Private: Halton JTC – Swirl diffuser (Terminated as of ???)

Introduction

JTC

Swirl Diffuser

- Horizontal radial air supply
- Installation of the diffuser flush to the ceiling with integrated plenum
- Supply air jet velocity is effectively reduced in the room due to high mixing effect
- Available in nominal size 250, adapted for installation in a modular 600×600 mm suspended ceiling
- Circular duct connection with rubber gasket
- Cleaning of the terminal unit and supply ductwork are enabled by the openable front plate

Accessories

- Measurement and adjustment module
- Internal sound attenuation material for the plenum

Dimensions

DIMENSIONS

Material

MATERIAL AND FINISHING

PART	MATERIAL	NOTE
Plenum	Galvanised steel	
Front panel	Steel	
Coupling sleeve with gasket	Galvanised steel	Gasket of rubber compound
Finishing	Epoxy-painted (std RAL 9010)	Special colour available

Product Models

PRODUCT MODELS

PRODUCT MODEL	DESCRIPTION
JTC/A	With airflow measurement and adjustment module MSM
JTC/B	With sound attenuation inside the plenum
JTC/C	With airflow measurement and adjustment module MSM and sound attenuation
JTC/N	Without accessories

Function

FUNCTION

- Horizontal radial swirl jet air is supplied into the space through the profiled spiral blades of the diffuser.

- Supply air jet velocity is effectively reduced due to the high mixing effect.

Installation

INSTALLATION

CODE DESCRIPTION
1 FRONT PANEL
2 FRAME
3 PLENUM

Dimensions of installation hole

D	AxB
250	565×565

Adjustment

ADJUSTMENT

The supply airflow rate is determined by using the measurement and adjustment module MSM.
Open the front panel and pass the tubes and control spindle through the diffuser front plate.
Replace the front panel.
Measure the differential pressure with a manometer. The flow rate is calculated using the formula below.

$$q_v = k * \sqrt{\Delta p_m}$$

Adjust the airflow rate by rotating the control spindle until the desired setting is achieved.
Lock the damper position with a screw.
Replace the tubes and spindle into the plenum and replace the diffuser front panel.

K-factor for installations with different safety distances (D= duct diameter)

JTC	>8xD	min 3xD
250	47.9	51.5

Servicing

SERVICING

Detach the front panel of the diffuser by gently pulling it down and let it hang by its hinges.
Remove the measurement and adjustment module by gently pulling the shaft (NB. not the control spindle or measurement tubes!).
Wipe the parts with a damp cloth, instead of immersing in water.

Remount the measurement and adjustment module by pushing in the shaft until the module meets the stopper.
Push the front panel back into place so that the springs lock.

Specification

SUGGESTED SPECIFICATIONS

The diffuser shall consist of a galvanised steel plenum and detachable diffuser made of epoxy-painted steel with a white RAL 9010 as standard colour. The ductwork connection shall be located at the side of the unit. The diffuser dimensions shall be adapted to a modular 600×600 mm suspended ceiling.
The swirl diffuser comprises fixed spiral blades to ensure high mixing rate.

The diffuser shall provide access to the plenum and ductwork for cleaning and maintenance.

Product Code

PRODUCT CODE

JTC/S-D

S = Model
A Measurement and adjustment module MSM
B Sound attenuation material
C Sound attenuation and MSM
N Without accessories

D = Diameter of duct connection
250

Specifics and accessories

CO = Colour
W White
X Special colour

Code example

JTC/A-250, CO=W