

Fluid Filling Machines for Automotives



2 Wheelers
3 Wheelers



4 Wheelers



HCVs, Tractors
Off Highway Vehicles

CE Certified systems,
approved by leading
global automotive manufacturers



About Twin Engineers

Twin Engineers Pvt. Ltd. offers specialist technology in three areas - Fluid Filling, Meter Mix Dosing and Robotic Dispensing. Twin is the only company globally, that offers solutions across all these three areas and has been a market leader in its chosen niche since the last two decades.

A global network of representatives ensures real-time availability of critical spares, consumables and services. Customers from diverse industries which include automotive, electrical, electronics, filters, PU components rely on Twin's versatile technology for their applications.

The list of materials handled, industries served and machines has only been growing...

25

Years of experience

50+

Different materials handled

13

Industry segments served

500+

Installations

NOTABLE PROJECTS

- **Fully integrated plant** for Desno, world's largest auto-electronic part manufacturer, to automate its electronic potting processes
- **Online, fully automated 6-axis robotic cell** for Ford's engine gasket sealing application
- **Award winning fluid filling solutions** for Toyota's engine and powertrain line
- **Foremost supplier of process automation** solutions for world's leading automobile manufacturers such as Honda, Volvo, Harley Davidson etc.

Full range of Fluid Filling solutions

Twin's proven range of fluid filling machines for TCF & Powertrain lines are trusted by world's top automobile and auto ancillary manufacturers. Twin Engineers has an extensive experience of working with the OEM's as well as large System Integrators.

Solutions to achieve your cycle-time goals

The solutions are developed and customized by Twin's R&D team and engineered to adapt to specific requirements of the OEMs and System Integrator. Twin's design team works closely with the clients to meet desired cycle time. The machines can be easily configured to meet the specific productivity, quality and safety goals of the clients.

Advanced Machines for Filling Applications

- Brake and Clutch Oil
- Radiator Coolant (pre-mix/on-line mixing)
- AC Gas
- Power steering oil
- Engine, Axle and Gearbox oil
- Ad-blue Filling (Aqueous urea)
- Windshield washer fluid
- Fuel (Diesel & Additives)
- Leak tests (Fluid or Gas)

Filling Processes

- Vacuum filling
- Volume filling
- Level filling
- Pressure filling
- Leak tests
- Fluid mixing
- Degassing

Easy maintenance

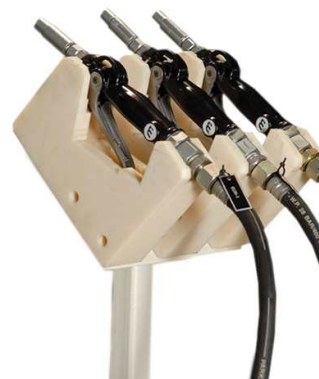
The Filling stations use stainless steel in tanks, piping and other key components, enabling easy cleaning and longer durability. The components can be easily worked upon and do not use any welded joints.

Ergonomic adapter design

Twin's Filling stations are designed keeping the Operator's convenience and ease at its center. The Filling adapters are ergonomically designed, light weight and offer convenient pick-up point when mounted next to assembly line or overhead.

Compact and modular

With modular designs Twin's stations require minimum line space, offer high level of flexibility and yet provide easy access for operation/maintenance tasks.



Metered Quantity Filling and Filtration

Engine, Axle, Gearbox Oil Filling

FEATURES

- Integrated with overhead oil storage or oil barrel
- Transmission filtrations system (Nash 5 level)

SPECIFICATIONS

Automobile Type	2/3/4 Wheelers, LCVs, HCVs, Tractors
Cycle Time	40 s to 60 s
Flow Rate	Adjustable
Oils Handled	5W 30, 10W 30, SAE 90, SAE 14
Options	Calibration Jig, Auto transfer of oil



Urea Filling/Ad-Blue Dispensing Machine

FEATURES

- Automatic filling gun with zero-drip facility
- Designed to meet Euro IV norms

SPECIFICATIONS

Automobile Type	Cars, HCVs
Flow Rate	15 LPM
Options	Calibration Jar, Auto transfer of Urea to machine tank

Diesel Filling Stations

FEATURES

- Flame proof electrical systems
- Fluid Circuit with Vacuum Pump
- Air tight sealing with Manual/Auto-clamp as per necks of different variants of vehicles

