

R&D CAPABILITIES

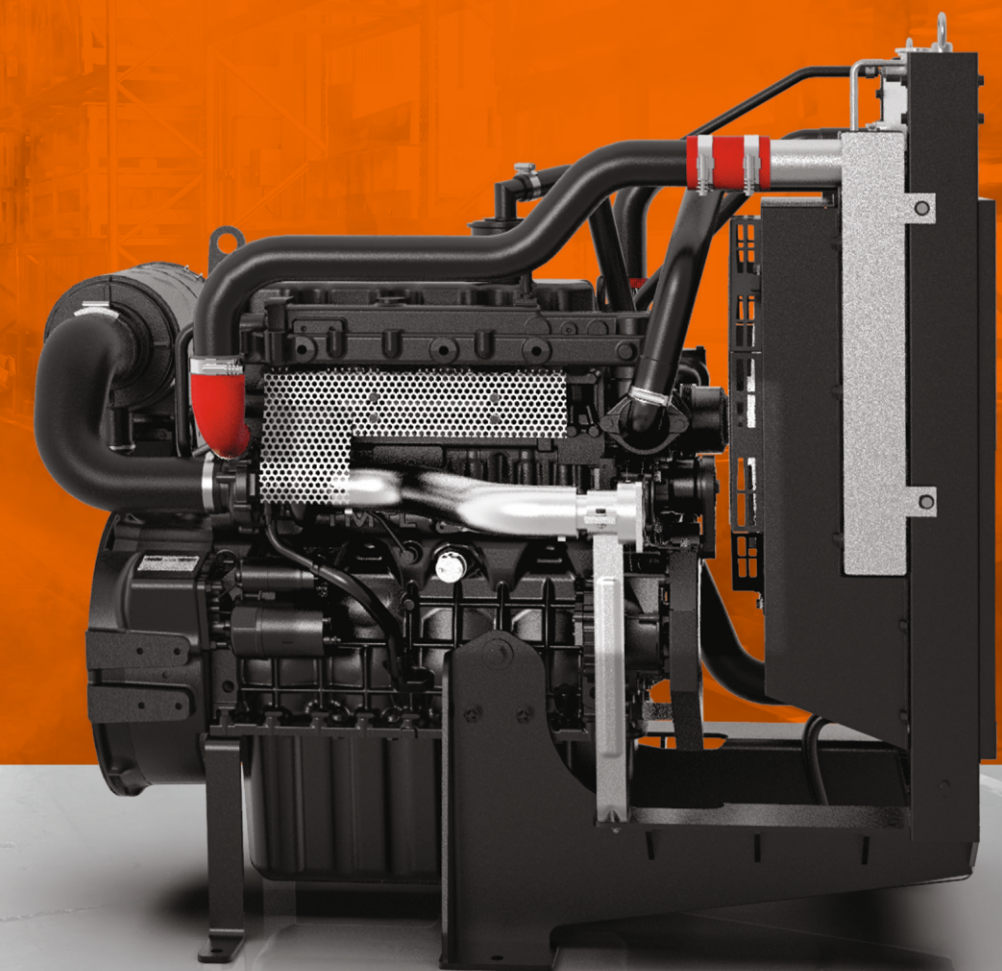
- Engine R&D Center at Rajasthan, India
- Exclusive team for engine application development
- Ability to design and develop air-cooled & liquid-cooled engines for automobile and stationary applications
- Equipped with latest technologies such as Raw Exhaust Emission Analyzer, Particulate Matter Measurement System, Combustion Air Handling Unit
- Specialist engineers and top-of-the-line industry talent
- Technology associations with global leaders in diesel engine technology

MANUFACTURING MIGHT

- Expertise in both air-cooled and liquid-cooled technology
- Modern manufacturing facility equipped with CNC machines in Alwar, Rajasthan
- Engine assembly in dust proof ambience
- Stringent quality controls and manufacturing standards
- Operating on principles of TQM, TPM, SGA, Kaizen to meet global standards of quality and productivity
- Awarded National Productivity Council recognition thrice for productivity performance
- ISO 9001, ISO 14001 and ISO 45001 certified plant

Exp/Eng/En/03-25/02

GLOBAL POWER SOLUTIONS



#BRINGITON

TAFE POWER

On the occasion of its Diamond Jubilee year, TAFE launches a new indomitable product range for the international markets and presents with pride, another benchmark brand - TAFE POWER.

