

# Jain Irrigation Systems Ltd

CMP Rs335, Not Rated

## Sector: Agri-Business

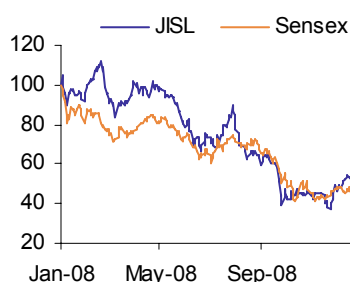
Sensex:	9,110
52 Week h/l (Rs):	767/227
Market cap (Rscr) :	2,444
6m Avg vol ('000Nos):	65
No of o/s shares (mn):	72
FV (Rs):	10
Bloomberg code:	JL IN
Reuters code:	JAIR.BO
BSE code:	500219
NSE code:	JISLJAL

 Prices as on 12<sup>TH</sup> Jan,2009

## Shareholding pattern

December-08	(%)
Promoters	32.4
Institutions	53.3
Non promoter corp hold	10.0
Public & others	4.3

## Share price trend



Jain Irrigation Systems Ltd (JISL) is a key player in the agri-business value chain. It is amongst the largest manufacturers of irrigation systems and plastic pipes in the country. JISL is the pioneer of micro irrigation systems (MIS) in India and the only manufacturer of complete drip irrigation systems globally. It is one of the few players undertaking tissue culture commercially on a large scale. Irrigation and pipes together form ~78% of its consolidated revenues followed by agro-processing (13%) and others (9%).

### One stop shop for irrigation solutions

JISL's ability to sustain its leadership position is due to its integrated approach. It plays a key role in micro irrigation and offers drip and sprinkler irrigation systems. It imparts knowledge on water management via training and on-site demonstrations. It controls ~55% of the domestic market and ~20% of the global market for MIS. It is also the second largest player in this segment globally, following Netafim, Israel. JISL also manufactures PVC and PE pipes for water and gas transportation and telecommunication sectors.

### Amongst the largest suppliers of dehydrated onions globally

JISL is amongst the largest suppliers to the processed food industry. It processes vegetables and fruits and dehydrates them for enhancing the shelf life of the products. Coupled with this, it manufactures fruit puree, pulp and concentrate and IQF. Post acquisition of Cascade Specialities in November 2006, JISL became the third largest manufacturer of dehydrated onions globally. It now plans to add more fruits to its existing portfolio of bananas, mangoes, pomegranate and guava. JISL controls ~40% of the mango pulp supplies to the domestic process food industry and ~20% of the dehydrated onions market globally.

### Blends biotechnology with agriculture

JISL undertakes R&D activities to enhance crop yield for the farmer and provides biotechnology inputs for undertaking tissue culture. It also provides hybrid seeds, high yielding grafts and planting material to farmers. This division is likely to enhance growth prospects of the company's MIS division.

### Valuation summary

Y/e 31 Mar	FY05	FY06	FY07	FY08
Revenues (Rs m)	6,003	8,426	13,922	22,159
yoy growth (%)	-	40.4	65.2	59.2
Operating Profit (Rs m)	834	1,286	1,874	3,442
OPM (%)	13.9	15.3	13.5	15.5
Pre-exceptional PAT (Rs m)	235	752	813	1,393
Reported PAT (Rs m)	224	616	833	1,324
yoy growth (%)	-	174.7	35.2	59.0
EPS (Rs)	4.0	12.9	13.2	19.3
P/E (x)	83.1	26.0	25.4	17.3
Price/Book (x)	9.1	8.2	5.7	2.8
EV/EBITDA (x)	27.3	18.9	15.4	10.4
Debt/Equity (x)	1.5	3.0	2.4	1.5
RoE (%)	-	28.8	28.3	25.4
RoCE (%)	25.3	17.0	16.4	19.1

Source: Company, India Infoline Research

"More crop per drop" is JISL's motto

**Irrigation – key growth driver**

JISL works on the motto of enhancing crop yield for farmers across the country using its expertise and experience. It is the only player providing both agri-consulting and irrigation equipments to the farmers. It assists them with high tech agri-inputs for improving yield and reducing costs. JISL undertakes infrastructural development in agriculture and provides total solutions for water, soil and crop management and insight into farm cultivation and operations.

Under agri-consultancy, JISL maintains a database of crop filings which helps it trace facts about growth patterns and thus enables the farmers to improve their yield. It performs soil surveys and provides agronomic support ranging from crop selection and rotation to watershed development through wasteland transformation.

Coupled with this, JISL imparts knowledge to farmers about irrigation techniques. Under MIS, which accounts for ~50% of its revenues, it supplies drip and sprinkler irrigation products. Approximately 95% of the inputs are manufactured in-house. It provides total turnkey services to farmers including equipments like sand filters, screen filters, sand separator hydro-cyclone and various valves and pumps; installation and implementation of systems. These services are customized and can be deployed on multiple landscapes. For eg JISL has transformed the barren J Hills into 25,500 mango orchard.

