



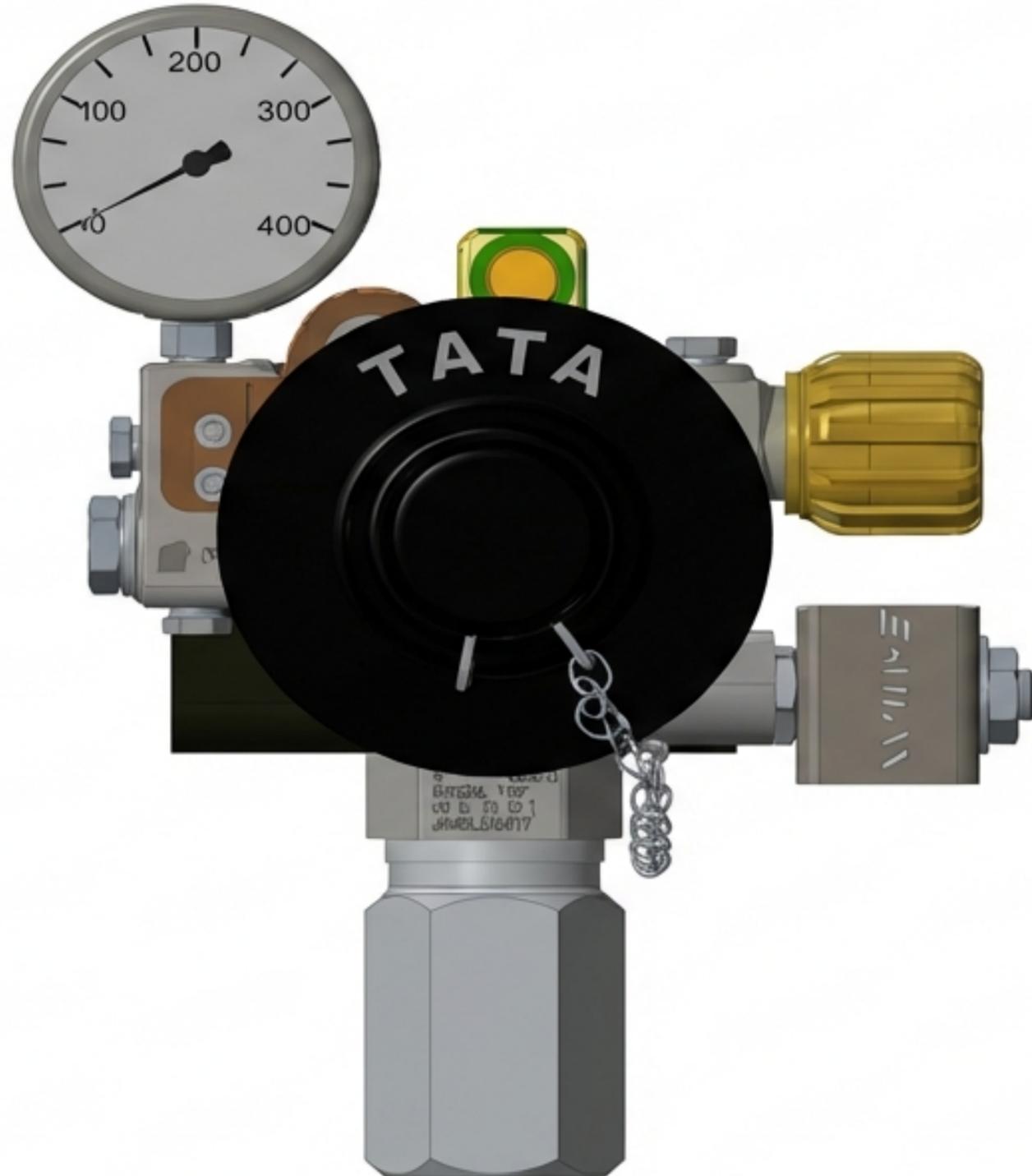
TRANSFORMING FLEET ECONOMICS: ADVANCED LNG & CNG RETRO-FITMENT SOLUTIONS

Global manufacturing expertise meeting
India's sustainable transport needs



INNOVATING GLOCALLY

A GLOBAL MANUFACTURING POWERHOUSE.



