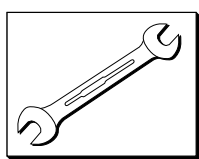


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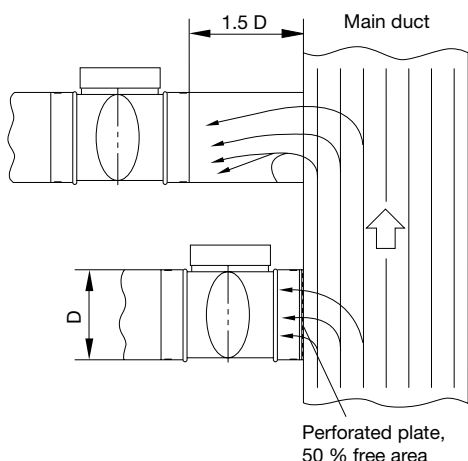
Product Information Volume Flow Controller Type RN Installation, Operation, Maintenance

**When unpacking the controller,
read and take note of
these installation instructions!**

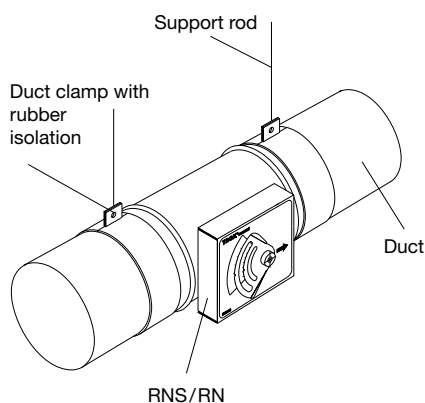


Installation

Branch Connection



Duct Connection



Product Application

The volume flow controllers type RN are designed for use in ventilation and air conditioning systems. Only suitably painted volume flow controllers should be installed in systems designed to handle aggressive exhaust air, after thorough testing has been completed.

Safety Measures

Install professionally and support with secure hanging brackets.

Packaging, Delivery and Storage

The volume flow controllers are packed in disposable container.

- Check goods immediately after delivery to ensure that they are complete and have not been damaged during transportation. Inform the carrier and TROX immediately if the delivery is incomplete or damaged.
- Do not expose the controllers directly to the elements even when packed. Protect from damp, effects of direct sunlight and dirt.
- Store between -10°C and $+50^{\circ}\text{C}$ ambient temperature.
- Do not remove packing until just before installation.

Installation and Connection Method

- Choose location so that the scales on the controllers are accessible.
- The desired volume flow can be read and, if necessary, set, at an external scale.
- Controller operation not dependent on gravity.
- Ensure air flow is in the direction of the arrow on the label.
- Do not locate controller before bends, near dampers or other obstructions.
- When connection to the main duct, ensure that the length of the straight branch duct is $1.5 D$, otherwise a perforated plate must be installed as shown.
- For extract air operation, direct connection to the main duct without a perforated plate is possible.
- Free inlet to controller on extract air application cannot be used. Fit minimum inlet duct of length $1.5 D$, with suitable fairing to reduce inlet pressure drop.

Duct Connection

The controller spigot diameters are suitable for circular ducting to DIN EN 1506 and DIN EN 13180 or flange mounted according to DIN EN 12220 (not by RNS).

The controller should not be drilled under any circumstances!

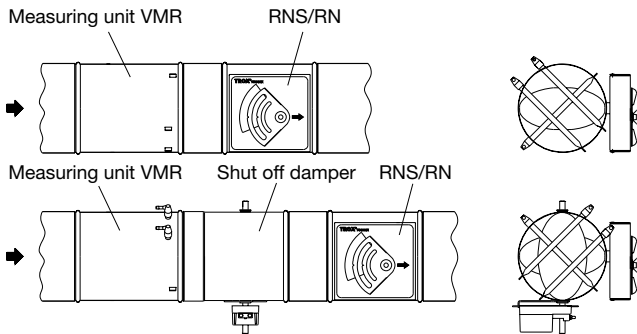
- Check connection ducts for debris before installing the controllers.
- Seal duct connections to controller with approved sealants.
- Heat shrink sleeves are only to be applied by skilled operator.

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Product Information Volume Flow Controller Type RN Installation, Operation, Maintenance

Installation Requirements



Connection of Measuring Unit and Shut Off Damper

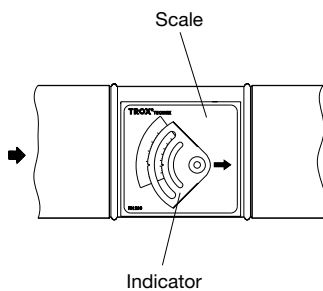
When connecting measuring unit VMR and/or shut off damper, the following directions must be followed:

- Arrange sensor tubes of VMR by 45° offset to controller and/or damper axis.
- Axis of shut off damper and volume flow controller to be 90° relative to each other.
- Fit restrictor to the control pressure line if the shut off damper has a pneumatic actuator.



Commissioning

Flow Setting \dot{V}

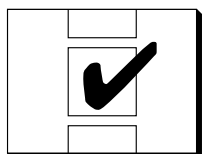


Volume Flow Setting

The controllers are supplied with a nominal volume flow set at the factory. The required volume flow is to be set by the customer using the external calibrated scale. Regarding RNS controller do not adjust at indicator, but use wrench SW 8.

The accuracy of the scale is approximatedly $\pm 4\%$.

For construction with actuator, the minimum and maximum required volume flow rates are set. A subsequent modification is possible by change of swing angle limitation.



Maintenance

Under normal conditions, the controllers are maintenance-free when installed in ventilation and air conditioning systems.