



RAPTECH[®]
ENGINEERING PVT. LTD.
DIGITAL BROCHURE

Who We Are

**AN INDIAN
BRAND
PROVIDING
CUSTOMISED &
TECHNICALLY
FEASIBLE
ENGINEERING
SOLUTIONS TO
GLOBAL
AUTOMOTIVE
GIANTS,
SINCE
1995.**



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About Us

Raptech Engineering Pvt. Ltd. is a manufacturing company that provides

**Customized
Quality
Engineering
Solutions**

&

...we believe in
Continuous Improvement of
our Processes, Technology,
Infrastructure & People.

Milestones



1995

A dream is realized :

Late Mr. Sitaram Borahade, an ITI Holder & Machine Operator, sets up **Nitin Engineering** in 85 sq. ft. with just a single lathe machine.

Won our **first Automotive Customer - Mercedes Benz** and grew further with **Volkswagen, Tata Motors & GMI.**

2000-2007

2007-2009

Along with tool room solutions, we diversified into customized fabrication solutions, adding **30,000sq.ft** to our workflow.

'Nitin Engineering Works' rebranded to **Raptech Engineering Pvt. Ltd.** And became a preferred supplier for all major OEMS (like Volkswagen, Tata Motors, Fiat, Ford, Mahindra).

2011-2014

2015 - 2017

Exports grew by 25%. Strategic Co-operation with **Bloksma, Automation Technik** and other EU clients.

Began operations at **Chakan** with a **70,000sq.ft.** workflow. Faster production achieved with machines like **BLM, Sheet + Tube cutting & a Robotic Welding setup.**

2018 - 2022

Growth in export business, revenue and team strength.

Our Approach

**We believe in
Continuous
Improvement,
'Sleeve-up'
Approach,
Teamwork**

&

**A Commitment
to Support.**



Why Choose Raptech

**Thoughtful
design driven
engineering
solutions,
manufactured
at scale.**

Complete support for
designing, prototyping and
execution of engineering
solutions.



Infrastructure

Raptech's setup comprises of different kinds of machines which enhance manufacturing quantity with quality.

Two plant locations spread across 100,000 sq. ft. & a skilled team of over 200.



Raptech
Unit 1 - Dhayari



Raptech
Unit 2 - Chakan

Machine Armory



Unit 01 Machines

Raptech started with just one grinding machine.

Today we have a well equipped, advance tool room setup to carry out customised & precise tasks.

1) Vertical Machining Centers

- **YAVU BMV5ITC24** - 2 machines
- **XTRON 955TC24** - 2 machines
- **CHAKRA BMV60TC24**

- 635V DMG MORISEKI

BFW**DMG****MORI SEIKI**

(Accuracy range of 0.01 mm & Max bed size of 1 mtr length x 0.6 mtr width)

- The latest CAM software like **MASTER CAM & DELCAM**

2) Conventional Tool Room Machines

- **Lathe Machine** - 2 machines
- **BFW Milling Machine** - 3 machines
- **HAUSER Jig Boring Machine**
- **Drilling Machine** (Argo & DRO)

(Accuracy range of 0.01-0.020 mm & Max bed size of 1.2 mtr length x 0.8 mtr width)

- **CHURCHILL** Cylindrical Grinding Machine
(Max size \varnothing 250 x 800 mm length with an accuracy of 5 - 10 microns)
- **ALEX** Rotary Grinding Machine
(Max size \varnothing 640 x 250 mm height with an accuracy of 5 - 10 microns)
- **ALEX** Surface Grinding Machine
(Max size 500 L x 200 W x 250 H (mm) with an accuracy of 5 - 10 microns)

3) Inspection Equipments

- **CMM ABSOLUTE ARM 83** (RA8325 - 6Axis)
With a measuring envelope - 2500 mm
- **Maximum Reach** - 2730 mm
- **Probing Volumetric Accuracy** (ISO 10360) - 0.046 mm

**HEXAGON**

- **ULTIMA M700 Height Gauge** - 2 machines
With a resolution- 0.010 / 0.005 / 0.001 / 0.0005 / 0.0001 mm and a repeatability of (2 μ m)



Machine Armory

Unit 02 Machines

Our unit 2 facility - a dedicated fabrication unit, helps us accomplish mass production demands, with the following cutting-edge machines.

1) Sheet + Tube Laser Cutting Machine

- **BLM** LC5 Laser Cutting Machine from Italy



2) CNC Press Brake

- 260 T Hydraulic operated **ERMAKSAN** Press Break (Bending Machine)
- Capable of bending sheets upto 10 mm thick and 3 mtr long in one stroke

3) Sheetmetal Shearing Machine

- **ADH** Shearing Machine
- Capable of cutting sheets from 0.5 mm to 8 mm thickness in single cut of 3 mtrs long, within ± 0.1 mm accuracy

4) Welding Robots

- **ARI440 YASKAWA** - Reach - 1.4 mtr | Axes - 6 | Payload - 12 kg
- **MR3120 YASKAWA** - Reach - 3.2 mtr | Axes - 6 | Payload - 20 kg

YASKAWA

- **R - 2000iA/165F FANUC** - Reach - 2.6 mtr | Axes - 6 | Payload - 165 kg

FANUC



OUR NICHE SOLUTIONS

For The Logistics & Automotive Industries

- 1 Customised Material Handling
Trolley & Pallets**
- 2 PaintShop
Jigs & Skids**
- 3 Fixturing & Allied
Solutions**
- 4 Vehicle Assembly
Tooling**
- 5 SPM & Automation
Solutions**
- 6 EPP Trays & Plastic Molding
Parts**

Always aiming to provide
thoughtful solutions to client's
complex requirements!

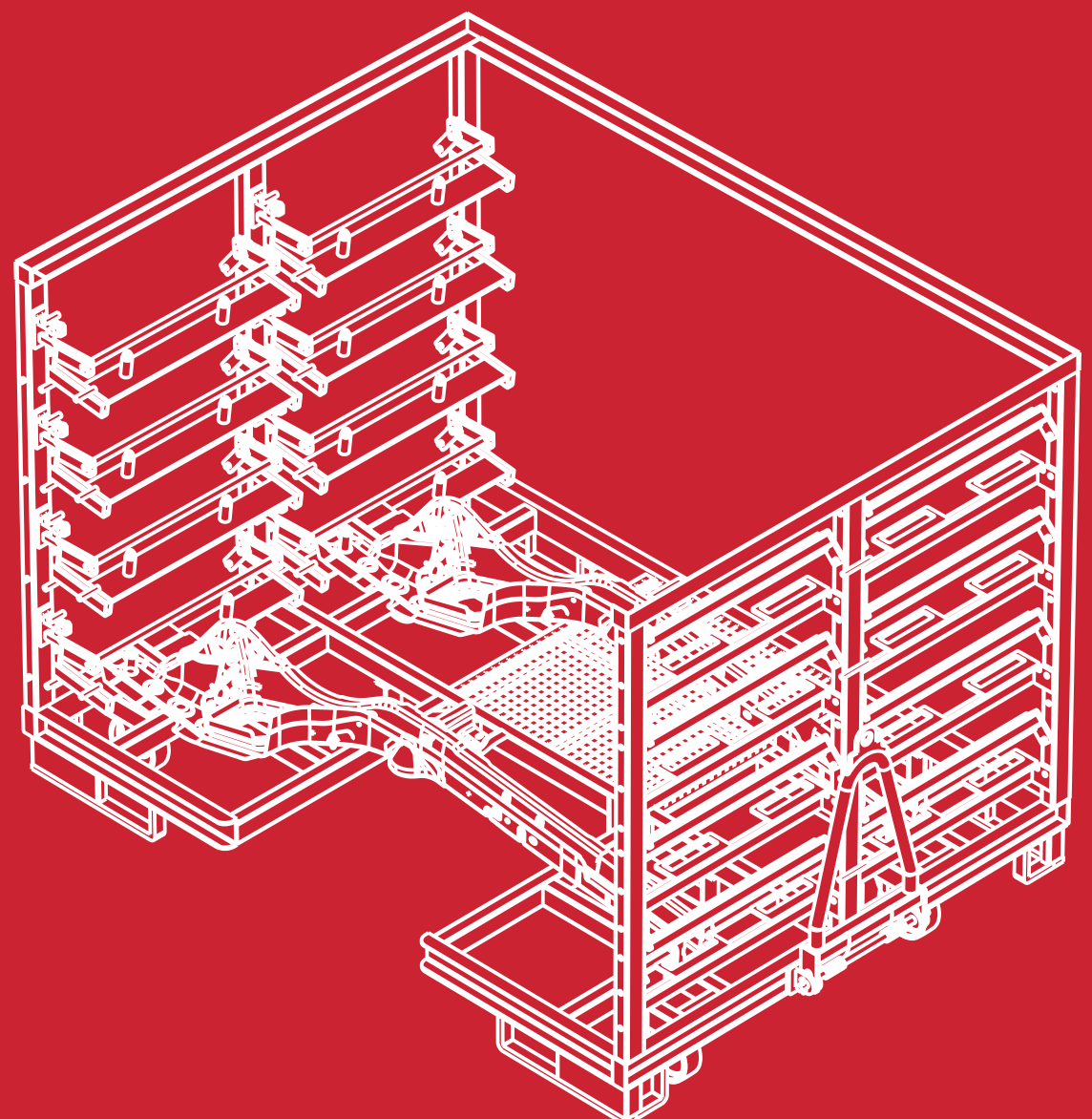
Material Handling Solutions

Our engineered material handling solutions are designed, keeping the customers' needs in mind at every step of the production, thereby saving him time and money.

We don't just provide a fabricated pallet, but a solution that has a design vision, matched with engineering expertise.

Why Raptech Material Handling Solutions are preferred

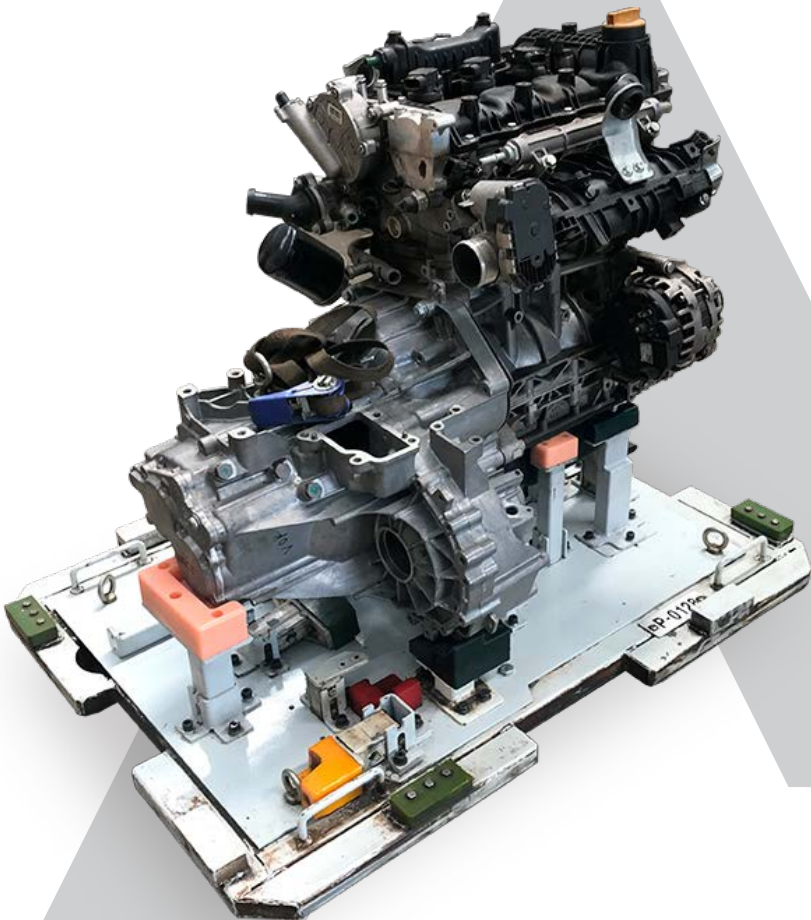
1. We can efficiently match the speed of OEM's frequent cycle change with robust and technically sound material handling solutions.
2. All our material handling solutions are designed based on the strong engineering principles of product orientation, resting, ease of handling, optimum space utilization and transport precision needs.
3. Our advance cutting solutions like laser cutting machines, robotic welding etc. support faster production and speedy delivery.
4. Our design process is iterative. We design a material handling product based on the client requirement, prototype it and fine-tune it till we achieve the perfect solution that is precise, optimum, reusable and easy to handle.
5. We can provide precise refurbished material handling solutions like trolleys and pallets as per OEM's design needs.



