) pipes. Global demand for SAW pipes (used in oil and gas transportation) and seamless pipes (primarily used in exploration, transportation) has been rising strongly on the back of growing oil and gas capex. In India demand for DI pipes used in water/sewage transportation is expected to rise significantly.
- Jindal SAW's order book currently stands at \$1.5bn. The company's annual revenues over past two years averaged \$720mn. The company expects to execute most of these orders over the next 12 months. It expects further order wins from the export market given strong demand momentum in the pipeline segment.
- Jindal SAW is expanding capacity in Seamless pipes (from 100,000MT to 250,000MT) and DI pipes (increase production through line balancing). It is also adding a power plant (15MW), and sintering plant. It hopes these initiatives will translate into substantial cost savings and ensure a strong diversified growth pipeline.
- Simdex, a global consultancy specializing in pipeline projects, estimates total global pipeline construction at 210,000 kms, as the Middle East, North America and Asia concurrently embark on oil and gas pipeline capex. The company is currently trading at 9.4x FY08 and 7.7x FY09 consensus estimates.

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[Jindal SAW \(Reuters: JIND.BO, Bloomberg: JSAW IN\), Historical financial data](#)

INR, year-end March	FY04	FY05	FY06
Sales	10,821	23,136	38,557
EBITDA	1,321	2,672	4,099
Net Income	563	1,007	1,691
EPS	14.4	20.8	33.5
EV/EBITDA	23.1	12.6	8.6
ROE	15%	16%	18%
ROCE	15%	17%	18%
PE ratio	34.6	24.0	14.9

Source: Company.

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JSAW.IN, Not Covered

INR 535, April 19, 2007

Five-year share price chart



Source: Datastream.

One-year price performance

	1M	3M	12M
Absolute (%)	11.5	20.1	27.7
Relative (%)	6.3	24.3	14.6

Source: Datastream.

Company data

52-wk range (INR)	553-235
Mkt cap. (INR Mn)	26,114
Mkt cap. (\$ Mn)	607
Shares O/S	48.3
Free float (%)	51
Avg. daily volume	0.12
Liquidity Rs Mn	51
Exchange rate	43
Index	13619
Year-end	September

Source Bloomberg.

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J.P. 

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Company expects order book to grow over the next 2 years

Order book at US\$1.5B

Jindal SAW's current order book stands at US\$1.5bn spread across geographies and product segments. The current order book at the US operations stands at \$700mn, while the Indian operations have an order book of \$800mn.

Exports account for more than 90% of the order book, with North America and the Middle East split equally. Currently the order book is mostly skewed towards SAW pipes.

Table 1: Order book breakup

\$MM		
Geography	Segment	Size \$mn
North America	SAW	700
Middle East & Domestic India	SAW	750
	Seamless and DI	50
		1500

Source: Company.

Jindal SAW is expanding capacity in the SAW pipes and seamless divisions. In DI pipes it is setting up a sinter plant and power plant whereby it hopes to increase margins

Capex aimed at cost savings, higher production

Jindal SAW is in the process of expanding capacity in SAW pipes and also implementing capex in its DI and Seamless pipe business. In SAW pipes it is expanding capacity in Helical Sub Merged Arc Welded (HSAW) by 150,000 tonnes with the aim of capitalizing on the strong growth seen in HSAW market.

In the seamless division, it is expanding capacity by 100,000 tonnes to 250,000 tonnes at a total cost of Rs3 bn. It is also de-bottlenecking the production facility in order to increase the yield. The company is focusing more on the Oil Country Tubular Goods (OCTG) market.

In DI division, it is setting up a sinter plant to help it utilize lower cost iron ore fines. It is also setting up a captive power plant (15MW). According to the company, the sintering plant and power plant should help improve the margins in the DI business and translate into cost savings of Rs400mn a year. The company believes the captive power plant would help reduce power costs to Rs 1.5-2 per unit from the current grid purchased power of Rs 5.5 per unit. The line balancing in the DI plant would also increase production of DI (more profitable) and reduce the production of the by-product pig iron (less profitable), it says.

