

November 28, 2006

Stock Rating
Overweight

Industry View
Attractive

Voltas Limited

Initiating Coverage: Positive Business Momentum

Initiating coverage on Voltas with an Overweight rating and Rs130 price target

Voltas is a market leader in the Heating, Ventilation and Air Conditioning (HVAC) segment, which forms over 50% of Voltas' total revenue base. It has a strong order book position in India and the Middle East for these services, which should underpin the company's strong market position.

Growth leveraged to that of fast growing sectors such as IT/BPO and retail

Voltas is largely active in India and the Middle East, where spending has been on the rise in the IT/BPO, retail, hospitality, entertainment (multiplexes) and healthcare segments. The market for HVAC services is growing at about 25-30% annually and hence, creates significant opportunities for the company. We also believe that cold chain and water treatment could be new avenues of growth in the future.

Margin expansion can be a positive trigger

Voltas' overall operating margin was 5.7% in F2006, given that the electro-mechanical business made margins of about 5-6%, while the unitary cooling product business made losses due to excessive costs. The company has closed the Hyderabad unit, which could cause a turnaround in the unitary cooling product business in F2007. In addition, management aims to take overall operating margins to about 10% in the next few years.

Valuations look attractive

We forecast revenue CAGR of 22% and earnings CAGR of 27% over F2006-09. The stock is trading at 23.6x F2008E EPS and 18.1x F2009E EPS. In our view, the robust pace of growth in revenue and the possibility of margin expansion will be key triggers for the stock.

Key Ratios and Statistics

Reuters: VOLT.BO Bloomberg: VOLT IN

India Industrials

Price target	Rs130.00
Shr price, close (Nov 24, 2006)	Rs103.20
Mkt cap, curr (mn)	US\$764
52-Week Range	Rs115.90-46.61
Sh out, basic, curr (mn)	330.9

Fiscal Year (Mar)	2006	2007e	2008e	2009e
ModelWare EPS (Rs)*	2.81	3.21	4.37	5.70
Rev, net (Rs mn)	19,544	23,539	28,932	35,399
ModelWare net inc (Rs mn)	930	1,063	1,447	1,886
P/E	35.7	32.1	23.6	18.1
P/BV	12.3	9.6	7.3	5.6
Div yld (%)	0.6	0.7	1.0	1.2

* = Please see explanation of Morgan Stanley ModelWare later in this note.

e = Morgan Stanley Research estimates

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+ = Analysts employed by non-U.S. affiliates are not registered pursuant to NASD/NYSE rules.

Initiation

Voltas Limited: Financial Summary

Profit and Loss Statement

Rs mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
Gross Revenue	15508	20227	24267	29750	36307
Excise duty	737	683	728	818	908
Net Revenue	14771	19544	23539	28932	35399
Employee costs	1546	1925	2318	2821	3451
Cost of sales and services	10881	14571	17607	21554	26196
Other expenses	1812	1931	2326	2731	3341
Total operating expenses	14239	18427	22251	27106	32988
EBITDA	532	1118	1288	1826	2411
Depreciation	133	141	160	175	186
EBIT	399	977	1128	1651	2225
Interest cost	87	64	61	61	61
Other income	222	242	351	392	456
PBT	534	1154	1418	1983	2620
Tax expense	80	224	355	535	734
PAT	454	930	1064	1447	1887
Minority Interest	0	0	0	0	0
Equity share in affiliates	0	0	0	0	0
Profit after MI and affiliates	454	930	1063	1447	1886
Exceptional items	69	-193	10	0	0
PAT after exceptional items	523	737	1073	1447	1886
ModelWare EPS (Rs)	1.37	2.81	3.21	4.37	5.70
DPS (Rs)	0.50	0.60	0.75	1.00	1.25

Balance Sheet

Rs mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
Liabilities					
Share Capital	331	331	331	331	331
Reserves and Surplus	1865	2383	3208	4324	5797
Total Shareholders Funds	2195	2714	3539	4655	6128
Loan Funds	1265	901	901	901	901
Minority Interest	2	3	3	3	4
TOTAL LIABILITIES	3463	3617	4442	5559	7032
Assets					
Gross Fixed Assets	2864	3163	3723	3828	3928
Accumulated Depreciation	1823	1642	1802	1977	2163
Net Block	1041	1521	1921	1851	1765
Capital Work-in-Progress	72	114	50	50	50
Net Fixed Assets	1113	1635	1971	1901	1815
Investments	297	286	286	286	286
Deferred Tax Assets	212	256	256	256	256
Current Assets	7800	8868	10040	12207	14757
Cash and Cash Equivalents	1627	1473	2111	3016	4229
Less: Current Liabilities	7586	8901	10222	12108	14312
Net Current Assets	1842	1440	1929	3116	4675
TOTAL ASSETS	3463	3617	4442	5559	7032

E = Morgan Stanley Research estimates
NC = Net Cash
Source: Company data, Morgan Stanley Research

Cash Flow Statement

Rs mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
PAT	454	930	1063	1447	1886
Depreciation	133	141	160	175	186
Exceptional items	69	-193	10	0	0
Change in working capital	1	248	99	-364	-429
Cash Flow From Operations	656	1125	1332	1258	1643
Capex	246	-663	-496	-105	-100
Purchase and Sale of investments	28	11	0	0	0
Cash Flow From Investing	274	-652	-496	-105	-100
Inc/(Dec) in Borrowings	236	-364	0	0	0
Dividend paid	-165	-199	-199	-248	-331
Others	-419	-64	0	0	0
Cash Flow From Financing	-349	-627	-198	-248	-331
Change in cash and cash equiv	581	-154	638	906	1213
Opening cash and cash equiv	1046	1627	1473	2111	3016
Closing cash and cash equiv	1627	1473	2111	3016	4229

Ratio Analysis

(Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
Growth (%)					
Revenues	8.6%	32.3%	20.4%	22.9%	22.4%
EBITDA	28.1%	110.2%	15.2%	41.8%	32.0%
EBIT	56.1%	144.7%	15.5%	46.3%	34.8%
EBT	43.9%	116.1%	22.9%	39.8%	32.2%
Net Profit	56.8%	105.0%	14.3%	36.1%	30.3%
EPS	56.8%	105.0%	14.3%	36.1%	30.3%
Margins (%)					
EBITDA	3.6%	5.7%	5.5%	6.3%	6.8%
EBIT	2.7%	5.0%	4.8%	5.7%	6.3%
EBT	3.6%	5.9%	6.0%	6.9%	7.4%
Net Profit	3.1%	4.8%	4.5%	5.0%	5.3%
Return (%)					
ROE	20.9%	37.9%	34.0%	35.3%	35.0%
ROCE	12.0%	27.6%	28.0%	33.0%	35.3%
ROA	4.4%	7.9%	7.8%	9.0%	9.7%
Gearing					
Debt/Equity	58%	33%	25%	19%	15%
Net Debt/Equity	NC	NC	NC	NC	NC
Valuations					
EV/EBITDA	63.5	30.0	25.6	17.5	12.8
P/E	75.3	36.7	32.1	23.6	18.1
P/BV	15.6	12.6	9.6	7.3	5.6
Dividend Yield (%)	0.5%	0.6%	0.7%	1.0%	1.2%
Turnover (days)					
Inventory	73	72	72	72	72
Debtors	94	76	76	76	76
Creditors	108	89	89	89	89

Investment Case

Summary & Conclusions

We are initiating coverage on Voltas Limited with an Overweight rating and a target price of Rs130. Our investment thesis is based on the following key points.