SPECIFICATIONS

Automobile Type	HCVs
Cycle Time	120 s for 4.5 L
Flow Rate	35 LPM
Options	Calibration Jar, Auto transfer of Diesel

Windshield Washer Filling machine

FEATURES

- Base stations with overhead consoles
- Multiple selection options and fill size verification

SPECIFICATIONS

Automobile Type	Cars, HCVs
Cycle Time	120 s for 4.5 L
Flow Rate	7 LPM



KEY FEATURES

- Customised Fluid Circuit to achieve accurate and consistent filling
- Range of Automatic Filling Guns to suit the unique port size of different vehicles
- Advanced Flow meters and sensors to precisely measure the quantity of fluid to be filled
- Manual/Auto Dispensing Gun
- Advanced Controller with data logging
- Adapter for air tight sealing

Evacuation, Leak test, leveling and filling

Brake and Clutch Oil Filling

FEATURES

- Degassing of Oil
- Synchronous Trolley/ Moving Trolley
- Multiple gun system available
- ABS Testing along with Brake Oil Filling

SPECIFICATIONS

Automobile Type	2/3/4 Wheelers
Cycle Time	Starting from 80 s
Oils Handled	Dot 3, Dot 4, Servo Transdex II
ABS	Suitable to all makes eg. Continental, Bosch, Mobis etc.
Options	Calibration Jig, Auto transfer of Oil, moving console



Radiator Coolant Filling Machine

FEATURES

The coolant filling machine comes in two standard options

- Pre-mix Coolant dispensing systems
- Systems with facility to mix Coolant and distilled water in machine

SPECIFICATIONS

Automobile Type	2/3/4 Wheelers
Cycle Time	60 s
Hose Length	8-12 mts
Variable Ratio	Equipment with Variable filling Ratio for coolant & distilled water available

Power Steering Oil Filling

FEATURES

- Degassing Of Oil
- Synchronous Trolley/ Moving Trolley
- Auto Clamping Adapter/Gun

SPECIFICATIONS

Automobile Type	4 Wheelers, HCVs
Cycle Time	80 s
Options	Calibration Jar, Auto transfer of oil to machine tank

AC Charging Stations

FEATURES

- Manual/Auto dispensing gun adapter
- Accumulator for maintaining consistent pressure throughout the line

SPECIFICATIONS

Automobile Type	4 Wheelers, HCVs
Flow Rate	925 gm/m
Cycle Time	4 Wheelers 60 s
Cycle Time	HCVs 135 s
Filling Principle	Metered quantity filling(mass flow meter)

- Vacuum pump to seal entire fluid circuit
- Barcode/Rfid based tracking (optional)
- SCADA/MES integration



SUPPORT SERVICES

- Application engineering
- Calibration & commissioning support
- AMCs, Repairs, spares etc.
- Operation & Maintenance Trainings
- Support for system or process upgrade

Combined System for AD Blue, Diesel, AC Charging, Clutch Oil, Washer, Brake Oil Filling



In addition to the compact filling stations, Twin Engineers also offers solutions that combine all filling fluids or gases in a unified system, reducing the number of standalone units and bring in huge savings in space. The filling stations can fulfill mixing, metered filling and vacuum filling processes as a single unit. The filling adapters are designed and color coded to easily match the right fluid filling process.

FEATURES

- Fully customized as per filling processes
- Compact and modular platform
- Multiple fluids and adapters in a single system

Seamless Production with SCADA & MES Integrations

Twin's standalone and combined systems use advanced electronic controls that are easily integrated with the SCADA & MES software on your shopfloor. The Systems can also be easily configured for parameters to monitor and control production lines and thereby improve workflow and productivity.



Specialized Filling Adapters

to meet your productivity goals



Auto Clamp Gun



Drip Free Gun



Engine Oil Filling



Radiator Coolant filling

Twin offers specialised filling adapters designed to suit the specific needs of your filling processes and type of fluids. The light-weight filling adapters use pneumatic clamping and valves to offer high flow rate and ensure ease in operation. With fast and easy handling, the Operator stays productive even if the process uses multiple adapters or fluids.

KEY FEATURES

- Precise measurement at filling point
- High filling speed, lower evacuation time
- Light-weight Well-balanced design
- Coated surface for protection
- Low maintenance, low-cost



Bringing new possibilities of dispensing processes into reality

KEY CLIENTS



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