Table 2: Capex breakdown—FY 07-09E

RsMM, Tonnes		
Business	Cost	Company Comment
Seamless	Rs3 bn	
Increasing Capacity to 250,000 Tonnes,		Business will have higher yield, increase focus on the more profitable OCTG segment
Ductile Iron		
Captive Power plant (15MW)	Rs 700mn	The captive power plant and the sintering plant will improve margins. The sintering plant will help the company utilize iron ore fines
Sinter Plant	Rs 350mn	
Slag Granulation Plant	Rs 100mn	
De-bottlenecking	Rs 800mn	
SAW		
Increasing Capacity of HSAW by 200,000 tonnes		Market share gains in the fast growing HSAW market

Source: Company reports.

Port based location, access to us manufacturing facilities

Jindal SAW's SAW pipes and DI pipes manufacturing facility is located at Mundra, Gujarat, giving the company a port-based location, which it says helps to lower freight costs, because the company imports its key raw material – steel plates. Jindal SAW through its affiliates also has manufacturing facilities in the US. SAW pipes in which it has a 20% stake, has a 0.5MT pipe mill and has a 49% stake in JUSCO, which operates a 1.2MT plate mill. The US manufacturing facilities cater to the energy and petrochemical line pipe demand in North America.

Approvals with global oil and gas majors

Jindal SAW has pre-qualification and accreditation from the global oil and gas majors. It believes this is an important advantage as the process of pre-qualification is a lengthy and cumbersome. Its customers include most global and Indian oil and gas majors - British Gas, BECHTEL, China National Petroleum Corporation, Saudi Aramco, Indian Oil, GAIL, ONGC, Petronet LNG, BPCL and HPCL.

Pre qualification and increasing accreditation with global oil and gas majors

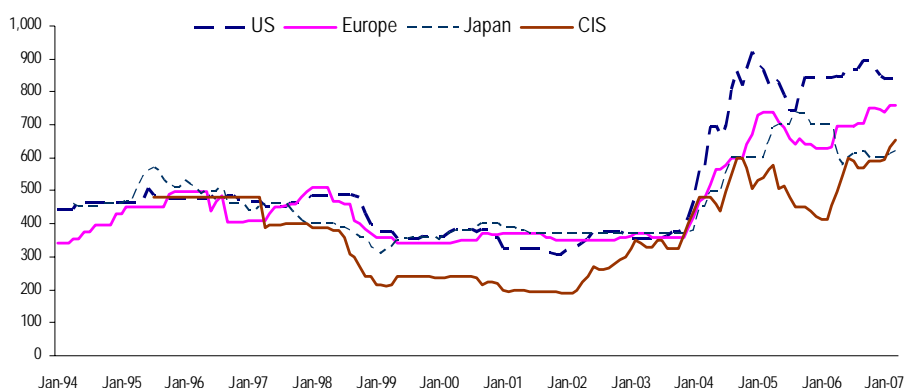
Steel plate price risk, but new plate mills coming up in India

Jindal SAW's is not an integrated producer and hence buys steel plates and converts them into LSAW pipes (Helical SAW pipes use HR Coil as raw material, while seamless is made from billets). Steel plates are the key raw material and are therefore the key determinant for profitability.

Indian companies currently import their entire steel plate requirements from CIS, South Korea and Europe. Recent strong demand seen in LSAW pipes globally has led to a sharp increase in steel plate prices as plate for API grade pipelines remain in tight supply.

Figure 1: Steel plate prices globally

\$/Tonne



Source: CRU

Indian plate capacity likely to rise

Indian companies are implementing plate mill projects totaling 4MT and are in different stages of implementation. Essar Steel and Welspun Gujarat's plate mills are due to be commissioned end 2007 while Jindal Steel and Power's (JSPL) plate mill is currently being commissioned. Once these plate mills become fully operational it would be possible for the Indian pipe manufacturing companies to purchase plates

domestically. This should translate into cost savings from lower landed cost, and lower working capital charges for the Indian pipe manufacturers.