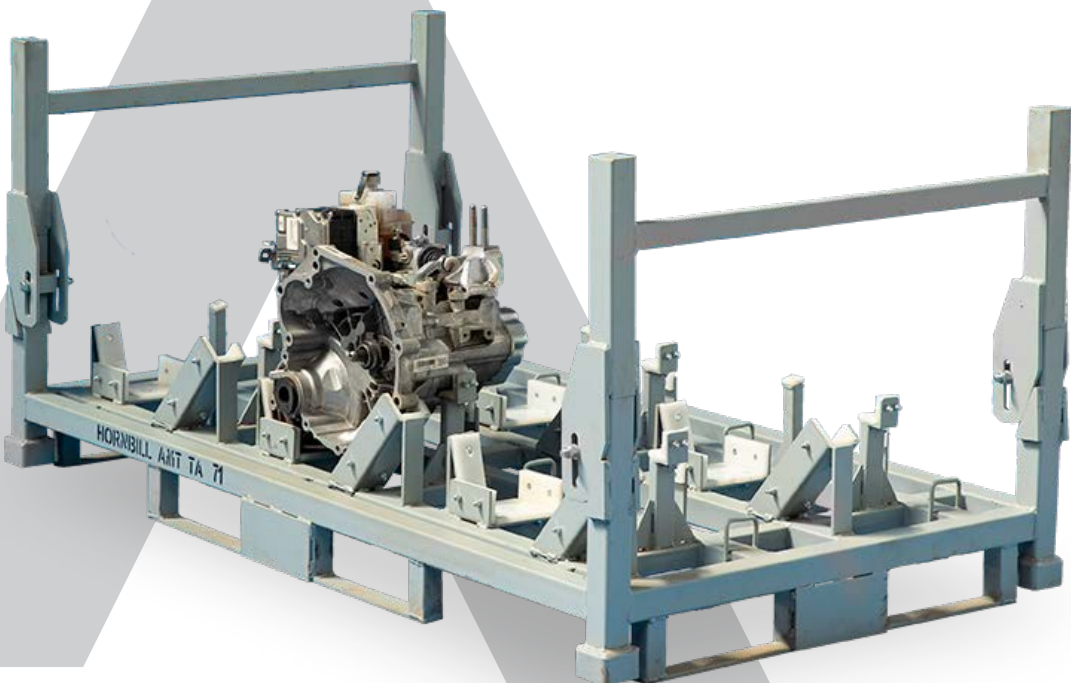


Material Handling Solutions

Pallets



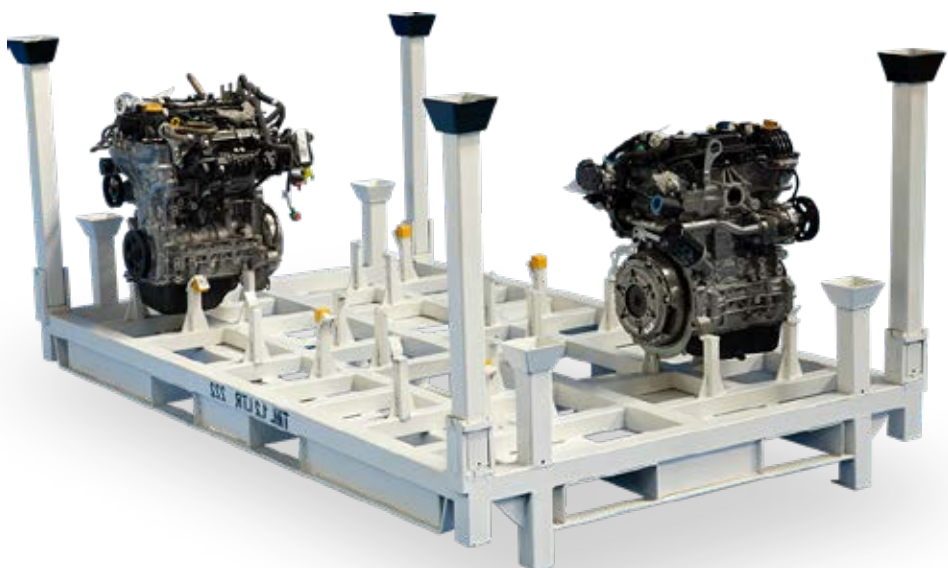
ASRS Pallet for PWT Storage
(Common for 6 Nos. of Variants)



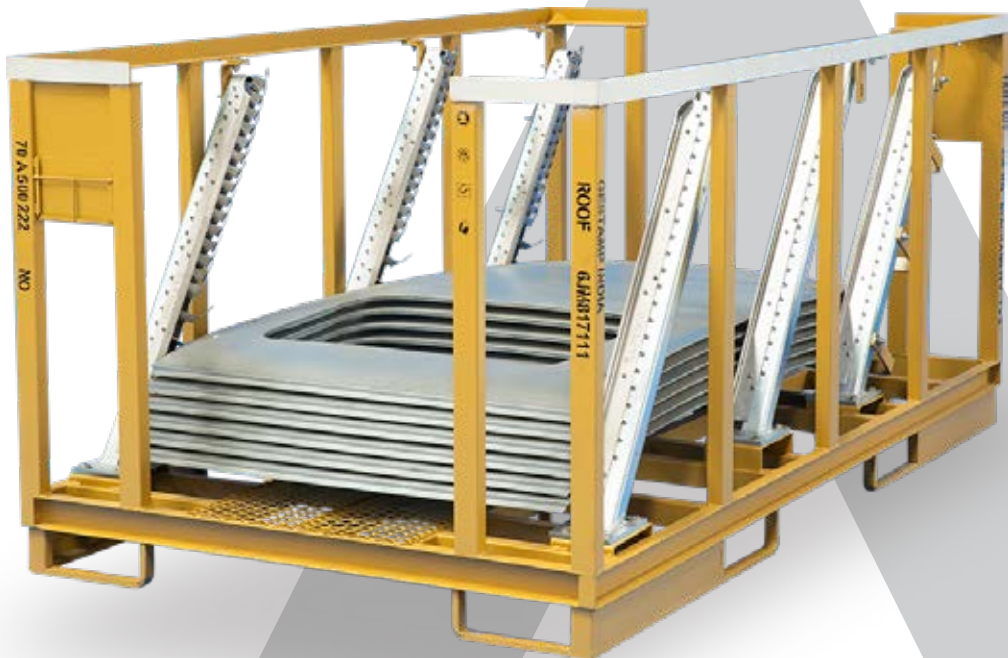
Transaxle Handling and Transport Pallet



Engine & Transmission Storage
and Transport Pallet



Engine & Transmission Storage
and Transport Pallet (Common
for 3 Engines & 4 Transmissions)



Car Roof Handling Pallet



Material Handling Solutions

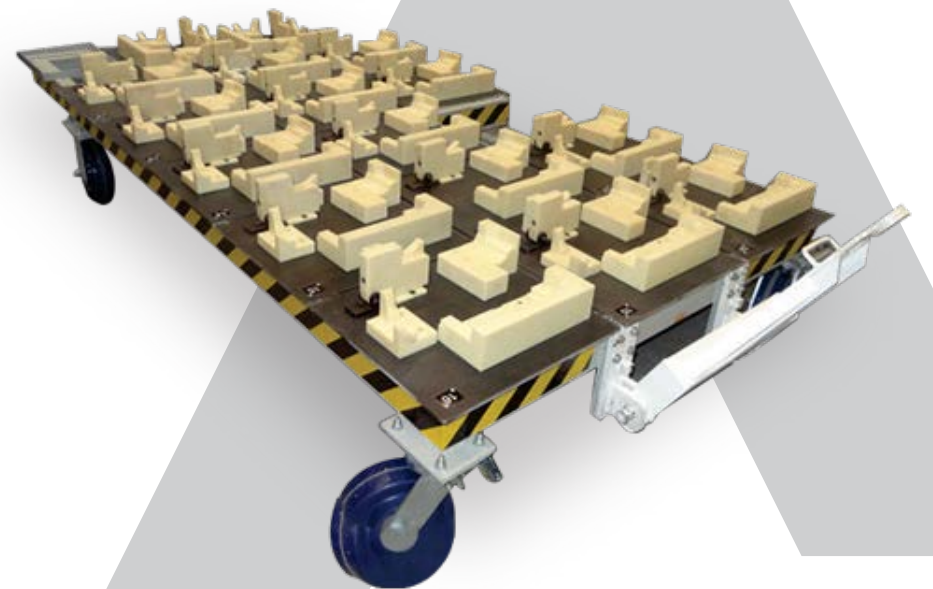
Trolleys



Front End Carrier Storage & Transport Trolley



A Pillar Lower LH / RH Handling Trolley



Gear Box Handling Trolley



Dashboard Panel Storage & Transport Trolley



Door Panel Storage & Transport Trolley

Paint Shop Solutions

Paint Shop Jigs are essential to ensure even and flawless painting of vehicle bodies. This is one of the most critical solutions that Raptech provides in the automotive sector. At Raptech, we create metal and plastic Paint Shop Solutions, specially designed for robotic painting.

