

MOVABLE



Base
unit

Automatic
cable
trailing unit

Console
adapter

Mobile
console



CONTINUOUSLY MOVING LINE



MOVABLE

MOVABLE Mobile console

MOVABLE – the newest generation of SAT STERLING's single or combined filling systems for continuously moving line production. **MOVABLE** systems are convincing in their automated filling process which is fully synchronised with the continuously moving production line.

SAT **MOVABLE** systems are made for continuous and high-speed production lines with a production rate of more than 25 vehicles per hour. The ability to combine all filling processes with each other allows the parallel filling of the vehicle on a line position identical for all processes.

SAT **MOVABLE** filling systems ensure that you benefit from SAT STERLING's processing and filling quality, even at the shortest cycle times, appreciated the world over.



SINGLE and COMBI

The MOVABLE filling system consists of a base unit, an automatic cable trailing unit, a mobile console and a filling adapter.

The base unit, in turn, is made up of mechanical cabinets that contain the filling modules for the respective medium and the electrical cabinet.

The mechanical cabinets and electrical cabinet are mounted on a common base frame.

The base unit may either be positioned on a platform or at a distance to the line.

The base unit can power and control multiple mobile consoles.

At SAT MOVABLE COMBI systems control technology for all filling modules is integrated in a single cabinet.

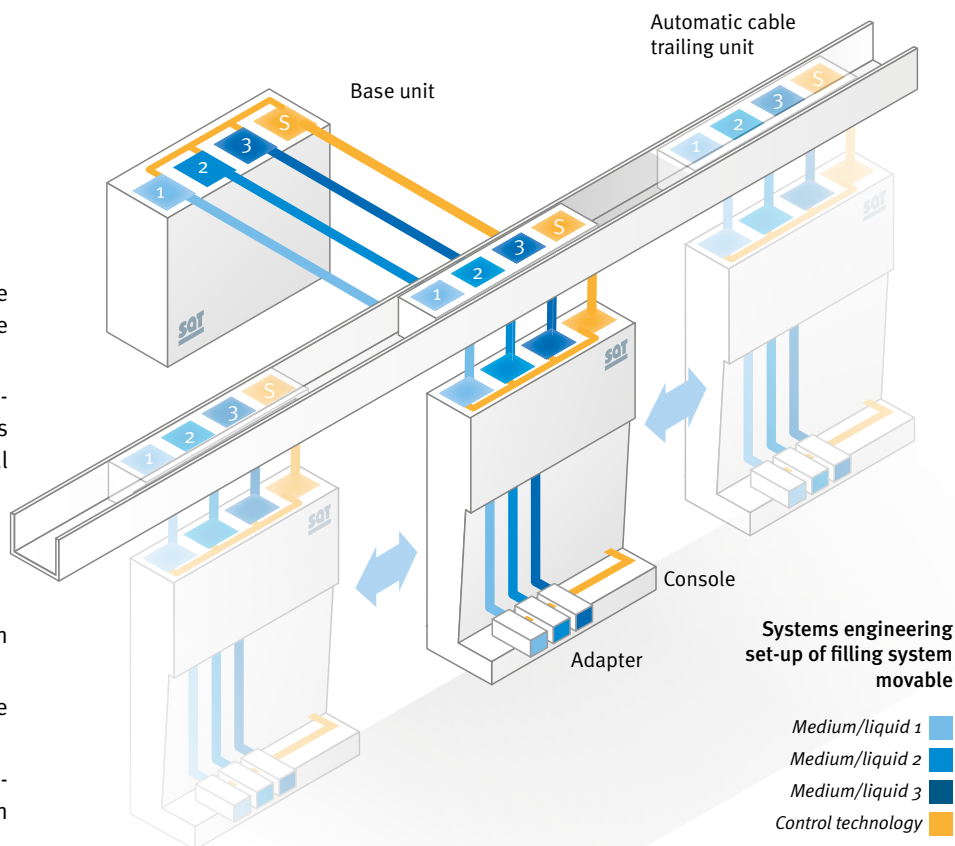
The mobile console consists of the respective filling module, which is accommodated in a separate housing, and the proportional control technology. The mobile console is suspended in a rail system and is automatically moved by using the automatic cable trailing unit. Thus, filling that is synchronised with the production line is achieved.

The adapter for vehicle filling is selectively connected via an adapter quick connector plate or quick couplings directly with the mobile console. Due to these connection principles, a fast exchange of the adapter with the hose package is possible at any time.