Table 3: Steel plate capacities coming up in India

MT		
Company	Capacity (MT)	Date
Essar	1.5	End 2007
Welspun Gujarat	1.5	End 2007
Jindal Steel and Power	1	Apr-07

Source: Company reports and JPMorgan estimates.

Global energy capex: strength to continue

Global energy capex is forecast to increase strongly over the next few years, driven by Middle East, North America, CIS and Asia. With natural usage to increase (as oil prices remain above multi year highs), major gas pipeline construction is planned. We expect pipeline capex to be over \$52bn over the next 3-5 years.

Gas Usage to Increase

The International Energy Agency (IEA) has forecast strong gas demand growth till 2030. It calls for an increased share of the Total Primary Energy Supply (TPES) coming from gas while the share of oil remains more or less same.

Table 4: IEA Total Primary Energy Supply (TPES) forecast

%			
Fuel Share	2004	2010	2030
Oil	34.3%	35.8%	34.1%
Coal	25.1%	23.1%	22.9%
Gas	20.9%	21.5%	24.2%
Nuclear	6.5%	6.3%	4.7%
Hydro	2.2%	2.2%	2.3%
Others	11.0%	11.1%	11.8%
MTOE	11,059	12,200	16500

Source: IEA

Table 5: A snapshot of capex budgets/programs announced by Global Oil and Gas majors (Includes Upstream and Downstream capex)

Company	\$/Euros bn	Time period
Lukoil	78	2007-16
Petrobras	87.1	2007-11
Saudi Aramco	47	
Saudi Aramco JV	35	
Exxon Mobil	21	per year for 2008-2011
Chevron	19.6	2007
BP	17.5	2007
Conoco Phillips	13.5	2007
ENI	Euros 45	2007-2010
Shell	22-23	2007
Petro China	146	2007- 2011
Sinopec	40	2007-2009
Total	16	2007

Source: Company Reports, JPMorgan estimates.

Global pipeline capex breakdown

North America: Accounts for roughly 40% of the total pipeline capex. Demand comes from both replacement of old pipelines and from new pipelines for natural

gas. *Approximately 65% of North America's existing pipelines are more than 30 years old and close to replacement*

North America pipeline construction boom expected on a combination replacement and new gas pipelines construction

Increased spending in North America .is expected to come from increasing Rockies Natural Gas production, higher use of LNG, and the Canadian oilsands projects

As per our US Analyst some of the major pipeline projects are the Alaska gas and the gulf coast pipelines.

Table 6: Some of the major proposed pipeline projects in North America

Project	Estimated Tonnes	Pipeline Miles	Tube Diameter (inches)
Alaska Gas	1,900,000	1,800	48
Altex	570,000	2,000	30
Mackenzie Gas	418,000	760	30
TCPL - Keystone	400,000	1,200	30
Enbridge - Alberta Clipper	385,000	1,000	36
Enbridge - Gateway	360,000	721	36
Kinder Morgan -TMX	348,000	1,000	30-36
Enbridge - South Access Phase 2	136,000	321	36-42
Enbridge - Gulf Coast	na	2,055	36
Texas Gas	na	555	36-42
CenterPoint	na	730	30,36,42
Total	4,517,000	12,142	

Source: JPMorgan estimates.

Recently our US Analyst Michael Gambardella in his report on IPSCO (US and Canada pipe and pipe grade plate manufacturer) stated, *“demand for IPSCO's large diameter line pipe has been sold out through April 2008. With firm options (tubular orders for yet-to-be-specified future projects) on over 500kt of large diameter line pipe the company is confident that demand is set to increase over the next several years”*.

Middle East- Qatar and Iran have the largest gas reserves in the world and are planning to develop them commercially. This would entail the construction of transnational pipelines. Saudi Aramco has lined up mega projects totaling \$45bn to increase oil production, build petrochemicals complex and new pipelines.

CIS and Europe: Gazprom is planning to build major pipeline infrastructure to supply Europe with gas, which will connect Russia with Germany With Russia also emerging as the gas supplier to Asia, transnational pipelines from Russia to China are also under consideration.

