

Automotive Piston Manufacturing Plant



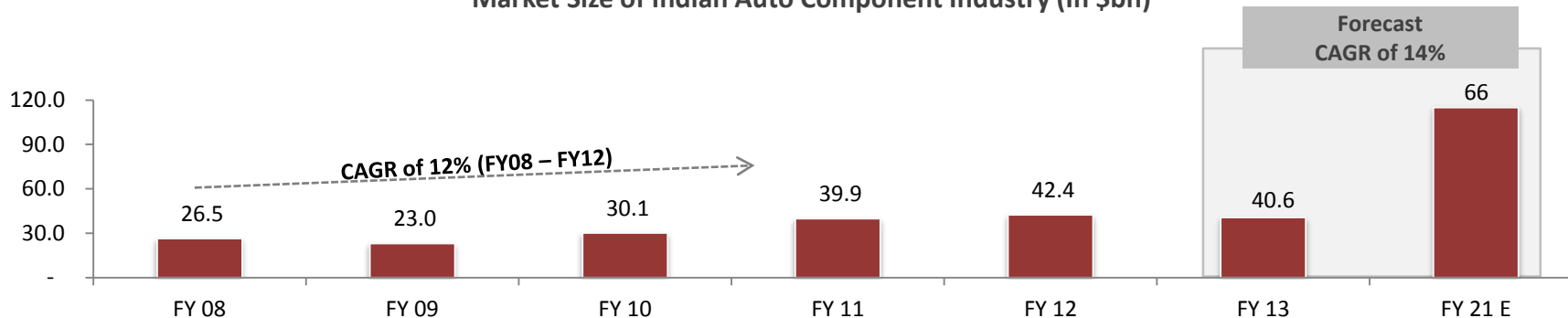
04 October, 2013

Table of contents

Section	Slide #
1 Market Overview	3
2 Growth Drivers	17
3 Regulatory Overview	22
4 Production Setup Plan	29
5 Piston Demand Analysis	31
6 Cost Requirements	33
7 Financial Statements & Key Ratios	38

Auto Component Industry: Market Overview

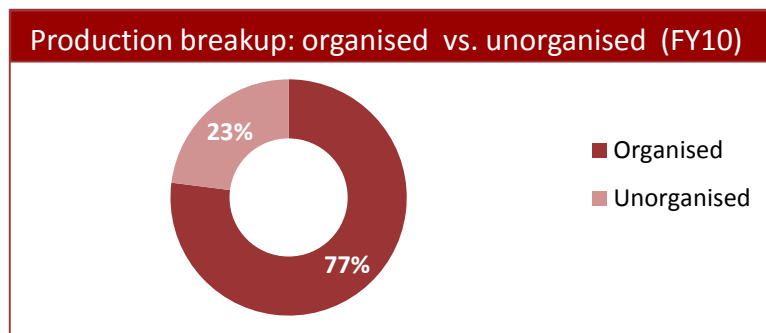
Market Size of Indian Auto Component Industry (In \$bn)



- The Indian auto component industry is one of the fastest growing industries in the country, growing at a CAGR of 12% in 2008-12 and is expected to grow at a CAGR of 14% from 2013 to 2021
- Government of India offers policy support 2002-16 for the development of Indian automotive industry into a global hub in the form of Auto Policy 2002 and National Automotive Mission Plan
- The industry has global competitive advantage due to cost effective manufacturing base. The cost advantage stems from the cost-competitiveness in raw material and labour which is 10-25% lower than other countries

Organised Vs. Unorganised Sector

- As of FY 10, the number of manufacturing units in the unorganised sector (around 5,800) are far higher than those in the organised sector (around 600)
- The organised sector, though fewer in number, accounts for more than 70% of the total production in the auto component industry

