

August 29, 2024

Analyst Meet Update

■ Change in Estimates | ■ Target | ☒ Reco

Change in Estimates

| | Current | | Previous | |
|---------------------|---------------|----------|-------------------|----------|
| | FY25E | FY26E | FY25E | FY26E |
| Rating | BUY | | ACCUMULATE | |
| Target Price | 10,399 | | 10,399 | |
| Sales (Rs. m) | 1,94,365 | 2,28,543 | 1,94,365 | 2,28,543 |
| % Chng. | - | - | - | - |
| EBITDA (Rs. m) | 17,121 | 20,246 | 17,121 | 20,246 |
| % Chng. | - | - | - | - |
| EPS (Rs.) | 225.4 | 279.4 | 225.4 | 279.4 |
| % Chng. | - | - | - | - |

Key Financials - Consolidated

| Y/e Mar | FY23 | FY24 | FY25E | FY26E |
|----------------|----------|----------|----------|----------|
| Sales (Rs. m) | 1,43,363 | 1,61,530 | 1,94,365 | 2,28,543 |
| EBITDA (Rs. m) | 12,269 | 15,223 | 17,121 | 20,246 |
| Margin (%) | 8.6 | 9.4 | 8.8 | 8.9 |
| PAT (Rs. m) | 6,377 | 8,251 | 9,056 | 11,225 |
| EPS (Rs.) | 158.8 | 205.4 | 225.4 | 279.4 |
| Gr. (%) | 148.4 | 29.4 | 9.8 | 24.0 |
| DPS (Rs.) | 38.1 | 40.0 | 67.6 | 83.8 |
| Yield (%) | 0.4 | 0.4 | 0.8 | 0.9 |
| RoE (%) | 32.3 | 27.0 | 21.6 | 22.9 |
| RoCE (%) | 48.6 | 40.4 | 33.9 | 34.9 |
| EV/Sales (x) | 2.5 | 2.2 | 1.8 | 1.6 |
| EV/EBITDA (x) | 29.3 | 23.7 | 21.0 | 17.7 |
| PE (x) | 56.8 | 43.9 | 40.0 | 32.2 |
| P/BV (x) | 16.2 | 9.3 | 8.0 | 6.8 |

Key Data

APAR.BO | APR IN

| | | |
|---------------------|---------------------|--|
| 52-W High / Low | Rs.9,660 / Rs.4,546 | |
| Sensex / Nifty | 81,786 / 25,052 | |
| Market Cap | Rs.362bn/ \$ 4,310m | |
| Shares Outstanding | 40m | |
| 3M Avg. Daily Value | Rs.1184.36m | |

Shareholding Pattern (%)

| | |
|-------------------------|-------|
| Promoter's | 57.77 |
| Foreign | 11.51 |
| Domestic Institution | 19.73 |
| Public & Others | 10.99 |
| Promoter Pledge (Rs bn) | - |

Stock Performance (%)

| | 1M | 6M | 12M |
|----------|-----|------|------|
| Absolute | 4.1 | 44.1 | 79.1 |
| Relative | 3.6 | 27.7 | 42.5 |

Amit Anwani

amitanwani@plindia.com | 91-22-66322250

Shirom Kapur

shiromkapur@plindia.com | 91-22-66322344

Prathmesh Salunkhe

prathmeshsalunkhe@plindia.com |

Apar Industries (APR IN)

Rating: BUY | CMP: Rs9,010 | TP: Rs10,399

Capitalizing on robust T&D capex in India & U.S.

We attended Apar Industries (APR) investor day, wherein management highlighted key long-term opportunities driven by large investments in infrastructure (T&D, renewables, transportation, telecom, defence, etc.) Conductors growth will be driven by T&D infrastructure expansion, railway modernization, CTC demand, reconductoring & premiumization in domestic market (HTLS, AL-59, etc.), and demand for conventional products in export markets. Cables is set to be the fastest growing segment given the robust opportunities in solar, wind and defence where Apar is a leading cable supplier in India, growth in E-beam house-wires, renewable opportunities in U.S. & Europe, and telecom network expansion. Speciality Oil growth will be driven by Transformer Oils (T-oils) and Lubricants. Apar is making sizeable capex investments worth Rs3-3.5bn per year in Conductors and Cables to position itself to capitalize on the slew of opportunities available.

We are positive on APR owing to 1) robust T&D capex driving demand across segments, 2) focus on premium conductors in domestic market, 3) healthy traction in elastomeric cables used in renewables, defence and railways, and 4) market leadership in the growing T-oils business. The stock is trading at a P/E of 40.0x/32.2x FY25/26E. Given that the stock has corrected slightly, we upgrade the rating to 'BUY' from Accumulate with an unchanged SoTP-derived TP of Rs10,399, valuing Conductors/ Cables/Speciality Oil segments at 40x/43x/17x FY26E (same as earlier).

Conductors – Significant T&D expansion driving growth: Conductors is set for 10-15% long-term volume growth, with ~\$30bn worth of investments expected in India's Interstate Transmission System (ISTS) by FY30 to add 50,890ckm of transmission lines and 433,575 MVA of substation capacity. Railway modernization and substantial export opportunities in conventional conductors will further aid growth. Domestic market continues to see premiumization trend with traction in reconductoring using HTLS conductors and high efficiency AL-59 alloys replacing ACSR products. CTC is also seeing uptake led by strong transformer demand.

Cables – Scaling for leadership in a growing market: The global wires & cables market is valued at \$210-220bn, with ~50% of the global market concentrated in Apar's key target markets – U.S., Europe, and India. Apar is the 2nd fastest growing Indian cables players and is expecting to sustain its ~25% revenue CAGR to reach Rs100bn sales by FY29, with focus on renewable energy opportunities in its key markets, expanding its retail channel for Anushakti housing wires, and adding 43-acre greenfield capacity to double revenue potential to Rs100bn. Meanwhile, it is introducing new solutions to capitalize on telecom & data network expansion.

Speciality Oil growth to be driven by T-Oils: Management expects double digit growth in T-oils vs 5-8% in the overall Speciality Oils segment given Apar's strong market position and robust demand outlook in transformers. Meanwhile, growth in lubricants will be driven by agriculture segment, high-end industrial lubes, and penetration in export markets such as Middle East & Africa.

Conductors: Significant T&D expansion driving growth

Apar is the largest global aluminium & alloy conductor, supplying to all top 25 global turnkey operators & leading utilities and exporting to 100+ countries. Conductors accounted for ~45% of revenue in Q1FY25 with EBITDA/MT of Rs38,532/MT.

Management has guided for volumes to grow at a 10-15% CAGR over the medium to long term, fueled by significant investments in renewable energy transmission infrastructure, HVDC lines, railway modernization, and growing export opportunities. With competition picking up in the space, the company expects long-term EBITDA/MT at ~Rs28,000 (on a conservative basis).

Exhibit 1: Apar's diverse product portfolio in Conductors segment



Source: Company, PL

Electricity demand in India is being driven by rising manufacturing to reach the \$5trn GDP target, decarbonization, electrification, and rapid urbanization. With a focus on generating power from renewable sources, the country is targeting 500GW of renewable energy capacity by 2030 led by solar & wind vs ~197GW currently. Within this, there is a large opportunity in offshore wind as the government is planning 37GW of offshore wind capacity additions by 2030 in order to capitalize on India's 7,000+ km coastline.

As per the Central Electricity Authority (CEA), ~\$30bn will be invested by FY30 to add 50,890ckm of transmission line capacity (+11% vs FY24) and 433,575 MVA of substation capacity (+35% vs FY24) at Interstate Transmission System (ISTS) level to evacuate renewable power. As part of this, four mega HVDC transmission lines are under various stages of planning & bidding.

Exhibit 2: Projected transmission & substation capacities

| Particulars | Transformation Capacity | Transmission Lines |
|----------------------------------|-------------------------|--------------------|
| 800 KV | 18,000 MVA | 9,655 ckm |
| 500 KV | 13,500 MVA | 9,432 ckm |
| 320 KV | 2,000 MVA | 288 ckm |
| 765 KV | 2,94,700 MVA | 54,797 ckm |
| 400 KV | 4,57,933 MVA | 2,03,838 ckm |
| 220 KV | 4,64,947 MVA | 2,07,534 ckm |
| Total FY24 | 12,51,080 MVA | 4,85,544 ckm |
| Additional planned (FY25 - FY30) | 4,33,575 MVA | 50,890 ckm |
| Total FY30 | 16,84,655 MVA | 5,35,343 ckm |

Source: Company, PL

Exhibit 3: Planned transmission line additions by 2030

| Integration of 500 GW RE Capacity by 2030, Transmission Plan | |
|--|--------|
| Voltage | cKM |
| (±800, ±500) HVDC | 8,200 |
| 765 kV | 25,900 |
| 400 kV | 15,700 |
| 220 kV | 1,090 |

Source: Company, PL

AL-59 alloy continues to gain traction in India: AL-59 is a high efficiency conductor which gives 10-20% more power and has a longer life than ACSR. It was earlier imported as the technology was not developed in India, but Apar has now established itself as a dominant player in the space. While U.S. and Europe primarily require conventional ACSR conductors, Apar has largely substituted ACSR with AL-59 alloy in the domestic market, and it currently accounts for ~15% of Apar's conductor volumes. Its growth is being supported by Indian transmission companies giving more flexibility in choice of conductor alloy to be used (ACSR, AL-59, AAAC, etc.) in TBCB tenders.