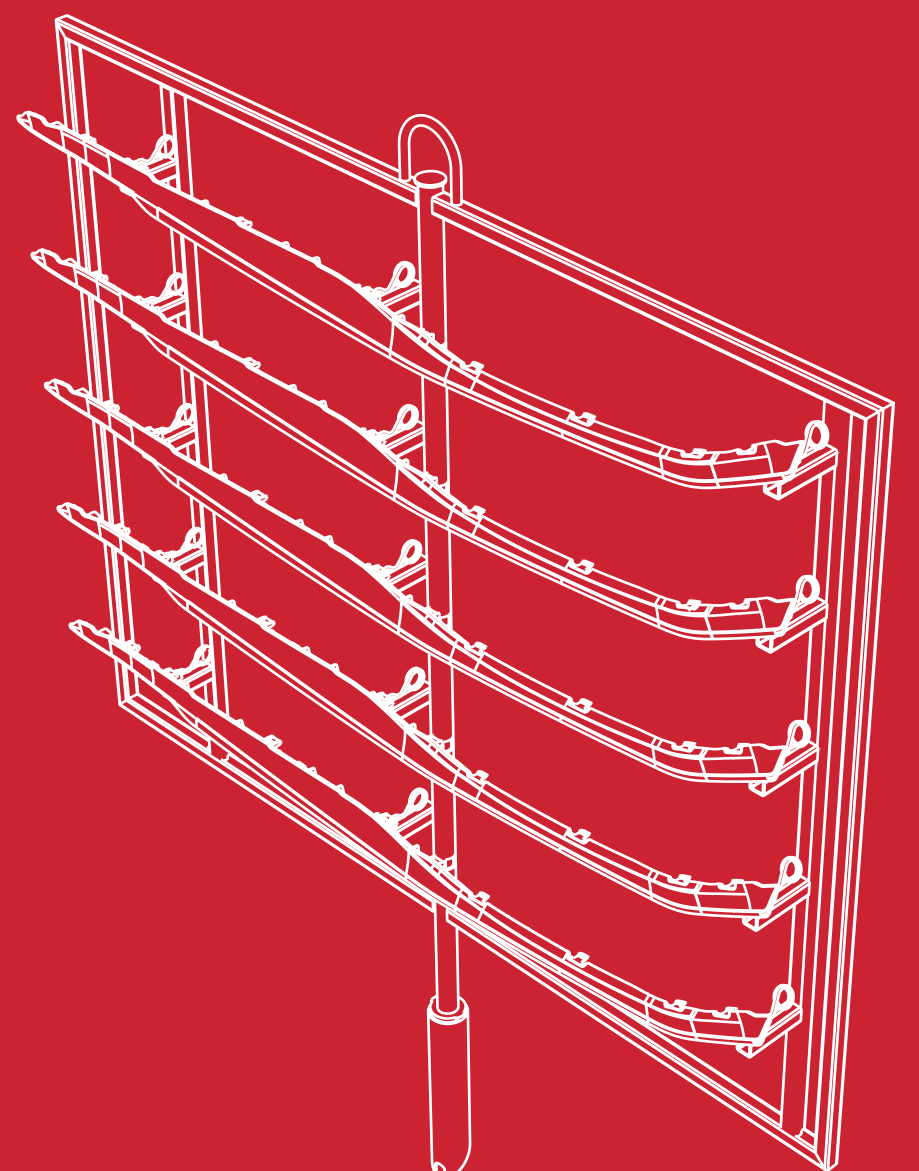
Based on our industry experience and technical know-how, we are a preferred partner for automotive OEM's paint shop requirements.

Right from the design to sample products, we keep the activity completely customer-centric. The design keeps evolving according to the client needs and trial results.

The final products that we deliver are always meticulously designed, tailor-made as per customer's requirement and contribute in optimizing their operations.

Why Raptech Paint Shop Solutions are preferred

1. Metal and plastic paint shop solutions that are sturdy and reusable.
2. Customized paint shop solutions for robotic painting and manual painting.
3. We also create on-assembly customized paint shop solutions that ease robotic painting for A class parts in automotive industry.
4. Can handle global requirements with customisation at competitive pricing.





