

Plant Visit Note

II 18th April, 2024

Page 2

Azad Engineering Ltd.

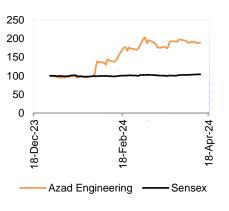
Years of Excellence in Precision Engineering, Now Fructifying into Effective Engine Rotation for Key Global OEMs

	rget Potential Upsi Rated NA	de Market Cap (INR Mn) INR 73,514	Recommendation NA	Sector Engineering
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MARKET DATA

Shares outs (Mn)	59
Mkt Cap (INR Mn)	73,514
52 Wk. H/L (INR)	1465 / 642
Volume Avg (3m K)	67.84
Face Value (INR)	2.00
Bloomberg Code	AZAD:IN

SHARE PRICE PERFORMANCE



MARKET INFO

SENSEX	72,944
NIFTY	22,147

SHARE HOLDING PATTERN (%)

Particulars	Dec-23	Sep-23	Jun-23
Promoters	65.9%	NA	NA
FIIs	4.7%	NA	NA
DIIs	5.7%	NA	NA
Others	23.7%	NA	NA
Total	100%	NA	NA

What do we like about Azad Engineering?

Niche with Scale

Azad Engineering is operating in a niche segment which revolves at the core of life critical and mission critical engineering capabilities. It produces key components used in the Aerospace, Defence, Oil & Gas and Industrial Work and supplies it to global OEMs. Azad Engineering has delivered 3.9 million units between FY-09 to FY23, it has 45 qualified manufacturing processes and manufactures over 1400 qualified parts and components for the renowned OEMs.

Product Category	Azad's Product	End-User Industry
Parts of Aero-Engine, APUs & APU Systems and Hydraulic Systems	Airfoils, Impeller, Blisk, Unison Rings, Levers, Housing Fan, Housing Compressor, Housing Mount, Housing, Body, Valve, Plate Butterfly, Seal Shaft, Bearing Rod, Piston Plate, Sealing Ring, Nipples, Adaptersm, Tees, Elbows, etc.	1)Business Jet 2) Commercial Aircrafts 3) Defence Aircrafts 4) Training jet aircrafts, etc.
Turbine Airfoil Assembly for Thermal Power Turbine, Nuclear Power Turbine, and Natural Gas Turbine	Stator & Rotor Airfoil, Guide Vane, Compressor Airfoils, Hot Gas Parts, Last Stage Airfoils, Moving Airfoil	1)Electricity Generation 2)Power Production 3)Baseload Power 4) Low Environment impact 5) Combined heat & Power plant 6)Desalination plants 7) Marine Propulsion 8) Industrial applications, etc.
Up & Mid Stream Sub-systems	Slips, Flex shaft, Brill Bits, Frame and Bonnet	Oil & Gas Up-stream and mid stream applications

Source: Deven Choksey Research & Company Information

Customer Profile Includes Top-Notch Global OEMs

Azad has built long standing and deep customer relationships with top notch OEMs in the highly regulated industry. It's integrated manufacturing & supply chain solutions, technical know-how & scale of operations and value-added design & engineering expertise have led them to on-board OEMs such as **Honeywell International**, **Eaton Aerospace**, **Siemens Energy**, **General Electric**, **Mitsubishi Heavy Industries and Rolls-Royce**. It has sticky customer relationship with many of these OEMs for over 10 years. These names would further enable Azad Engineering to gain visibility and include other OEMs in its expansion journey.

Robust Growth Prospects

Azad Engineering's growth is propelled by several factors: providing components for new engine models, broadening market share through diversification into related areas, increase in defense budgets, and growing demand for commercial airplanes. To support this growth, Azad is expanding its manufacturing space from 20,000 to 190,000 square meters, expecting incremental revenue to come from FY26 onwards. The Aerospace and Defense (A&D) market is projected to expand at a 9% CAGR from INR 900 billion to INR 1,530 billion over 2022-2027, while the Energy sector's Total Addressable Market (TAM) is estimated at INR 283 billion.

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Plant Visit Note

II 18th April, 2024

Page 3

Azad Engineering Ltd.