1. Voltas is a leading player in the electro-mechanical projects and services segment, where it derives about 60% of its total revenue. The company is largely active in India and the Middle East, where we believe significant development is taking place in the IT/BPO, retail, hospitality, entertainment (multiplexes) and healthcare segments. The market for Heating, Ventilation and Air Conditioning (HVAC) services, which is a major component of the electro-mechanical business, is growing at about 25-30% annually and hence, creates significant opportunities for the company. The order book position at the end of March 2006 too seems strong – Rs20 billion executable over the next 24 months. The Indian company, Blue Star (not rated), is among Voltas' few competitors, commanding an equal share of the market (25-30%). However, we believe that the market is large enough for Voltas to maintain its market share and hence competitive pressures will be limited, given the company's expertise and strong project management skills.
2. According to Voltas' segment data, the overall operating margin for the business is in the 6-7% range. The electro-mechanical project and services business constitutes 60% of total revenue, but only makes margins of 5-6%, while Blue Star, its closest competitor, makes margins of close to 9-10%. Further, the unitary cooling product segment (includes domestic room air-conditioning and water coolers and dispensers), which constitutes 25% of Voltas' total revenue, has been incurring losses for the past two years due to excessive manpower costs in its Hyderabad plant and intense competition in the market place. If the unitary cooling product business is excluded, overall operating margins for the company could move up close to 11%. At the end of F2006, the company closed the Hyderabad unit and reduced the excessive manpower. As a result, the unitary cooling segment has turned around and already showed a marginal profit in F1H07. Management believes the unitary cooling segment could show a 1-2% operating margin in F2007. The company intends to take overall operating margins to about 10% in the next couple of years from 5.7% in F2006. We see significant scope

for margins to expand from current levels, which could drive profitability growth.

3. The stock has outperformed the BSE Sensex by about 18% YTD and by 31% in the past 12 months. We believe that the company's strong performance in the electro-mechanical segment, both in India and the Middle East, and its strong order book position underpin this strong performance. With the outlook for electro-mechanical projects and engineering products favorable, we think the stock will continue to show strong performance over the next few years. In addition, improving operating margins in the overall business will be a positive trigger for the stock, in our view.
4. We estimate revenue CAGR of 22% and earnings CAGR of 27% in F2006-09 for Voltas. The stock is trading at 23.6x F2008E EPS and 18.1x F2009E EPS. We believe Voltas will enjoy secular growth, which would improve visibility and continuity for revenue growth. Further, given the potential for margins to improve from current levels, current valuations look reasonable.

Our Rs130 target price for Voltas is based on a residual income model. Key downside risks are recurring losses in the unitary cooling product business and significant cost overruns in the electro-mechanical project business. Upside risks include a turnaround in the unitary cooling product business and improving margins in the electro-mechanical business.

Company Description

Voltas is an engineering company offering services in areas such as electro-mechanical projects, construction and material handling equipment, textile machinery and water management. The company also manufactures room air-conditioners and water coolers and dispensers.

Industry View: Attractive

Positive trends in the IT/BPO, retail, entertainment and healthcare segments should drive growth for the industry.

MSCI Country: India

Asia Strategist's Recommended Weight: 2.5%
MSCI Asia/Pac All Country Ex Jp Weight: 7.0%

Investment Positives

Revenues Linked to Rapid Growth Sectors

Voltas derives about 60% of its total revenue from electro-mechanical projects and services that includes HVAC services (Heating, Ventilation and Air Conditioning), cold chain (commercial refrigeration) and water treatment projects. The company is largely active in India and the Middle East, where the market for HVAC services has been witnessing significant growth due to the IT/BPO, retail, hospitality, entertainment (multiplexes) and healthcare segments. The IT/BPO sector in India has been growing at about 30% annually and NASSCOM expects this market to grow at a similar rate until F2010 (Exhibit 1). Similarly, the Indian retail sector should see a 110% CAGR growth in mall space over C2002-07 (Exhibit 2). Pantaloon, one of India's largest retailers, has announced plans to increase its retail size from 3.5 million sq feet in F2006 to 30 million sq feet by F2011, a 54% CAGR growth.

Further, Voltas has secured several airport projects, which include the Hyderabad international airport and several domestic airports. On the other hand, the company has been executing several projects in Dubai, Abu Dhabi and Bahrain where significant investments are being made in retail, airports and real estate. The company believes the domestic market for HVAC services is growing at 25-30% annually while that for the international market is growing at 30-35% annually.

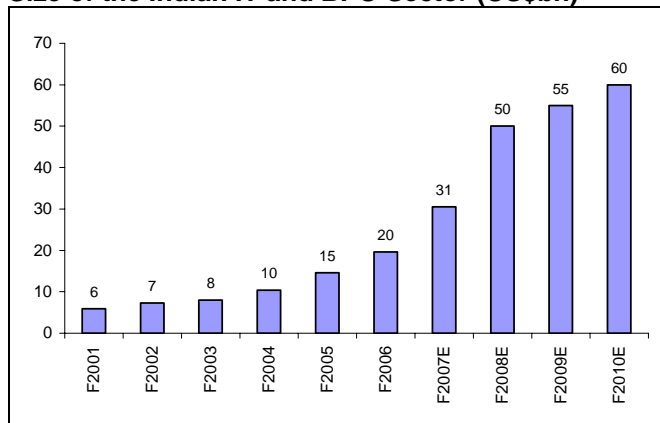
In our view, the pace of growth in these sectors, especially in India, can increase substantially in the next few years, which will be beneficial for HVAC service providers like Voltas.

Market Leader in Domestic Electro-mechanical Services

Along with Blue Star and Carrier, Voltas commands 75% of the market in India for executing electro-mechanical projects and services. We believe Voltas and Blue Star both have 25-30% market share. Voltas has been involved in several prestigious contracts in India, such as the Mumbai domestic airport, the Reliance petrochemical plant, the Parliament library, DELL offices and several malls. The company's pipeline includes the Hyderabad international airport, several domestic airports and the DLF Infiniti mall in Gurgaon.

Exhibit 1

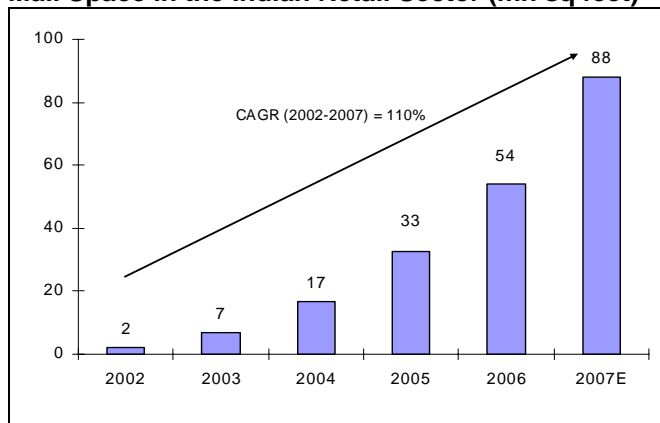
Size of the Indian IT and BPO Sector (US\$bn)



Source: NASSCOM estimates, Morgan Stanley Research

Exhibit 2

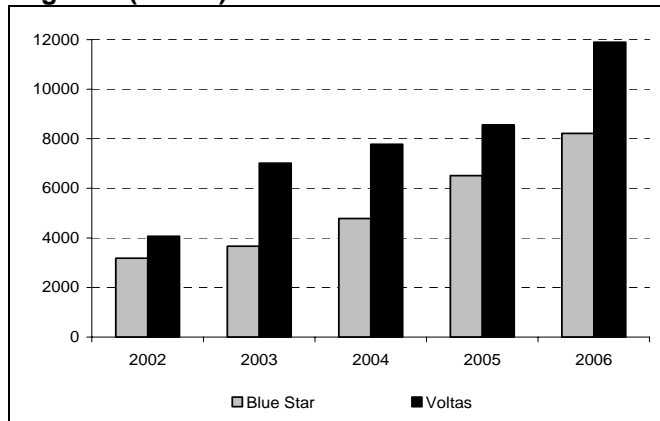
Mall Space in the Indian Retail Sector (mn sq feet)



Source: Images Retail estimates, Morgan Stanley Research

Exhibit 3

Revenue from the Electro-mechanical Project Segment (Rs mn)



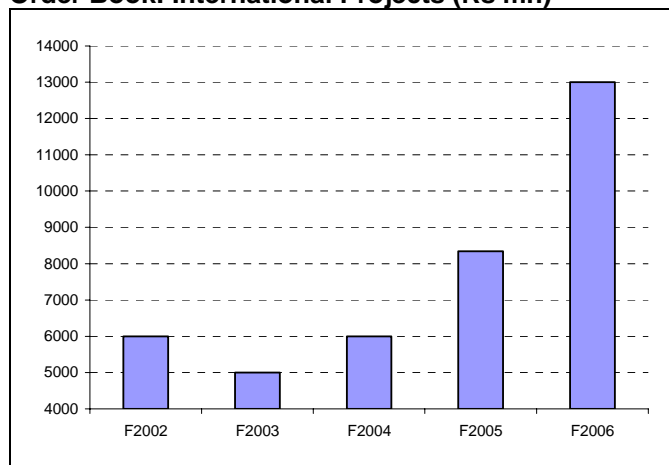
Source: Company Data, Morgan Stanley Research

Strong Order Book Position

The company's order book for electro-mechanical projects and services stood at Rs20 billion at the end of March 2006 – Rs7 billion for the domestic market, which is executable over the next 9 to 12 months, and Rs13 billion for the international market, which is executable over the next 24 months. The current international order book includes Rs8.25 billion for the Bahrain International airport and the Burj Tower in Dubai. We believe the company's order book has been growing at about 50% annually.