The other major drivers of pipeline capex would be from the CIS and Middle East as gas development and transportation projects start

South America &Asia: Brazil, Indonesia, China and India are also planning and constructing gas pipelines. Russia plans to build gas pipelines to supply China with natural gas. Work is currently undergoing on a 2800km oil pipeline. China Petroleum Pipeline Bureau has commented that China plans to build 25,000 km of oil and gas pipelines by 2010.

India: GAIL has announced plans to build five new pipelines, totaling over 5000kms, with an investment of over Rs 180bn. GAIL currently has 5,680kms of pipelines. The company expects to complete the projects over the next 3-4 years.

Reliance Industries has also announced significant pipe line program of over 10,000 kms over the next 5 years.

Table 7: Global demand projections over the next 5 years

\$bn

Region	Number of projects	Km	Eq Mt of Steel	\$Bn Capex
North America	167	59,875	15.0	15.0
Latin America	42	21,430	5.4	5.4
Europe	46	22,729	5.7	5.7
Africa	28	12,236	3.1	3.1
Middle East and Asia	105	82,114	20.5	20.5
Australasia	18	12,658	3.2	3.2
Total	406	211042	52.7	52.7

Source: Simdex.

Increasing M&A in North American tubular segment

North America has seen robust M&A in the welded and seamless pipe segment with companies striving to buy capacities instead of waiting to build them highlighting the urgency to acquire rather than incur an opportunity loss in time taken to build capacities. IPSCO, one of the largest pipe manufacturers in the US, is currently in talks for a possible sale.

Table 8: Recent North America M&A in tubular segment

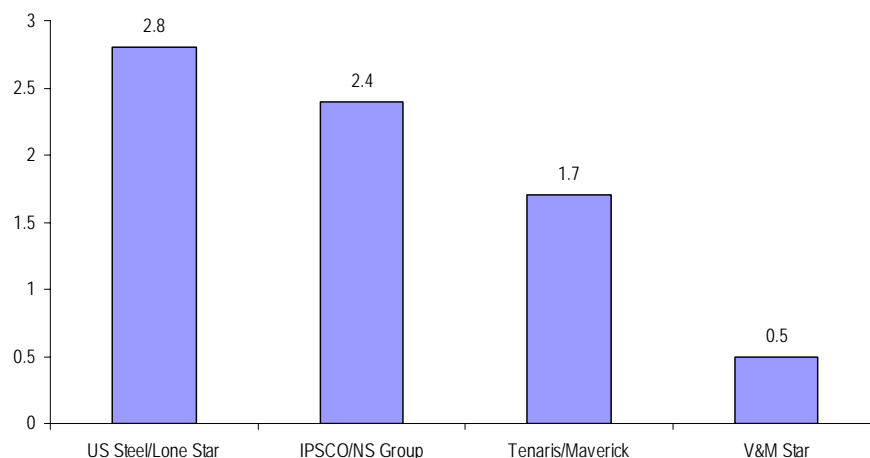
MT, \$bn

Acquirer	Company	Purchase Price \$bn	Date	Products	Capacity
Tenaris	Maverick Tubes	2.8	Jun-06	Seamless, Welded Tubes, and coiled tubing	2MT Short tons of welded
IPSCO Inc.	NS Group Inc.*	1.46	Dec-06	Seamless and alloy	0.26MT of seamless and .56MT of welded
US Steel	Lone Star	2.1	Mar-07	Welded Tubes	1MT

Source: Company reports and JPMorgan estimates.

Figure 2: North America pipe capacity breakdown

MT



Source: Company reports and JPMorgan estimates.

Implications for Indian companies

Demand in the next 3 years is expected to be strong with tight pipe supply. As per our estimates Indian companies such as Welspun Gujarat, Jindal SAW, Man Industries and PSL have around 12 % of the production share in longitudinal and 13% in spiral globally and should benefit from the increased pipeline capex globally.

Water-related business an additional opportunity

We believe water and irrigation offers a very strong business opportunity in India. The company believes its DI business should benefit from the increased spending on water infrastructure. A combination of increased government focus on irrigation, rising multilateral lending for water related sectors and enhanced private sector participation in water supply projects should increase the potential for increasing demand from this segment.