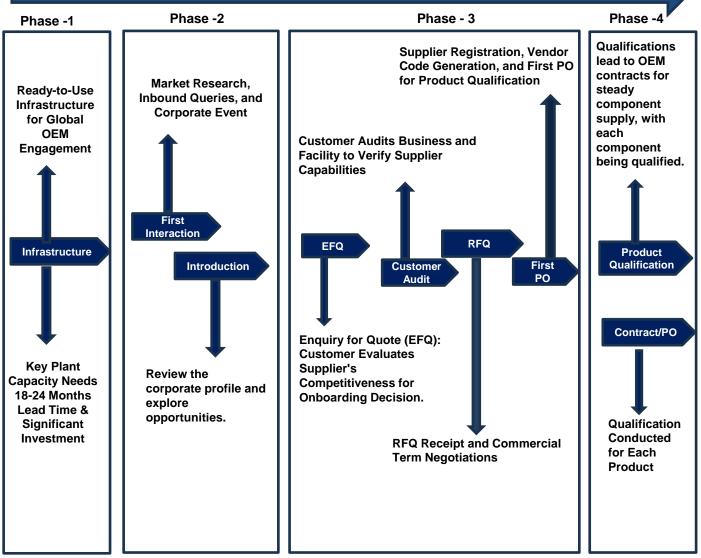
Moat of Azad Engineering

Stringent Product Qualification Poses Strong Entry Barrier

Azad Engineering, over the years have built capability driven by five key areas Man, Machine, Method, Process and Tooling which have enabled it to onboard clients and secure qualification for more than 1400 products from renowned OEMs. Consequently, it puts a formidable barrier for new players to wait for pro-longed period and burn cash up until the product qualification is secured.

30-48 Months Long Client On-boarding Process

Time-taking, investment intensive and capability driven customer on-boarding process is key barrier to entry



Source: Deven Choksey Research & Company Information

Unique Positioning of Azad Engineering

Azad Engineering is uniquely positioned to meet complex engineering requirements of energy sector with its proven highly complex portfolio in Energy space for mission critical and life critical products acting as a testimony for aerospace & Defence and Oil & Gas segment. Azad Engineering is adding nearly 10 times of its existing plant area with a target of allocating dedicated factory within the facility for specific OEMs which is likely to stimulate the OEMs to capture the area for their specific products/components.

RESEARCH ANALYST

Plant Visit Note

II 18th April, 2024

Page 4

Azad Engineering Ltd.

We recently visited the plant of Azad Engineering Ltd which is located at Jeedimetla Industrial Development Area, Hyderabad, Telangana. This is the corporate office and main manufacturing facility of Azad Engineering. Following are the key takeaways from our plant visit.

KTAs from the Plant Visit

- The existing facilities of Azad Engineering are spread over 20,000 sq.mt with four advanced manufacturing facilities capable of high precision forged and machined components.
- The main manufacturing facility has nearly little over 8000 sg.mt covering for CNC machining area.
- Existing installed capacity is at 158,356 hours per quarter with around 100 output generating CNC machines. The annual capacity stands over 600,000 machining hours.
- The main manufacturing facility consists of dedicated sections for Raw Material Cutting & Raw Material Storage in the plant.
- The plant is equipped with live informative screens reflecting the live operations being undertaken by the CNC machines.
- Some of the key machines include 5-Axis CNC Milling, ultra precision turning and grinding machines. It also has precision forgings with shot peening using 7-axis robotic machines.
- Special processes have been deployed for metal joining, heat treatment, painting and coating. Azad Engineering has Special Purpose Machines which are aimed at automation of processes to increase efficiency.
- The plant is also equipped with robotic polishing equipment. Post-production fittings of hydraulic systems, fittings of drill bits, and post-production of compressor components are undertaken by way of robotic polishing.
- Deployment of Special Processes and Special Purpose Machines have led to reduction in the per airfoil making time. Earlier, it used to take 210 minutes to make an airfoil and now it has been reduced to 170 minutes.
- To improve the acceptance mechanism of the products multiple testing techniques have been deployed such as Hydro testing, Pneumatic Testing, Static Balancing etc.
- Chemical analysis, ultrasonic testing and metallurgical analysis are conducted to maintain superior quality checks for non-destructive testing.
- Raw Materials include various metals such as aluminium, stainless steel, precipitated hardened steel, titanium, inconel and other super alloy/ exotic alloy grades.
- The company is putting two more facilities. One of these have 95,000 sg.mt at Tuniki Bollaram Villege in Siddipet district with 8-9 factories in the same facility where different factories or part of factories are planned to be dedicated for particular clients/OEMs.
- The company is likely to put INR 200-250 crore amount for the additional plant and machinery at the Tuniki facility. The incremental revenue from this plant is likely to come from FY26.
- It is also putting another plant at Mangampet Village, covering 75,000 sq.mt which is likely to be dedicated for Defence, Space, and Oil & Gas segment. The plant is expected to be developed in the coming 2-3 years.
- These developments are targeted towards taking the contribution from Aerospace & Defence business from the current level of 12% as to much more higher level which would also improve the working capital cycle of the company.