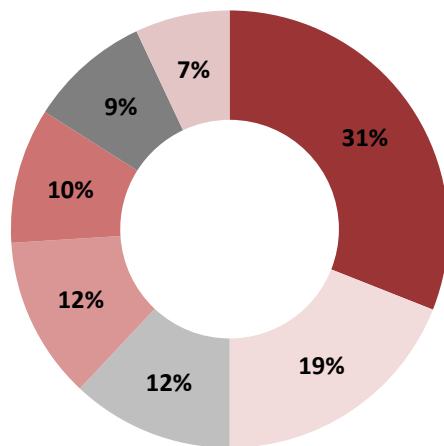


Auto Component Production Breakup

- 'Engine parts' account for 31% of the entire product range of the auto components sector followed by 'drive transmission and steering parts' (19%)
- 'Two wheelers' is the largest domestic customer segment for the auto components industry
- Original Equipment Manufacturers (OEMs) dominate production volumes by market range
- Around 15% of the total production of auto components is exported

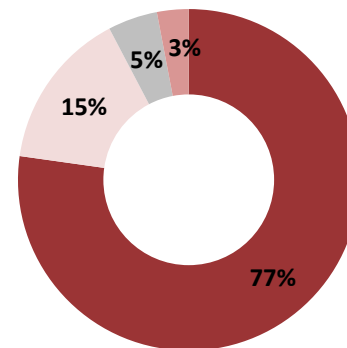
Production volumes by product range (FY12)

- Engine parts
- Drive transmission & steering parts
- Body & chassis
- Suspension & breaking parts
- Equipments
- Electrical parts
- Others



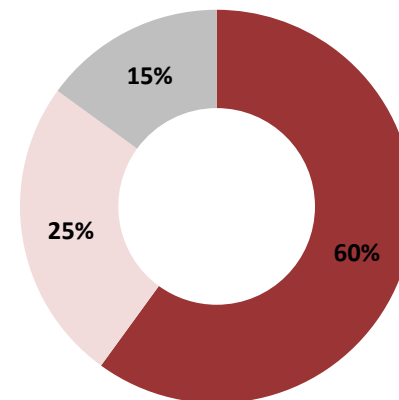
Domestic market share by segment (FY12)

- Two Wheelers
- Passenger Vehicles
- Commercial Vehicles
- Three Wheelers



Production volumes by market range (FY11)

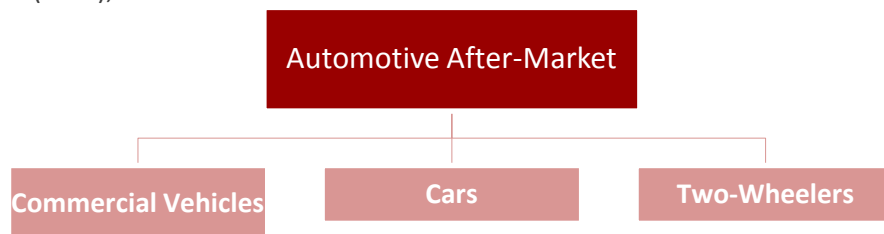
- OEM
- Replacement
- Export



Indian Automotive After-Market

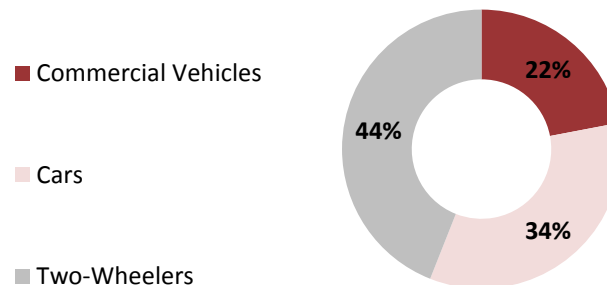
Segmentation of Automotive After-Market

- The Indian automotive after-market can be divided into commercial vehicles, cars and two-wheelers
- Commercial vehicles includes multi-axle vehicles, light commercial vehicles (LCVs), buses and trailers



Segment	Top Two Markets
Commercial Vehicles	Maharashtra (INR 7.3 bn), Gujarat (INR 6.1 bn)
Cars	Maharashtra (INR 8.9 bn), Delhi (INR 7.2 bn)
Two-Wheelers	Gujarat (INR 14 bn), Maharashtra (INR 13.9 bn)

Market Size of the Automotive After-Market (FY10)