Paint Shop
Solutions

Hangers



Customised Bin For Master
Cylinder Washing



Decorative Part - Driver Side
Painting Hanger



Rear Bumper Painting Hanger



Front Bumper Painting Hanger

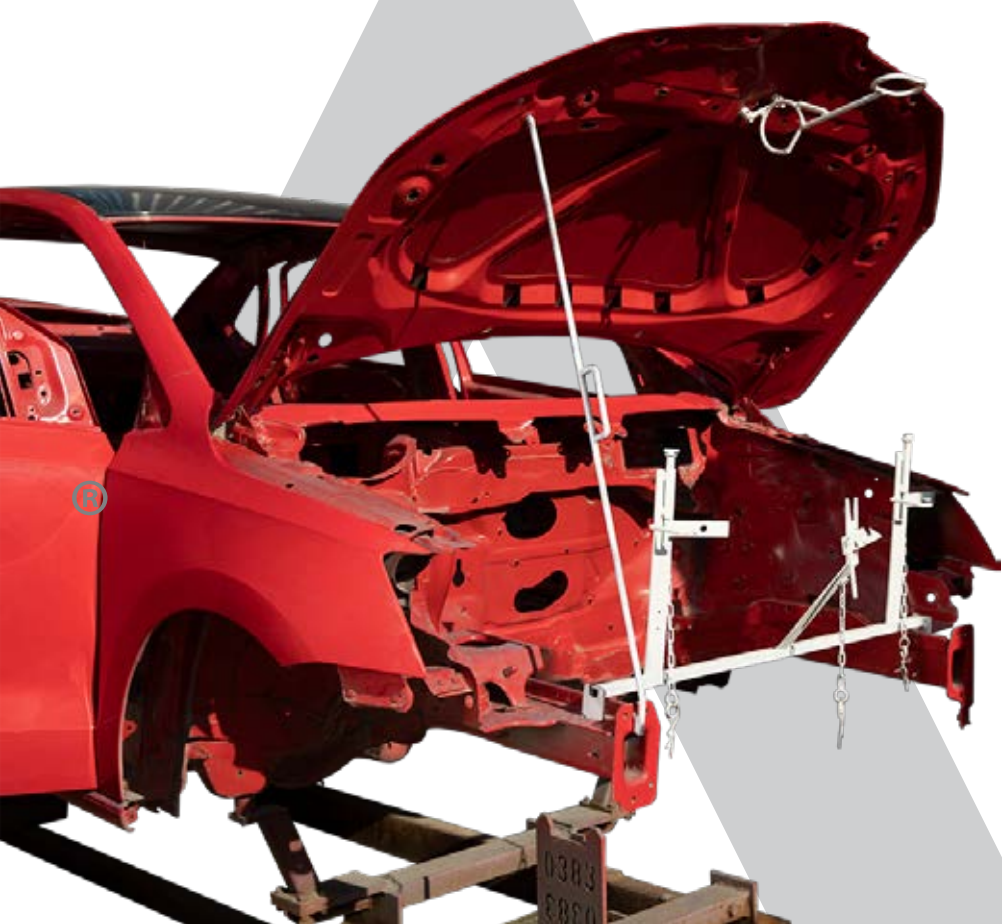


Spoiler Panting Hanger

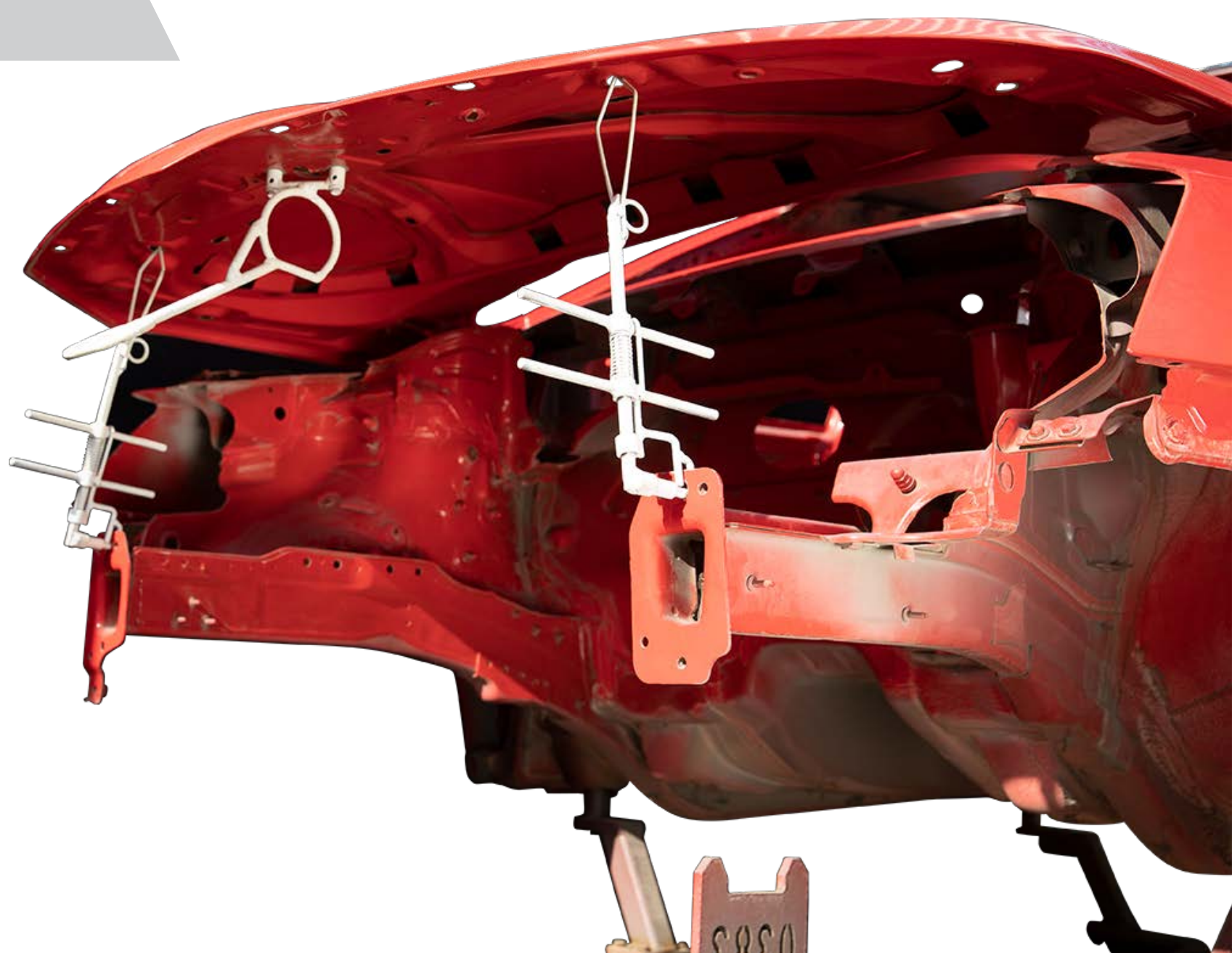


Paint Shop
Solutions

Paint Shop Jigs



Bonnet Painting Stay Rod



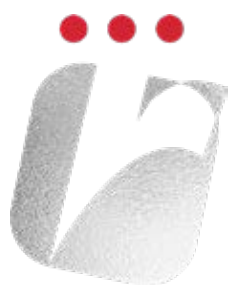
ED Coating Stay for Bonnet



Fuel Flap Painting Jig



Front Door Painting Jig

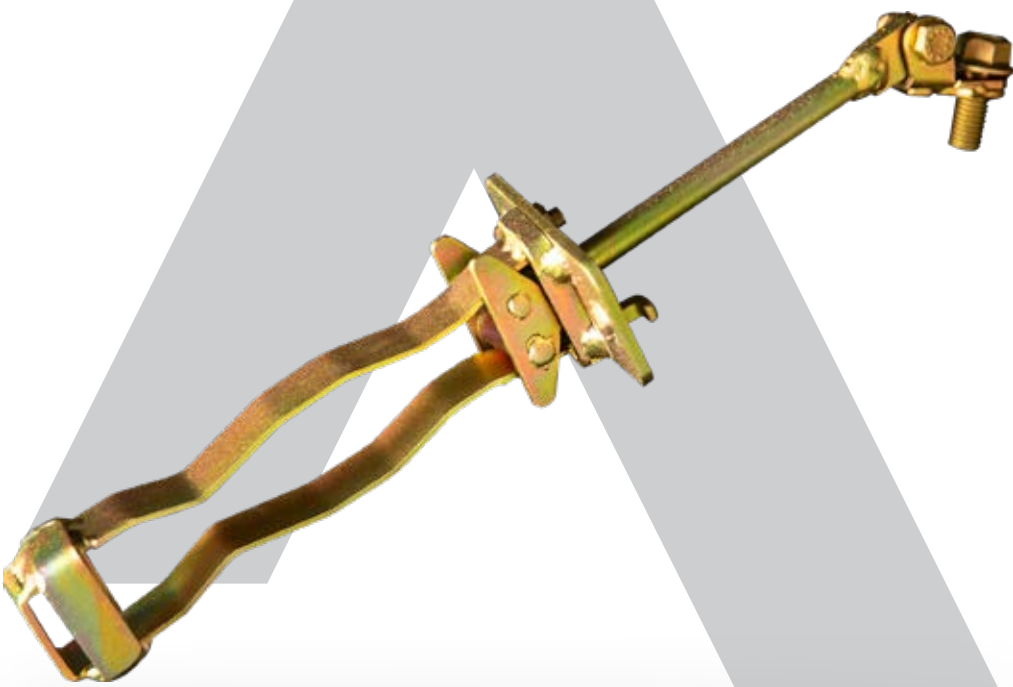


Paint Shop
Solutions

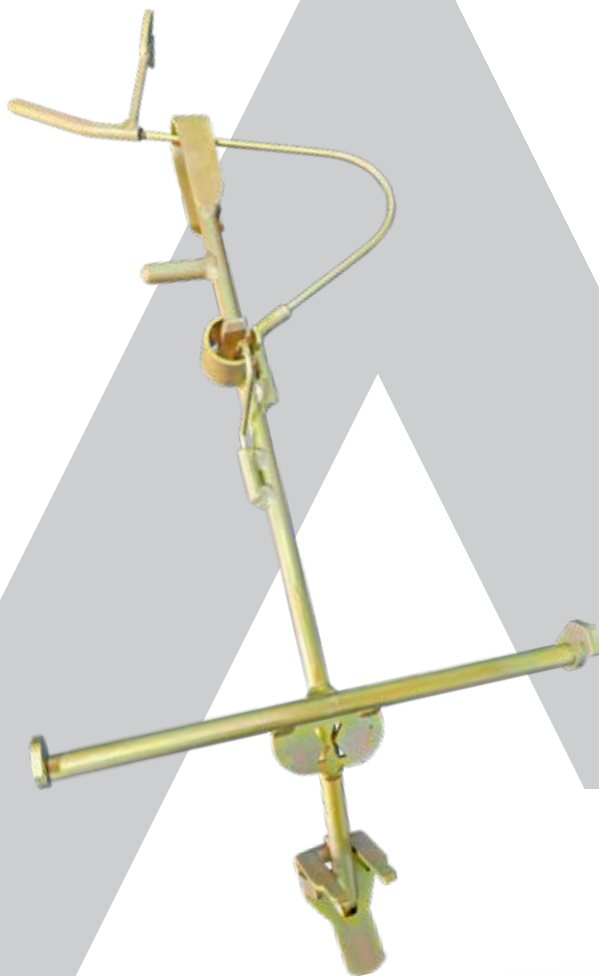
Paint Shop Jigs



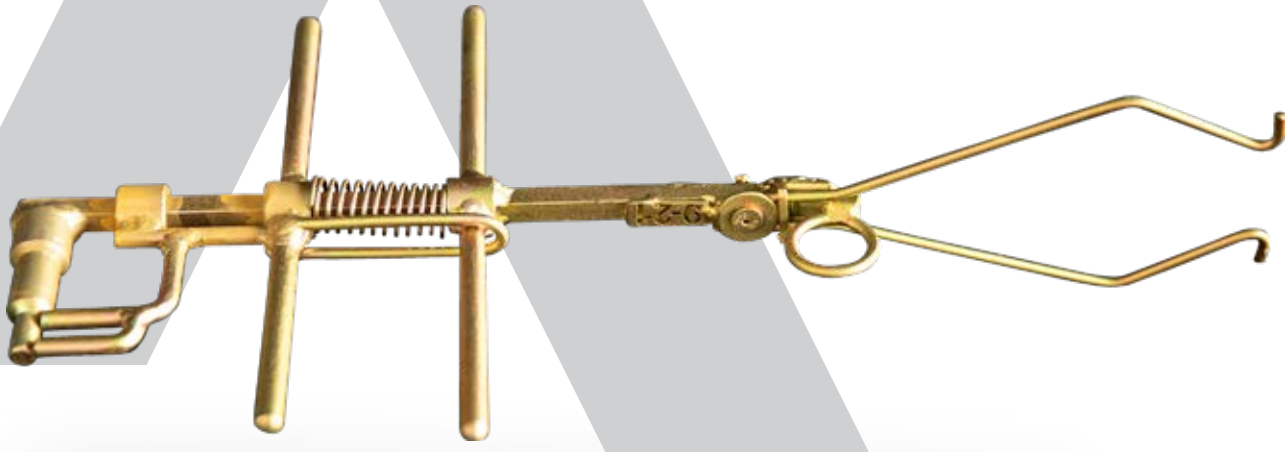
Door Handle Painting Jig



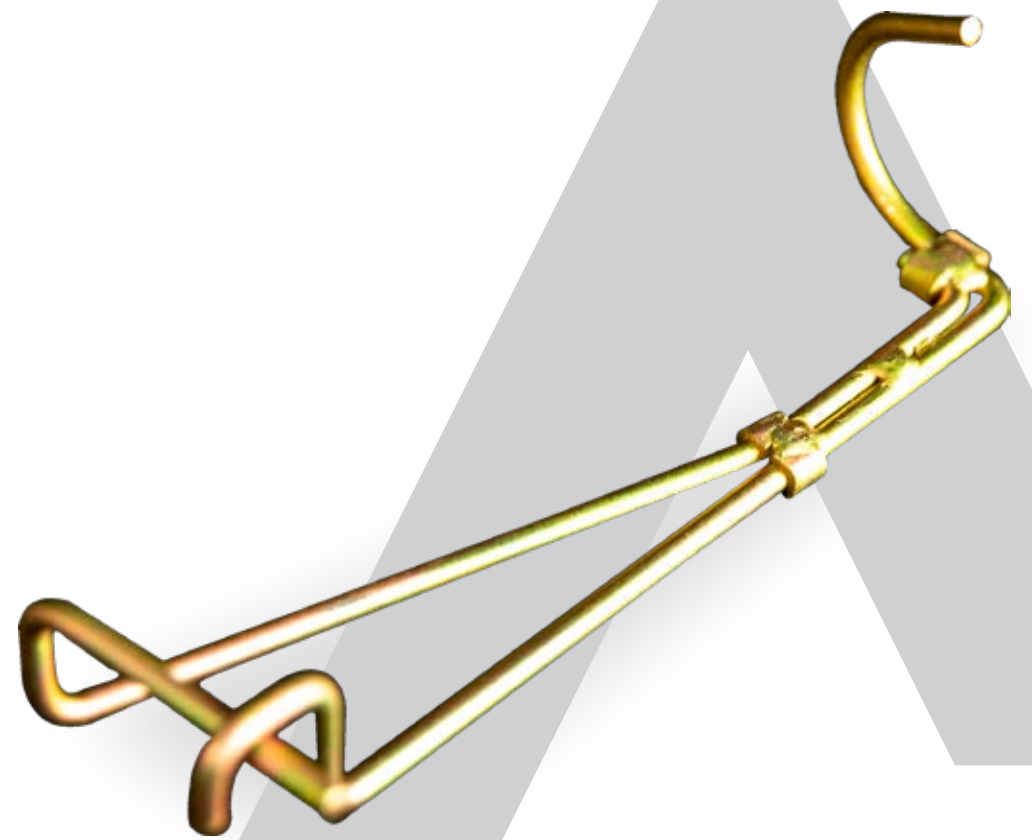
Door Holding Stay for Painting



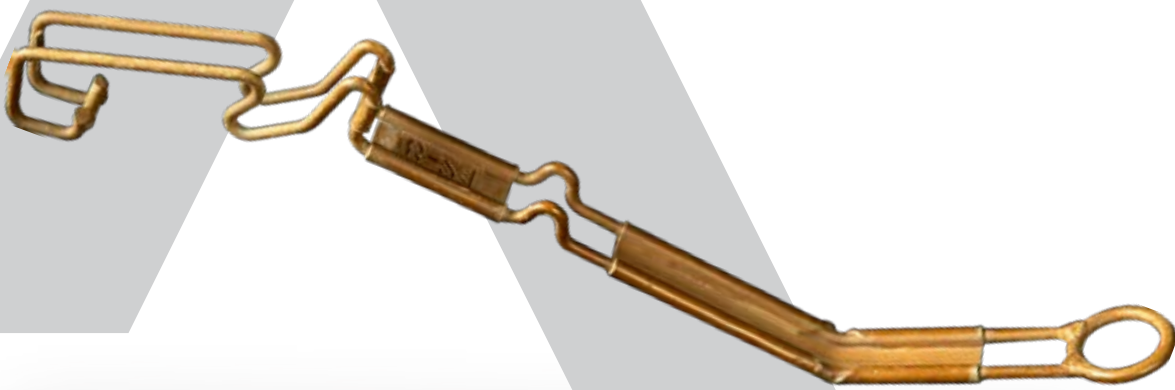
Fuel Flap Painting Jig



Bonnet Stay (ED Coating)



Door Stay (ED Coating)



Door Stay (Painting)



Door Holding Painting Jig

Fixturing & Allied Solutions

Fixturing solutions are application based solutions that are crucial for engineering and ancillary industries.