Reconductoring presents a significant opportunity in India, offering a quicker and cost-effective alternative to building new transmission lines. Apar offers turnkey solutions to replace existing conductors in towers with High-Temperature Low-Sag (HTLS) conductors (70-80% of the total project cost). The company has completed over 165 reconductoring projects domestically and holds a ~50% market share. Turnkey solutions account for 10-12% of Apar's conductor revenue.

Exhibit 4: Reconductoring is a viable alternative to new transmission lines

| Indicators | New Tx Line | Upgrade (Voltage) | Upgrade (Reconductoring) |
|----------------------------------|---|---|---|
| Typical Capacity Increase | NA | 100-200% | 50-150% 33kV-400kV |
| Permitting & Use of Existing RoW | ● | ● | ● |
| Design and Construction Speeds | ● | ● | ● |
| Development Speeds | 3-5 Years ● | 2-3 Years ● | 8-12 Months ● |
| Cost | \$\$\$\$\$ | \$\$\$ | \$\$ |
| Sustainability | ● | ● | ● |
| Solution Experience | Country has witnessed hundreds of '000 Kms of new line construction | TransGrid is Kerala State's marquee project | The solution has gained steam; Apar holds ~50% market share |

Source: Company, PL

Apar has supplied over 35,000 km of HTLS conductors across domestic and export markets. HTLS is a premium conductor which accounts for 13-15% of Apar's conductor revenue. Reconductoring solutions using HTLS conductors could also gain traction in the U.S., where the lengthy approval process for new transmission lines (up to 10 years) contrasts with the growing demand for electricity driven by renewable energy and data centers.

Apar is doubling its capacity in Continuously Transposed Conductors (CTC) in order to cater to strong power transformer demand in India. CTC accounts for ~25% of the cost of a transformer. CEA has issued advisory to use CTC in transformers with rated current of 400A or more, aiding demand for the product.

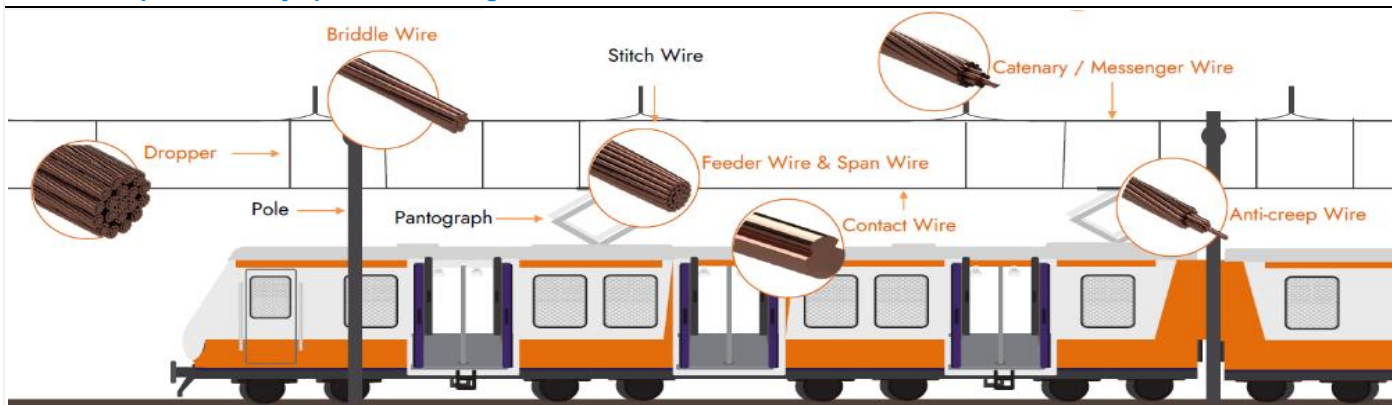
Exhibit 5: Copper CTC wiring in a power transformer



Source: Company, PL

Apar has ~70% market share in railway overhead conductors in India, having supplied 31K km out of 45K km of electrification. Huge capex planned to modernize rail infrastructure (Rs2.6trn allocated in FY25 budget) should drive demand for railway conductors. Furthermore, there is demand for copper conductors to support higher rail speed projects such as Vande Bharat and the bullet train.

Exhibit 6: Apar's Railways product offerings

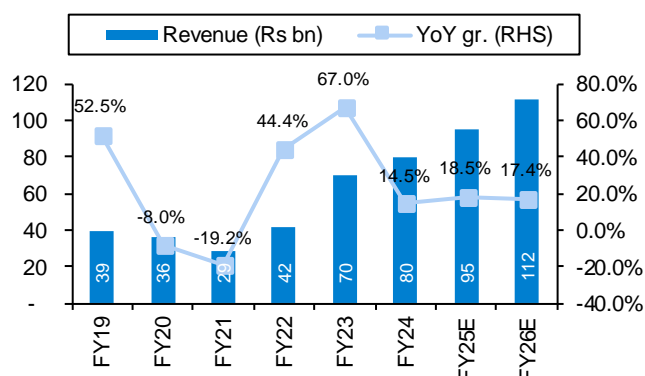


Source: Company, PL

Going forward, Apar will be focusing on 1) maintaining leadership & market share in core segments, 2) doubling capacity in copper bus bars, CTC/PICC conductors for transformers, and AL59/AAAC alloys and adding 10-15% capacity in conventional conductors YoY, 3) premiumization in domestic market with AL-59 and HTLS conductors, 4) increasing export presence with conventional conductors in U.S. and Europe, and 5) continued R&D to develop high performance products.

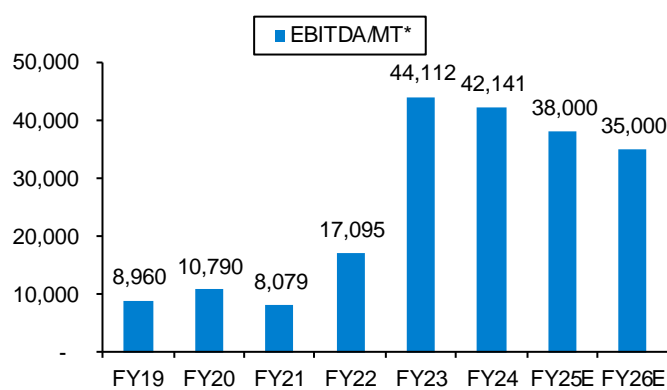
We expect Conductor segment to report revenue CAGR of 17.9% over FY24-26E driven by strong investments in T&D infrastructure, and EBITDA/MT (post-forex) to gradually fall to ~Rs35,000/MT by FY26 as competition picks up.

Exhibit 7: Conductors to report 17.9% CAGR over FY24-26E



Source: Company, PL

Exhibit 8: EBITDA/MT to taper down to ~Rs35,000/MT



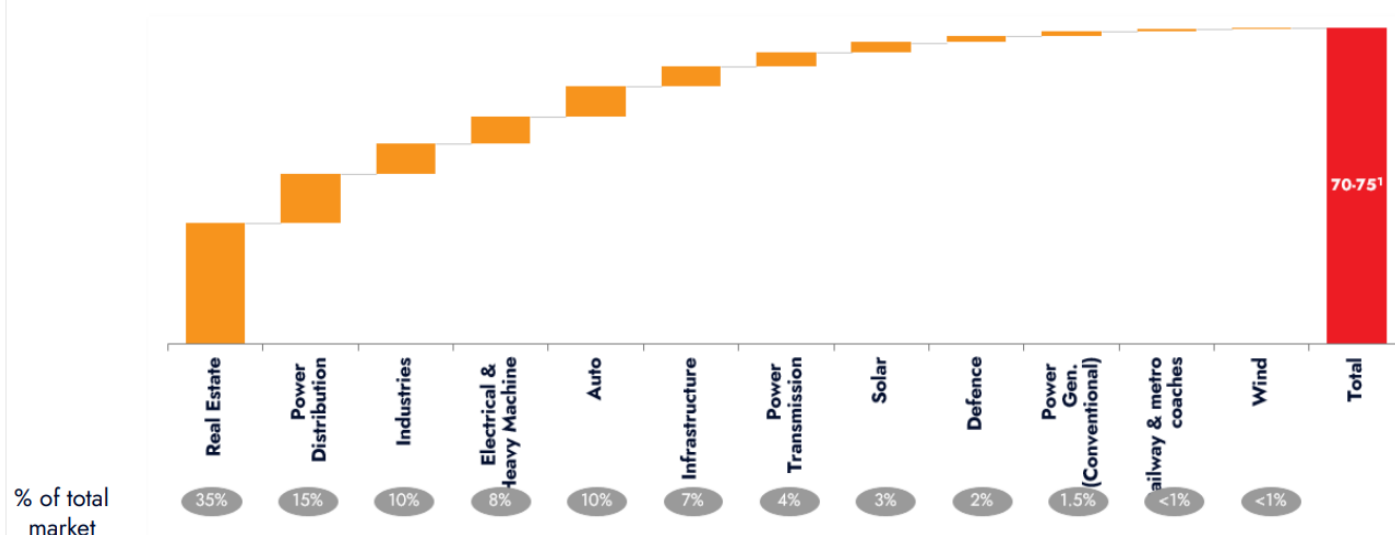
Source: Company, PL, EBITDA/MT* Post forex Adjustments

Cables: Scaling for leadership in a growing market

Apar entered the cables segment in 2008 by acquiring Uniflex Cables, and has rapidly scaled its operations from ~Rs1bn in sales with a negative bottom line to becoming the 6th largest cables player in India with Rs38.7bn sales (~23% of Apar's consol. sales) and Rs2.3bn PAT in FY24. The company recorded revenue CAGR of ~25% over FY20-24, making it the 2nd fastest growing player in the Indian market.