Shigan Group is a Global Manufacturing Company providing integrated solutions in Alternate Fuel Systems & Fire Protection Systems.

Established:
2005

Headquarters:
Manesar, India

Group Revenue:
₹300 Crores
(24-25)

Employee Strength:
500+



BUSINESS VERTICALS

Automotive | Locomotive | Industrial | Defense | Off-Highway

A LEGACY OF PIONEERING INNOVATION

Giving India its First...

2001/2004
1st LPG Genset
(Honda) & Wagon R
LPG (Suzuki)

2009
1st ECU manufacturing
setup for alternative
fuel

2016
1st LNG Bus
(Tata Motors Limited)



2008
1st CNG Dual Fuel
Locomotive Engine
(Indian Railways)

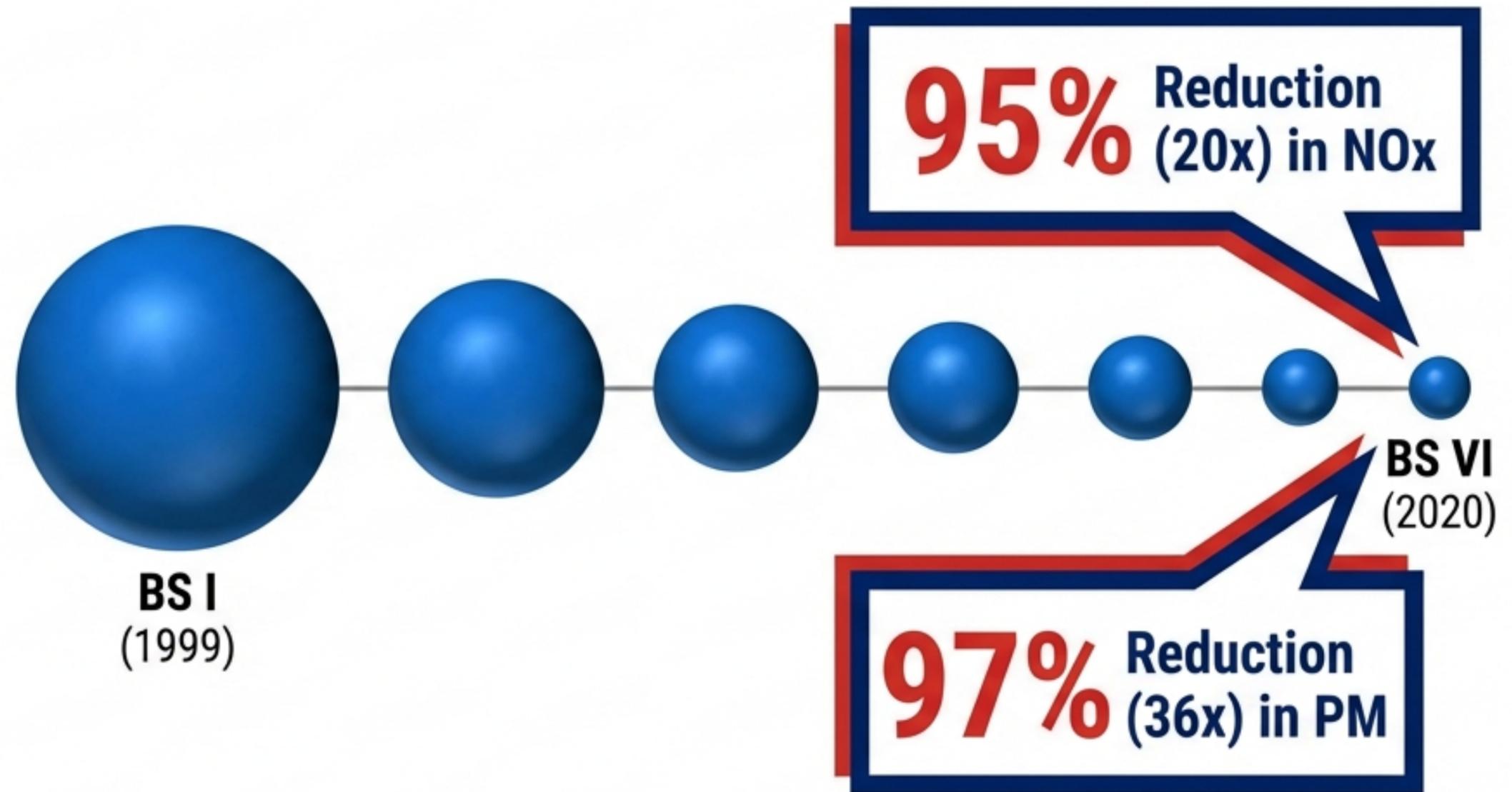
2015
1st Hydrogen
Engine & Bus
(Mahindra &
Mahindra)