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Plant Visit Note

II 18th April, 2024

Page 5

Azad Engineering Ltd.

Exhibit 1: Balance Sheet

Exhibit 1: Balance Sheet				
Particulars	FY21	FY22	FY23	H1FY24
Non current assets				
Property, plant and equipment	1,211	1,444	2,167	2,149
Right of use assets	0	0	0	29
Capital work-in-progress	0	237	380	445
Financial assets				
(i) Other financial assets	34	31	34	21
Other non-current assets	56	655	476	545
Total non-current assets (A)	1,301	2,367	3,056	3,189
Current assets				
Inventories	343	574	861	1,057
Financial assets				
(i) Trade receivables	526	746	1187	1,334
(ii) Cash and cash equivalents	18	44	194	202
(iii) Bank balances other than cash and cash equivalents	154	133	333	145
(iv) Other financial assets	12	0	1	31
Other current assets	207	180	261	410
Total current assets (B)	1,260	1,677	2,836	3,178
Total assets (A+B)	2,561	4,043	5,892	6,366
Equity				
Equity share capital	15	15	17	99
Other equity	894	1,185	2,023	2,206
Total equity (A)	909	1,200	2,040	2,305
Non-current liabilities				
Financial liabilities				
(i) Borrowings	415	1,226	2,209	2,137
(ii) Lease liabilities	0	0	0	21
Provisions	14	23	26	32
Deferred tax liabilities (net)	98	116	136	128
Total non-current liabilities (B)	526	1,364	2,370	2,318
Current liabilities				
Financial liabilities				
(i) Borrowings	463	746	797	1,112
(ii) Lease liabilities	0	0	0	3
(iii) Trade payables	0	0	0	0
a) total outstanding dues of MSME	26	33	25	25
b) total outstanding dues of creditors other than	347	393	450	395
(iv) Other financial liabilities	76	158	123	141
Provisions	7	11	22	30
Other current liabilities	168	54	39	33
Current tax liabilities (net)	39	84	25	6
Total current liabilities (C)	1,125	1,479	1,482	1,743
Total liabilities (B+C)	1,652	2,843	3,852	4,061
Total equity and liabilities (A+B+C)	2,561	4,043	5,892	6,366

Source: Company, DevenChoksey Research

Plant Visit Note

II 18th April, 2024

Page 6

Azad Engineering Ltd.

Exhibit 2: Income Statement

Particulars (Rs. Mn)	FY21	FY22	FY23	9MFY24
Revenue from Operations	1,227	1,945	2,517	2,480
Other income	23	48	98	292
Total income	1,250	1,993	2,615	2,772
Expenses	-	-	-	
Cost of Material Consumed	222	376	495	474
Changes in inventories of finished goods, work in progress	-84	-168	-194	-171
Gross Profit	1,089	1,737	2,215	2,177
Gross Margin	89%	89%	88%	88%
Employee benefits expense	326	463	593	546
Other expenses	482	652	900	779
Operating Expenses	946	1,322	1,794	1,628
EBITDA	282	623	723	852
EBITDA Margin	23%	32%	29%	34%
Finance costs	54	136	524	412
Depreciation	89	133	166	151
Total Expenses	1,088	1,591	2,484	2,191
EBIT	193	490	557	701
EBIT%	16%	25%	22%	28%
Profit Before Tax	162	401	132	581
Tax Expenses	-	-	-	
Current Tax	41	87	26	105
Tax pertaining to earlier years	-	-	2	
Deferred tax	6	20	19	41
Total Tax Expenses	47	107	47	145
Profit After Tax	115	295	85	436
Net Profit Margin%	9%	15%	3%	16%
Adjusted EPS	1.9	5.0	1.4	7.4

Source: Company, DevenChoksey Research

Exhibit 3: Cashflow

Particulars	FY21	FY22	FY23	H1FY24
Profit Before Taxes	162	401	132	316
Net Cash from Operating Activities (A)	48	209	-102	-86
Net Cash from Investing Activities (B)	-347	-1,142	-1,012	139
Net Cash from Financing Activities (C)	236	959	1,263	-46
Net Increase in cash and cash equivalents (A+B+C)	-63	27	150	8
Cash and cash equivalents at the beginning of the period year	81	18	44	194
Cash and cash equivalents at the end of the period year	18	44	194	202

Source: Company, Deven Choksey Research

Plant Visit Note

II 18th April, 2024

Page 7

Azad Engineering Ltd.

Rating Legend (Expected over a 12-month period)		
Our Rating	Upside	
Buy	More than 15%	
Accumulate	5% – 15%	
Hold	0 – 5%	
Reduce	-5% – 0	
Sell	Less than -5%	

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