Exhibit 4

Order Book: International Projects (Rs mn)



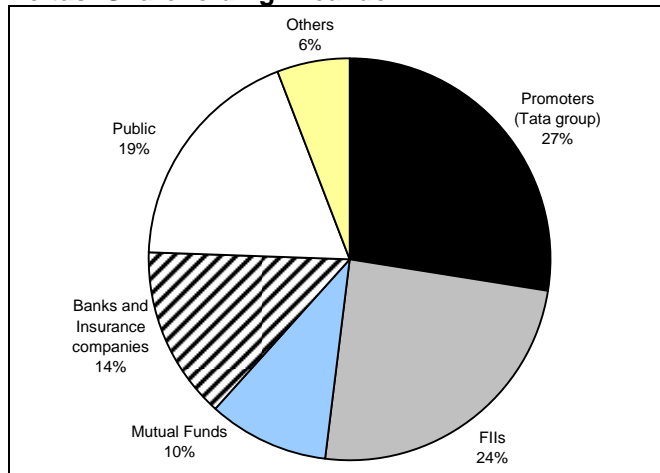
Source: Company data, Morgan Stanley Research

Tata Group Lends Credibility

Voltas is a Tata Group company, one of India's largest conglomerates, with a worldwide presence and about 220,000 staff. The group has interests in telecoms, automotives, IT/ITES, chemicals, engineering, energy and consumer products. Its association with the Tata Group lends credibility to Voltas' management and corporate governance standards, in our view.

Exhibit 5

Voltas: Shareholding Breakdown



Source: Company Data, Morgan Stanley Research

Turnaround in Unitary Cooling Segment to Boost Margins

The unitary cooling segment, which includes domestic room air conditioning (window and split air conditioners), contributed 25% to consolidated revenue in F2006; however, it had negative operating margins. Voltas' overall operating margins were 6.6% (as per segmental information) in F2006 and if the unitary cooling segment is excluded margins would have been close to 11% (Exhibit 6). Management has informed us that excessive employee costs in the Hyderabad unit was the primary reason for the negative margins. At the end of F2006, the company closed the Hyderabad unit and reduced the excessive manpower. As a result, the unitary cooling segment already showed a marginal profit in the first half of F2007. Management believes the unitary cooling segment could post a 1-2% operating margin in F2007.

Exhibit 6

Turnaround in Unitary Cooling Could Boost Overall Margins

Rs mn	Electro-mechanical Projects and Services	Engineering Products and Services	Other Businesses	Total Excluding Unitary Cooling Products	Unitary Cooling Products	Company Total
Revenue	11885	2528	807	15221	5006	20227
Operating Profit	673	697	295	1665	-337	1328
Operating Margin (%)*	5.7%	27.6%	36.6%	10.9%	-6.7%	6.6%

Source: Company Data, Morgan Stanley Research *Based on segmental information made available by the company.

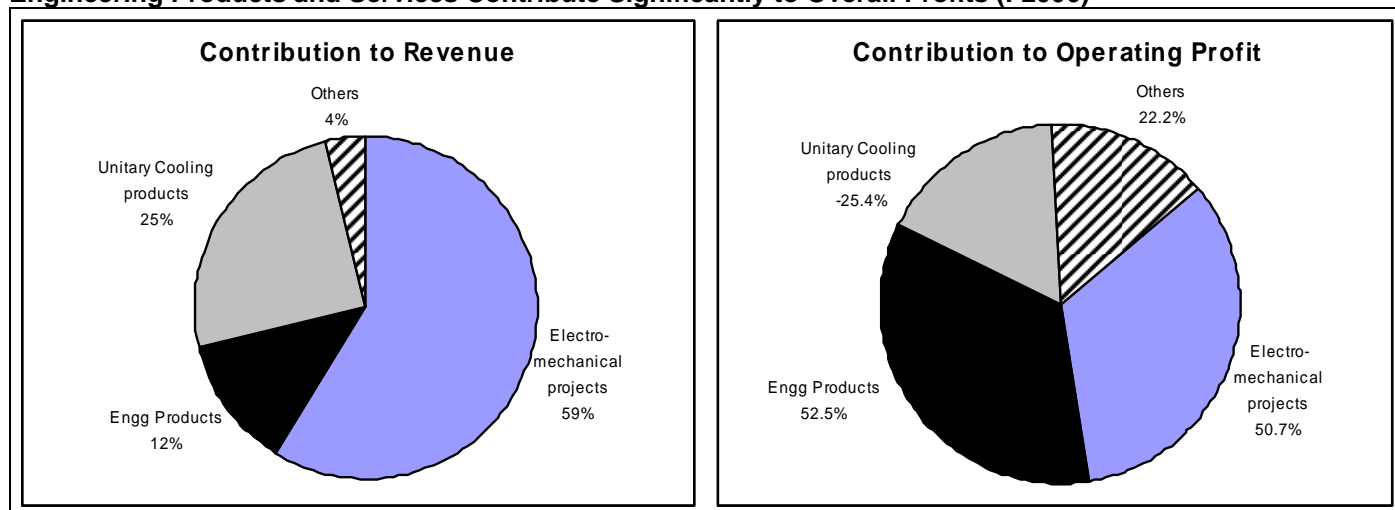
Engineering Products and Services – High-Margin Business

The engineering product and service segment constitutes about 12% of total revenue but it forms over 50% of total operating profits (Exhibit 7). This segment earns operating margins of about 28%. The market for textile machinery and material handling has been growing at over 30% annually,

and Voltas derives about 70% of its engineering product and service revenue from these two industries. The company has an exclusive tie-up with Lakshmi Machine Works, which is the largest textile machinery manufacturing company in India. The company also deals in mining equipment, construction equipment, and material handling equipment, which have significant potential for growth.

Exhibit 7

Engineering Products and Services Contribute Significantly to Overall Profits (F2006)



Source: Company Data, Morgan Stanley Research

Cold Chain & Water Treatment: Potential Growth Drivers

We believe cold chain will become important in the Indian context, given the continued boom in the retail sector in the next three to four years. Several corporates, such as Reliance and Godrej, have announced plans to enter this segment, which should spur demand for commercial refrigerators and the cold chain segment. Voltas has already secured a Rs150 million order from Adani Agri-Fresh. Similarly, the market for water treatment is likely to grow for services such as supply of drinking water, sewage treatment, water treatment for domestic/industrial purposes and desalination. The company is currently executing a Rs3 billion sewage treatment project in Singapore. While Voltas' presence in these segments is small at the moment, we

believe this area could be a potential future growth driver for the company.

Strong Execution Skills and Credible Management Team

Voltas has been active in the electro-mechanical segment for about five decades and has one of the largest customer bases in India. It has also been executing projects in the Middle East and Southeast Asia for over three decades. We believe Voltas' strength lies in its strong project management skills and timely delivery, which is why it has not been penalized for breaching contract timelines. The company has sales offices in Dubai, Abu Dhabi, Doha, Singapore and Hong Kong. The company's long history in the business has helped it establish strong relationships with project managers and consultants, which aid it secure new business.