Segment	Market Size (INR bn)
Commercial Vehicles	45 – 55
Cars	60 – 70
Two-Wheelers	100 – 110
Total market Size	200 – 240

Growth & Trends

- The automotive after-market in India is expected to grow at a CAGR of 8.55% to INR 300 bn in 2015 from INR 200 bn in 2010
- The deplorable conditions of the road along with growing number of vehicles and poor culture of preventive maintenance among vehicle owners is fuelling the growth of this industry
- The auto component industry is expected to face new opportunities and challenges due to evolving emission norms, advancing safety regulations and noise reduction measures (in line with European countries)

Piston & Piston Ring Market

Background

- Being a high technology product, Piston market is dominated by a few well-established original equipment suppliers like Goetze, India Pistons, Shriram Pistons, Menon Pistons, Samkrp Pistons, etc. As a result, the threat from alternate and spurious brands is not high in this market
- The growth in the piston market is dependent on the automotive market and the after-market
- Piston is a high technology product which acts as a barrier to entry. Hence, competition from alternate brands is lower

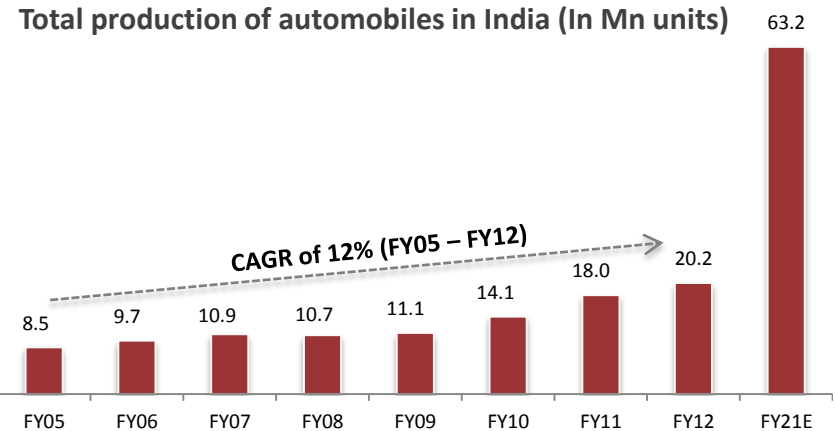
Segmentation of the Piston Market

The piston aftermarket can be segmented into five categories according to vehicle segments as follows:

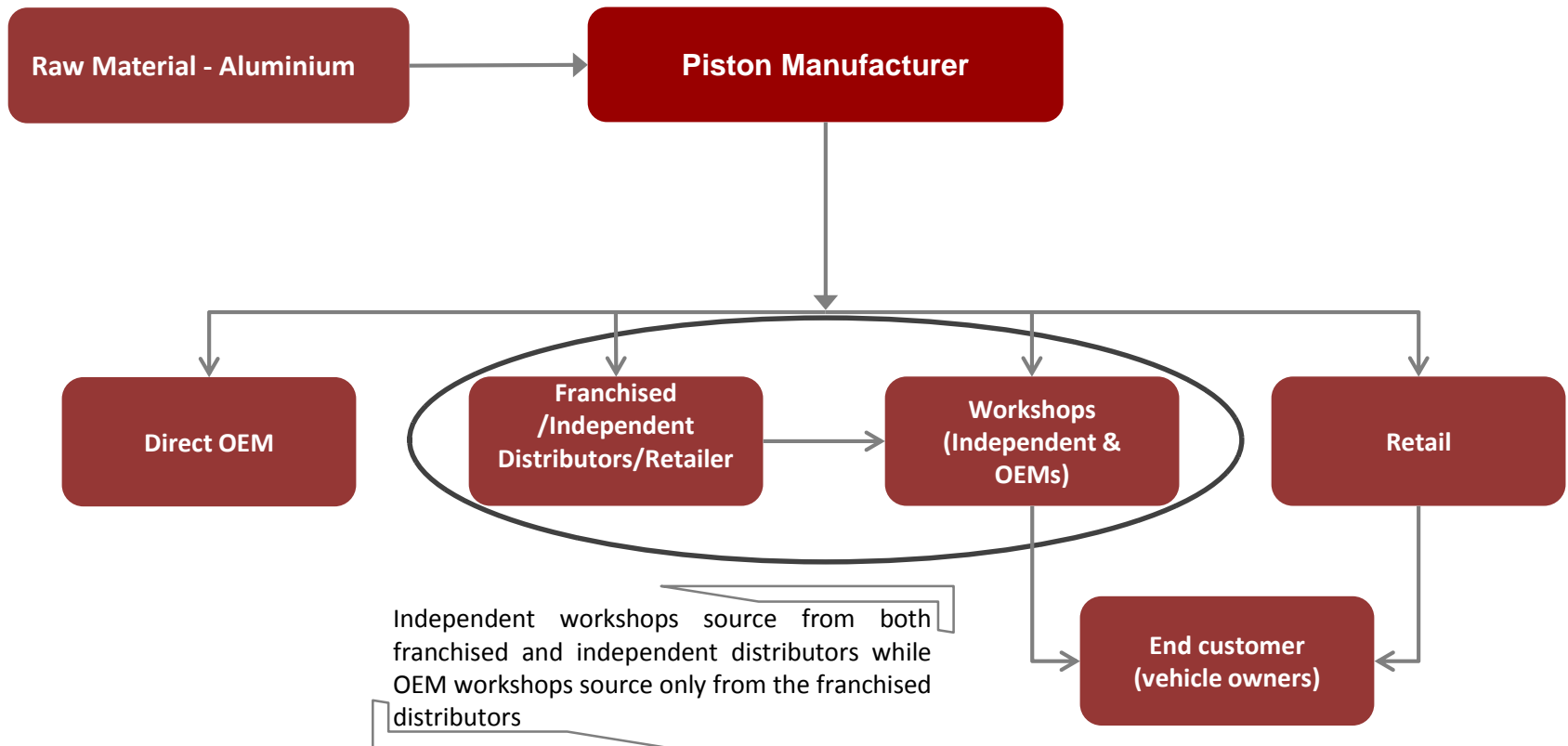
- Passenger Cars
- Utility Vehicles
- Light and Heavy Trucks
- Tractors
- Two-wheelers

Outlook

- Growth of the piston market is dependent on the growth of the automobile industry which has grown at a CAGR of 12% over FY05-12.
- The automobile industry is expected to grow at a CAGR of 15% over FY12-21 and it is expected that the piston market will mirror the growth in the automotive segment
- For succeeding in this market, manufacturers need to have wide product coverage and leverage on higher volume growth








Value Chain - Pistons



- The raw materials required for manufacturing piston is predominantly aluminium. Aluminium can be obtained from companies such as National Aluminium Company (Nalco), Hindalco Industries, Bharat Aluminium Company, etc.
- Piston manufacturers can sell pistons in both the OEMs and replacement market
- Distributors/Retailers are of two types – franchised and independent. The former is the exclusive distributor/retailers of one manufacturer while the latter is a multi – brand distributor/retailer stocking pistons from multiple manufacturers

Key Market Players' Profile

	Federal-Mogul Goetze	Shriram Pistons & Rings	India Pistons	Samkrp Pistons	Menon Pistons
Year of Establishment	1954	1963	1949	1985	1969
Logo					
Revenue 2012(INR mn)	12,073	1,859	2,900	2,193	1,712
PAT 2012(INR mn)	(163)	839	-	117.8	100
OEM/Replacement	Both	OEM	Both	Both	Both
Products	Pistons, piston rings, cylinder liners, light alloy castings, sintered products	Pistons, piston rings, engine valves	Piston & Piston Rings, cylinder liners, ring carriers, crank shafts, filters, gaskets, valves, cam shafts, differential gears	Pistons, Piston Pins, Piston Rings & Circlips	Aluminium alloy Pistons, Piston Pins and Piston Rings
Manufacturing Locations	Patiala, Bhiwandi, Bangalore	Ghaziabad, Uttar Pradesh	Sembiam, Chennai; MM Nagar, Chennai; Sengundram, TN; Hosur, TN; Rudrapur, Uttarakhand	Hyderabad and 2 plants close to Vishakhapatnam	3 manufacturing plants in and around Kolhapur
Customers	Tata Motors, Mahindra & Mahindra, Bajaj Auto, etc.	Ford Motors, General Motors, Honda SIEL, Mahindra & Mahindra, Maruti Suzuki, Nissan Motor, Suzuki Powertrain, Tata Motors, Bajaj Auto, Hero MotoCorp, HMSI, Suzuki Motorcycle, TVS Motors, etc.	Hyundai Motor Company, Maruti, Ashok Leyland, TATA Motors, Eicher Motors, Simpsons & Co., TAFE, Mahindra & Mahindra, Greaves, KOEL, Hindustan Motors, Indian Railways, etc.	Bajaj, Honda, Piaggio, Tata Motors, Hero, Force, etc.	Tata Motors, Escorts Farm Tractors, Maruti Suzuki, Eicher Tractor, Ford, etc.