Exhibit 9: Indian W&C market stands at Rs700-750bn, with Real Estate, Power Dist. & Industries accounting for ~60%

India W&C market size, Rs Cr



Source: Company, PL

Exhibit 10: Apar's Cables product portfolio

| Power Cables & Wires | Elastomeric & E-beam Cables | House wires & Flexibles | Cables for USA Market  | Cable Harness |
|---|--|--|--|---|
| <ul style="list-style-type: none"> XLPE LV Power Cables XLPE MV Power Cables XLPE LV Control Cables Medium Voltage Covered Conductors (MVCC) LV & HV ABC Cables Instrumentation Cables Concentric Core (Anti-Theft) Cables Railway Signaling Cables Fire Survival Cables | <ul style="list-style-type: none"> Solar Cables Windmill Cables (72 kV) Locomotive Cables Ship Wiring Cables Trailing Cables Welding Cables Mining Cables LFH Cables & Wires EPR, Silicon, EVA Auto Cables | <ul style="list-style-type: none"> House Wires E-Beam Cross Linked House Wires 3 Core Flat Cables Round Multicore Flexible Cables Cat 6 LAN Cables CCTV Cables Coaxial Cables Telephone Cables | <ul style="list-style-type: none"> Building Wire <ul style="list-style-type: none"> RW75/RW90/RHH/RHW/RHW-2/XHHW/XHHW-2 Wire (UL - 44) USE/USE-2/SERVICE ENTRANCE SER & SEU Wire (UL - 854) THHN/THWN/THW/ THW-2 Wire (UL - 83) Sec. Underground (URD) / Service Drop Cables (As per ICEA) Renewable (Solar & Wind) PV Wire <ul style="list-style-type: none"> Single Core PV Wire (UL - 4703) Cables for power transmission <ul style="list-style-type: none"> UL1072 (XLPE) Power chords <ul style="list-style-type: none"> UL1650, UL1581 Industrial cables <ul style="list-style-type: none"> DG cables (UL3003) | <ul style="list-style-type: none"> Automotive & EV Locomotives Railway Coach Solar Projects Wind Projects Aerospace & ship building Data Centers Defence trucks & armed vehicles, communication systems |

Source: Company, PL

Apar has segmented its B2B institutional business into 8 verticals – solar, wind, power T&D, infrastructure and industries, defense and speciality, railways, OEMs (electrical & machinery), and automotive. The company is the market leader for in cables for wind (70-80% market share) and solar (20-25%), and is also the leading supplier of elastomeric cables across verticals such as defence, railways, etc.

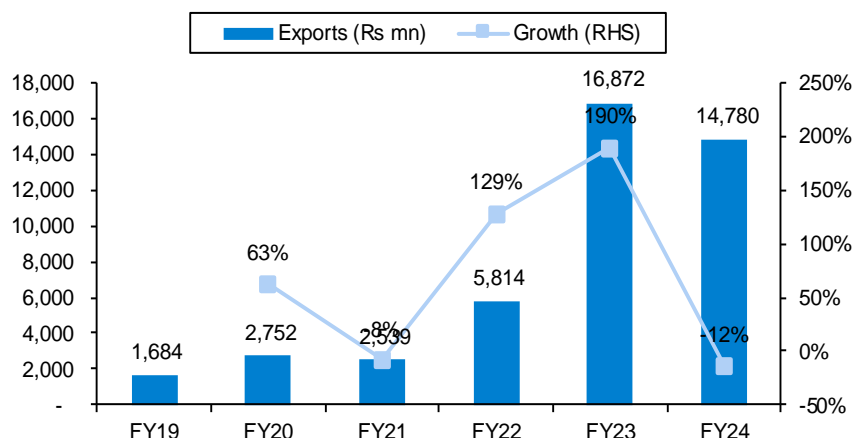
Exhibit 11: Opportunities across Apar's B2B institutional business

| Sector | Growth Drivers | Current APAR strength | Opportunities for APAR |
|-------------------------------|--|--|---|
| Solar | <ul style="list-style-type: none"> Govt. target to reach ~290 GW installed capacity by 2030 from 85 GW currently | <ul style="list-style-type: none"> 20%+ market share supplying to most of the top EPCs and developers BIS approved products | <ul style="list-style-type: none"> Leverage existing relationships for larger share in upcoming projects |
| Wind | <ul style="list-style-type: none"> Govt. target to reach ~100 GW installed capacity by 2030 from 45 GW currently | <ul style="list-style-type: none"> Market leader in India with 90%+ coverage across OEMs | <ul style="list-style-type: none"> Leverage presence and APAR Creds in sector to capture large potential in domestic as well as exports markets |
| Power T&D | <ul style="list-style-type: none"> Planned outlay of 3 lac Cr for RDSS scheme from FY22 to FY26 | <ul style="list-style-type: none"> Broad product portfolio including LT, HT, MVCC cables | <ul style="list-style-type: none"> Focussed market build for increasing MVCC sales across utility companies Explore expansion of product portfolio with EHV cables |
| Infra & industries | <ul style="list-style-type: none"> Continued Government spending on infra development Push from government for industries with PLI scheme (outlay of 2 lac Cr) | <ul style="list-style-type: none"> Supplier to top EPCs in infra segment (e.g., L&T, Tata Projects etc.) | <ul style="list-style-type: none"> Tap into white spaces across other infra EPCs and industrial clients spanning large projects |
| Defense and specialty cables | <ul style="list-style-type: none"> Government push for indigenization with large spending on Capex (2x in 6 years to 170k Cr in FY24) Record defense exports of 21k Cr in '24, target 50k by '29 | <ul style="list-style-type: none"> Presence across most public and private shipyards in Navy Offering of specialty cables for niche application (e.g., NPCIL approval) | <ul style="list-style-type: none"> Explore entry into supply for manufacturing of airborne platforms Long term partnership with key entities on co-development and supply of specialty cables |
| Railways | <ul style="list-style-type: none"> Substantial investment in rail and metro infra Push for further indigenization (e.g., Vande Bharat coaches) | <ul style="list-style-type: none"> Largest supplier for locos and coaches to railways in India | <ul style="list-style-type: none"> Expand market share further leveraging APAR approvals Expand reach to metro coaches and zonal railways |
| OEMs (Electrical & machinery) | <ul style="list-style-type: none"> Make in India initiatives and PLI scheme for manufacturing setup | <ul style="list-style-type: none"> Wide offering of elastomeric and specialty cables | <ul style="list-style-type: none"> Focussed entry into large machinery and equipment OEMs (e.g., elevators etc.) |
| Auto | <ul style="list-style-type: none"> EV penetration expected to increase multi-fold from 2% to 15% by 2030 Government incentive via FAME-II scheme (10k Cr budget) | <ul style="list-style-type: none"> Early entrant into EV space catering harness to EV buses | <ul style="list-style-type: none"> Leverage existing presence and harness capabilities to expand into other EV segments |

Source: Company, PL

After growing nearly 3x in FY23, Apar's cables exports fell ~12% in FY24 to Rs14.8bn owing to inventory de-stocking in US, eventually constituting 38% of Apar's cables (vs 52% in FY23). However, exports are set to recover, with Apar aiming for export share of 40-45% by FY29. Globally, the wires and cables market is valued at \$210-220bn, with a projected CAGR of 5-6% until 2029, providing ample room for growth. ~50% of the global market is concentrated in Apar's key target markets – U.S., Europe, and India.