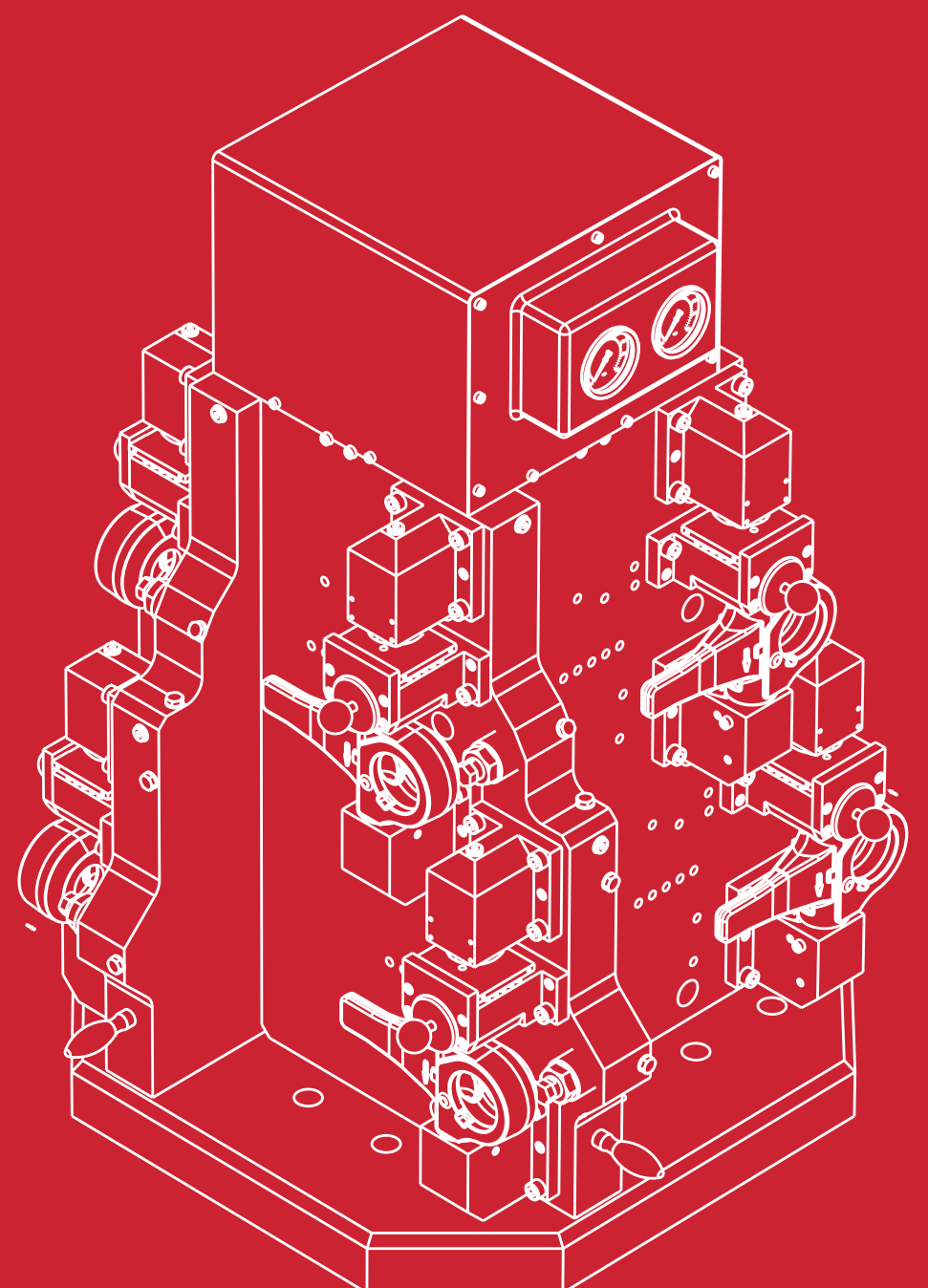
They not only ensure precision and robustness in the manufacturing process, but also make products uniform and interchangeable.

Raptech manufactures fixtures that are sturdy, functional and diversified.

Based on the client's requirements and the job constraints we undertake a feasibility analysis and provide fixtures for varied shop floor operations. Our solutions are designed to make processes smooth, optimize time and offer cost effective solutions of global standards.

Why Raptech Fixturing & Allied Solutions are preferred

1. In-house design strength that can provide customized fixturing solutions for engineering needs.
2. Special capabilities in checking, machining and assembly fixturing solutions.
3. Fully equipped tool room facility, with VMC machines, CMM Absolute Arm and a skilled work force, is proficient in any special manufacturing requirement like fixturing solutions or precision component manufacturing.





Inspection Fixtures



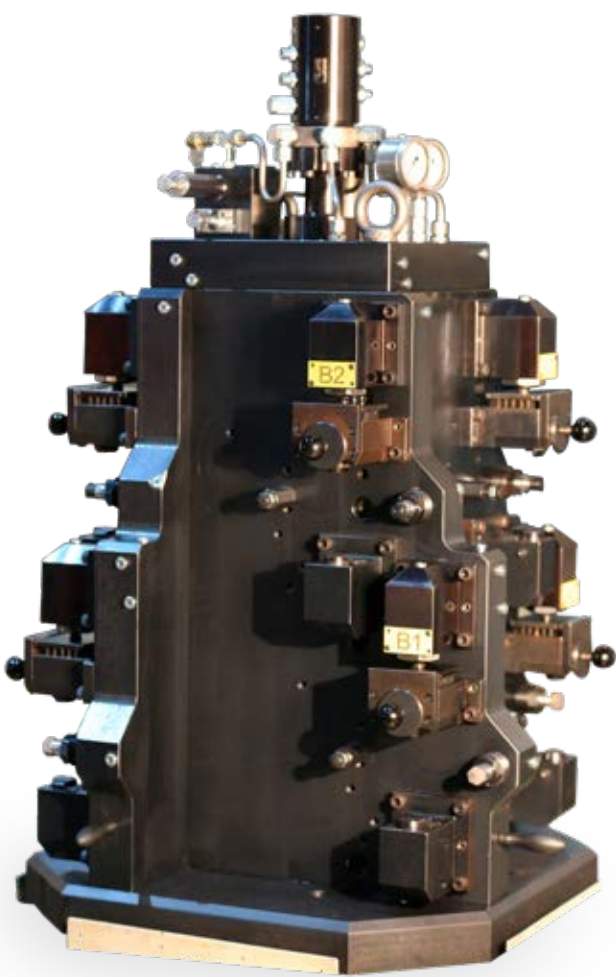


**Fixturing & Allied
Solutions**

Machining Fixtures



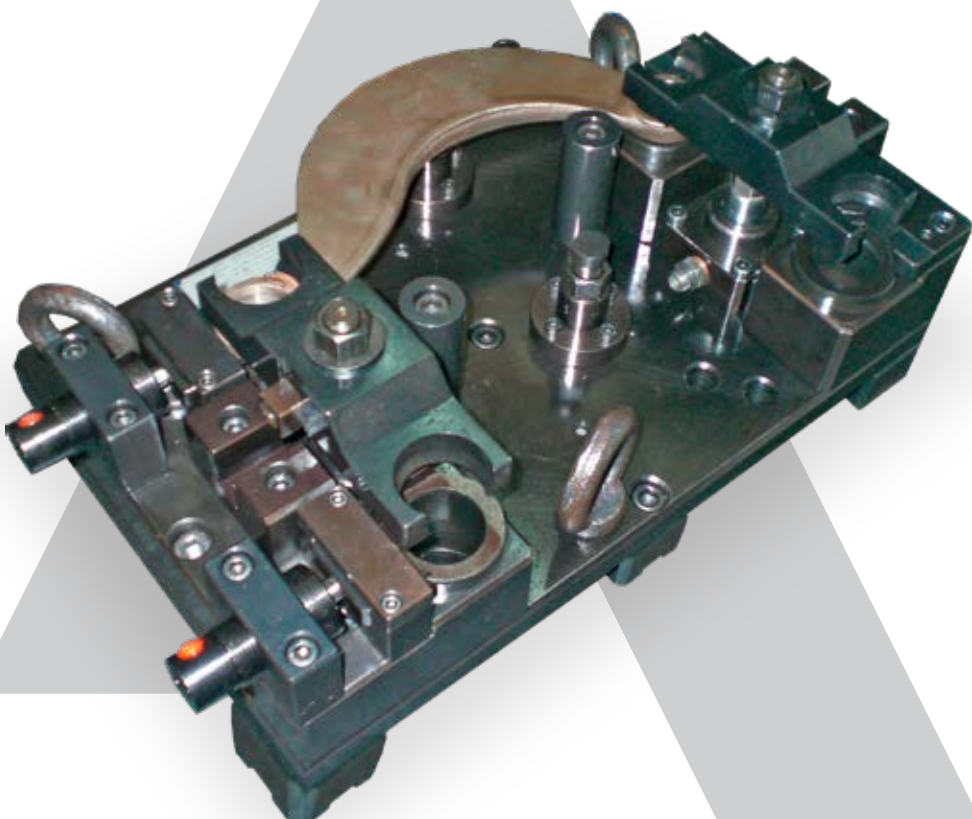
Hydraulic Clamping Fixture For
Boring Operation



