

## Instructions for SMT CEN, TDI and TDL Series Changeover Manifolds

### Introduction

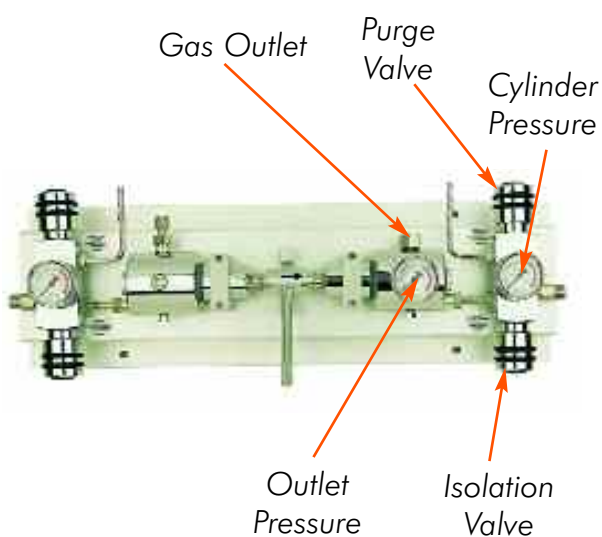
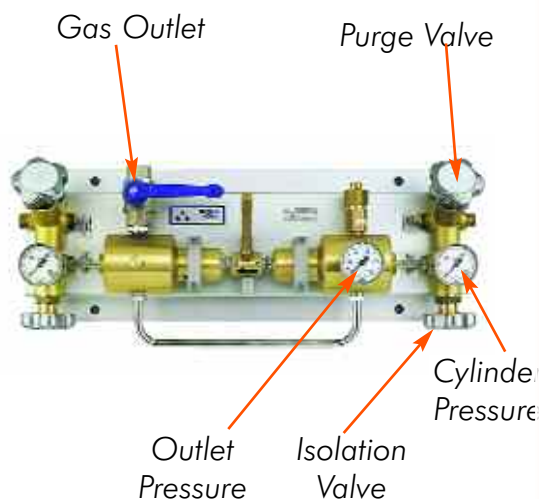
The SMT series of changeover manifolds are designed to provide continuous supply of industrial, high purity and speciality gases, with semi automatic changeover operation. Please see the relevant data sheet for specific technical information for each model type.

### Installation

Installation of SMT manifolds is relatively simple since they are pre-assembled on a robust backing plate with pre-drilled mounting holes. Be aware when positioning the manifold of the expected cylinder hose length to the gas cylinders – particularly when small Special Gas cylinders are employed.

### Components

The manifold consists of two identical “wings”, with cylinder contents gauges on each. Each wing is also fitted with an isolation valve, which stops gas from entering the central regulator. A purge valve is also fitted to each wing and is designed for use when an empty cylinder is replaced, in order to ensure that any atmospheric contaminants that may have been introduced during the change over are removed.



The central regulator has an output pressure gauge fitted which shows the pressure supplied from the manifold to the downstream process.

The changeover system consists of a handle, which has an arrow pointing towards the wing in main operation. Alarm systems to indicate a changeover are available as an optional extra.

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## Usage

On commissioning, connect full cylinders to both wings of the manifold. Do not open the cylinder valves at this point.

Ensure the isolation and purge valves for each wing are closed.

Carefully open the purge valves for a few seconds in order to remove any contaminants. Be particularly cautious when dealing with flammable or toxic gases; refer to the Material Safety Data Sheet for the gas cylinders.

Close the purge valves and open the isolation valves in sequence. Avoid opening both isolation valves at the same time. The position of the changeover handle can be to either wing, but must be either fully up or down, not in any in-between state.

At this point the cylinder contents gauge for both wings should show full (the actual pressure recorded does depend upon the maximum pressure in the cylinder connected).

Open the blue outlet valve handle to start flow to the downstream process (CEN models only).

The arrow on the changeover handle depicts the wing in operation.

The supply will now continue until the cylinder is depleted. The current state of the cylinder pressure can easily be monitored by the contents gauge on the manifold.

Once the cylinder is close to empty, the changeover system will automatically sense this and move supply to the spare wing. Outlet supply will not be interrupted during the changeover, but will be about 10% below the normal value.

At a convenient point, the changeover handle should be moved fully over to the cylinder now in operation, and full output pressure will be resumed.

The isolation valve for the empty wing should now be closed and the empty cylinder changed. Replace with a full cylinder, open the cylinder valve, use the purge valve briefly and re-open the isolation valve. Please note it is imperative that the isolation valve be re-opened after changing a cylinder, otherwise the supply will not continue when the other wing is depleted.