Exhibit 12: Apar's cables exports declined in FY24 after a surge in FY22-23

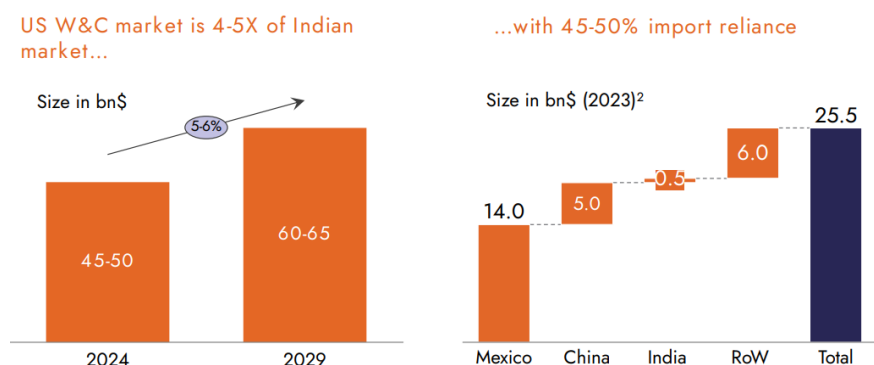


Source: Company, PL

The U.S. market is worth \$45-50bn and 45-50% is catered to by imports, with India accounting for \$0.5bn. The market is also expected to grow at a 5-6% CAGR till 2029, driven by 1) planned addition of 300-350 GW in solar & wind capacity by 2029, 2) upgradation of ageing grid infrastructure, 3) real estate investments, and 4) data center capacity expansion. Apar is well position to grow in U.S. given:

- It boasts the highest number of UL approvals (14) for cable supply to the U.S, covering all major sectors – solar, wind, real estate, etc.
- It is the largest supplier of solar cables from India to the U.S.
- Strong credentials from US customers – working with major EPCs & utilities, speciality distributors, etc.
- Favorable cost & duty structure, with U.S. imposing custom duties on certain cables imports from China (which accounts for ~\$5.0bn of U.S. cables imports).

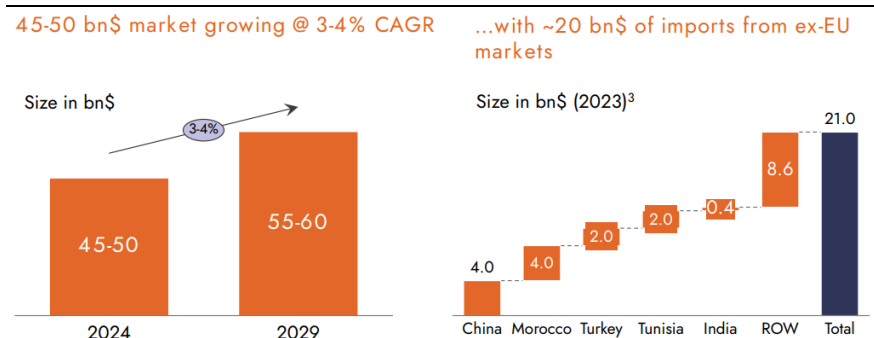
Exhibit 13: U.S. W&C market constitutes ~20-24% of the global market



Source: Company, PL

The European market, also valued at \$45-50bn, is expected to grow at a 3-4% CAGR until 2029, with significant opportunities in the renewable energy sector, including 200 GW of wind and 350 GW of solar capacity additions planned by 2029. Imports account for ~\$20bn led by China, while India contributes ~\$0.4bn. Apar is among the top 3 Indian players serving the European market and is well-positioned to capitalize on growing opportunities in renewable energy.

Exhibit 14: European W&C market constitutes ~20-24% of the global market



Source: Company, PL

Apar has the largest electron beam (E-beam) capacity in India with 5 machines. It pioneered the use of E-beam technology in house wires in India under its Anushakti brand. These wires are melt-resistant, capable of carrying ~50% more current, and offer a lifespan of up to 50 years. Anushakti generates Rs2.5-3bn in revenue and is sold across 5,893 retailers in India. Apar plans to increase the retail coverage to 30,000 in order to achieve Rs10bn sales by FY29. Given the strong prospects in the E-beam house wire segment, major players like KEI, RR, Polycab, and Finolex have also begun to enter the space.

Exhibit 15: Apar's B2C channel expansion – aiming for ~30K retailers by FY29

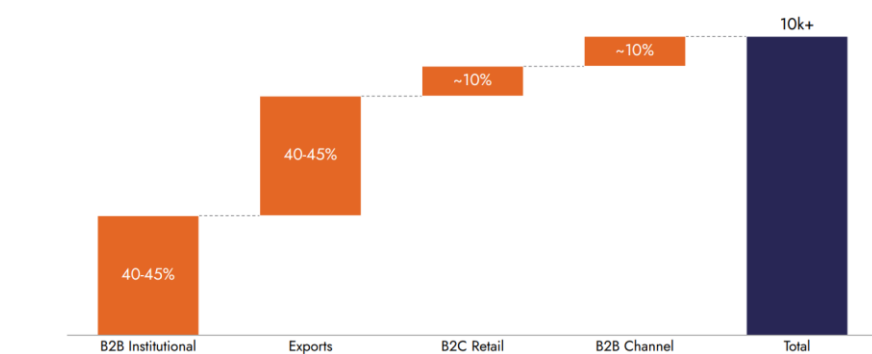
| Retail Business key metrics | FY 23 | FY 24 | Improvement over FY23 | FY29 |
|-----------------------------|-------|-------|-----------------------|--------|
| Distributor presence | 120 | 339 | +219 | 800 |
| District presence | 94 | 181 | +87 | 400 |
| Retail count presence | 2,395 | 5,833 | +3,438 | 30,000 |
| Active state presence | 13 | 18 | +5 | 30 |
| No. of Electrician | 73k | 109k | +36k | 300k |
| Demos | 35k | 77k | +42k | |
| Electrician Meets | 1,176 | 2,276 | +1,100 | |
| Nukkad Meets | 2,197 | 4,960 | +2,763 | |

Source: Company, PL

Apar is targeting to continue growing the Cables business at a ~25% CAGR over the next 5 years to reach ~Rs100bn in sales and become a top 3 player. To support its growth plans, the company is investing Rs6-7bn capex for a 43-acre greenfield expansion in Khatalwada, which will be operational by FY26 and will increase its revenue potential to Rs100bn. It is also doubling its capacity for copper wire drawing (essential for cables and house wires), investing in a new plant for extra high voltage (EHV) cables, and expanding its E-beam facilities.

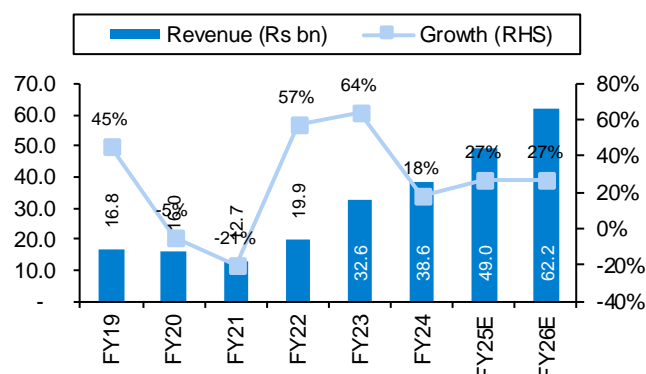
Exhibit 16: Estimated mix across channels to reach ~Rs100bn sales by FY29

Channel wise target, FY29 (Rs Cr)

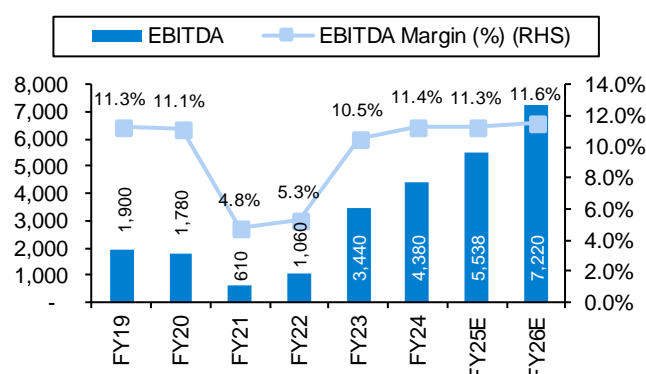


Source: Company, PL

We expect Cables to report a healthy ~27% revenue CAGR over FY24-26E, driven by 1) continued thrust on renewable energy across domestic & export markets, 2) significant investments in power T&D, defence, railways and infrastructure in India, 3) large capacity expansion to double revenue potential, and 4) focused efforts on growing B2C retail and B2B distribution channels.

Exhibit 17: Cables to report ~27% CAGR over FY24-26E


Source: Company, PL

Exhibit 18: EBITDA margin to remain steady till FY26


Source: Company, PL

Telecom Solutions: Capitalizing on network expansion

Apar is strategically positioned to leverage growing demand for high-speed internet and flexible low-latency connectivity. Increasing data consumption from activities like video streaming, gaming, and social networking, alongside future use cases such as AI, autonomous vehicles, IoT, and robotics, is fueling significant investments by telecom operators in newer technologies, network augmentation, and edge data centers for 5G services.