Some of the schemes currently under implementation/proposed are the *Rajiv Gandhi Drinking Water Mission, Accelerated Rural Water Supply Programme and the Urban Water Supply Programme*

Financials

In 1QFY07 Jindal SAW (September year end reporting basis) reported yoy revenue growth of 46% and EBITDA growth of 49% as demand for pipes (particularly SAW) rose sharply. EBITDA margins marginally improved to 11.4% from 11.2% a year earlier. FY06 saw 67% growth in revenues, 53% growth in EBITDA and 68% growth in net profit as volumes increased 97% y/y.

Table 9: Jindal SAW—Quarterly and annual financials (standalone)

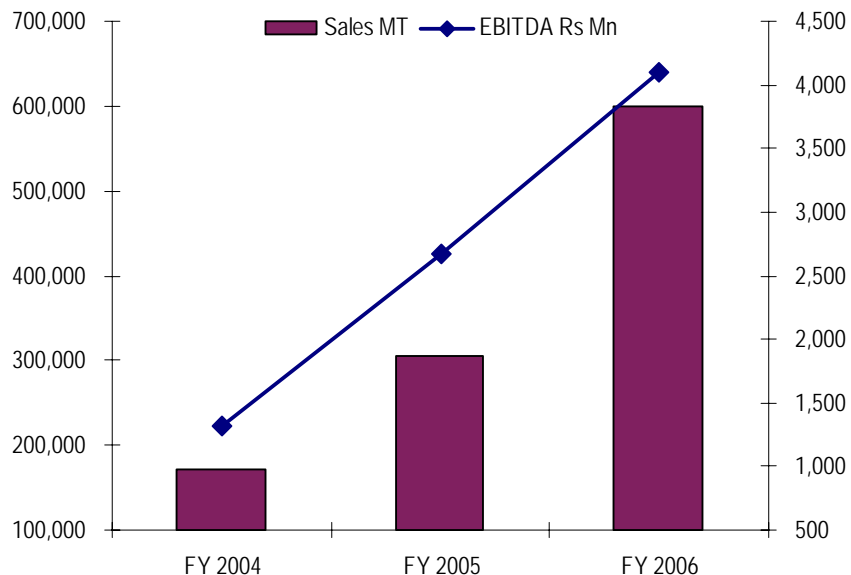
RsMM, %

	Q1 2006	Q1 2007	% y/y	FY 05	FY 06	% y/y
Sales/ Income from operations	8,617	12,343		23,928	40,615	
Less : Excise Duty	419	415		792	2,058	
Net Sales	8,198	11,928	46%	23,136	38,557	67%
Total Expenditure						
(Increase)/ Decrease in stock in trade	(1,294)	(728)	-44%	(1,904)	(3,116)	64%
Consumption of Raw Materials	6,649	8,104	22%	17,809	27,132	52%
Outsourcing	830	1,720		1,798	5,031	
Staff Cost	160	222	39%	409	816	99%
Other Expenditure	939	1,244	33%	2,352	4,594	95%
Total Expenditure	7,284	10,563	45%	20,465	34,457	68%
EBITDA	914	1,366	49%	2,672	4,099	53%
Interest	287	331	15%	997	1,450	45%
Depreciation	120	139	15%	354	519	47%
Other Income	16	8	-50%	195	432	122%
Profit before tax	523	903	73%	1,515	2,562	69%
Provision for Taxation						
- Current tax	205	302	47%	508	871	72%
- Deferred tax						
- Fringe Benefit tax						
- Earlier year's adjustments						
PAT	318	601	89%	1,007	1,691	68%
Extraordinary Income/(Loss)	84			-	71	
Reported PAT	402	601		1,007	1,762	
Effective Tax Rate	39%	33%		34%	34%	
EBITDA Margin	11.2%	11.4%		11.5%	10.6%	
Net Margin	3.9%	5.0%		4.4%	4.4%	

Source: Company reports.

Figure 3: Jindal SAW—EBITDA and sales volumes pipes (standalone)

RsMM, MT



Source: Company reports.