Hydraulic Clamping Fixture
For ADB Casting Machining



Hydraulic Clamping Fixture for
Track Frame Machining



Bentellar Arm Machining Fixture

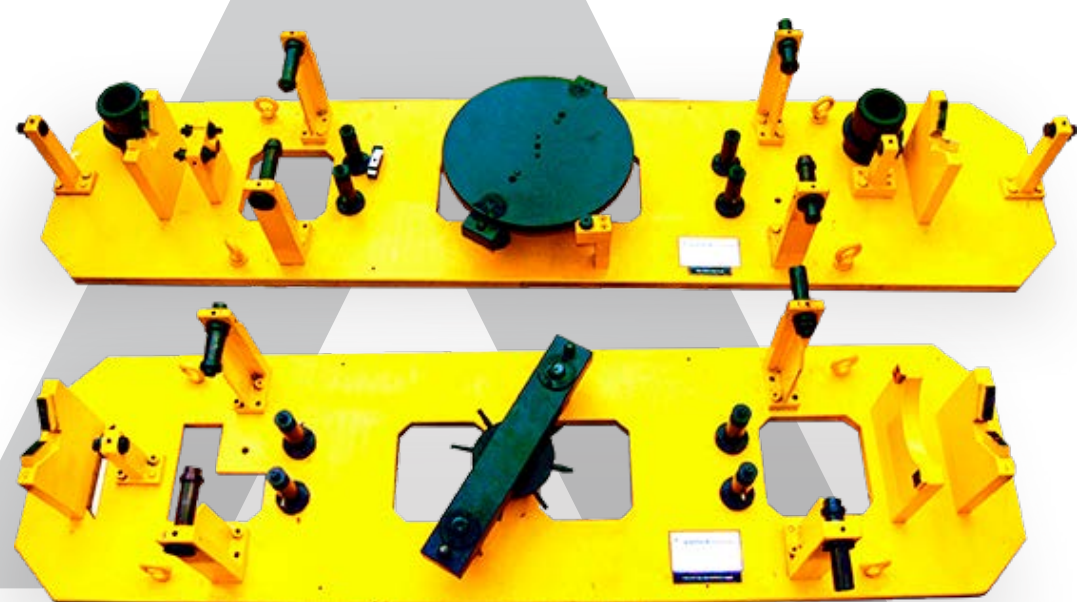


Deflashing Fixture For H - VAC



Fixturing & Allied
Solutions

Welding Fixtures



Axle Bracket Welding Fixture



Road Roller Chassies Welding Fixture



Cradle Welding Fixture



Encloser for Robotic Welding Cell

Vehicle Assembly Tooling

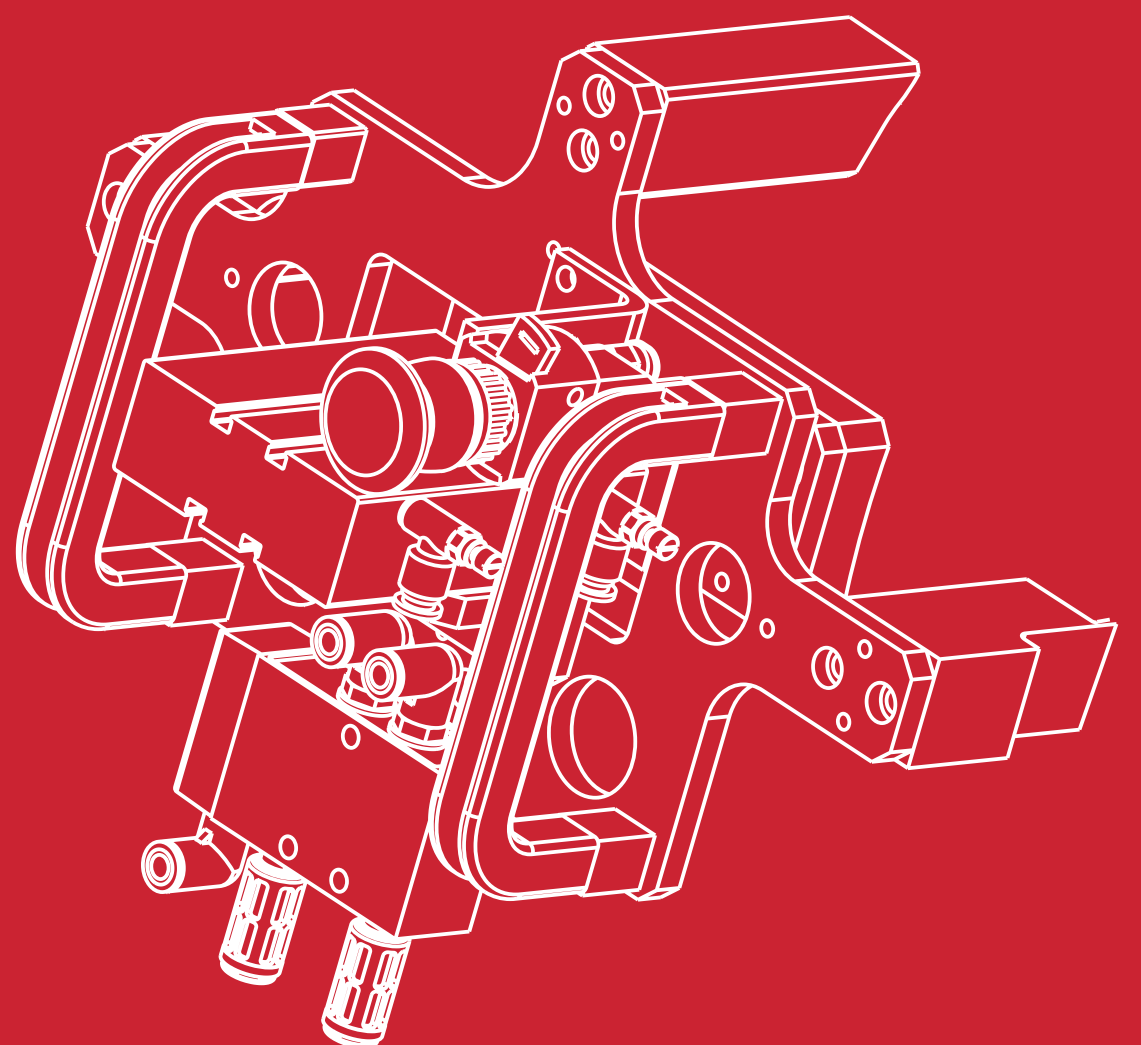
Vehicle Assembly is a critical step which involves specialized tooling.

Having the right assembly tools is imperative for OEM's to successfully launch their next product range, hence at Raptech, we use cutting edge technology and infrastructure to manufacture accurate tools.

Our tooling design and manufacturing team uses latest facilities like 3D scanning and 3D printing to create design prototypes. Cutting edge infrastructure like VMC, HMC help in precise manufacturing.

Why choose Raptech to build Vehicle Assembly Tools

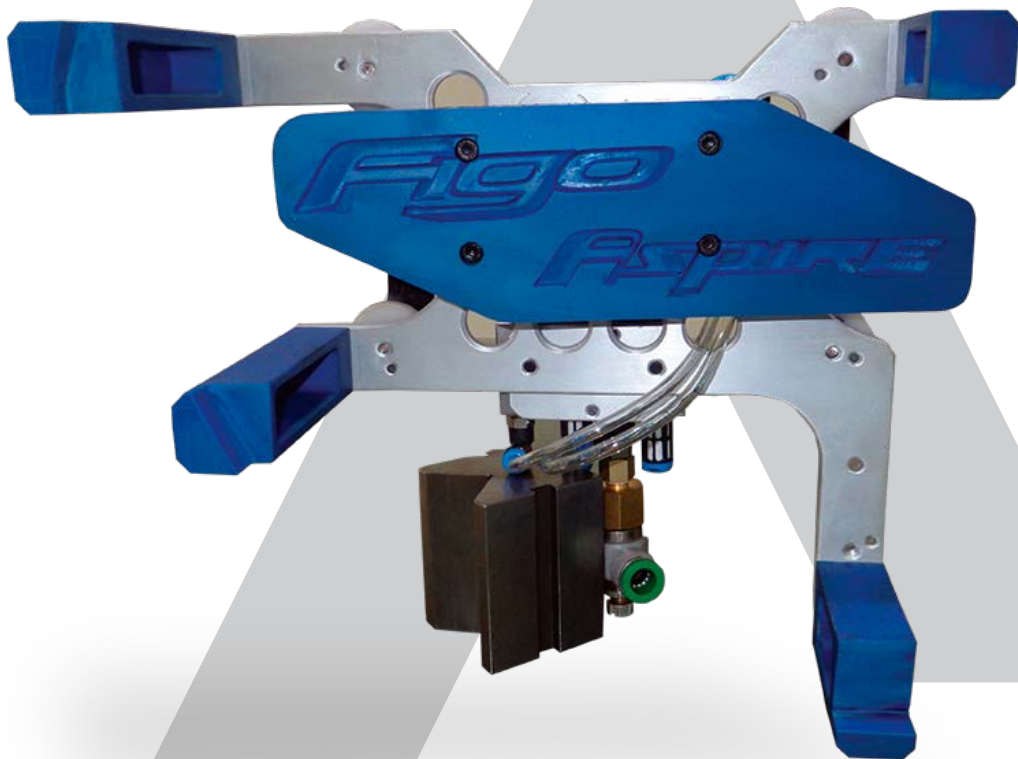
1. Our in-house R & D and technology team comprises of design and tooling specialists with more than 15 years relevant experience.
2. Our design and development process is customer-centric. We stay updated on the latest technology trends and based on the client requirements map an ideal solution for the business.
3. Our experience in handling challenging and urgent requirements, make us a reliable partner to OEM's.
4. Operator safety & convenience are given high importance at core of our manufacturing process.
5. All our products are designed and manufactured using standard design practices and manufacturing processes.