SAT STERLING filling adapters are drip-free and can be equipped with special sensors for pressure and vacuum measurement.

The integrated sensors allow recording of process values – as close to the vehicle system as possible.

SAT Movable filling systems are tailored to the individual needs of our customers. The component selection is made according to customer standard, or is based on decades of successfully tested SAT standard.



Integration and automation

SAT STERLING filling systems offer the full spectrum of production system connections.

These include system-internal recipe management, registry by hand scanner, print of results on vehicle data sheet, central recipe control by server system with automatic vehicle identification (via scanner, camera or RFID) and the final storage of the filling results in the existing production system database.

Typically, the actual filling process runs fully automatically after pressing the button on the filling adapter – regardless of connection to the production system.

MOVABLE – handling system

Depending on the preferences of the customer, SAT MOVABLE SINGLE or COMBI systems can be extended by a so-called handling system available in various designs. This handling system allows the vertical and/or horizontal movement of the adapter tray and HMI for console operation.

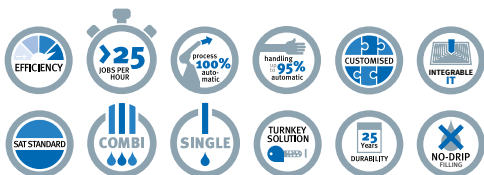
The vertical movement of the adapter tray allows the console to be installed in an elevated position.

Thus, interference of operator, other workers or logistical services are avoided. The horizontal movement enables an optimal presentation of the adapters for the worker.

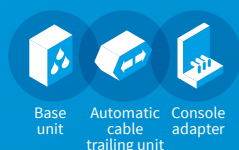
Improved ergonomics and shorter handling times are advantages of this filling system enhanced by a handling system.

Perfect filling processes on consistent high level are guaranteed, even in high-speed assembly lines.

The handling system can be supplemented by individual functions – for example, by an automatic de-adaptation, and it is always adapted individually to the existing conditions. This ensures ease of use by the operator.



MOVABLE



Mobile
console



Advantages



Cost-efficiency

Both single and combined filling systems by SAT STERLING have a high proportion of interchangeable component parts across all processes. The subsequent variance in small parts leads to low costs for storing spare parts.



Synergy

In combined systems, the cross-process sharing of one control unit leads to saving effects in the control technology.



Flexibility

The base unit can be placed at some distance to the line and the same level or on a service platform. This provides maximum flexibility in production line planning.



Saves space

Single and combined, movable filling systems are characterised by a small footprint at the line. This allows more valuable work space.



Optimised utilisation

The combining of processes allows an almost simultaneous filling of individual media. For the worker, different process times regarding the simultaneous filling of individual media lead to sequential adaptation/de-adaptation of the individual filling adapter.

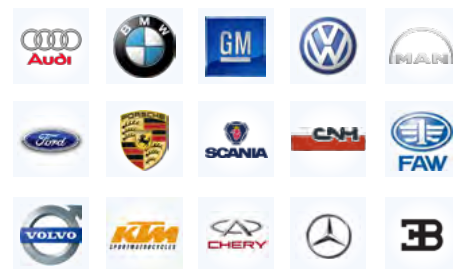
Comparison with other SAT systems

	MOVABLE Single/Combi with handling systems	MOVABLE Single/Combi	COMPACT Single/Combi	STEADY Single/Combi
Jobs per hour up to 25	x	x	x	x
Jobs per hour from 25	x	x		
Optimal place of use	Production line	Production line	Back-up rework area	Production line, rework area, prototype production
Line type	Continuously moving line or interval production	Continuously moving line or interval production	Stationary	Interval production
Set-up	Base unit, automatic cable trailing unit, mobile console, adapter	Base unit, automatic cable trailing unit, mobile console, adapter	Base unit, adapter	Base unit, mobile console, adapter
Operating mode	Movable	Movable	Stationary	Stationary
Footprint at direct line side	No	No	Yes	No

Common applications

- Brake fluid
- Climate gas (R134a, R1234yf, CO₂)
- Refrigerant
- Windshield washer fluid
- Power steering fluid
- Oil (vented systems, e.g. gearbox, differential)
- SCR urea fluid (AdBlue®, Cleandiesel®, Bluemotion®, Urea)
- Fuel
- Gases (incl. conditioning)

References



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