TAFE's 60-years rich legacy combined with its expertise in manufacturing diesel engines for the Indian subcontinent, drives this newly launched TAFE POWER brand of Diesel Generators and Engines to countries in Asia, Africa, Europe, Australia and the Americas. TAFE, through its subsidiary TAFE Motors and Tractors Limited (TMTL), has been one of the pioneers in manufacturing diesel engines in India. TMTL Engines has its origin in European engineering and technology, and are currently being used as a prime mover for various applications such as tractors, power generation, construction equipment, agriculture equipment, marine applications and various pumping applications including firefighting, dewatering pumps etc.

TAFE, through TMTL, has technical collaboration with global players such as Ricardo Consulting (UK), AVL (Austria), Sisu Diesel and Valtra (Finland). TAFE POWER Diesel Generators have low operational expenses, high fuel efficiency and offer value for money.

WHY TAFE POWER?

- TAFE's manufacturing might and rich engineering expertise spanning over 60 years
- International product quality - Safe and highly customizable
- Strong base of over 1 Million satisfied users
- Deep understanding of Engines and Diesel Generators business
- Market leader in India, dominant player in the telecom industry
- Strong experience in building and managing global networks and alliances in over 100 countries
- Operating on principles of TQM, TPM, SGA, Kaizen to meet global standards of quality and productivity
- Best-in-class service and after-sales support

FEATURES & BENEFITS

Advanced technology	Best-in-class fuel efficiency Low maintenance Low operating cost Longer overhauling period Highly economical
Heavy flywheel High moment of inertia and torque	Best-in-class block load taking capability Better performance at varying load
Individual blowers (Air-cooled range)	Even cooling of all cylinders Better efficiency
Turbocharger with intercooler	Better engine efficiency
Most reliable engines	Most powerful engines in their class

OUR LEGACY

TAFE - Tractors and Farm Equipment Limited, headquartered at Chennai, India, is an internationally reputed organization in the global agriculture machinery business, with an annual turnover in excess of US \$1.5 billion. The world's third largest tractor manufacturer by volumes and among the leading exporters of tractors from India, TAFE has been powering farms, hospitals, schools, infrastructure projects, small and large business organizations with its wide range of products and services.

A global tractor major, a multi-brand multi-business conglomerate, TAFE has diversified business interests through its subsidiaries into farm machinery, diesel engines and generators, agriculture engines, engineering plastics, gears and transmission components, batteries, hydraulic pumps and cylinders, vehicle franchise and plantations. Driven by a leadership with purpose and vision, TAFE has earned the trust of customers through its range of products that are widely acclaimed for their high quality and low cost of operation. A strong distribution network across the globe effectively backs TAFE's promise of industry-best service and support.

TAFE has been awarded the Engineering Export Promotion Council's (EEPC) Star Performer Award for outstanding contribution to Engineering Exports, Large Enterprise Category, for 21 consecutive years. TAFE is committed to the Total Quality Management (TQM). In the recent past, various manufacturing plants of TAFE have garnered numerous 'TPM Excellence Awards' from the Japan Institute of Plant Maintenance (JIPM), as well as a number of other regional awards for TPM excellence. TAFE became the first Indian tractor manufacturer to win the Frost & Sullivan Global Manufacturing Leadership Award in 2018, being recognized with the 'Enterprise Integration and Technology Leadership Award' and two 'Supply Chain Leadership Awards'. TAFE's plants are certified under ISO 9001 for efficient quality management systems, under ISO 14001 for environment friendly operations and ISO 45001 for occupational health and safety.

In the year 2005, TAFE acquired the legendary tractors, gears, transmissions and engines business from Eicher Motors Limited, which was widely popular for its original European Technology, to form TAFE Motors and Tractors Limited (TMTL), a wholly owned subsidiary of TAFE.