2022
1st LNG Dual Fuel
Locomotive Engine
(Indian Railways)

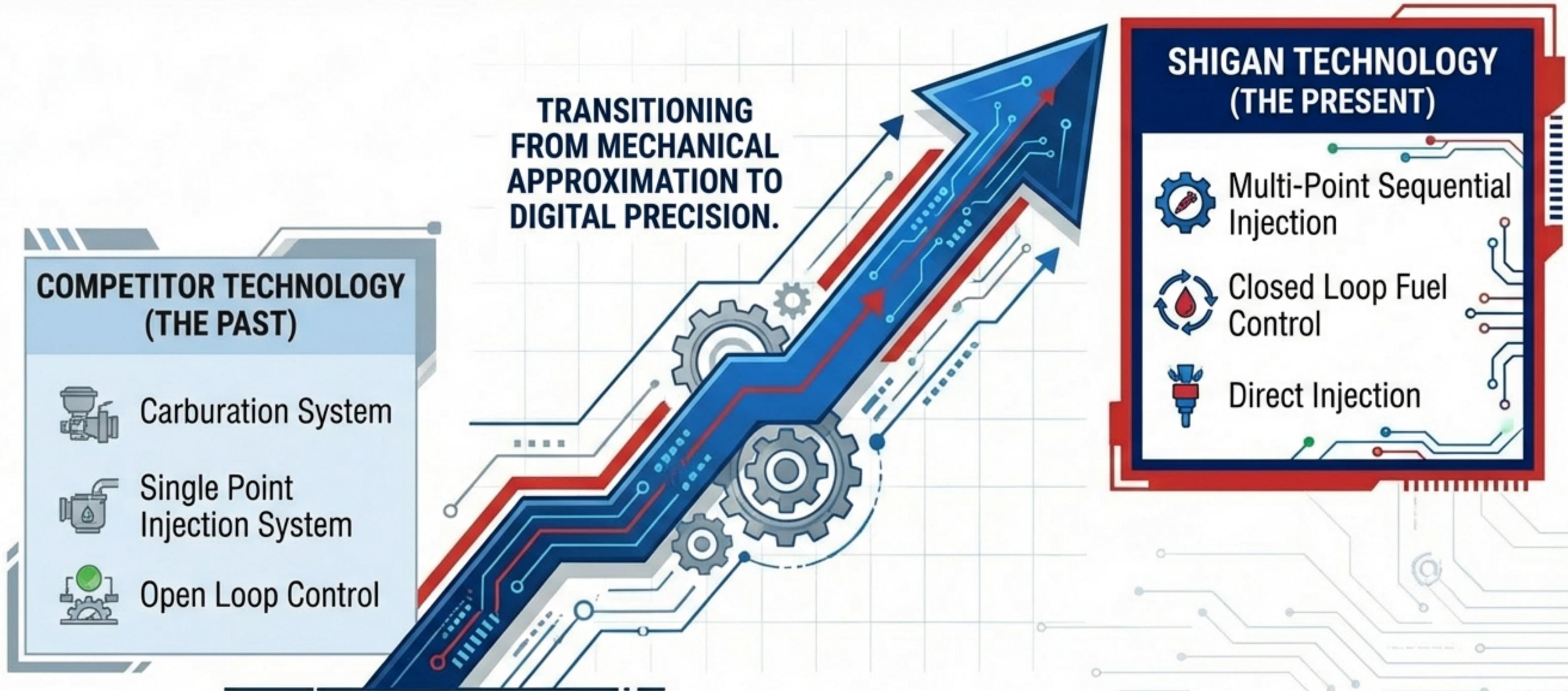
THE STRATEGIC IMPERATIVE: EMISSIONS & INFRASTRUCTURE.