Vehicle Assembly
Tools Solutions

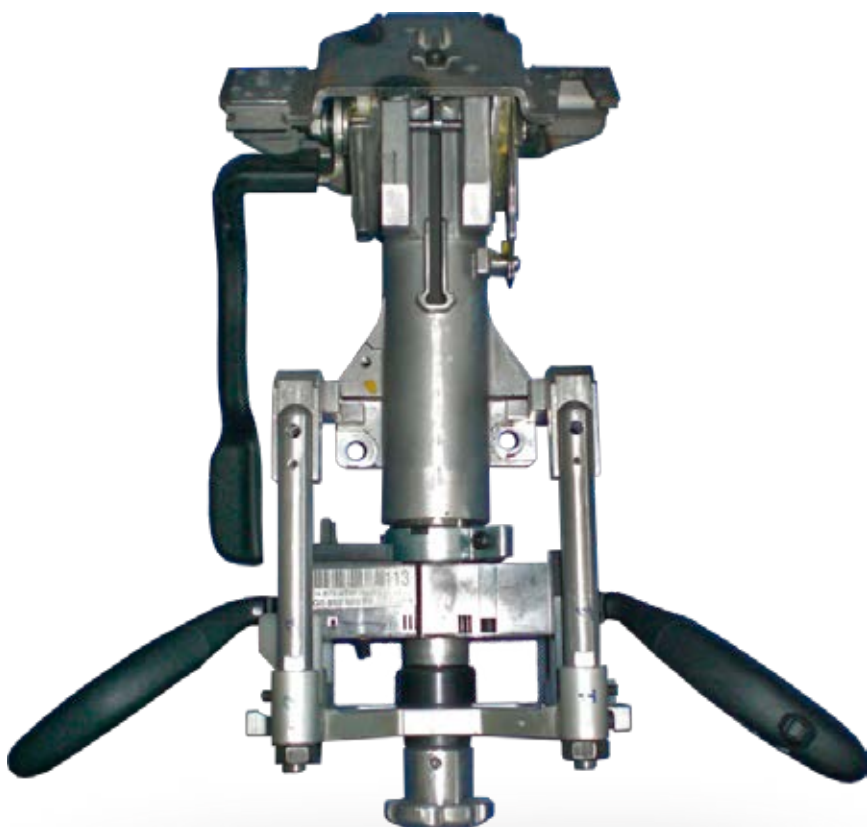
Customised Tools



Badge Pressing Tool



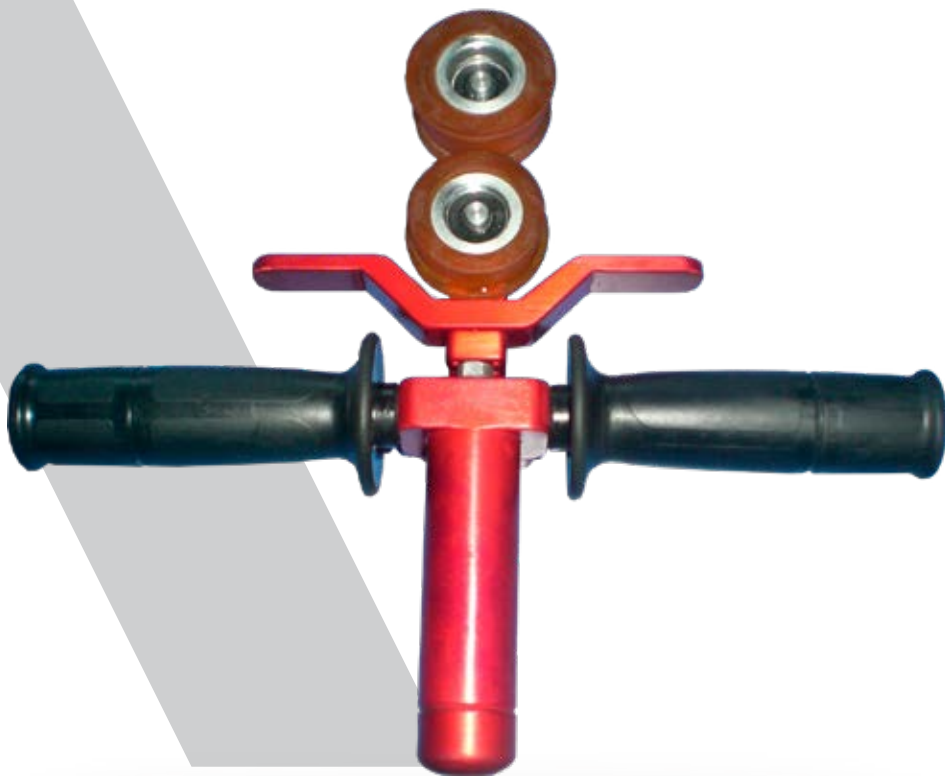
Logo Mounting Tool



Steering Cockpit Assembly
Handling Tool



Suspension Spring Expanding Tool



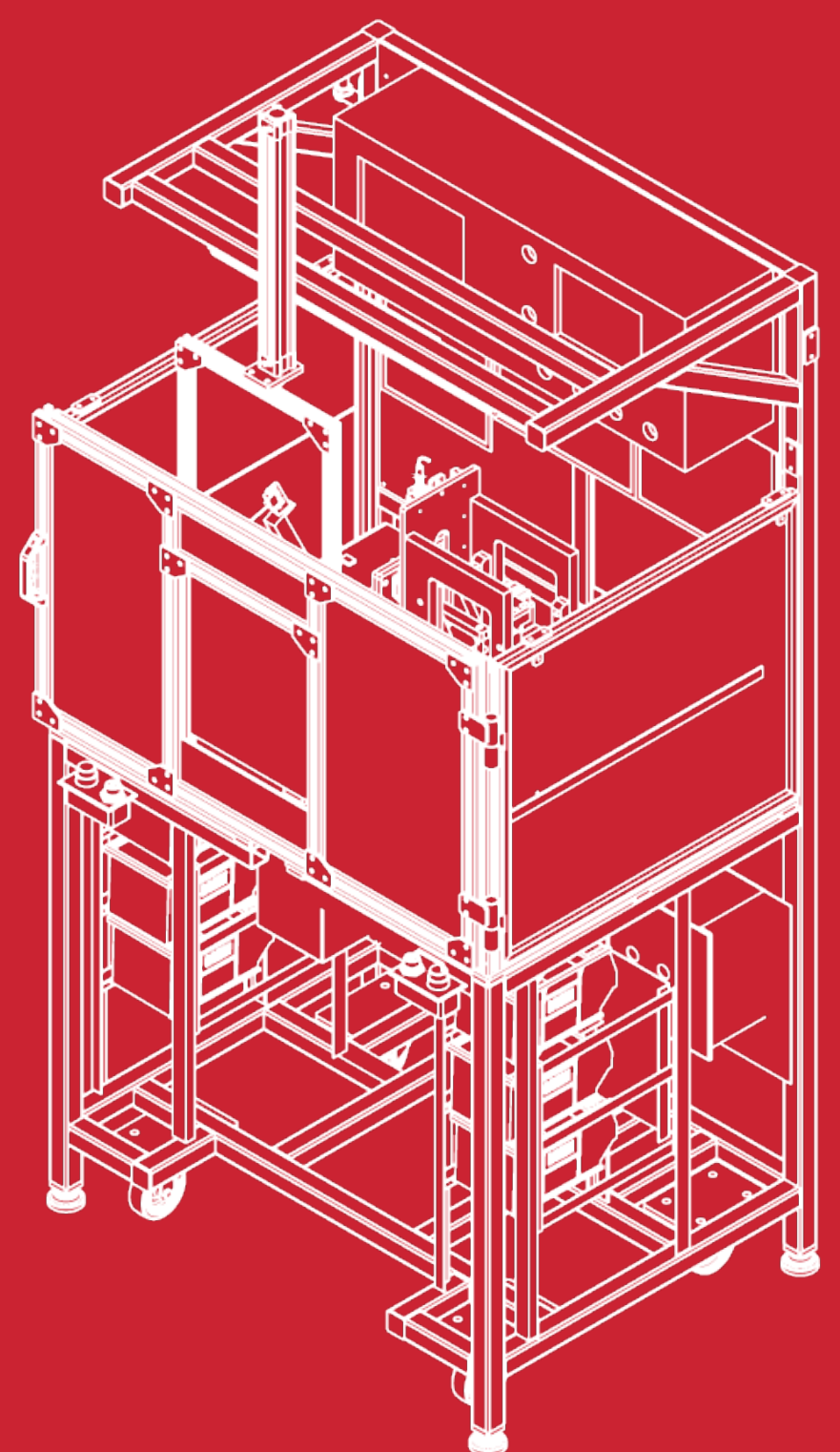
Wheel Arch Pressing Roller

Special Purposes Machines & Automation

'Industry 4.0' and 'IOT' are no more some fancy words. More and more industries are adopting these to increase digitization and automation in processes.

At Raptech, we understood this need and enhanced the infrastructure and design capabilities to accommodate automation requirements of our clients. We have been able to provide optimized solutions for improving rate of production, accuracy and repeatability as well as accommodation of multiple variants.

Based on our project analysis we recommend the degree of automation that will optimize the system while remaining cost effective for our client.





Special Purposes Machines



Conveyorised Camshaft Automatic
Inspection Station



SPM For DT Cap Pressing



SPM For Coupler Actuator Assembly



Radiator Fin Handling & Feeding Conveyor



SPM For Rear Oil Seal Pressing

EPP Trays & Plastic Moulding Parts

Non-metallic packaging solutions are an important requirement for an automotive OEM.

We understand the packaging needs as per the product class, and design prototypes according to size, shape of the product, evaluate manufacturing feasibility and develop mould for the forming.

Raptech also supplies Plastic Plugs to its automotive clients.

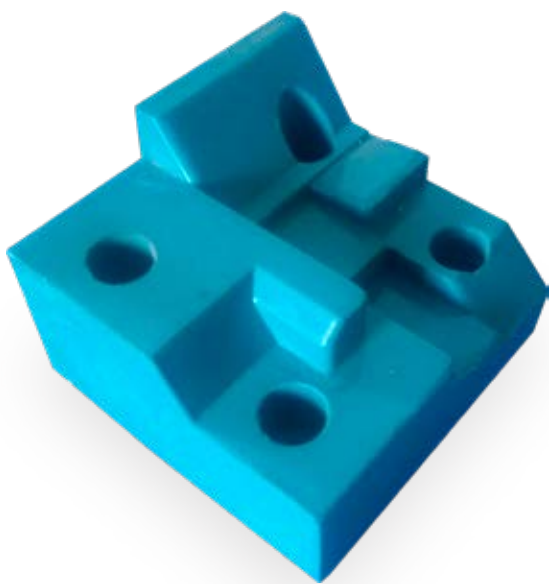
We have the capabilities to design and develop the moulds in-house for mass production of plastic plugs.





Plastic Molding Parts

EPP Trays & Plastic Moulding Parts



Engine Resting PU Block



Vaccum Formed
Underbody Protective Caps



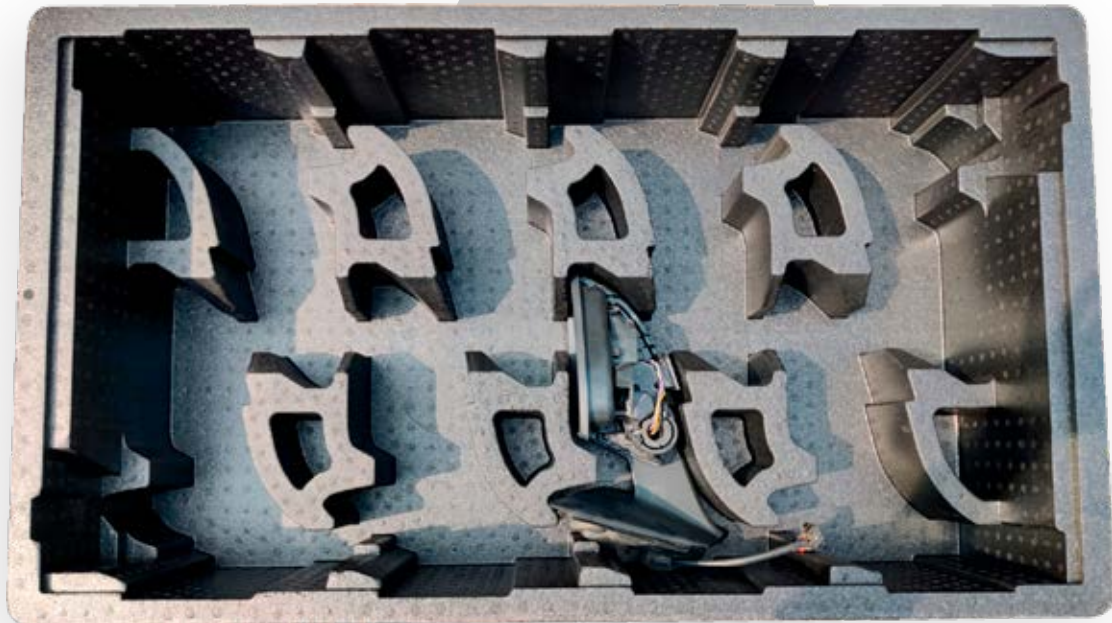
Skull Cap Storage Tray



Crank Shaft Transport Tray



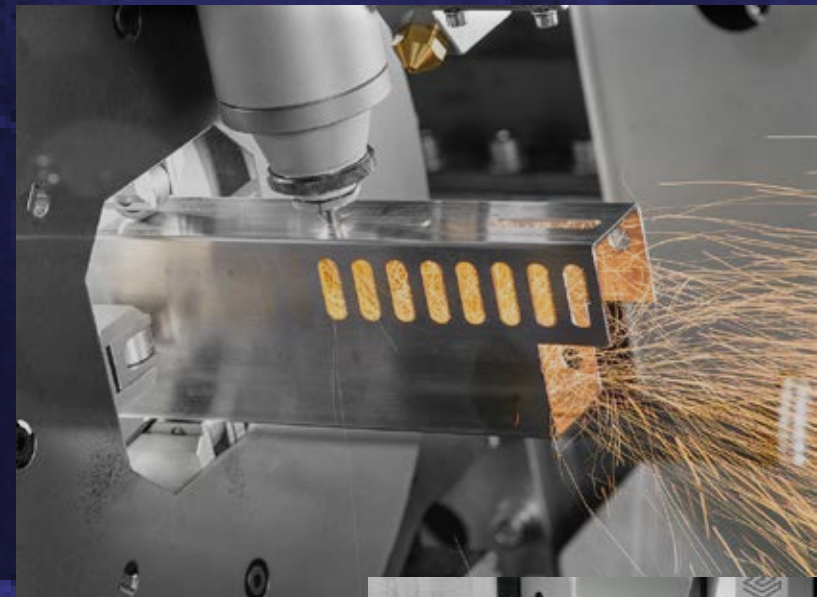
Stackable Thermo Forming Tray
For Half Shaft



Mirror Housing Storage Tray



LC5 - One Choice Twice the Opportunity!



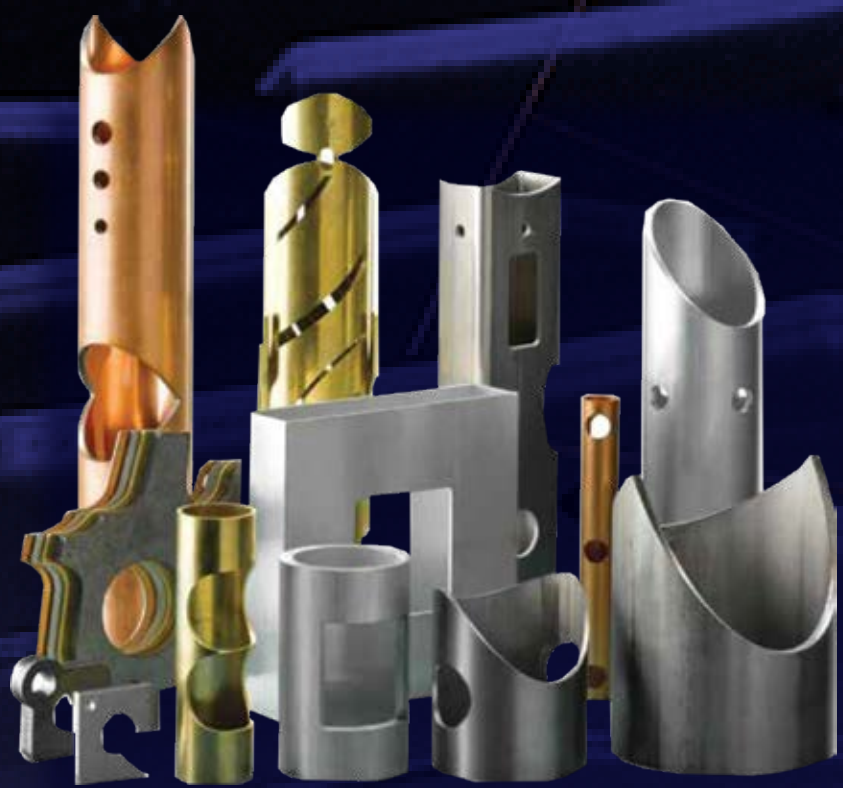
Tube Working Range

| | |
|--------------------------------|---------------------------------|
| Round Tube | min. ø12 mm - max. ø120 mm |
| Square Tubes | min. 12x12 mm - max. 100x100 mm |
| Rectangular, Flat, Oval Tubes | min. 10x12 mm - max. 120x70 mm |
| Loadable Bar Length | min. 3200 mm - max. 6500 mm |
| Bundle Loading System Capacity | max. 4000 Kg |
| Unloading Length | max. 4500 mm |