With global telecom capital expenditures expected to remain ~\$300bn annually (10-12% of revenue), there is sufficient room Apar to capture market share, particularly within India, which accounts for ~3.5% of global telecom capex.

Apar's Competitive Advantage in Telecom:

- Largest range of UL and CPR Certifications from India to address Last Mile European markets.
- Global access to all Power Utilities and EPC Companies in US & Europe to address evolving Telecom demand.
- Only Indian producer of Hybrid Cables – enabling faster cheaper and greener deployments for Telecom Towers/5G in US market.
- Only Indian company addressing growing demand of connectorized telecom cables for Renewable Energy and Oil & Gas sector
- Widest range of Fire Rated Cables – addressing increasing demand of safety standards.
- Business model efficiency – addressing new applications with in-house polymer-science knowledge and R&D, and leveraging combined facilities addressing specialized Telecom Cables for Defence/ISRO.

Exhibit 19: Apar's telecom solutions portfolio and end-markets

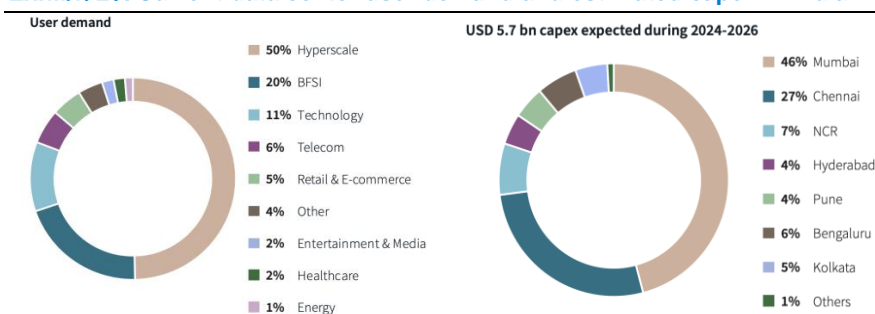


Source: Company, PL

To cater to the needs of 5G networks, Apar launched Hybrid Giga-Volt cables, combining fiber and copper conductors in one cable to deliver both power and data. This product, with global market potential of \$200mn per annum, has already seen adoption in the U.S., with Europe beginning to follow suit and India is expected to adopt within the next 1-2 years. Giga-Volt is expected to contribute ~15% of Apar's telecom sales in FY25.

Furthermore, in response to the burgeoning demand for data centers, Apar is investing in the manufacturing of data cables. India's data center market is set to double its capacity over the next 3 years, driven by \$5.7bn capex, and expand from its current concentration in 7 locations with hyperscale data centers to over 100 locations with edge data centers. Apar's facility for data cable production is already established, with revenue generation expected to commence in FY25.

Exhibit 20: Current data center user demand and estimated capex in India



Source: Company, PL

Exhibit 21: Apar is strategically aligned to upcoming industry investments

| | |
|----------------|--|
| Urban Networks | <ul style="list-style-type: none"> India: Tower Fiberisation will go up to 80% in next 5 years from existing 38% and plans to add 5 Mn homes on FTTH on annual basis - \$1 bn by 2030 APAR approved with all CSP's for Products and Services UK & EU plans to connect 95% Homes with 1 Gbps by 2030 – €50 Bn by 2030 APAR products certified with desired Global Standards to address this demand USA CSP's investing in 5G Networks and \$65 Bn BEAD program APAR already started supplying 5G products via strategic partnership in USA |
| | <ul style="list-style-type: none"> Bharat-Net - BSNL Rolled out tender worth 75,000 Cr for building more than 10 Lac KM of fiber network connecting more than 650,000 villages of India APAR working on this opportunity for both Product and Services Business MH and GJ States expecting tender for last mile connectivity for 10,000 Cr. in 6-12 months APAR getting strategically aligned with next set of partners |
| | <ul style="list-style-type: none"> Defence planning to spend 1,000 Cr towards fortification of borders with TAC OFC APAR got certified with DGQA for TAC OFC and ready with best possible capacity |

Source: Company, PL

Speciality Oils: Transformer-Oils to lead growth

Speciality Oil accounted for ~30% of revenue with EBITDA/KL of ~Rs6,935/KL in Q1FY25. Apar has a comprehensive range of over 350 products in speciality oils, process oils & lubricants. Despite having developed numerous grades, products are customized to meet the exact requirement of the end user. The company has multiple global approvals for speciality oils across major countries and OEMs, meeting various international standards.

Exhibit 22: Apar's range of products in Speciality Oils

| TRANSFORMER OILS | TECHNICAL GRADE WHITE OILS | PHARMACEUTICAL GRADE WHITE OILS | RUBBER PROCESS OILS |
|------------------|----------------------------|---------------------------------|---|
| 30+ grades | 15+ grades | 15+ grades | Used in EPDM, tyres and rubbers 15+ grades |

Source: Company, PL

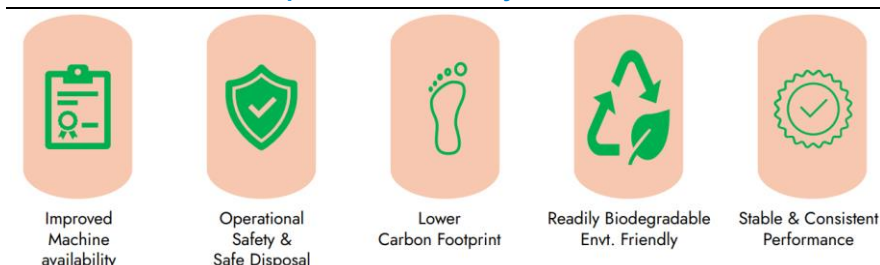
Transformer Oils: Fastest growing segment in Speciality Oils

Apar is the world's 3rd largest transformer oil (T-oil) manufacturer and the largest exporter of T-oils from India. It also commands ~85% market share in HVDC transformer oils in India. The sub-segment has grown at an ~18% CAGR over the past 5 quarters, and management expects it to grow at double digits in the medium to long-term (vs 5-8% CAGR for the overall Speciality Oils segment).

T-oil is used as a coolant & insulant in transformers and as a diagnostic tool to study transformer health. It accounts for just ~5% of transformer cost, but reliability is critical, given that transformers are expected to operate continuously for several years without changing the oil. Apar's T-oil demand mix is ~85/15% from new transformers vs aftermarket sales. T-oil sales tend to grow linearly with transformer demand, and therefore are set for healthy growth given the strong demand outlook for transformers led by large planned investments in power T&D infrastructure.

One of Apar's key innovations recently is the Synthetic Ester-based transformer oil, which use a natural and 100% biodegradable base, aligning with the company's sustainability goals by reducing carbon footprint. These oils offer a superior oxidation life of 400-500 hours and a high flash point exceeding 250 degrees celsius, making them ideal for use in ecologically sensitive areas, such as near water bodies, in mines, and in urban environments. Currently, Apar imports the natural base for this product but plans to produce it in-house following the expansion of its Rabale plant.

Exhibit 23: Benefits of Apar's sustainable synthetic ester



Source: Company, PL

White Oils: Focus on niche applications

Apar holds ~14% market share in the 950,000 MT global white oil market outside India & China, with exports of 130,000 MT in FY24 (evenly split between technical & pharmaceutical grade). Going forward, the company is focusing on enhancing its niche offerings, driven by innovative applications discovered by its R&D team such as using white oils in animal vaccines, coating eggs with white oil to extend their shelf life by 3-4 weeks, and dipping bread cutters in white oil to reduce stickiness.

Another promising area of growth for Apar in the white oils segment is hot melt pressure-sensitive adhesives, which is a niche high-margin product. The global market stands at ~\$10bn and is growing at a ~5% CAGR.

Chip Cooling Solutions: Transforming data center efficiency

With the data center industry growing rapidly, Apar is developing a new chip cooling solution using dielectric fluid to address the inefficiencies associated with traditional air-cooling methods.

The problem? Currently, ~90% of server farms rely on air cooling, which is highly power-inefficient as it consumes 40-50% of total facility energy (30-40% by air-conditioning systems, fans, and other associated air-handling equipment, and 5-20% by the devices' onboard fans). Furthermore, over 1/3rd of the space in data centers is dedicated to air-cooling infrastructure, including fans, filters, air conditioners, chillers, ductwork, and compressors.

The solution? Liquid immersion cooling dielectric fluids. These fluids are excellent conductors of heat and provide full insulation up to 60KV, while being biodegradable, non-toxic, and non-corrosive. Liquid systems also have much lower capital and operational costs compared to traditional air-cooling systems.