For Quick adaptation of LNG in INDIA, retrofit of in-use vehicles acts as a Catalyst for the Fuel industry to expand fuel dispensing infrastructure.

Progressive Emission Regulation



EVOLUTION OF FUEL SYSTEM TECHNOLOGY



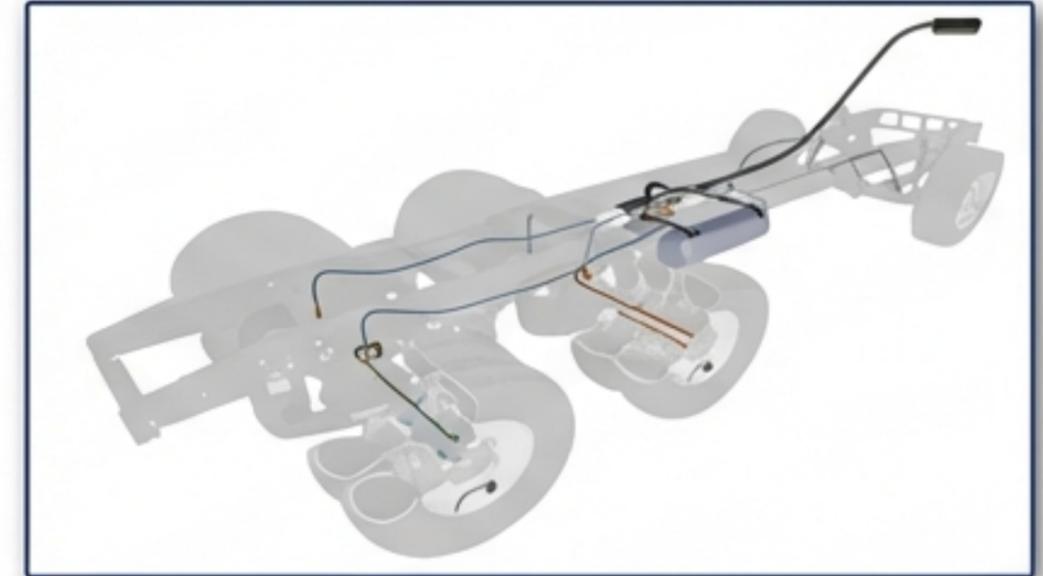
COMPREHENSIVE PRODUCT ECOSYSTEM



Sensors & Controls (Lambda, Crank, Cam)
Inter



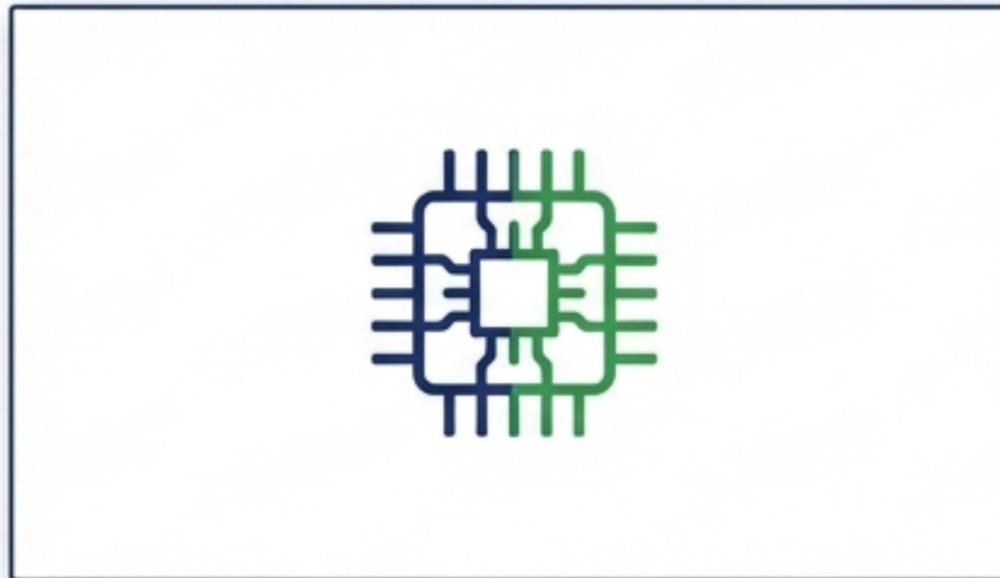
CNG/LNG Fuel Systems



Fuel Rail Assembly & Injectors



High Pressure Regulators



Automotive ECU/Electronics



Automatic Fire Detection Systems

Engineering Precision: The Retro-fitment Process



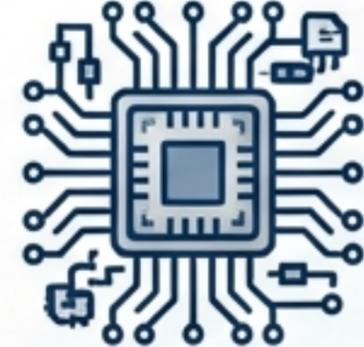
REMOVAL

- Diesel Pump
- Injectors & Fuel Lines



CORE MODIFICATION

- Head Replacement
- Piston Replacement
- Turbo-charger Replacement



INSTALLATION

- Ignition Coil & Spark Plugs
- ECU & Electronic Throttle Body
- Gas Injectors & Rail

Shigan uses only OE quality parts for engine modification.
We provide Recon engines with OEM sourced parts.

The Safety & Performance Gap

STANDARD RETRO-FITMENT (SHIGAN)		NON-STANDARD RETRO-FITMENT	
SAFETY 	Cylinder valves WITH burst discs & excess flow valves (No Safety Compromised)	SAFETY 	No burst discs or excess flow valves (Safety Compromised)
IGNITION	Ignition coil type system (Limited misfire risk)	IGNITION	Distributor type system (High misfire risk)
REFUELING	NGV type fast filling valve	REFUELING	NZS type slow filling valve
EFFICIENCY	MPFI with closed loop control (Better Economy)	EFFICIENCY	Venturi/Open loop control (Poor Economy)

The LNG Advantage for Heavy Haul



Higher Efficiency

10-15% better
than Diesel



Maximized Range

Higher density
