



PROCESSING & PRECISION MACHINES



STATE OF THE MARKET

Increasing urbanization and growing personal disposable incomes are driving the global demand for easily accessible processed and packaged foods. Companies across industries are therefore exploring services and solutions that enable them to capitalize on the emerging sales opportunities. Internally, the focus is on replacing aging machinery with modern processing and precision outfits that deliver high throughput without compromising on quality.

Despite cost challenges, companies' priorities are unlikely to change in the near future. Instead, they will strive towards reducing the human intervention, standardizing output quality through automation, and diminishing total cost of ownership (TCO) through predictive maintenance.

SERVICE OFFERINGS

L&T Technology Services (LTTS) offers value-optimized design services that do not compromise on functionality, enable failure analysis and resolution, and ensure standardization and operational efficiency. These services range from concept creation to development of manufacturing drawings for primary, secondary and tertiary packaging machines. We aim to deliver low-cost automation support for packaging lines, along with precision mechanisms for varied products, tools and equipment. This also includes software testing and validation for automated systems.

Our advanced machine vision engineering capabilities enable us to provide retrofitted and customized solutions for inspection. We design Clean in Place and Sterilization in Place (CIP/SIP) systems to ensure high standards of hygiene and safety are maintained for all equipment. By incorporating sensors into our equipment designs, we also help processing manufacturers perform remote monitoring and leverage data analytics.

KEY SEGMENTS & SERVICE OVERVIEW



Packaging Machinery



Food and Dairy Processing



Material Processing Machinery



Textile Machinery

PRODUCT DEVELOPMENT

- ETO/CTO
- Concepts development
- Mechanical, CFD, plastic design
- Control and automation
- Design for 3A/USDA/PMMI standards
- Connected machines and mobility enablement
- Support for certification
- Test jig design and development
- Prototyping and testing

PRODUCT ENHANCEMENT

- Value engineering
- Technology upgradation
- Reverse engineering and benchmarking
- Retrofit solution for installed machines
- Conformance to international standards
- Performance improvement and standardization
- Variant addition
- Energy efficient design
- Software porting

PRODUCT SUSTENANCE

- ETO/CTO
- Field failure analysis and resolution
- Technical publications
- Sourcing support
- Pre-compliance and certification support
- RoHS/REECH compliance
- Engineer to order/custom to order
- Test automation
- Product testing services

KEY DIFFERENTIATORS



Strong capabilities in motion control algorithm development



150+ engineers with expertise in control and automation



Technology partnerships with universities



Machine vision solutions for packaging machinery



10+ machine safety certified engineers



120+ SAVE certified engineers for VAVE programs



Advanced tools for machine design

BENEFITS

- Maximize shelf life by availing our extensive experience in designing CIP/SIP and safety functions and delivering retrofit solutions for smart packaging systems development
- Increase overall equipment effectiveness, enhance functionality, and reduce TCO through our value optimized design services
- Automate manual processes and integrate dynamic predictive maintenance solutions to extend equipment life, reduce servicing costs, eliminate dependence on human operators, and ensure consistency across the production lifecycle

CASES



Designed and developed a bag inspection system capable of processing 160 bags per minute. Developed and integrated a patented, highly accurate leakage detection system, and reduced TCO to under \$5,000.



Designed an automated turkey unpacking system capable of removing tear film wraps without damaging the product. Integrated a single drive for fulfilling 3 functional requirements, and ensured that the design is in line with CIP requirements.



Redesigned an existing 5-lane potato halver and converted it into a 2-lane unit capable of handling larger volumes. Integrated a smart assembly to facilitate shifting between discharge and drive side with minimal effort. Created a centralized CAD database, standard parts catalog, and delivered design suggestions for future versions of the machine.

For more information visit us at www.Inttechservices.com

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About L&T Technology Services

L&T Technology Services Limited is a subsidiary of Larsen & Toubro Limited with a focus in the engineering services space, partnering with over 50 Fortune 500 companies. A leading pure-play Engineering, Research and Development services company, we offer design and development solutions through the entire product development chain, across various industries such as Industrial Products, Medical Devices, Transportation, Telecom & Hi-tech, and the Process Industry. We also offer solutions in the areas of Mechanical Engineering Services, Embedded Systems & Applications, Engineering Process Services, Product Lifecycle Management, Engineering Analytics, Power Electronics, Machine-to-Machine (M2M), and the Internet-of-Things (IoT).