Growth Drivers (2/4)

Robust growth in domestic automotive industry

Increasing Demand for Automobiles

- Auto components is an ancillary industry and hence it's demand is highly influenced by the demand of automobile industry
- Automobiles production in India has increased at a CAGR of 13.2% over FY05-12 and is expected to increase at a CAGR of 10% over FY12-21
- This is expected to have a positive impact in driving the medium/long term sales of components in Auto Industry

Growing Market for Used Vehicles

- India is a growing market for used vehicles as it offers lower price and wide variety of cars. According to Crisil, the used market is expected to grow at a CAGR of 22-24% from FY12 through FY17
- Used cars will have more maintenance costs and it will drive the replacement market for auto component market in India

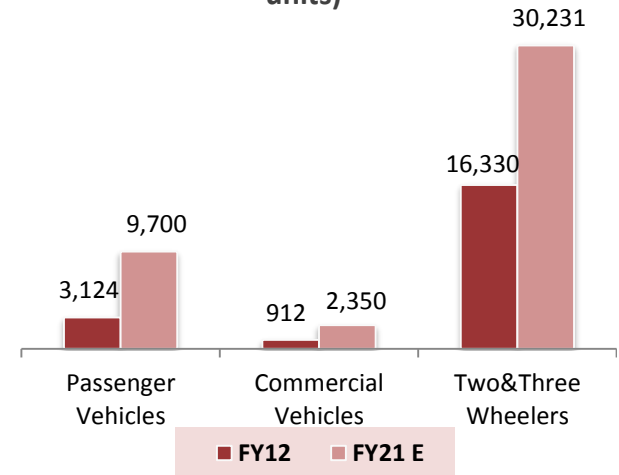
High Wear and Tear

- Most vehicles in India are overloaded with passengers causing wear & tear, life of engine components is lowered causing higher engine revolutions and regular wear/tear problems
- This gives an opportunity for component suppliers to sell their products more frequently

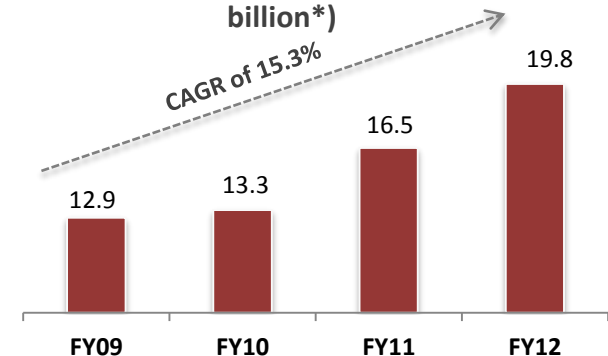
Frequent Engine and Fuel System problems

- Impurities of fuel in India often leads to frequent repairs of engine components
- Formation of carbon deposits further reduces the efficiency of the engine system driving the sales of these components

Vehicle Production in India (thousand units)



India Vehicle Loan Outstanding (USD billion*)