Investment Concerns

Low Margins on International Operations

Voltas has significant exposure to the Middle East market in the electro-mechanical business. At present, the company has an order book of Rs13 billion in the international market, which is executable over the next 24 months and it currently includes Rs8.25 billion for the Bahrain International airport and the Burj Tower in Dubai. While the company is focused on the Middle East market, we believe these projects come at margins significantly lower than the domestic business. In F1H07, operating margins in the electro-mechanical business were down 260 bps from the previous year as the company did not recognize the associated profits on the amount of work done. While management believes that margins on international operations will move back to normal levels by the end of F2007, it will be crucial to see how this unfolds in the next few quarters.

Competitive Pressures are Building

Voltas is the market leader in HVAC services in India along with Blue Star. We believe ETA, a company based in the Middle East, has recently entered the Indian market to execute HVAC projects and, hence, could increase competition in this business. In the room air-conditioning business, Voltas holds the second position after LG Electronics. However, there are several other players competing in this segment, and we believe the company will face severe competition. The same applies to water coolers and dispensers where we believe competition will intensify from other local and Chinese manufacturers. Hence, in our view, competitive pressures in the unitary cooling business will always remain high for Voltas.

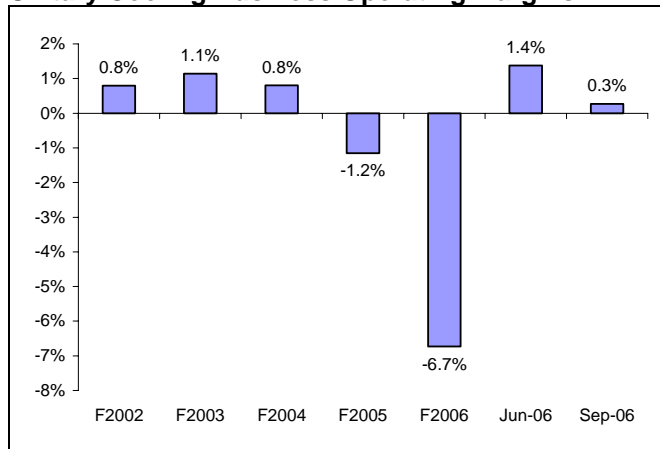
Unitary Cooling Business Could Be Drag on Profitability

The unitary cooling business, which includes room air conditioning (domestic) and water coolers and dispensers, has been a loss-making business for the past two years given the intense competition in the market (Exhibit 8). As this business accounts for 25% of revenue, losses in this business have been responsible for taking down overall operating margins of the company (Exhibit 9). While this segment seems to be turning around in F2007, operating margins could be as low as 1-2% and hence, will likely remain a drag on the overall profitability of the company. Voltas was also engaged in the domestic refrigeration business up to a couple of years ago. However, it exited that business due to significant competition and lower profitability. While the company seems committed to participating in the room air-

conditioning segment, we are unsure on the sustainability of this business due to low margins and intense competition.

Exhibit 8

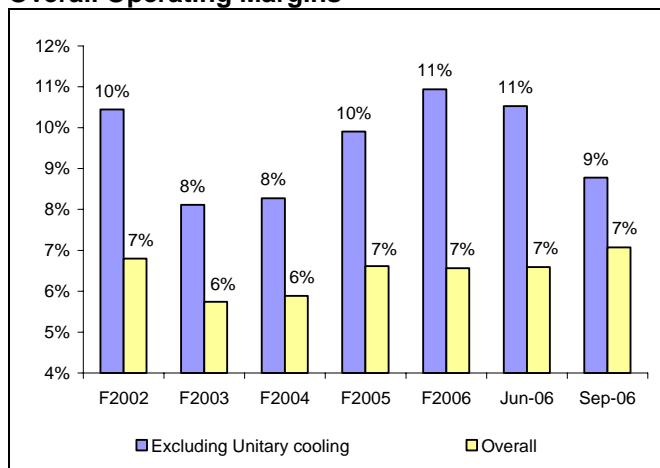
Unitary Cooling Business Operating Margins



Source: Company Data, Morgan Stanley Research

Exhibit 9

Impact of Unitary Cooling Business on Voltas' Overall Operating Margins



Source: Company Data, Morgan Stanley Research

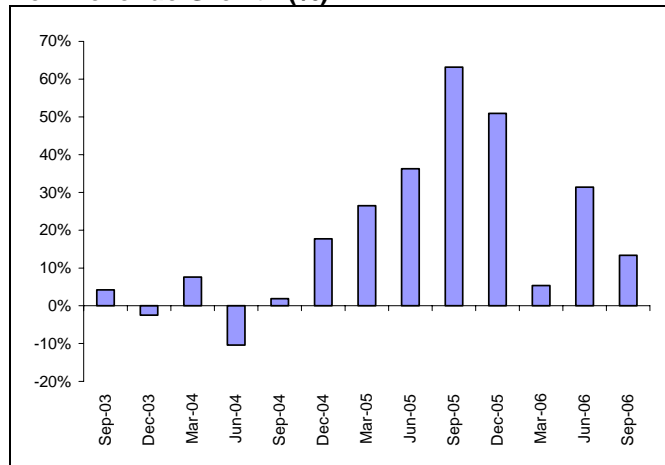
Lumpiness in Revenue Recognition Causes Volatility

Since Voltas executes large orders that run over some time, revenue and cost recognition between quarters remains volatile (Exhibit 10). For instance, during F2Q07, Voltas incurred design costs on some of its international projects without any associated billings, thus causing operating margins to fall significantly from an average of 5.7% in F1Q07 to 2.5% in F2Q07. In addition, the company hired about 1,400 contract laborers to execute its projects in the Middle

East, which resulted in a higher wage bill. While we believe the timing difference between revenue and cost recognition is ironed out over time, quarterly volatility in revenue and profitability could cause temporary weakness in the stock price.

Exhibit 10

YoY Revenue Growth (%)



Source: Company Data, Morgan Stanley Research

Additional Provision for Employee Benefits

Following a revision to Indian accounting standards on employee benefits, Voltas will have to create additional provisions for gratuities, leave encashment and other employee liabilities going forward. We believe the company incurred an additional cost of Rs60 million in F1H07 on account of these provisions, which affected operating margins by 50 bps. We believe there would be an additional provision for F2H07. Any additional provisions created in the future may affect overall margins and, in turn, profitability.

Risks Inherent in the Sector

Slowdown in the retail or entertainment sectors: The electro-mechanical and engineering products, and services segments are, to a large extent, dependent on the pace of growth in these sectors. If this were to slow, there could be an impact on the performance of the company's business.

Shortage of manpower: Any shortage of trained manpower, in India and the Middle East, could either increase costs or cause a delay in project execution.

Civil unrest in the Gulf region: The current disturbances in Iraq and Lebanon may have an impact on the company's business in other countries in the Gulf region.

Valuation

Intrinsic Value

We have used a residual income model to arrive at our target price of Rs130. Residual income is defined as earnings (income) less the cost of capital times beginning-of-period capital employed. In our view, the residual income model is a good measure of the intrinsic value of the company as it takes into consideration the current book value and the present value of future residual income. In the case of Voltas, growth across some of its key business segments such as electro-mechanical services is secular and hence, can be estimated with a higher degree of predictability. With respect to operating margins, the company is looking at expanding them from current levels by focusing on the following:

- Centralizing design work for all its electro-mechanical projects
- Centralizing procurement services, which will help it to manage its suppliers and control costs
- Centralizing back-office processes and mechanizing cost centers to increase efficiency and control costs
- Maintaining a knowledge site for all its projects to create a databank for future reference

The company plans to take operating margins to about 10% in the next couple of years. Further, better operating performance in the unitary cooling business could help margin expansion.

To arrive at our target price of Rs130, we assume that the electro-mechanical segment continues to see growth in

excess of 20% per year, due to the high demand for HVAC services in the IT/BPO, retail, healthcare and entertainment segments. In addition, increasing demand from the Middle East should help the company boost its order book position. Similarly, the engineering product business should see growth in excess of 25% due to high demand for textile machinery, construction and material handling equipment in India. The unitary cooling business too should see strong revenue growth due to under-penetration of room air-conditioners in the Indian market. We believe strong revenue momentum, better cost management and improvement in the unitary cooling segment could be potential triggers for margin expansion. We have assumed a gradual increase in operating margins from the current level of 5.7% to 9.3% in F2014. Subsequently, we believe margins will start trending down as the company enters a mature phase wherein competition increases and revenue growth slows from current levels.