than CNG



Security

No Pilferage
(Theft Proof)



Economics

25-35% Reduction
in operating costs



Environment

Clean fuel, reduced
carbon emissions



Financial Case Study: 25-35 Ton Truck Conversion

DIESEL (BEFORE)



Fuel Price: ₹90/Ltr



Cost to Run: ₹30/km



Daily Running Cost:
₹12,000

CNG (AFTER)



Fuel Price: ₹76/kg



Cost to Run: ₹23/km



Daily Running Cost:
₹9,048

Total Savings: ₹2,71,428 per Month

Approximate
cost saving of
₹6.4 Lakhs
per Year

Financial Case Study: 55 Ton Heavy Duty Conversion



TATA 3118 | 400WLC LNG Tank

Run Cost Reduction

₹23/km (Diesel) → ₹19/km (LNG)

Pilferage Cost

@5% for Diesel → 0% (NA) for LNG

Annual Cost Savings:
₹6.42 Lakhs.

Trusted by Industry Leaders & Transport Authorities.

OEM Partners



OEM Partners



Success Stories

MSRTC (Maharashtra State Road Transport Corporation)



150 Buses
converted to CNG.
5000 Buses in
pipeline for LNG.



BSRTC (Bihar State Road Transport Corporation)

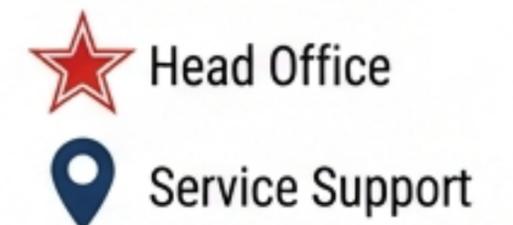


21 Diesel buses
successfully
converted to
dedicated CNG.



Nationwide Service & Support Network

- 30+ Highly Trained Service Professionals
- Expanding presence in Bihar, Andhra Pradesh, Karnataka, Kerala
- Rich History of Customer Satisfaction



Real-World Applications Driving Value.



From public transport to heavy logistics, Shigan delivers proven performance.

Drive the Future with Shigan.



Green: Reduced Carbon Emissions (95% less NOx)



Safe: OEM-Grade Engineering & Safety Components



Profitable: 25-35% Reduction in Operating Costs

Shigan Techsolutions Pvt Ltd
Headquarters: Manesar, India

Innovating Glocally