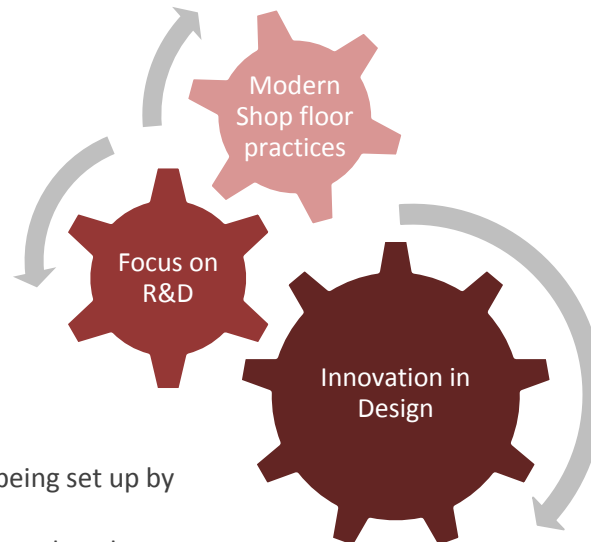
*Figures converted to USD at the exchange rate of USD1 = INR48

Growth Drivers (4/4)

Technological Shift, focus on R&D

A key force driving technological change is environmental regulation. The industry has made major strides in the areas of emissions control and safety

- Indian manufacturers are adopting best shop floor practices such as 5-S, 7-W, Kaizen, TQM, TPM, 6 Sigma and Lean Manufacturing
- Most players in the organised sector are certified ISO 9000, ISO 14001 and TS 16949 companies



- NATRiP centres are being set up by the government
- Private players are keen to set up their R&D base in India

- Growing adoption of IT-enabled automobile support systems such as global positioning systems (GPS), anti-braking systems (ABS), automatic speech recognition (ASR) and safety systems in automobiles is driving innovation in the auto components industry

Awards received by Indian players

Awards	Number
Total Productive Maintenance (TPM) Award	15
Deming Award	12
Japan Institute of Plant Maintenance (JIPM) Award	3
Japan Quality Medal	2
Shingo Silver Medallion	1

Regulatory Overview

Regulatory guidelines for the auto – component market

Government of India Policy Support

- The Indian government allows 100% FDI in the automobile sector under the automatic route
- Automobile industry is a delicensed industry and free imports of automotive components are allowed. Also, the government has not laid down any minimum investment criteria for the automobile industry

Government of Maharashtra Policy Support

- The Government of Maharashtra has favourable labour laws and procedures to provide skilled manpower to the auto component industry
- The Government provides favourable legislative framework to promote investment in the auto industry

Some of the support that the Government of Maharashtra has provided to the auto industry are mentioned below:






Government of Maharashtra Subsidies & Waivers

- Industrial Promotion Subsidy (IPS)
- Additional incentives for SSI units located in industrial parks & clusters
- Special incentive for EPF and ESI refund of units coming up in districts low in HDI (Human Development Index)
- Interest subsidy
- Exemption from electricity duty
- Waiver of stamp duty
- Royalty refund
- Refund of octroi / entry tax in lieu of octroi
- Incentives for strengthening the SME sector

Important Reference Documents

- Maharashtra Industrial Policy 2013
- Package scheme of incentives 2013
- Maharashtra SEZ policy 2001
- I.T. Act, 1961
- Customs Tariff Act, 1975

Production Setup Plan

	Assembly I	Assembly II	Assembly III
Vehicle Type	 Passenger Vehicles	 Two Wheelers	 Heavy Vehicles
Piston Diameter	70, 72, 80, 85 and 90mm	57, 60	97, 102, 105, 115 and 130mm
Production line	xx – one for each piston diameter	xx – one for each piston diameter	xx – one for each piston diameter
Installed Capacity	~xx lacs	~xx lacs	~xx lacs

Indicative Data

- XX to focus on all the three categories of automobiles segments
- Almost 10-12 months is required for setup of all three assemblies
- Total funding required is approximately Rs. 96 crores
- Around xx to xx square meters land is required for each assembly
- Assuming setup process is executed in 2014, actual production commence from 2015 onwards
- Total installed capacity is around xx lacs pistons with around xx lacs units can be produced in the first year of operation (2015)
- Capacity utilisation in the first year (2015) is around 60% and is estimated to reach 85% by 2020
- XX to Focus Aftermarket in the short-term and OEM & Exports in the medium and long term