**Water treatment system**



Source: India Infoline Research

**Jain's Irrigation system**



**Tissue culture at JISL**



Source: India Infoline Research

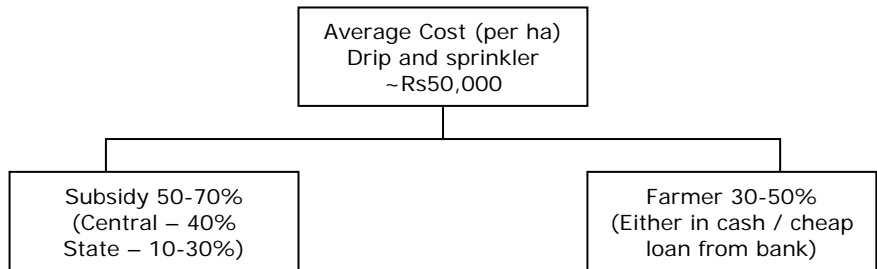
This transformation has been possible not only due to its high quality irrigation equipments but also its significant contribution towards developing high yielding seeds and grafting techniques. JISL has developed high quality *Ratnagiri* mangos by grafting the *Ratnagiri* mango plant with the low grade *Totapuri* breed. This has been one of the significant breakthroughs achieved in tissue culture. JISL benefits over its peers since it is the only player in the sector to conduct virus tissue testing thus making the final product disease free.

It acquired Thomas Machines S.A., Switzerland for enhancing its irrigation and composite pipes business. The acquisition is likely to help JISL to attain higher quality precision irrigation products. This could also enable JISL to further penetrate the US and European markets.

**Subsidy plays an important role**

Since the cost of implementing the irrigation system is high, farmers generally take support from the government’s subsidy program. Various state governments award subsidy in the range of 10-30% while the central government awards subsidy to the tune of 40%, thus taking the total range to 50-70%. For the balance 30-50%, the farmer pays either by cash or has access to cheap loans provided by state-run banks.

**Funding mechanism for a farmer**



Source: Company

**Pipes enhance irrigation growth**

JISL has 115,000MT pipe manufacturing facility, making it the largest pipe manufacturer by capacity. It manufactures PVC, PE, well casing and screen pipes with diameter ranging from 0.5"-22". It also manufactures pipes required for gas distribution, sewerage network, rural telecommunication, construction and water transportation.

**Irrigation pipes**



Source: India Infoline Research

**Other PVC & PE pipes**



The irrigation pipes manufactured by JISL have an in line mechanism thus allowing only the necessary flow of water for its drip irrigation system. Apart from pipes, it also manufactures valves, which are fitted into the pipe thus regulating water flow and avoiding flooding near the roots of the plant. This plays an important role as it avoids damaging the roots of the plant with excess water.

**One of the largest in agro-processing**

The agro-processing division processes tropical fruits such as bananas, guavas, mangos, strawberry, amla and papaya into purees, concentrates and juices. JISL is the largest supplier of mango pulp to Coke Cola for its fruit drink 'Mazaa'.

It has the state-of-the-art dehydration facility which dehydrates onions and other vegetables. JISL exports these to the US and European countries. It has three dehydration facilities with two in India and one in US.

60% of JISL's requirements for the division are procured directly from the contract farmers while the rest is purchased from *mandis*. It purchases the harvest at a minimum guaranteed price or a market price, whichever is higher for its onion dehydration and fruit processing plants. Contracting directly with the farmer allows it to get the desired varieties of vegetables that are grown to optimum maturity. These commodities are then put through quality inspections and grading and then cut, dried and milled for the desired quality. The by-products of this process are converted into organic manure, which forms a critical input for organic farming, thereby allowing JISL to earn bio-credits.

Globally, JISL enjoys 20% market share for its dehydrated vegetables and is ranked third. For its mango pulp, it enjoys the largest market share of 40% in India.

#### Mixing biotechnology with agriculture

JISL procures seeds of the higher grade plants and also uses tissue culture to grow high yielding fruits and vegetables. It nurtures the sapling in controlled conditions in three phases before it is finally planted in the field. This helps it to overcome any infections in the new plants thus insulating the fruits and vegetables from any kind of diseases. JISL supplies this knowledge to the contract farmers.

#### Achieved global presence through acquisitions

Company	Country	Ownership (%)	Acquisition price (US\$ m)	Segment
Chapin	USA	100.0	6.8	Drip Irrigation
JII (Acquarius)	USA	100.0	21.5	Drip Irrigation
NuCedar	USA	80.0	4.0	Building products
Cascade	USA	80.2	7.8	Dehydration division
Thomas Machines	Switzerland	69.8	1.5	Pipe machinery
NaanDan	Israel	50.0	21.5	Drip Irrigation