Our assumptions for cost of equity, terminal growth rate and key operational parameters are given in Exhibits 11 and 12, and our residual income model is in Exhibit 13.

Exhibit 11

Residual Income: Assumptions

Beta	0.98
Risk free rate	7.60%
Market premium	5.75%
Cost of equity	13.2%
Terminal growth rate	5.0%

Source: Bloomberg, Morgan Stanley Research

Exhibit 12

Residual Income: Key Operational Parameters

	F2009	F2010-12	F2013-2014	F2015-2020
Total revenue CAGR (%)	22.4%	22.1%	18.3%	16.0%
EBITDA Margin (at end) (%)	6.8%	8.3%	9.3%	7.8%
Capital expenditure (Rs mn)	100	150/annum	150/annum	150/annum
Tax rate (%)	28%	34%	34%	34%
Dividend payout (%)	22%	50%	50%	50%

Source: Morgan Stanley Research

Exhibit 13

Voltas: Residual Income Model

Rs mn	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
Shareholders' Funds	3,539	4,655	6,128	7,265	8,737	10,631	12,991	15,924	19,219	22,921
Net Revenue	23,539	28,932	35,399	43,084	52,565	64,278	75,916	89,777	103,693	119,975
<i>YoY Growth</i>	<i>20%</i>	<i>23%</i>	<i>22%</i>	<i>22%</i>	<i>22%</i>	<i>22%</i>	<i>18%</i>	<i>18%</i>	<i>16%</i>	<i>16%</i>
EBITDA	1,288	1,826	2,411	3,150	4,106	5,343	6,690	8,360	9,397	10,572
<i>EBITDA margin</i>	<i>5.5%</i>	<i>6.3%</i>	<i>6.8%</i>	<i>7.3%</i>	<i>7.8%</i>	<i>8.3%</i>	<i>8.8%</i>	<i>9.3%</i>	<i>9.1%</i>	<i>8.8%</i>
Depreciation	160	175	186	188	195	202	200	207	214	221
Interest expense	61	61	61	59	56	54	52	50	47	45
Other Income	351	392	456	521	580	620	670	730	790	846
Tax	355	535	734	1,151	1,490	1,918	2,388	2,968	3,335	3,747
<i>Tax rate</i>	<i>25.0%</i>	<i>27.0%</i>	<i>28.0%</i>	<i>33.6%</i>	<i>33.6%</i>	<i>33.6%</i>	<i>33.6%</i>	<i>33.6%</i>	<i>33.6%</i>	<i>33.6%</i>
Net Profit	1,063	1,447	1,886	2,274	2,945	3,789	4,719	5,865	6,591	7,405
Return on Equity	39.2%	40.9%	40.5%	37.1%	40.5%	43.4%	44.4%	45.1%	41.4%	38.5%
Residual Income	704	979	1,270	1,463	1,983	2,633	3,312	4,146	4,483	4,861
Beginning Equity Capital			3,539							
PV of Forecast Period				17,920						
PV of Continuing Value					17,987					
Equity Value (Rs mn)				39,445						
No. of Shares (mn)				330.9						
Price per share (Rs)				119						
12-month forward Target Price (Rs)	130									

Source: Morgan Stanley Research

Risks to Our Price Target

The key upside risks to our price target are as follows:

- Strong growth in all the business segments due to increased spending in the IT/BPO, retail, entertainment and healthcare segments.
- Significant expansion in operating margins due to better project and cost management.
- Exchange rate volatility could provide gains on the company's international operations.

The key downside risks to our price target are as follows:

- Competitive pressures in the domestic and Middle East market could cause the company to lose market share or could result in margin dilution.
- Increasing competition in unitary cooling products could cause the company to incur losses in this business.

- Exchange rate volatility could be negative for projects where billing is done in foreign currency.

P/E Multiple

Voltas' stock is currently trading at 23.6x F2008E EPS and about 18x F2009E EPS. While valuations may seem expensive on an absolute basis, we believe they are reasonable given the following factors:

- The company should enjoy secular growth since its growth is linked to sectors that have significant potential to grow in the future. In our view, the IT/BPO, retail, entertainment and healthcare segments are in a growth phase and will continue to grow strongly into the future based on expansion plans of industry players. This, in turn, will boost demand for electro-mechanical services and hence provide Voltas' revenue stream with high visibility and continuity.
- Voltas is the market leader in the Indian market for electro-mechanical services and has been associated

with several prestigious contracts. Further, it has been executing large projects in the Middle East for the last 30 years, which has helped it build strong relationships with project consultants overseas. We believe these relationships and expertise will help it win contracts, thus strengthening its order book position. The Burj Tower and the Bahrain International airport projects are some of the projects it is currently working on.

- There is significant scope for operating margins to expand from current levels. The electro-mechanical business operates at about 5-6% operating margins and management believes it has scope to expand in the next couple of years. In addition, the turnaround in the unitary cooling business could provide a fillip to overall margins.

Exhibit 14

12-Month Forward P/E Chart



Source: Bloomberg, Morgan Stanley Research

Apart from Blue Star (non-rated), there are no other comparable companies for Voltas. However, due to lack of consensus estimates for Blue Star, we have compared Voltas' valuations with that of the BSE Sensex. The stock is currently trading at a 50% premium to the 12-month forward P/E multiple of the Sensex (based on our estimates). The average premium in the last year has been about 62%. Our target price of Rs130 implies a target multiple of 32.7x on 12-month forward earnings, which is a 88% premium to the 12-month forward P/E multiple of the BSE Sensex. We believe this premium is justified in light of the fact that Voltas' revenue momentum is robust and the possibility for margin expansion is high.

Exhibit 15

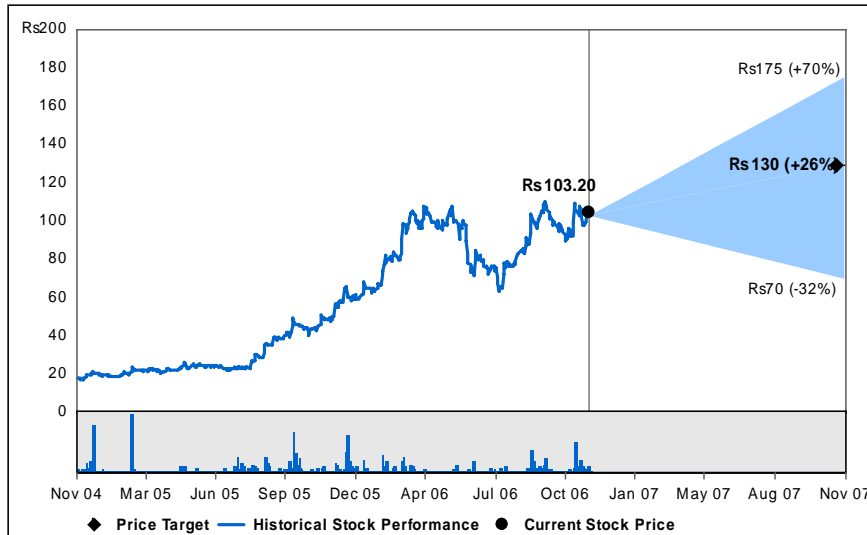
Forward P/E Relative to BSE Sensex



Source: Bloomberg, Morgan Stanley Research

Risk-Reward Snapshot: Voltas Limited (VOLT.BO, Rs103, OW, PT Rs130)

Risk-Reward View: Positive



Investment Thesis

- Strong pace of growth in IT/BPO, retail, entertainment and healthcare sectors in India and the Middle East
- Market leader in the electro-mechanical project and services business
- Scope for margins to expand from current levels