Exhibit 24: New chip cooling application being developed by Apar



Source: Company, PL

Exhibit 25: Apar's success stories in export markets for Speciality Oils

| | |
|--------------|---|
| Turkey | <ul style="list-style-type: none"> Bulk Storage (3500 MT) and local blending facility Market share – ~50% overall and ~85% in paraffinic grade Total volume 15000 MT and revenue over \$20mn |
| South Africa | <ul style="list-style-type: none"> Tie up with Engen – Apar provides RM/finished product in Flexi bags /ISO Tanks; Engen handles storage and marketing Apar is 1 of 2 companies with ESKOM approval and has 60%+ market share |
| Australia | <ul style="list-style-type: none"> Working with DKSH Australia – storage tanks with 2000KL capacity Market share – ~50% in T-oils and ~57 % in white oil Volume up 16% to 7,200MT in 2023 vs 6,175MT in 2021 |
| Malaysia | <ul style="list-style-type: none"> Have a local blending facility ~45% market share in T-oils FY24 volume was 1,450MT; FY25YTD is 600MT |
| UAE | <ul style="list-style-type: none"> Crossed sales volume of 100,000MT in FY24 Storage expansion project underway Over 70% market share in T-oil in the GCC |
| Saudi Arabia | <ul style="list-style-type: none"> Neom, Expo 2028 and FIFA World Cup in 2030 are driving infra investments Collaboration with Luberef (Aramco subsidiary) – manufacturing right across from Luberef refinery with direct pipeline transfer of base oil Will sell within Saudi market as well as North Africa as part of trade agreement |

Source: Company, PL

Lubricants: Leveraging strong market position in Agriculture

Apar is the 9th largest player in the 3MT per annum Indian lubricants market, where the top 10 players hold ~80% volume market share. It's business volume mix stands at 2/3rd automotive lubricants and 1/3rd industrial lubricants.

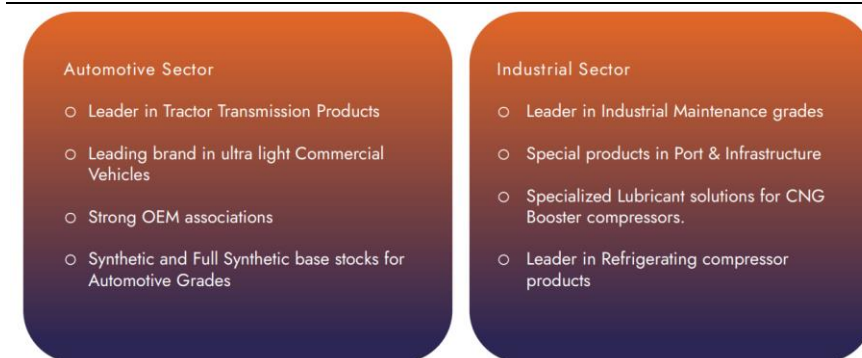
Apar is also the largest private player in the Indian market by volume of base oils, is among the top 3 players in the Agriculture segment and among top 3 private players in Industrial lubricants.

Exhibit 26: Apar's product offering in Lubricants



Source: Company, PL

Exhibit 27: Apar's areas of strength in Lubricants



Source: Company, PL

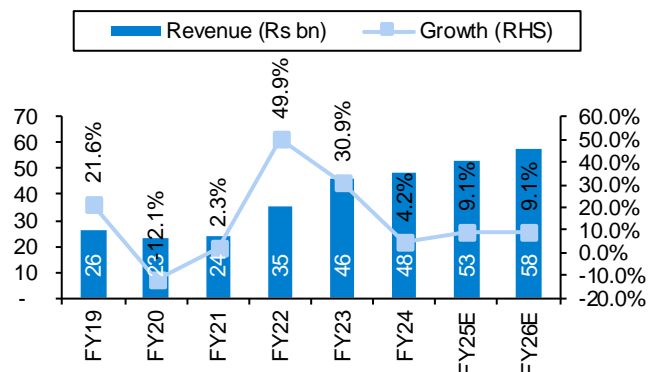
Indian lubricants market is expected to grow at a 3% CAGR over the next 5 years:

- Automotive lubricants is estimated to grow at a 2.5% CAGR led by demand in Agriculture and on-highway applications. ICE engines are expected to stick around for another decade before they start to taper from 2035 as EVs kick in.
- Industrial lubricants market is estimated to grow faster at a 4% CAGR driven by higher-end products including 1) high performance lubricants in Mining & Infrastructure, 2) speciality metal working fluids in manufacturing.

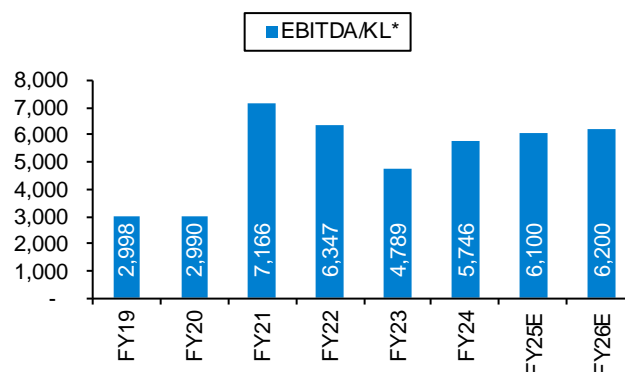
However Apar is expected to outgrow the industry rate by ~3x as it:

- Leverages its strong presence in agriculture tractor OEMs in India. Agriculture is a key growth market given it is one of the largest consumers of lubricants in auto space with 2.5% lube consumptions relative to fuel consumption vs <0.5% in the rest of the industry.
- Expands its export business with a focus on Middle East & Africa. The company is aiming for ~10% of lube sales to come from export markets.

Overall we expect revenue to grow at a 9.1% CAGR over FY24-26E largely led by T-oils along with decent growth in Lubricants, with EBITDA/KL of ~Rs6,100-6,200/KL for FY25-26E.

Exhibit 28: Speciality Oils to report 9% CAGR over FY24-26E


Source: Company, PL

Exhibit 29: EBITDA/KL to be in range of Rs6,100-6,200/KL


Source: Company, PL * EBITDA/KL Post forex adjustments

Outlook and Valuation

We believe that 1) robust T&D capex driving demand across segments, 2) focus on premium conductors in domestic market, 3) healthy traction in elastomeric cables used in renewables, defence and railways, and 4) market leadership in the growing T-oils business. will drive strong performance over the medium term. We expect Revenue/PAT CAGR of 18.9%/16.6% over FY24-26E (amid high EBITDA base). The stock currently trades at PE of 40.0x/32.2x FY25/26E.

Given that the stock has corrected slightly, we upgrade the rating to 'Buy' from Accumulate with an unchanged SoTP-derived TP of Rs10,399, valuing Conductors/Cables/Speciality Oil segments at 40x/43x/17x FY26E (same as earlier).

Exhibit 30: Conductors segment accounts for ~47% of SoTP

| | Segmental PAT Mar '26E (Rs mn) | Valuation basis | Target multiple (X) | Targeted Value (Rs mn) | Value/ Share |
|------------------------------|--------------------------------|-----------------|---------------------|------------------------|---------------|
| Conductors Segment | 4,959 | P/E | 40 | 198,367 | 4,938 |
| Cables Segment | 4,395 | P/E | 43 | 188,975 | 4,705 |
| Speciality Oil Segment | 1,786 | P/E | 17 | 30,364 | 756 |
| Total Target (Rs. Mn) | | | | 417,706 | 10,399 |

Source: Company, PL

Financials

Income Statement (Rs m)

| Y/e Mar | FY23 | FY24 | FY25E | FY26E |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Net Revenues | 1,43,363 | 1,61,530 | 1,94,365 | 2,28,543 |
| YoY gr. (%) | 53.9 | 12.7 | 20.3 | 17.6 |
| Cost of Goods Sold | 1,10,762 | 1,25,400 | 1,48,672 | 1,74,130 |
| Gross Profit | 32,601 | 36,130 | 45,693 | 54,413 |
| Margin (%) | 22.7 | 22.4 | 23.5 | 23.8 |
| Employee Cost | 2,205 | 2,889 | 3,401 | 4,000 |
| Other Expenses | 18,126 | 18,019 | 25,170 | 30,168 |
| EBITDA | 12,269 | 15,223 | 17,121 | 20,246 |
| YoY gr. (%) | 124.0 | 24.1 | 12.5 | 18.3 |
| Margin (%) | 8.6 | 9.4 | 8.8 | 8.9 |
| Depreciation and Amortization | 1,043 | 1,157 | 1,330 | 1,512 |
| EBIT | 11,226 | 14,066 | 15,791 | 18,734 |
| Margin (%) | 7.8 | 8.7 | 8.1 | 8.2 |
| Net Interest | 3,055 | 3,866 | 4,423 | 4,641 |
| Other Income | 375 | 864 | 739 | 914 |
| Profit Before Tax | 8,546 | 11,065 | 12,106 | 15,006 |
| Margin (%) | 6.0 | 6.8 | 6.2 | 6.6 |
| Total Tax | 2,168 | 2,807 | 3,051 | 3,782 |
| Effective tax rate (%) | 25.4 | 25.4 | 25.2 | 25.2 |
| Profit after tax | 6,377 | 8,257 | 9,056 | 11,225 |
| Minority interest | - | - | - | - |
| Share Profit from Associate | 0 | (6) | - | - |
| Adjusted PAT | 6,377 | 8,251 | 9,056 | 11,225 |
| YoY gr. (%) | 148.4 | 29.4 | 9.8 | 24.0 |
| Margin (%) | 4.4 | 5.1 | 4.7 | 4.9 |
| Extra Ord. Income / (Exp) | - | - | - | - |
| Reported PAT | 6,377 | 8,251 | 9,056 | 11,225 |
| YoY gr. (%) | 148.4 | 29.4 | 9.8 | 24.0 |
| Margin (%) | 4.4 | 5.1 | 4.7 | 4.9 |
| Other Comprehensive Income | - | - | - | - |
| Total Comprehensive Income | 6,377 | 8,251 | 9,056 | 11,225 |
| Equity Shares O/s (m) | 40 | 40 | 40 | 40 |
| EPS (Rs) | 158.8 | 205.4 | 225.4 | 279.4 |