Source: Company

## Financials

### Income statement

Y/e 31 Mar (Rs m)	FY05	FY06	FY07	FY08
Revenue	6,003	8,426	13,922	22,159
<b>Operating profit</b>	<b>834</b>	<b>1,286</b>	<b>1,874</b>	<b>3,442</b>
Depreciation	(224)	(267)	(420)	(558)
Interest expense	(458)	(504)	(769)	(1,327)
Other income	82	257	333	401
<b>Profit before tax</b>	<b>234</b>	<b>772</b>	<b>1,018</b>	<b>1,959</b>
Taxes	1	(20)	(201)	(540)
Minority interest	-	-	(4)	(25)
<b>Adj profit</b>	<b>235</b>	<b>752</b>	<b>813</b>	<b>1,393</b>
Exceptional items	(11)	(136)	19	(69)
<b>Net profit</b>	<b>224</b>	<b>616</b>	<b>833</b>	<b>1,324</b>

### Balance sheet

Y/e 31 Mar (Rs m)	FY05	FY06	FY07	FY08
Equity capital	584	584	618	721
Pref capital	935	910	885	885
Reserves	636	904	2,104	7,073
<b>Net worth</b>	<b>2,154</b>	<b>2,399</b>	<b>3,607</b>	<b>8,679</b>
Minority interest	-	-	104	649
Debt	3,322	7,105	8,590	12,756
<b>Total liabilities</b>	<b>5,476</b>	<b>9,504</b>	<b>12,301</b>	<b>22,084</b>
Fixed assets	3,313	4,462	7,257	10,164
Investments	10	200	200	637
<b>Net working cap</b>	<b>2,153</b>	<b>4,842</b>	<b>4,843</b>	<b>11,283</b>
Inventories	2,073	2,686	4,697	8,099
Sundry debtors	1,408	2,163	3,585	6,556
Cash	124	2,390	443	1,036
Other curr. assets	773	846	1,263	3,005
Sundry creditors	(2,187)	(2,942)	(4,861)	(6,793)
Other curr. liab.	(37)	(302)	(283)	(620)
<b>Total assets</b>	<b>5,476</b>	<b>9,504</b>	<b>12,301</b>	<b>22,084</b>

### Cash flow statement

Y/e 31 Mar (Rs m)	FY05	FY06	FY07	FY08
Profit before tax	234	772	1,018	1,959
Depreciation	224	267	420	558
Tax paid	(0)	(7)	(25)	(78)
Working capital Δ	(2,029)	(423)	(1,948)	(5,847)
Other op. items	50	262	-157	-377
Op. cash flow	(1,522)	871	(692)	(3,786)
Capital exp.	(3,537)	(1,416)	(3,215)	(3,464)
<b>Free cash flow</b>	<b>(5,059)</b>	<b>(544)</b>	<b>(3,908)</b>	<b>(7,250)</b>
Equity raised	1,919	(388)	550	3,865
Investments	(10)	(190)	-	(437)
Debt financing	3,322	3,783	1,485	4,166
Dividends paid	(37)	(259)	(197)	(227)
Other items	(11)	(136)	123	476
<b>Net Δ in cash</b>	<b>124</b>	<b>2,266</b>	<b>(1,947)</b>	<b>593</b>

### Key ratios

Y/e 31 Mar	FY06	FY07	FY08
<b>Growth matrix (%)</b>			
Revenue growth	40.4	65.2	59.2
Op profit growth	54.2	45.7	83.7
EBIT growth	84.3	40.1	83.8
Net profit growth	219.7	8.2	71.3
<b>Profitability ratios (%)</b>			
OPM	15.3	13.5	15.5
EBIT margin	15.1	12.8	14.8
Net profit margin	8.9	5.8	6.3
RoCE	17.0	16.4	19.1
RoNW	28.8	28.3	25.4
RoA	7.4	5.4	5.9
<b>Per share ratios</b>			
EPS	12.9	13.2	19.3
Dividend per share	1.8	2.1	2.2
Cash EPS	17.4	20.0	27.1
Book value per share	41.1	58.4	120.4
<b>Payout (%)</b>			
Dividend payout	15.9	19.1	13.4
Tax payout	2.6	19.8	27.6
<b>Liquidity ratios</b>			
Debtor days	94	94	108
Inventory days	116	123	133
Creditor days	127	127	112
<b>Leverage ratios</b>			
Interest coverage	2.5	2.3	2.5
Net debt / equity	2.0	2.3	1.4
Net debt / op. profit	3.7	4.3	3.4
<b>Component ratios (%)</b>			
Raw material	60.5	56.1	53.3
Staff cost	4.2	9.0	11.1
Other operating exp	20.0	21.4	20.1

### Du-Pont Analysis

Y/e 31 Mar	FY06	FY07	FY08
Tax burden (x)	0.79	0.76	0.69
Interest burden (x)	0.60	0.57	0.60
PBIT margin (x)	0.15	0.13	0.15
Asset turnover (x)	0.82	0.92	0.94
Fin. leverage (x)	4.81	5.54	4.41
<b>RoE (%)</b>	<b>28.8</b>	<b>28.3</b>	<b>25.4</b>

**Recommendation parameters for fundamental reports:**

**Buy** – Absolute return of over +10%

**Market Performer** – Absolute return between -10% to +10%

**Sell** – Absolute return below -10%

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