

Company: APD International Ltd (APDI)
Locations: Gloucestershire, UK/ Mikalov, Cz
Type: Third-party / Independent Remanufacturer (IR)
In reman: Since 1985
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Product

Electro-mechanical modules for mid /High Volume printing systems
Including Fusing and Xerographic module assemblies

Core Sourcing

Cores are collected from original equipment manufacturers (OEMs) via direct order

Business Model (including value chain and reman process)

APDI remanufactures electro-mechanical modules for OEMs in the printing industry. APDI has a wealth of experience in remanufacturing, who for many years have been implementing the strategies and principles of the Circular Economy. The company specialise in partnerships with Blue Chip O.E.M's developing remanufacturing programs by working closely with product engineering and Field Service / Support organisations including the Supply Chain.



APDI produces 150,000 remanufactured units annually to support the service community within the printing industry. Cores are obtained from OEMs via direct order. OEMs collect the cores through maintenance service contracts associated with printers either sold or leased to their customers. APDI remanufactures the units to OE standard with the same warranty (based on prints count) as new products. The remanufactured items are returned direct to OEM's.

After receipt of incoming cores, the remanufacturing process starts with inspection of the cores to determine if they are viable for remanufacturing. The remanufacturable cores are then stripped down, cleaned, and the components are assessed for reuse or replacement with new parts. The next step is to reassemble the cores as per work instruction followed by stringent testing to ensure that the remanufactured product meets OE performance. Once tested and approved the remanufactured product is packed as per customer requirements and labelled appropriately for full traceability before despatch. The remanufacturing processes are specifically designed to meet the needs of each customer, and will include a variety of operations and controls, appropriate to each particular product.

The rationale behind the business model is to improve their customer's profitability by reducing service contract maintenance cost by utilising the lower cost remanufactured product.

The biggest challenges to the remanufacturing business model is maximisation of the return stream and financial viability of remanufactured product versus new buy. Design development by OE manufacturers strive to reduce initial product costs sometimes achieved by utilising manufacturing process that do not lend themselves to re manufacturing, welding instead of mechanical fixings as an example. Although industry is being encouraged to design for remanufacturing, commercial pressures for competitively priced products at point of sale still conflicts with remanufacturing goals.

APDI sees high calibre personnel, facility and production methods as key resources to an efficient remanufacturing business. The company needs the right information from their customers, the right production environment and experienced personnel in order to develop stable and repeatable remanufacturing output. The business growth strategy for the company is to find new markets in other sectors where APDI's expertise can be applied to products currently not considered for remanufacture. Particularly where the OEM has no current manufacturing capability in Europe or North America. Logistics cost to return product to the Far East outweigh the benefits. However, local remanufacturing in Europe in partnership with the OEM can deliver commercial benefits to both parties.

Economic Benefits

The strategy of APDI is to deliver a remanufactured product at least 40% cheaper than new buy. The APDI process offers their customer a remanufactured product, as good as new, at the lower price. At the same time reducing waste stream disposal costs.



In some circumstance significant supply chain flexibility can be achieved if additional product is urgently needed. Local remanufacturing can shorten out-of-service time by delivery of product quicker than acquiring additional new products from the supply chain in the Far East.

Environmental Benefits

The environmental benefit with the business model is that APDI is able to return significant amount of materials back into active service eliminating their replacement with new materials thus reducing energy consumption. APDI have been at the forefront of the remanufacturing/recycling industry for over 25 years, saving over 100,000 tonnes of metal and plastics to landfill in the past 10 years alone.

Social Benefits – Jobs, Upscaling, etc.

With the growth of its remanufacturing business, it has increased job opportunities in the European community. Currently, APDI has 40 – 50 employees in their remanufacturing sites in UK and Czech.

Advanced Materials Recovery

Yes, advanced materials such as alloys, rare earth metals etc. will be reused within the remanufacturing process or recovered for recycling and reuse.