Cost structure

Raw materials (HR Coils and HR plates) are the single largest cost item, followed by outsourcing costs (charges paid to the US affiliates).

Table 10: Jindal SAW—Cost structure (standalone)

%			
% OF TOTAL OPERATING COST	FY 2004	FY 2005	FY 2006
Raw Materials	80%	87%	79%
Salaries and Wages	3%	2%	2%
Stores and Spares	1%	2%	2%
Power and Fuel	2%	2%	2%
Forwarding Charges	3%	3%	5%
Other Expenses	1%	1%	1%
Outsourcing Charges	14%	9%	15%
(Increase)/Decrease in stocks	-7%	-9%	-9%
SGA	3%	3%	2%
Operating	100%	100%	100%

Source: Company reports.

Valuations

The company is currently trading at 9.5x FY 08 and 7.7FY 09 consensus estimates, at a discount to its peers in India.

Table 11: Valuation multiples

x	FY 08E	FY 09E
Welspun Gujarat	10.9	8.4
Jindal SAW	9.4	7.7
Man Industries	6.4	5.5
Maharashtra Seamless	10.7	10.3
North America		
Tenaris (JPM)	13.3	
Ipsco (JPM)	11.7	9.6

Source: Bloomberg, JPMorgan estimates are for Tenaris and IPSCO, the rest are based on consensus estimates. Tenaris and IPSCO year end is Dec and so FY 08 is CY 07 and FY 09 is CY 08

Company background

Jindal SAW is one of India's largest pipe manufacturing companies in India. Its product mix includes SAW pipes, seamless pipes and ductile iron pipes. Its geographic footprint also includes India and North America; North America is currently the world's fastest growing market for OTCG and SAW pipes.

Jindal SAW's pipe manufacturing business consists of longitudinal SAW (LSAW, used in high pressure oil and gas transportation), Helical/Spiral SAW (HSAW used in low pressure oil, gas and water transportation), Seamless (used in petroleum exploration, boiler and engineering) and Ductile Iron (DI, used in Water transportation, Sewage and Housing).

Table 12: Jindal SAW—Pipemaking capacity

MT	Kosi	Mundra	Nashik	US Operations
Tonnes				
SAW Pipes	250,000	700,000		500,000
Seamless			100,000	
Ductile Iron		200,000		
Steel Plates				1,200,000

Source: Company.

Diversified pipes company

Jindal SAW is a diversified pipe manufacturing company with a diversified product mix across the key pipe segments - Submerged Arc Welded (SAW), Ductile Iron (DI), and Seamless pipes. The company also has access to manufacturing facilities in the US (in Texas) for steel plate and steel pipe manufacturing (via associate companies), the only Indian company so far. The US operation serves the pipeline market in North America – the fastest growing market currently.

The company believes the DI pipes business gives it an opportunity to leverage on the strong domestic capex seen in the water transportation segment in India. A combination of increasing government focus to build water infrastructure and rising support from multilateral agencies like the World Bank and the Asian Development Bank (ADB) should translate into strong continued demand for DI pipes.

Jindal SAW has presence across pipe segments, though predominant exposure is to SAW pipes

Seamless pipes used in petroleum exploration and boilers are seeing strong demand growth as oil exploration rises globally.

Table 13: Types of pipes, uses and key players

TYPES	Longitudinal Saw Pipes (LSAW)	Spiral/Helical Saw Pipes (HSAW)	Seamless	Ductile/Cast Iron (DI)	Electric Resistance Welded (ERW)
USES	Oil & Gas Transportation	Oil & Gas Transportation Water Transportation	Petroleum, Exploration General Engineering Boilers	Water Transportation Sanitation & Housing	Oil & Gas/ Water Distribution
COMPANIES	Jindal Saw Welspun Gujarat Stahl Rohren Man Industries	Jindal Saw PSL Welspun Gujarat Stahl Rohren Man Industries	Jindal Saw Indian Seamless Tubes Maharashtra Seamless	Jindal Saw Electrosteel Castings	Welspun Gujarat Stahl Rohren Maharashtra Seamless

Source: Company reports and JPMorgan estimates.

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