Key Value Drivers

- Strong growth in business segments
- Margin expansion

Potential Catalysts

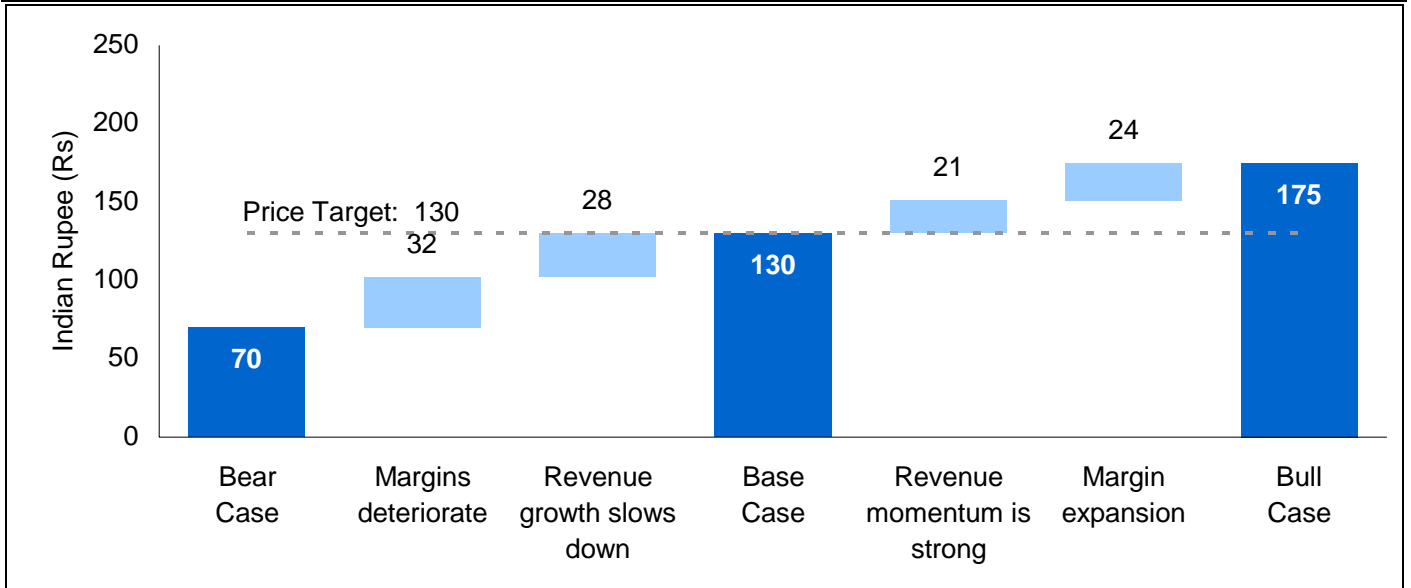
- Turnaround in the unitary cooling product business
- Margin expansion in the electro-mechanical project and services business

Price Target Rs130

Bull Case Rs175	Strong revenue growth and margin expansion: We assume the electro-mechanical and engineering products businesses see 25% revenue growth until F2014 and then moderate thereafter. The unitary cooling business sees stable growth due to improving industry trends. As a result, revenue CAGR between F2009-2020 is 20%. We assume EBITDA margins improve from 6.8% in F2009 to 9.3% by F2014 and then remain stable due to strong revenue momentum and positive margins in the unitary cooling business.
Base Case Rs130	Positive business momentum continues: Though we assume strong revenue growth, we remain slightly conservative on margins, especially in the unitary cooling business. While margins expand to 9.3% by F2014, they start declining thereafter due to intensifying competitive pressure and higher operational expenses.
Bear Case Rs70	Margins deteriorate: While revenue growth remains fairly strong in the electro-mechanical and engineering product business, the unitary cooling business does not grow as well due to increasing competition. Further, we assume margins in the electro-mechanical business improve marginally from the current level of 5-6% while, the unitary cooling business remains a non-profitable business, thereby overall margins for the company in F2014 reach 6.8%; however, they trend down to 5.3% by F2020.

Exhibit 16

Voltas: Bear to Bull



Source: Morgan Stanley Research

Financials

Businesses Have Potential to Grow

Voltas operates in three key segments:

- Electro-mechanical projects and services
- Engineering products and services; and
- Unitary cooling products

Voltas derives nearly 60% of its revenue from electro-mechanical projects and services where the HVAC&R segment (Heating, Ventilation, Air conditioning and Refrigeration) is the main component.

Electro-mechanical Projects and Services

The company is a leader in the domestic market along with Blue Star in executing electro-mechanical projects. It has one

of the largest customer bases and commands a market share of about 25-30%. We believe growth in the domestic segment could be 25-30% a year for the next five to six years due to IT/BPO, retail (malls), entertainment (multiplexes), biotechnology and airport development. In the international arena, the company is primarily engaged in the Middle East and a few countries in Southeast Asia such as Hong Kong and Singapore. The company has worked on several prestigious contracts, such as the Hong Kong international airport, and is currently involved with the Bahrain International airport and the Burj Tower in Dubai. The international market could witness 30-35% a year growth for the next two to three years. We assume 20% growth in this business in F2007 and 25% growth for the next two years.

Exhibit 17

Voltas: Business Segments

Business Segments	Electro-Mechanical Projects and Services	Engineering Products and Services	Unitary Cooling Products	Other Businesses
Type of services	HVAC&R Cold Chain Variable Refrigerant Flow Co-Generation Vapour Absorption Machines Water Treatment projects	Machine Tools Mining equipment Construction equipment Textile machinery Textile spinning sector Material handling	Window AC Split AC Water coolers and dispensers Commercial Refrigeration Domestic refrigerators	Chemical Trading
% of F2006 revenue	59%	12%	25%	4%

Source: Company data, Morgan Stanley Research

Engineering Products and Services

Textile machinery and material handling equipment contribute 70% of total revenues in this segment. Voltas has an exclusive agency tie-up with Lakshmi Machine Works for textile weaving and spinning machinery, and demand for this machinery may grow at about 30% in the next few years. The market for material handling equipment is robust at 40%, with forklift trucks (manufactured by Voltas) growing rapidly

and becoming increasingly important in the retail segment. Construction equipment (mainly sourced from Terex) and machine tools (sourced from Mitsubishi, Powerscreen, etc.) contribute the remaining 30% of revenue in this segment and the market for this equipment is growing at about 15-20%.

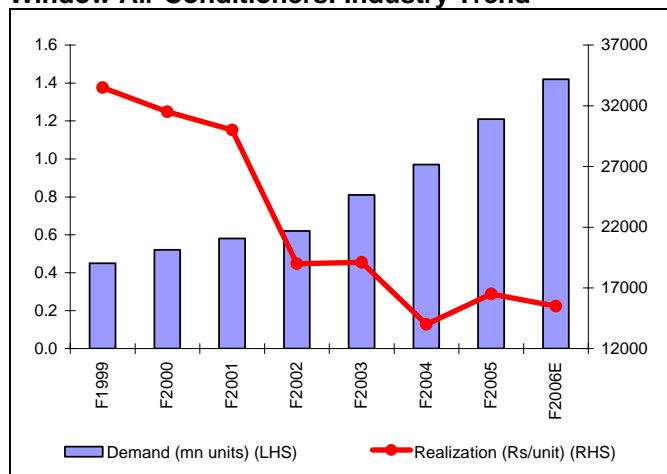
We assume 25% growth in revenue from the engineering product and services business for the next three years.

Unitary Cooling Products

This segment includes room air conditioners, and water coolers and dispensers. While the room air-conditioning segment is a high-volume market, significant competition from Chinese and Indian players has made it a low-margin business. LG is the market leader in the Indian room air-conditioning market with a 28% market share, followed by Voltas and Samsung at around 15% each. While opportunities in this segment are significant, we believe this segment will remain a drag on the overall profitability of the company. As can be seen in Exhibit 18, price realizations in window air-conditioners for the industry have moved down from Rs33,000/unit in F1999 to about Rs15,000/unit in F2006. Increases in input costs have further affected margins.

Exhibit 18

Window Air Conditioners: Industry Trend



Source: CRIS INFAC estimates, Morgan Stanley Research

The water cooler and dispenser business in India seems to be doing well, as the market is expected to grow at 30% for the next few years; however, it constitutes only 30% of revenue for the unitary cooling segment currently. We believe there could be competition in this business too going forward, which may have an impact on profitability.

We assume 20% growth in revenue from this business in F2007. For F2008 and F2009, we believe growth will moderate to 18% and 15%, respectively.