TMTL is a pioneer in manufacturing both air-cooled and liquid-cooled diesel engines in India, with a heritage of more than 60 years and manufactures specially designed engines for stationary and automotive applications. It has a strong presence in the retail, agriculture, telecom and industrial segments. Known for quality, technology and reliability, generators and engines from TMTL are eco-friendly with low emission levels, low carbon footprint and offer higher value for money.

TMTL has an existing base of over 1 Million highly satisfied customers. With over 700% volume growth in the last decade, it is one of the fastest growing engine manufacturing companies in India with a dominant market share in the telecom segment.

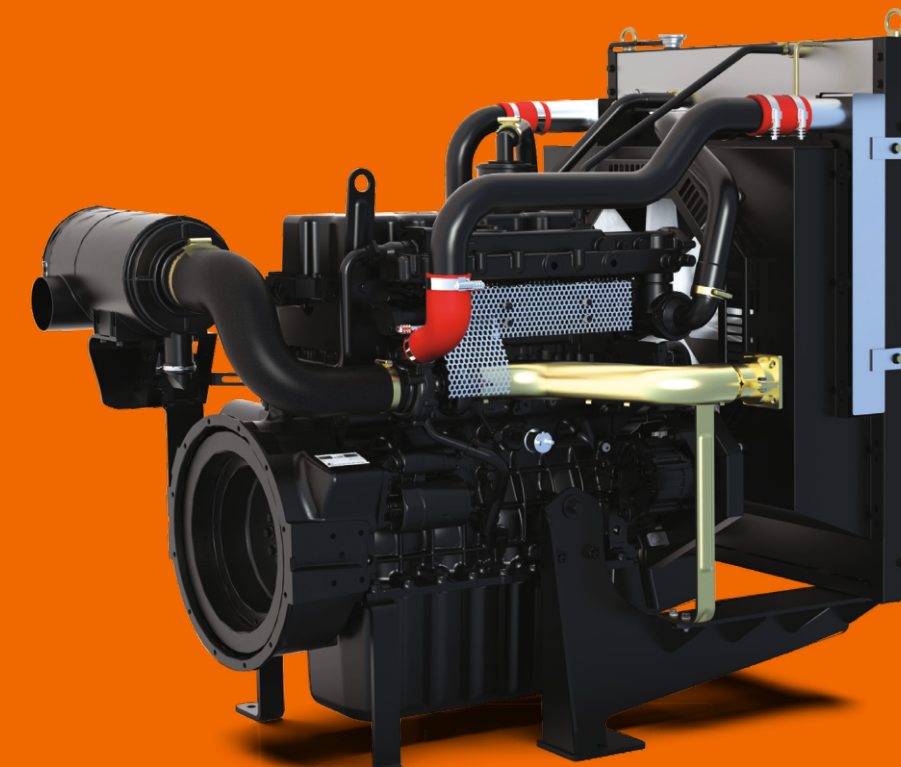
TMTL has won numerous awards in the recent years such as – The Most Admired Company of the Year (2021) by the World Leadership Congress and Awards, Outstanding Diesel Generators Brand of the Year (2019) by EPC World Media Group, India's Most Promising Brand (2017) by WCRC, Silver Award (2013) by Indus Towers for Excellence in Infra Equipment etc. to name a few. With an emphasis to meet global standards of quality and productivity, TMTL employs quality management tools such as TQM, TPM, SGA and Kaizen extensively.

ENGINES

The TAFE POWER Engines have their origin in European engineering and technology. The engines are used as prime movers for various applications such as tractors, power generation, construction equipment, agriculture equipment, marine applications and various pumping applications including firefighting, dewatering pumps etc.

The engines range from 12 hp to 160 hp. The air-cooled range comprises 12-66 hp and the liquid-cooled range comprises 57-160 hp engines. All the engines above 46 hp are turbo charged, along with after-cooler from 56 hp and above.

Superior build quality, ruggedness and robustness make TAFE POWER Engines the first choice for use in the harshest of climates, as they work without any noticeable deration in extreme temperatures and altitudes.