Source: Company Data, PL Research

Balance Sheet Abstract (Rs m)

| Y/e Mar | FY23 | FY24 | FY25E | FY26E |
|---------------------------------------|---------------|---------------|-----------------|-----------------|
| Non-Current Assets | | | | |
| Gross Block | 14,828 | 18,310 | 21,310 | 24,310 |
| Tangibles | 14,814 | 18,281 | 21,281 | 24,281 |
| Intangibles | 14 | 28 | 28 | 28 |
| Acc: Dep / Amortization | 5,320 | 6,364 | 7,694 | 9,207 |
| Tangibles | 5,320 | 6,364 | 7,694 | 9,207 |
| Intangibles | - | - | - | - |
| Net fixed assets | 9,507 | 11,946 | 13,615 | 15,103 |
| Tangibles | 9,494 | 11,917 | 13,587 | 15,075 |
| Intangibles | 14 | 28 | 28 | 28 |
| Capital Work In Progress | 991 | 1,207 | 1,207 | 1,207 |
| Goodwill | - | - | - | - |
| Non-Current Investments | 67 | 97 | 74 | 74 |
| Net Deferred tax assets | (217) | (9) | (9) | (9) |
| Other Non-Current Assets | 1,153 | 1,155 | 1,361 | 1,600 |
| Current Assets | | | | |
| Investments | 501 | 34 | 34 | 34 |
| Inventories | 25,756 | 28,645 | 33,015 | 38,821 |
| Trade receivables | 32,256 | 39,404 | 47,393 | 55,101 |
| Cash & Bank Balance | 5,301 | 6,460 | 7,002 | 8,280 |
| Other Current Assets | 6,008 | 6,441 | 7,775 | 8,685 |
| Total Assets | 82,177 | 96,158 | 1,12,545 | 1,30,161 |
| Equity | | | | |
| Equity Share Capital | 383 | 402 | 402 | 402 |
| Other Equity | 21,981 | 38,363 | 44,702 | 52,559 |
| Total Networth | 22,364 | 38,764 | 45,103 | 52,960 |
| Non-Current Liabilities | | | | |
| Long Term borrowings | 2,151 | 3,946 | 3,846 | 3,696 |
| Provisions | - | - | - | - |
| Other non current liabilities | - | - | - | - |
| Current Liabilities | | | | |
| ST Debt / Current of LT Debt | 1,612 | 810 | 810 | 810 |
| Trade payables | 52,066 | 48,131 | 57,511 | 66,998 |
| Other current liabilities | 3,768 | 4,498 | 5,266 | 5,689 |
| Total Equity & Liabilities | 82,177 | 96,158 | 1,12,545 | 1,30,161 |

Source: Company Data, PL Research



Cash Flow (Rs m)

| Y/e Mar | FY23 | FY24 | FY25E | FY26E |
|---------------------------------------|----------------|----------------|----------------|----------------|
| PBT | 8,546 | 11,065 | 12,106 | 15,006 |
| Add. Depreciation | 1,043 | 1,157 | 1,330 | 1,512 |
| Add. Interest | 1,553 | 2,749 | 4,423 | 4,641 |
| Less Financial Other Income | 375 | 864 | 739 | 914 |
| Add. Other | 794 | 46 | - | - |
| Op. profit before WC changes | 11,936 | 15,017 | 17,860 | 21,160 |
| Net Changes-WC | (2,763) | (15,917) | (4,028) | (4,941) |
| Direct tax | 2,190 | 2,474 | 3,051 | 3,782 |
| Net cash from Op. activities | 6,983 | (3,374) | 10,781 | 12,437 |
| Capital expenditures | (2,467) | (3,296) | (3,000) | (3,000) |
| Interest / Dividend Income | - | 110 | - | - |
| Others | (222) | 505 | - | - |
| Net Cash from Invt. activities | (2,689) | (2,681) | (3,000) | (3,000) |
| Issue of share cap. / premium | - | 9,826 | - | - |
| Debt changes | (67) | 901 | (100) | (150) |
| Dividend paid | (574) | (1,530) | (2,717) | (3,367) |
| Interest paid | (1,200) | (2,845) | (4,423) | (4,641) |
| Others | - | - | - | - |
| Net cash from Fin. activities | (1,841) | 6,352 | (7,240) | (8,159) |
| Net change in cash | 2,453 | 296 | 541 | 1,279 |
| Free Cash Flow | 4,505 | (6,681) | 7,781 | 9,437 |

Source: Company Data, PL Research

Key Financial Metrics

| Y/e Mar | FY23 | FY24 | FY25E | FY26E |
|----------------------------|-------|---------|---------|---------|
| Per Share(Rs) | | | | |
| EPS | 158.8 | 205.4 | 225.4 | 279.4 |
| CEPS | 184.7 | 234.2 | 258.6 | 317.1 |
| BVPS | 556.8 | 965.0 | 1,122.9 | 1,318.5 |
| FCF | 112.2 | (166.3) | 193.7 | 234.9 |
| DPS | 38.1 | 40.0 | 67.6 | 83.8 |
| Return Ratio(%) | | | | |
| RoCE | 48.6 | 40.4 | 33.9 | 34.9 |
| ROIC | 48.4 | 37.1 | 29.8 | 30.9 |
| RoE | 32.3 | 27.0 | 21.6 | 22.9 |
| Balance Sheet | | | | |
| Net Debt : Equity (x) | (0.1) | 0.0 | (0.1) | (0.1) |
| Net Working Capital (Days) | 15 | 45 | 43 | 43 |
| Valuation(x) | | | | |
| PER | 56.8 | 43.9 | 40.0 | 32.2 |
| P/B | 16.2 | 9.3 | 8.0 | 6.8 |
| P/CEPS | 48.8 | 38.5 | 34.8 | 28.4 |
| EV/EBITDA | 29.3 | 23.7 | 21.0 | 17.7 |
| EV/Sales | 2.5 | 2.2 | 1.8 | 1.6 |
| Dividend Yield (%) | 0.4 | 0.4 | 0.8 | 0.9 |

Source: Company Data, PL Research

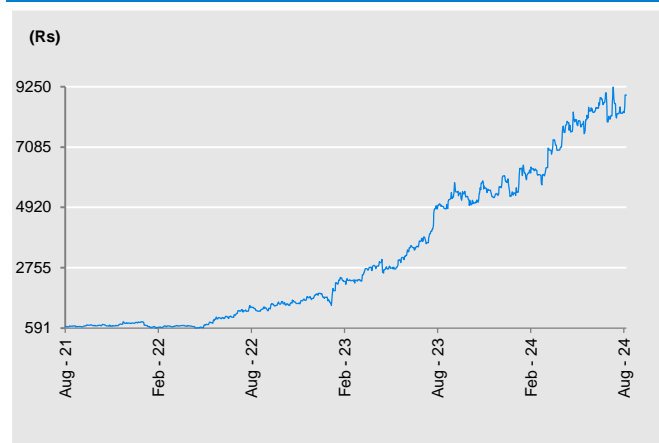
Quarterly Financials (Rs m)