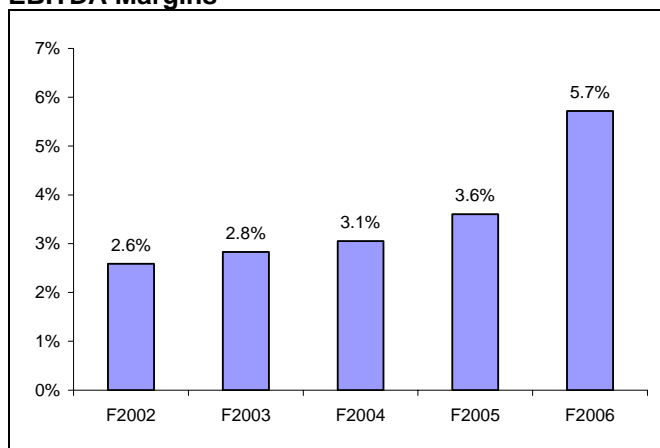
Operating Margins Have Room to Improve

The company's margins in the past two years in the electro-mechanical segment have been 5-6%, which has pushed down overall margins. The engineering products and services segment is the most profitable with margins of 25-30%. We believe this segment will continue to be a big contributor to overall profits since growth in the material handling and

construction equipment should remain robust. The most significant change to overall group operating margins could derive from a turnaround in the unitary cooling product segment where the company has been making negative margins for the past two years due to excessive costs at the Hyderabad plant. However, the company closed down this plant towards the end of F2006, and we are beginning to see small profits in this segment. The management believes it can achieve 1-2% operating margins in this business in F2007. In our view, if this were to happen, overall operating margins for the company could rise substantially.

Exhibit 19

EBITDA Margins



Source: Company data, Morgan Stanley Research

During F1H07, operating margins in the electro-mechanical business were 3.8%, down from 6.4% in F1H06 (Exhibit 20). We believe this was mainly on account of the Burj Tower and the Bahrain International Airport projects, where the company has been conservative on accounting for revenue as compared to costs, as these projects started in F2007 and hence the company may not have the visibility to reliably estimate the contract revenue. However, management is confident that operating margins for the overall business may trend back to normal levels by the end of F2007, once the projects move beyond the initial planning stage. The rebound in operating margins to normal levels in F2H07 could be a positive trigger for the stock, in our view.

However, given the company's performance in F1H07, we remain slightly cautious on the operating margins for F2007. The Burj Tower and the Bahrain International airport projects are large in size and are in the initial planning and design stage, and hence could have an impact on the operating margins of the company. We assume a marginal decline in overall operating margins for F2007 due to these projects.

However, for F2008 and F2009, we believe margins will expand to 6.3% and 6.8%, respectively.

Exhibit 20

F1H07: Segment Results

Rs mn	F1H07	F1H06	YoY (%)
Revenue			
Electro-mechanical projects	5678	5445	4.3%
Eng. Products and Services	1840	1001	83.8%
Unitary Cooling products	3660	2594	41.1%
Other businesses	238	227	4.8%
Less Inter segment	16	0	
Total	11399	9266	23.0%
Operating Margin (%)			
Electro-mechanical projects	3.8%	6.4%	-259 bps
Eng. Products and Services	24.8%	30.2%	-535 bps
Unitary Cooling products	1.0%	-0.8%	185 bps
Other businesses	26.9%	21.7%	520 bps
Total	6.8%	7.3%	-53 bps

Note: Operating margins are as per segmental data provided by the company.
 Source: Company data, Morgan Stanley Research

Manufacturing Facilities

Voltas closed its Hyderabad plant towards the end of F2006 to reduce excessive costs and rationalize its manpower. It is in the process of setting up a new facility in Uttranchal (Pantnagar) to manufacture room air conditioners. This facility will have a capacity of 300,000 units and will be ready

by early 2007. The company has collaborated with Fedders Corporation (USA) for the manufacture of room air conditioners. It also has a tie-up with Dunham Bush (Malaysia) to manufacture commercial air conditioners used in international electro-mechanical projects.

Exhibit 21

Voltas: Manufacturing Facilities

Location	Ownership	Product manufactured
Uttranchal	Owned	Water coolers and commercial refrigeration
Uttranchal	Owned	Air conditioning equipment for electro-mechanical projects
Uttranchal	Owned by UCPL	Room air conditioners Capacity: 300,000 units
Dadra	Owned	Air conditioning equipment for electro-mechanical projects
Dadra	Owned by UCPL	Room air conditioners Capacity: 250,000 units
Thane	Owned	Forklift trucks, Air conditioning equipment for electro-mechanical projects

UCPL = Universal Comfort Products Limited, a 50:50 JV with Fedders Corporation
 Source: Company data, Morgan Stanley Research

Exhibit 22

Voltas: Income Statement, F2002-2009E

Rs mn	F2002	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
ElectroMechanical Projects/SvcsNA		7017	7778	8556	11897	14277	17846	22308
Engg Products and Services NA		649	837	985	2528	3160	3950	4938
Unitary Cooling Products	NA	4561	4596	4617	5006	6007	7089	8152
Others	NA	1212	1164	1376	807	848	890	935
Total	NA	13438	14375	15534	20239	24292	29775	36332
Less : Inter Segment Revenue	NA	-17	0	-27	-12	-25	-25	-25
Total revenue (Gross)	9568	13421	14375	15508	20227	24267	29750	36307
<i>Growth (%)</i>		40.3%	7.1%	7.9%	30.4%	20.0%	22.6%	22.0%
Excise Duty	756	866	776	737	683	728	818	908
Total revenue (Net)	8812	12555	13600	14771	19544	23539	28932	35399
<i>Growth (%)</i>		42.5%	8.3%	8.6%	32.3%	20.4%	22.9%	22.4%
Payments to employees	1118	1353	1360	1546	1925	2318	2821	3451
Cost of sales and services	7542	10145	11132	10881	14571	17607	21554	26196
Fuel, power and light	58	52	49	44	41	50	61	75
Repairs	40	47	53	45	46	55	68	83
Rent	41	85	83	109	177	213	262	320
Rates and taxes	13	15	16	16	15	18	22	27
Advertising and publicity	97	121	60	103	100	120	148	181
Other expenses	-325	383	432	1494	1552	1869	2170	2655
Total expenses	8584	12200	13184	14239	18427	22251	27106	32988
<i>Growth (%)</i>		42.1%	8.1%	8.0%	29.4%	20.8%	21.8%	21.7%
EBITDA	228	356	415	532	1118	1288	1826	2411
<i>Margin (%)</i>	2.6%	2.8%	3.1%	3.6%	5.7%	5.5%	6.3%	6.8%
<i>Growth (%)</i>		55.9%	16.8%	28.1%	110.2%	15.2%	41.8%	32.0%
Depreciation	152	177	160	133	141	160	175	186
EBIT	76	179	256	399	977	1128	1651	2225
<i>Margin (%)</i>	0.9%	1.4%	1.9%	2.7%	5.0%	4.8%	5.7%	6.3%
Interest expense	122	98	82	87	64	61	61	61
Other income	250	188	198	222	242	351	392	456
PBT	204	270	371	534	1154	1418	1983	2620
<i>Growth (%)</i>		32.2%	37.6%	43.9%	116.1%	22.9%	39.8%	32.2%
Tax	12	42	82	80	224	355	535	734
<i>Tax rate (%)</i>	5.9%	15.4%	22.0%	15.0%	19.4%	25.0%	27.0%	28.0%
PAT	192	228	290	454	930	1064	1447	1887
<i>Growth (%)</i>		18.8%	26.9%	56.7%	105.0%	14.3%	36.1%	30.3%
Minority interest	0	-1	0	0	0	0	0	0
Share in profits of Associates	0	-2	0	0	0	0	0	0
PAT after MI and associate	192	225	289	454	930	1063	1447	1886
<i>Net margin (%)</i>	2.2%	1.8%	2.1%	3.1%	4.8%	4.5%	5.0%	5.3%
Total exceptional items	66	69	114	69	-193	10	0	0
Reported PAT	258	295	403	523	737	1073	1447	1886
ModelWare EPS (Rs)	0.58	0.68	0.87	1.37	2.81	3.21	4.37	5.70
DPS (Rs)	0.18	0.25	0.30	0.50	0.60	0.75	1.00	1.25