HIGHLIGHTS

- Over 1 Million Satisfied Customers
- Fixed & Variable Speed Engines
- International Technology
- Ultra Long Engine Life
- High Fuel Efficiency
- Low Cost of Ownership
- Robust Build Quality
- High Block Load Taking Capability
- Easy to Maintain
- Long Service Interval & Overhaul Duration
- Safe & Reliable
- Best-in-class Service Support
- Strong In-house Application Development



TECHNICAL SPECIFICATION

INDUSTRIAL ENGINES VARIABLE SPEED

	115 NC	298 EI	398 EDD	398 ED	398 E49	320 D49	320 DED	421 ES	320 D59	422 TC	320 D75	320 D85
Cooling	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Liquid Cooled	Liquid Cooled	Air Cooled	Liquid Cooled	Air Cooled	Liquid Cooled	Liquid Cooled
Cylinders	1	2	3	3	3	3	3	3	3	3	3	3
Bore	115 mm	100 mm	100 mm	100 mm	100 mm	108 mm	108 mm	100 mm	108 mm	100 mm	108 mm	108 mm
Stroke	150 mm	125 mm	125 mm	125 mm	125 mm	120 mm	120 mm	125 mm	120 mm	125 mm	120 mm	120 mm
Horsepower	22 hp	32 hp	38 hp	43 hp	49 hp	49 hp	49 hp	50 hp	58.5 hp	66 hp	75 hp	85 hp
Engine rpm	1650 rpm	2150 rpm	2150 rpm	2150 rpm	2150 rpm	2000 rpm	2150 rpm	2300 rpm	2150 rpm	2300 rpm	2200 rpm	2200 rpm
Aspiration	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Turbocharged	Turbocharged	Turbocharged with Intercooler	Turbocharged with Intercooler
Maximum Torque	103 Nm	120 Nm	142 Nm	161 Nm	187 Nm	194 Nm	189 Nm	193 Nm	224 Nm	240 Nm	294.4 Nm	320 Nm
Dry Weight	314 kg	325 kg	370 kg	370 kg	370 kg	380 kg	380 kg	410 kg	390 kg	470 kg	390 kg	390 kg
Dimensions : Length	650 mm	635 mm	780 mm	780 mm	780 mm	725 mm	725 mm	767 mm	725 mm	855 mm	725 mm	725 mm
Width	674 mm	592 mm	703 mm	703 mm	703 mm	564 mm	543 mm	848 mm	543 mm	731 mm	543 mm	543 mm
Height <small>(Without Silencer)</small>	930 mm	870 mm	880 mm	880 mm	880 mm	910 mm	910 mm	953 mm	1031 mm	1090 mm	1033mm	1033mm

INDUSTRIAL ENGINES FIXED SPEED

	198 ES	222 ES	323 ES	421 ES	422 ES	422 TC	422 TCI	621 ES	881 ES	1121 ES	1401 ES	1751 ES
Cooling	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled
Cylinders	1	1	2	3	3	3	3	3	3	4	4	4
Bore	100 mm	115 mm	100 mm	100 mm	100 mm	100 mm	100 mm	108 mm	108 mm	108 mm	108 mm	108 mm
Stroke	125 mm	150 mm	125 mm	125 mm	125 mm	125 mm	125 mm	120 mm	120 mm	134 mm	134 mm	134 mm
hp @ 1500 rpm	12 hp	17.6 hp	26 hp	-	34 hp	46 hp	56 hp	57 hp	80 hp	102 hp	128 hp	160 hp
hp @ 1800 rpm	15 hp	-	30 hp	-	43 hp	56 hp	67 hp	68 hp	92 hp	-	150 hp	-
hp @ 2000 rpm	-	-	-	-	-	-	-	70 hp	-	-	-	-
hp @ 2300 rpm	-	-	-	50 hp	-	-	-	-	-	-	-	-
Aspiration	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Turbocharged	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler
Dry Weight	250 kg	372 kg	370 kg	445 kg	445 kg	480 kg	503 kg	490 kg	490 kg	640 kg	640 kg	650 kg
Dimensions : Length	732 mm	685 mm	610 mm	855 mm	855 mm	855 mm	1018 mm	1160 mm	1267 mm	1471 mm	1471 mm	1471 mm
Width	609 mm	705 mm	565 mm	759 mm	759 mm	714 mm	725 mm	791 mm	890 mm	985 mm	985 mm	985 mm
Height <small>(Without Silencer)</small>	916 mm	1058 mm	1025 mm	948 mm	948 mm	1108 mm	1010 mm	946 mm	1199 mm	1360 mm	1360 mm	1360 mm