| Y/e Mar | Q2FY24 | Q3FY24 | Q4FY24 | Q1FY25 |
|-----------------------------------|---------------|---------------|---------------|---------------|
| Net Revenue | 39,260 | 40,085 | 44,551 | 40,105 |
| YoY gr. (%) | 21.4 | 1.8 | 9.0 | 6.5 |
| Raw Material Expenses | 29,793 | 30,777 | 34,405 | 31,480 |
| Gross Profit | 9,467 | 9,309 | 10,146 | 8,625 |
| Margin (%) | 24.1 | 23.2 | 22.8 | 21.5 |
| EBITDA | 3,498 | 4,050 | 4,267 | 3,756 |
| YoY gr. (%) | 54.8 | 18.0 | 0.7 | 8.5 |
| Margin (%) | 8.9 | 10.1 | 9.6 | 9.4 |
| Depreciation / Depletion | 282 | 288 | 315 | 311 |
| EBIT | 3,216 | 3,762 | 3,952 | 3,445 |
| Margin (%) | 8.2 | 9.4 | 8.9 | 8.6 |
| Net Interest | 1,031 | 1,128 | 1,011 | 904 |
| Other Income | 188 | 210 | 275 | 162 |
| Profit before Tax | 2,373 | 2,844 | 3,216 | 2,704 |
| Margin (%) | 6.0 | 7.1 | 7.2 | 6.7 |
| Total Tax | 629 | 667 | 854 | 679 |
| Effective tax rate (%) | 26.5 | 23.5 | 26.6 | 25.1 |
| Profit after Tax | 1,744 | 2,177 | 2,362 | 2,025 |
| Minority interest | - | - | - | - |
| Share Profit from Associates | (5) | (1) | - | - |
| Adjusted PAT | 1,739 | 2,176 | 2,362 | 2,025 |
| YoY gr. (%) | 69.4 | 28.1 | (2.7) | 2.6 |
| Margin (%) | 4.4 | 5.4 | 5.3 | 5.1 |
| Extra Ord. Income / (Exp) | - | - | - | - |
| Reported PAT | 1,739 | 2,176 | 2,362 | 2,025 |
| YoY gr. (%) | 69.4 | 28.1 | (2.7) | 2.6 |
| Margin (%) | 4.4 | 5.4 | 5.3 | 5.1 |
| Other Comprehensive Income | - | - | - | - |
| Total Comprehensive Income | 1,739 | 2,176 | 2,362 | 2,025 |
| Avg. Shares O/s (m) | 38 | 40 | 40 | 40 |
| EPS (Rs) | 45.4 | 54.2 | 58.8 | 50.4 |

Source: Company Data, PL Research

Price Chart

Recommendation History



| No. | Date | Rating | TP (Rs.) | Share Price (Rs.) |
|-----|-----------|------------|----------|-------------------|
| 1 | 31-Jul-24 | Accumulate | 10,399 | 9,110 |
| 2 | 08-Jul-24 | Accumulate | 8,872 | 8,862 |
| 3 | 15-May-24 | Accumulate | 8,877 | 8,340 |
| 4 | 12-Apr-24 | Accumulate | 6,564 | 7,153 |
| 5 | 31-Jan-24 | Accumulate | 6,890 | 6,069 |
| 6 | 09-Jan-24 | Accumulate | 5,776 | 5,950 |
| 7 | 26-Oct-23 | Accumulate | 5,630 | 5,165 |
| 8 | 05-Oct-23 | Accumulate | 5,499 | 5,393 |
| 9 | 28-Sep-23 | Accumulate | 5,418 | 5,486 |

Analyst Coverage Universe

| Sr. No. | Company Name | Rating | TP (Rs) | Share Price (Rs) |
|---------|----------------------------------|------------|---------|------------------|
| 1 | ABB India | Accumulate | 8,833 | 7,972 |
| 2 | Apar Industries | Accumulate | 10,399 | 9,110 |
| 3 | BEML | Accumulate | 4,484 | 3,914 |
| 4 | Bharat Electronics | Accumulate | 341 | 321 |
| 5 | BHEL | Reduce | 264 | 309 |
| 6 | Carborundum Universal | Hold | 1,650 | 1,719 |
| 7 | Cummins India | Accumulate | 4,081 | 3,749 |
| 8 | Engineers India | Accumulate | 250 | 227 |
| 9 | GE T&D India | Hold | 1,601 | 1,585 |
| 10 | Grindwell Norton | Accumulate | 2,749 | 2,650 |
| 11 | Harsha Engineers International | Hold | 565 | 571 |
| 12 | Hindustan Aeronautics | Hold | 4,515 | 4,662 |
| 13 | Kalpataru Projects International | Accumulate | 1,413 | 1,327 |
| 14 | KEC International | Hold | 880 | 874 |
| 15 | Larsen & Toubro | BUY | 4,130 | 3,519 |
| 16 | Praj Industries | BUY | 804 | 700 |
| 17 | Siemens | Accumulate | 7,362 | 6,890 |
| 18 | Thermax | Reduce | 4,237 | 4,984 |
| 19 | Triveni Turbine | BUY | 719 | 619 |
| 20 | Voltamp Transformers | Accumulate | 14,922 | 13,177 |

PL's Recommendation Nomenclature (Absolute Performance)

| | |
|--------------------------|-----------------------------------|
| Buy | : > 15% |
| Accumulate | : 5% to 15% |
| Hold | : +5% to -5% |
| Reduce | : -5% to -15% |
| Sell | : < -15% |
| Not Rated (NR) | : No specific call on the stock |
| Under Review (UR) | : Rating likely to change shortly |



ANALYST CERTIFICATION

(Indian Clients)

We/I, Mr. Amit Anwani- MBA (Finance), Mr. Shirom Kapur- BSc, Passed CFA Level III, Mr. Prathmesh Salunkhe- MBA Finance Research Analysts, authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

(US Clients)

The research analysts, with respect to each issuer and its securities covered by them in this research report, certify that: All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and No part of his or her or their compensation was, is or will be directly related to the specific recommendation or views expressed in this research report.

DISCLAIMER

Indian Clients

Prabhudas Lilladher Pvt. Ltd, Mumbai, India (hereinafter referred to as "PL") is engaged in the business of Stock Broking, Portfolio Manager, Depository Participant and distribution for third party financial products. PL is a subsidiary of Prabhudas Lilladher Advisory Services Pvt Ltd. which has its various subsidiaries engaged in business of commodity broking, investment banking, financial services (margin funding) and distribution of third party financial/other products, details in respect of which are available at www.plindia.com.

This document has been prepared by the Research Division of PL and is meant for use by the recipient only as information and is not for circulation. This document is not to be reported or copied or made available to others without prior permission of PL. It should not be considered or taken as an offer to sell or a solicitation to buy or sell any security.

The information contained in this report has been obtained from sources that are considered to be reliable. However, PL has not independently verified the accuracy or completeness of the same. Neither PL nor any of its affiliates, its directors or its employees accepts any responsibility of whatsoever nature for the information, statements and opinion given, made available or expressed herein or for any omission therein.

Recipients of this report should be aware that past performance is not necessarily a guide to future performance and value of investments can go down as well. The suitability or otherwise of any investments will depend upon the recipient's particular circumstances and, in case of doubt, advice should be sought from an independent expert/advisor.

Either PL or its affiliates or its directors or its employees or its representatives or its clients or their relatives may have position(s), make market, act as principal or engage in transactions of securities of companies referred to in this report and they may have used the research material prior to publication.

PL may from time to time solicit or perform investment banking or other services for any company mentioned in this document.

PL is a registered with SEBI under the SEBI (Research Analysts) Regulation, 2014 and having registration number INH000000271.

PL submits that no material disciplinary action has been taken on us by any Regulatory Authority impacting Equity Research Analysis activities.

PL or its research analysts or its associates or his relatives do not have any financial interest in the subject company.

PL or its research analysts or its associates or his relatives do not have actual/beneficial ownership of one per cent or more securities of the subject company at the end of the month immediately preceding the date of publication of the research report.

PL or its research analysts or its associates or his relatives do not have any material conflict of interest at the time of publication of the research report.

PL or its associates might have received compensation from the subject company in the past twelve months.

PL or its associates might have managed or co-managed public offering of securities for the subject company in the past twelve months or mandated by the subject company for any other assignment in the past twelve months.

PL or its associates might have received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months.

PL or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months

PL or its associates might have received any compensation or other benefits from the subject company or third party in connection with the research report.

PL encourages independence in research report preparation and strives to minimize conflict in preparation of research report. PL or its analysts did not receive any compensation or other benefits from the subject Company or third party in connection with the preparation of the research report. PL or its Research Analysts do not have any material conflict of interest at the time of publication of this report.

It is confirmed that Mr. Amit Anwani- MBA (Finance), Mr. Shirom Kapur- BSc, Passed CFA Level III, Mr. Prathmesh Salunkhe- MBA Finance Research Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

The Research analysts for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

The research analysts for this report has not served as an officer, director or employee of the subject company PL or its research analysts have not engaged in market making activity for the subject company

Our sales people, traders, and other professionals or affiliates may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed herein, and our proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest.

PL and its associates, their directors and employees may (a) from time to time, have a long or short position in, and buy or sell the securities of the subject company or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company or act as an advisor or lender/borrower to the subject company or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

US Clients

This research report is a product of Prabhudas Lilladher Pvt. Ltd., which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution by Prabhudas Lilladher Pvt. Ltd. only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor.

In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, Prabhudas Lilladher Pvt. Ltd. has entered into an agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo").

Transactions in securities discussed in this research report should be effected through Marco Polo or another U.S. registered broker dealer.

Prabhudas Lilladher Pvt. Ltd.

3rd Floor, Sadhana House, 570, P. B. Marg, Worli, Mumbai-400 018, India | Tel: (91 22) 6632 2222 Fax: (91 22) 6632 2209

www.plindia.com