E = Morgan Stanley Research estimates; NA = Not Available
Source: Company data, Morgan Stanley Research

Exhibit 23

Voltas: Balance Sheet, F2002-2009E

Rs mn	F2002	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
CURRENT ASSETS								
Cash and bank	806	981	1037	1618	1298	1935	2841	4054
Interest accrued on investments	0	0	0	0	3	3	3	3
Current Investments	4	13	9	9	176	176	176	176
Debtors	2479	3677	3925	4037	4427	5077	6224	7596
Advances Recoverable	632	672	760	827	968	1016	1067	1120
Advance Tax	163	198	236	266	212	355	535	734
Others	169	308	132	54	89	93	98	103
Stock of stores, F&B, supplies	1262	1409	1730	2617	3170	3496	4280	5202
Total current assets	5515	7258	7828	9428	10341	12151	15224	18986
CURRENT LIABILITIES								
Creditors	2597	3748	4122	4337	4684	5447	6635	8075
Adv Payments/ Deposits Recd	1377	1333	1148	1540	1770	1947	2141	2355
Other liabilities	334	358	465	675	1241	1365	1502	1652
Proposed dividend	60	83	112	189	226	276	359	441
Provision for tax	98	75	75	86	236	355	535	734
Provision for Trade Guarantees	113	127	140	201	243	292	351	421
Prov for Leave/Gratuity	41	260	245	274	318	350	385	424
Other provisions	131	240	260	284	181	190	200	210
Total current liabilities	4749	6223	6567	7586	8901	10222	12108	14312
WORKING CAPITAL								
	766	1035	1261	1842	1440	1929	3116	4675
Gross block	2445	2758	2838	2864	3163	3723	3828	3928
Accumulated depreciation	1123	1296	1391	1823	1642	1802	1977	2163
Net block	1323	1461	1446	1041	1521	1921	1851	1765
Capital work in progress	21	7	45	72	114	50	50	50
Total fixed assets	1343	1468	1492	1113	1635	1971	1901	1815
Investments	319	227	324	297	286	286	286	286
Deferred tax asset	117	137	102	212	256	256	256	256
Deferred Revenue Exp	532	90	0	0	0	0	0	0
TOTAL ASSETS	3077	2958	3180	3463	3617	4442	5559	7032
Secured Loans	221	728	711	943	648	648	648	648
Unsecured Loans	769	361	318	322	253	253	253	253
Total debt	990	1089	1029	1265	901	901	901	901
Minority Interest	8	4	3	2	3	3	3	4
Shareholders funds								
Share capital	331	331	331	331	331	331	331	331
Profit and loss account	122	95	184	291	401	1227	2343	3816
Securities Premium	597	62	62	62	62	62	62	62
General Reserve	789	983	1197	1202	1676	1676	1676	1676
Other Reserves	242	394	374	310	243	243	243	243
Total reserves	1749	1534	1817	1865	2383	3208	4324	5797
Total shareholders funds	2079	1864	2148	2195	2714	3539	4655	6128
TOTAL LIABILITIES	3077	2958	3180	3463	3617	4442	5559	7032

E = Morgan Stanley Research estimates
 Source: Company data, Morgan Stanley Research

Exhibit 24

Voltas: Cash Flow Statement, F2003-2009E

Rs mn	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
PAT	225	289	454	930	1063	1447	1886
Depreciation	177	160	133	141	160	175	186
Exceptional items	69	114	69	-193	10	0	0
(Inc)/dec in debtors	-1198	-247	-112	-390	-650	-1147	-1372
(Inc)/dec in loans and advances	-180	89	11	-179	-53	-55	-58
(Inc)/dec in inventory	-147	-321	-886	-553	-326	-784	-922
Inc/(dec) in creditors	1151	374	215	348	762	1188	1440
Inc/(dec) in adv from customers	-44	-185	392	230	177	195	214
Inc/(dec) in provisions	366	48	191	21	90	103	119
Inc/(dec) in other liabilities	24	108	210	566	124	137	150
Inc/(dec) in tax provision	-57	-38	-19	205	-25	0	0
Changes in working capital	-85	-174	1	248	99	-364	-429
Cash flow from operations	386	388	656	1125	1332	1258	1643
Purchase of fixed assets	-301	-183	246	-663	-496	-105	-100
Purchase/ Sale of investments	91	-97	28	11	0	0	0
Cash flow from investing	-210	-280	274	-652	-496	-105	-100
Inc/(Dec) in other Borrowings	100	-60	236	-364	0	0	0
Dividend paid	-83	-99	-165	-199	-199	-248	-331
Other items	-9	103	-419	-64	0	0	0
Cash flow from financing	8	-56	-349	-627	-198	-248	-331
Change in cash and cash equiv	184	52	581	-154	638	906	1213
Opening cash and cash equiv	810	994	1046	1627	1473	2111	3016
Closing cash and cash equiv	994	1046	1627	1473	2111	3016	4229

E = Morgan Stanley Research estimates
 Source: Company data, Morgan Stanley Research

Exhibit 25

Valuation Comparables: P/E

Name	Currency	Last Reported Result	Stock Price	M Cap (US\$mn)	EPS			P/E			EPS CAGR
					Actual	Est+1	Est+2	Actual	Est+1	Est+2	
Global Companies											
Hitachi	JPY	Mar-06	668	18839	(16.2)	7.8	9.6	NM	85.7	69.6	NM
Samsung	KRW	Dec-05	652000	99492	51,016.1	48,092.7	51,846.6	12.8	13.6	12.6	1%
LG	KRW	Dec-05	55900	9553	4,437.1	1,451.3	5,566.5	12.6	38.5	10.0	12%
Indian Companies											
Blue Star *	Rs	Mar-06	168	338	5.4	NA	NA	30.9	NA	NA	NA
Crompton Greaves *	Rs	Mar-06	255	1495	6.7	9.7	13.5	38.4	26.3	18.9	43%
Voltas	Rs	Mar-06	103	764	2.8	3.2	4.4	36.7	32.1	23.6	25%

Note: Stock prices as on November 24, 2006

E = Morgan Stanley Research Estimates except for those marked with an asterisk (*), which are consensus estimates as provided by IBES.

NM = Not meaningful; NA = Not available

Source: Company data, Morgan Stanley Research



ModelWare is Morgan Stanley's new system for helping investors and analysts to uncover value, free from the distortions and ambiguities created by accounting data. Morgan Stanley has dissected and fundamentally redefined the components of corporate valuation, giving clients more consistent definitions, more comparable data, and more flexible analytic tools. ModelWare makes investment insights easier by making value more visible.

Past inconsistencies in financial reporting made it difficult to compare performance among companies and across sectors and regions. Even within US GAAP, flexibility complicates comparisons. And accounting standards were developed to analyze historical data, not to facilitate projections. In response, Morgan Stanley analysts spent two years reviewing our entire coverage universe of company metrics. They defined more than 2,000 general and industry-specific metrics that eliminated inconsistencies stemming from regional differences, historical precedents and accounting conventions. The team applied these metrics across also all 1900+ companies we cover, and created flexible tools and services that let analysts redefine and use the data with maximum creativity. Because ModelWare provides complete transparency, users see every component of every calculation, to choose elements or recombine them as they wish.

ModelWare EPS illustrates the approach. It represents ModelWare EPS as ModelWare net income divided by average fully diluted shares outstanding. ModelWare net income sums net operating profit after tax (NOPAT), net financial income or expense (NFE) and other income or expense. ModelWare adjusts reported net income to improve comparability across companies, sectors and regions. Among these adjustments: We exclude goodwill amortization and items deemed by analysts to be "one-time" events; we capitalize operating leases where their use is significant (e.g., in transportation and retail); and we convert inventory to FIFO accounting when LIFO costing is used. For more information on these adjustments and others, as well as additional background, please see *Morgan Stanley ModelWare (ver. 1.0): A Road Map for Investors*, by Trevor Harris and team, August 2, 2004.

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<u>Company (Ticker)</u>	<u>Rating (as of)</u>	<u>Price (11/27/2006)</u>
Parag Gupta Voltas Limited (VOLT.BO)	O (11/28/2006)	Rs109.50

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