ENGINES FOR PUMPSETS FIXED SPEED

	198 ES	222 ES	323 ES	421 ES	422 ES	422 TC	422 TCI	621 ES	881 ES	1121 ES	1401 ES	1751 ES
Cooling	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled
Cylinders	1	1	2	3	3	3	3	3	3	4	4	4
Bore	100 mm	115 mm	100 mm	100 mm	100 mm	100 mm	100 mm	108 mm	108 mm	108 mm	108 mm	108 mm
Stroke	125 mm	150 mm	125 mm	125 mm	125 mm	125 mm	125 mm	120 mm	120 mm	134 mm	134 mm	134 mm
hp @ 1500 rpm	12 hp	17.6 hp	26 hp	-	34 hp	46 hp	56 hp	57 hp	80 hp	102 hp	128 hp	160 hp
hp @ 1800 rpm	15 hp	-	30 hp	-	43 hp	56 hp	67 hp	68 hp	92 hp	-	150 hp	-
hp @ 2000 rpm	-	-	-	-	-	-	-	70 hp	-	-	-	-
hp @ 2200 rpm	-	-	-	50 hp	-	-	-	-	-	-	-	-
Aspiration Type	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Turbocharged	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler	Turbocharged with Intercooler
Dry Weight	250 kg	372 kg	370 kg	445 kg	445 kg	480 kg	503 kg	490 kg	490 kg	640 kg	640 kg	650 kg
Dimensions : Length	732 mm	685 mm	610 mm	855 mm	855 mm	855 mm	1018 mm	1160 mm	1267 mm	1471 mm	1471 mm	1471 mm
Width	609 mm	705 mm	565 mm	759 mm	759 mm	714 mm	725 mm	791 mm	890 mm	985 mm	985 mm	985 mm
Height <small>(Without Silencer)</small>	916 mm	1058 mm	1025 mm	948 mm	948 mm	1108 mm	1010 mm	946 mm	1199 mm	1360 mm	1360 mm	1360 mm

AGRI ENGINES

	142 HS / ES	143 HS / ES	222 HS / ES	321 ES	322 ES	323 ES	421 ES	422 ES	422 TC	422 TCI
Cooling	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled
Cylinders	1	1	1	2	2	2	3	3	3	3
Bore	100 mm	100 mm	115 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm
Stroke	125 mm	125 mm	150 mm	125 mm	125 mm	125 mm	125 mm	125 mm	125 mm	125 mm
Horsepower	12 hp	14 hp	20 hp	32 hp	24 hp	26 hp	45 hp	38 hp	46 hp	56 hp
Engine rpm	1500 rpm	1500 rpm	1500 rpm	2000 rpm	1500 rpm	1500 rpm	2150 rpm	1500 rpm	1500 rpm	1500 rpm
Aspiration Type	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Turbocharged	Turbocharged with Intercooler
Starting	Handle / Electric	Handle / Electric	Handle / Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Dry Weight	250 kg	250 kg	350 kg	320 kg	360 kg	370 kg	410 kg	445 kg	480 kg	503 kg
Dimensions : Length	633 mm	633 mm	664 mm	607mm	660 mm	733 mm	767 mm	820 mm	849 mm	1019 mm
Width	735 mm	735 mm	798 mm	848 mm	848 mm	891 mm	848 mm	848 mm	728 mm	722 mm
Height <small>(Without Silencer)</small>	-	-	-	1187 mm	1187 mm	1187 mm	1187 mm	1187 mm	1107 mm	1042 mm
Height <small>(With Silencer)</small>	1063 mm	1063 mm	1288 mm	1860 mm	1860 mm	1860 mm	1860 mm	1860 mm	2000 mm	2023 mm

*Product images and illustrations are for representation purposes only.
Actual product colors and specifications may vary.