Income Statement

Income Statement (Rs. Lacs)										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sales	-	4,831	5,234	5,918	6,341	7,102	7,546	7,923	7,923	8,319
COGS	-	1,336	1,447	1,559	1,753	1,870		1,987	2,086	2,086
Gross Profit	-	3,495	3,787	4,360	4,588	5,232		5,936	5,836	6,233
Operating Expenses										
Salary & Wages	-	869	911	938	967		1,025	1,056	1,088	1,121
Depreciation	-	607	607	607	607		607	607	607	607
Electricity & Others	-	185	185	185		185	185	185	185	185
EBIT	-	1,835	2,084	2,630		3,445	3,742	4,088	3,957	4,321
Interest	-	792	704		28	440	352	264	176	88
PBT	-	1,043	1,380		2,302	3,005	3,390	3,825	3,781	4,233
Tax rate	-	31%			31%	31%	31%	31%	31%	31%
Tax	-	322		622	711	929	1,048	1,182	1,168	1,308
PAT	-	721		1,392	1,591	2,076	2,343	2,643	2,613	2,925

Indicative Data

Balance Sheet

Balance Sheet (Rs. Lacs)										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Assets										
Current assets										
Cash and Cash Eq.	793	459	884	1,746	2,809	4,001	7,825	9,745	11,748	
Other Current Assets	-	1,449	1,570	1,775	1,902	2,264	2,377	2,377	2,496	
Fixed Assets										
Land	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198
PPE	8,409	8,459	8,559	8,759	9,309	9,709	10,159	10,659	11,309	
Depreciation	-	607	607	607	607	607	607	607	607	607
Accumulated Depr.	-	607	1,213	1,820	2,427	3,034	3,640	4,247	4,854	5,460
Net PPE	8,409	7,852	7,346	7,151	6,882	6,276	6,069	5,912	5,805	5,849
Total Asset	10,399	10,958	10,998	11,658	12,491	13,844	15,431	17,312	19,125	21,290
Liabilities										
Current Liabilities	-	483	598	592	634	710	755	792	792	832
Revolver	-	150	598	-	-	-	-	-	-	-
Loan	7,997	333	-	5,982	4,798	3,999	3,199	2,399	1,599	800
Total Liabilities	7,997	833	598	6,190	5,433	4,709	3,954	3,192	2,392	1,632
Shareholder Equity										
Equity Share Capital	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402
Retained Earnings	-	721	1,675	3,066	4,657	6,733	9,076	11,719	14,332	17,257
Total Shareholder Eq.	2,402	3,122	4,076	5,468	7,059	9,135	11,478	14,120	16,733	19,658
Shareholder + Liabilities	10,399	10,958	10,998	11,658	12,491	13,844	15,431	17,312	19,125	21,290

Cash Flows

	Cash Flows (Rs. Lacs)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Operating Cash Flows	-									
PAT	-	721	954	1,392	1,591	2,076	2,343	2,643	2,613	2,925
Depreciation	-	607	607	607	607	607	607	607	607	607
Changes in Oper. Cash	-	(459)	211	(21)	6	6	8	(4)	11	(28)
Changes in Wor. Cap.	-	(966)	(81)	(137)	(85)	(85)	(89)	(75)	-	(79)
Cash flows from opr.	-	(98)	1,691	1,841	2,106	2,698	2,869	3,170	3,231	3,424
Cash flows from Inv.	(9,607)	(50)	(100)	(200)	(200)	(300)	(400)	(450)	(500)	(650)
Financing Cash Flows										
Equity	2,402	-	-	-	-	-	-	-	-	-
Debt	7,997	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)
Cash flows from Financing	10,399	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)	(800)
Net Cash	793	(948)	1,591	841	1,069	1,407	1,669	1,920	1,931	1,975

Indicative Data

Market Research Report

done by Outsource2india



Managing your entire outsourcing venture

Owned by Flatworld Solutions Pvt. Ltd.