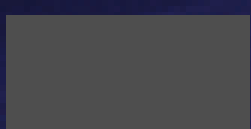
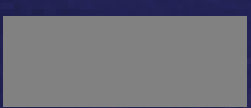
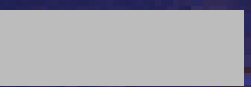




Sheet Working Range

| | |
|-------------------------------|--------------|
| CP 3015 | 3000x1500 mm |
| Z axis | 150 mm |
| Max. Speed (Single Axis) | 140m / min |
| Max. Speed (Combined XY Axis) | 196m / min |
| Positioning Accuracy | 0.05 mm |

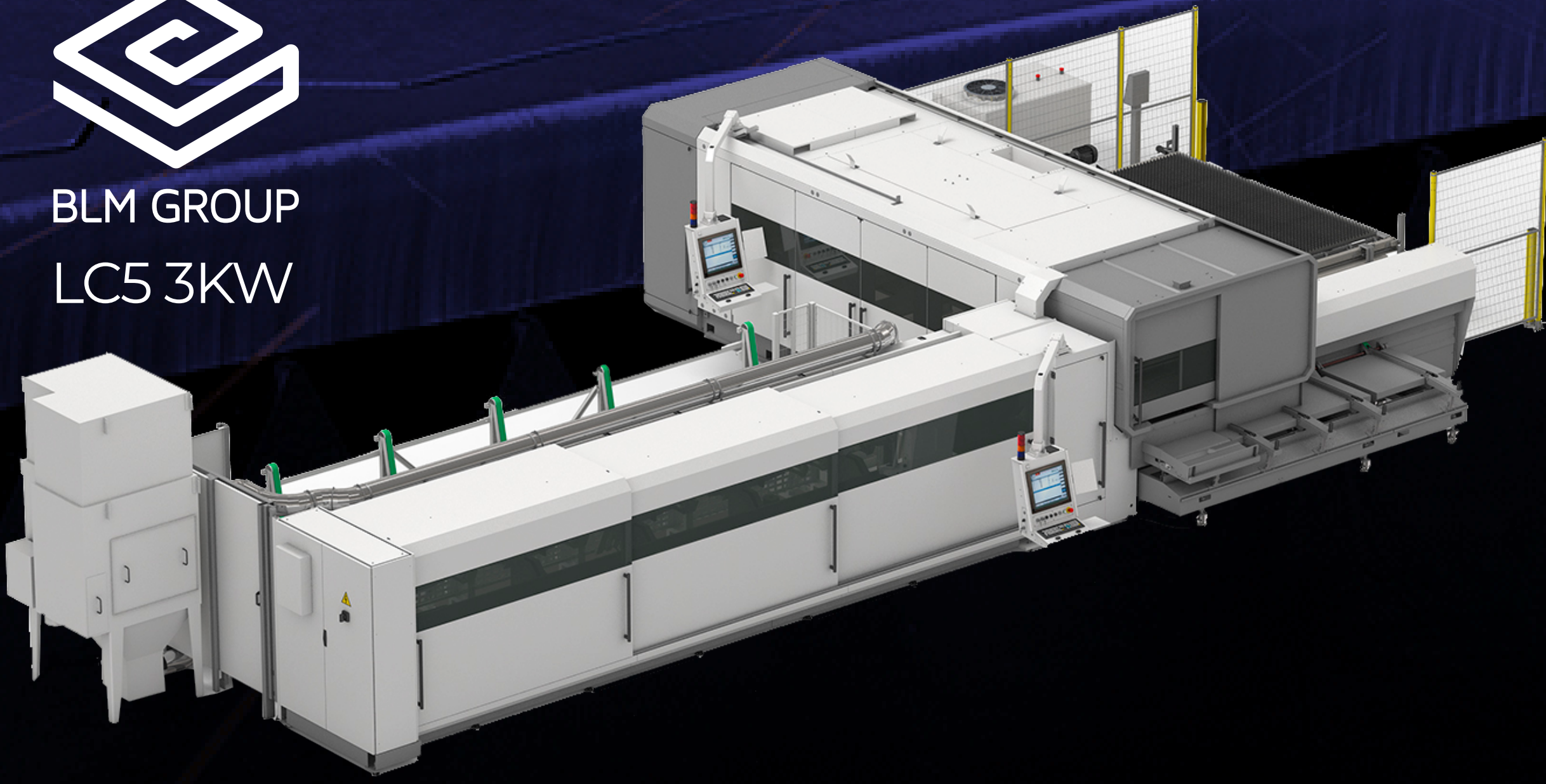


Material & Max Thickness

| Mild Steel (MS) | Stainless Steel (SS) | Aluminium (AL) | Brass (BR) | Copper (cu) |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |
| 16mm | 12mm | 10mm | 6mm | 6mm |



BLM GROUP
LC5 3KW



Transtocker



FULLY AUTOMATIC VERTICAL STORAGE SYSTEM

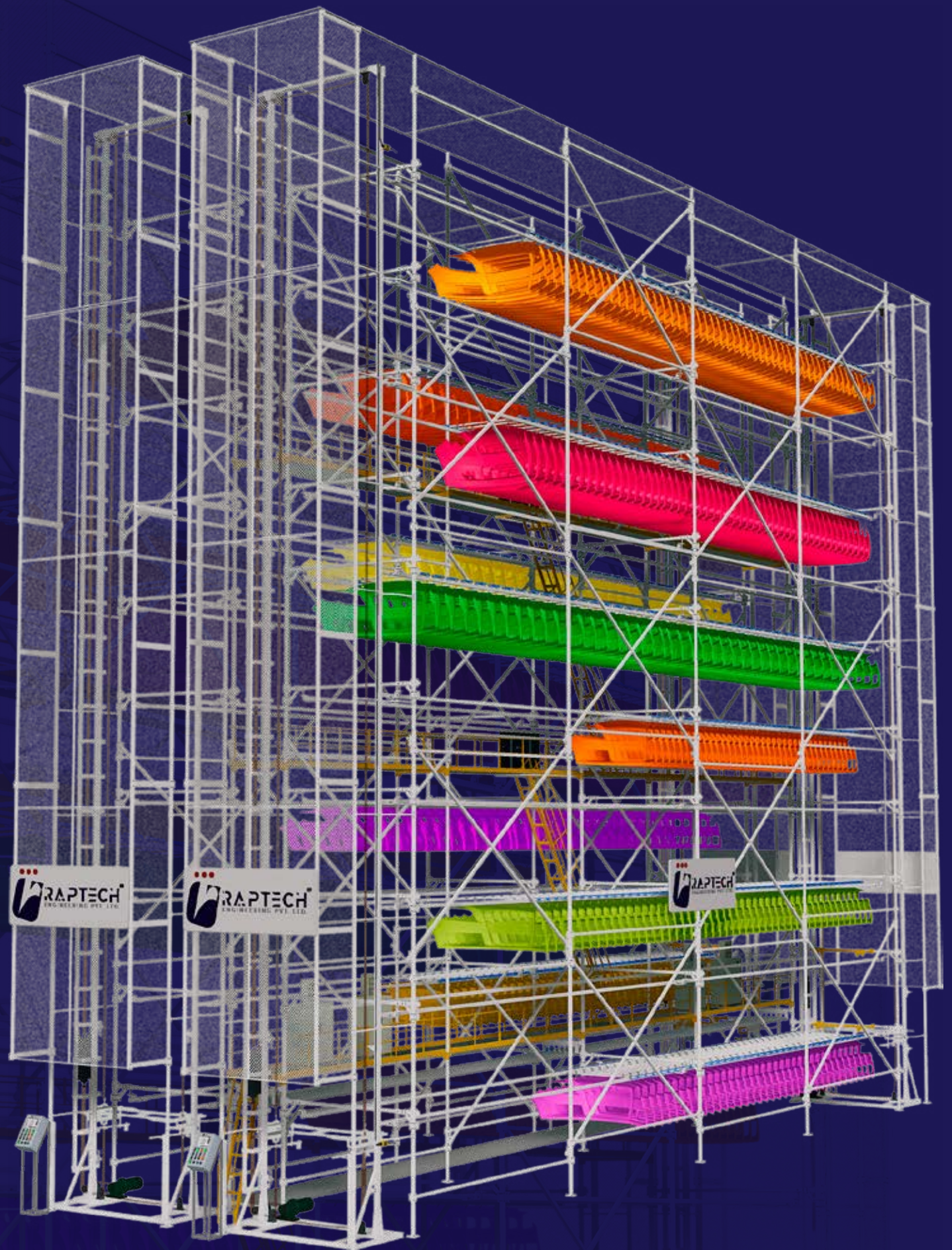
Make every square foot of your shopfloor count!

Breaking barriers of conventional storage, the revolutionary Transtocker stores light and medium duty products in a compact and ultra-efficient way.

It's simple and smart design allows users to achieve maximum product storage, compared to conventional storage methods.

Transtocker's control system with HMI, PLC and Servo motors maintains the highest standards of accuracy, operator safety and ergonomics.

Flexible enough, to customize any product within a weight range of 5 kg.



The sturdy **Transtocker** functions with the following highly reliable components

- 01. Rollers
- 02. Loading Lift
- 03. Unloading Lift
- 04. Buffer Storage
- 05. Empty Roller Return Tracks
- 06. Control System

Path breaking highlights of the system



Lesser Floor Space is Occupied



Maximum Utilization of Vertical Space



Fully Automated Loading And Unloading of Parts



Optimum Storage Capacity & Effortless Operation



Global Strategic Alliances

BLOKSMA

MATERIAL FLOW AND FACTORY EQUIPMENT

It is an organic partnership with the ethos of Collaboration at the basis of both the organisations' work culture. Mutual admiration and respect for each other's work has developed a bond of trust between us. With a systematic approach, we are promoting BLOKSMA products in the Indian market. The eventual objective, of both the companies, remains to ensure mutual growth and serving the client with the finest products.

www.bloksma.de



AT

Automations
technik

Sp. z o.o is oriented to the needs of the client manufacturer of technologically advanced equipment for the automation of production and complete production lines. Automationstechnik specializes in the construction of equipment and lines for manufacturers of automotive, electrical, electronics, food, household chemicals.

www.automationstechnik.pl



Our Clients



JOHN DEERE



Contact Us

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projects@raptechengineering.com

Unit 1:

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Maharashtra, India.

Unit 2:

Success Industrial Park Gate No. 448
Hissa No. 11 Near Mahindra Gate No-8
Opp. Kalyani Technoforge Nighoje
Tal - Khed Pune - 410501
Maharashtra, India.

www.raptechengineering.com

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ENGINEERING PVT. LTD.