

Halton Jaz JDA – Diffuser with side slot

Overview

- Ceiling diffuser with side slot in square shape
- Suitable for supply and exhaust
- Installation either directly to ductwork or to balancing plenum
- Detachable front panel enables the cleaning of the diffuser and ductwork
- Deflector panels for direction of flow pattern in 1-3 directions
- Circular duct connection with rubber gasket

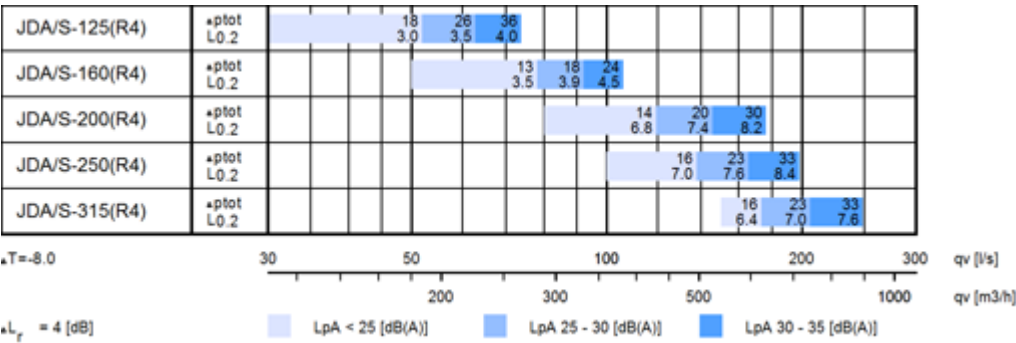
Accessories

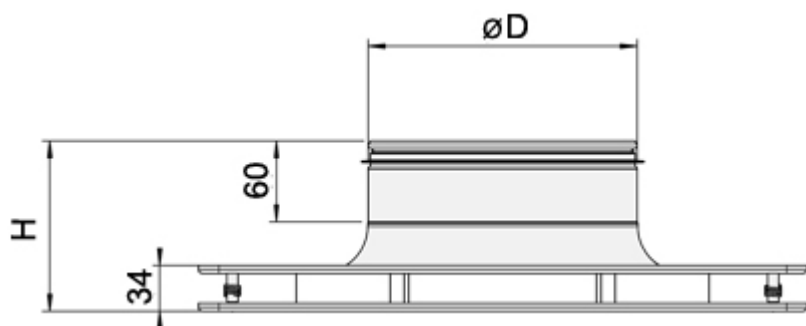
- Set of deflector panels provide control flow pattern direction
- Balancing plenum with measurement and adjustment functions
- Installation panel for modular ceiling

Product models

- JDA/S, solid front panel
- JDA/P, perforated front panel
- Direct installation to the ceiling opening
 - Standard T-bar ceiling
 - Clip-in ceiling

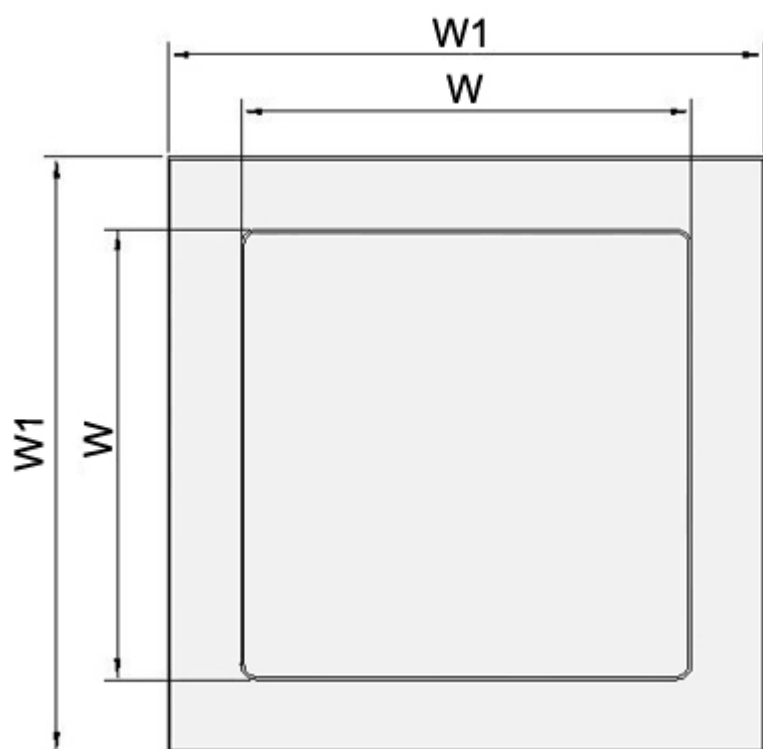
Quick selection

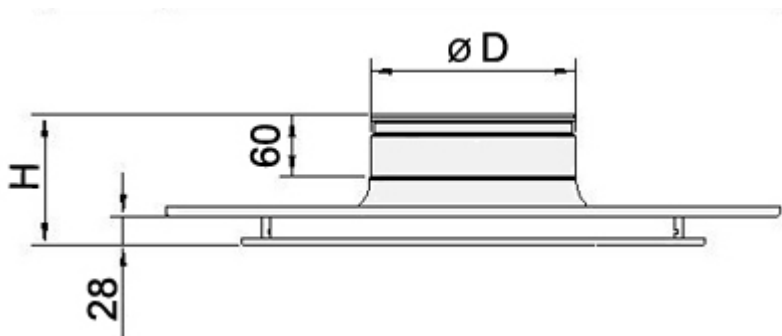




NS	W	H	$\varnothing D$
125	300	116	124
160	300	121	159
200	450	126	199
250	450	136	249
315	600	146	314

Halton Jaz JDA, ceiling integrated model (WS = T or C)

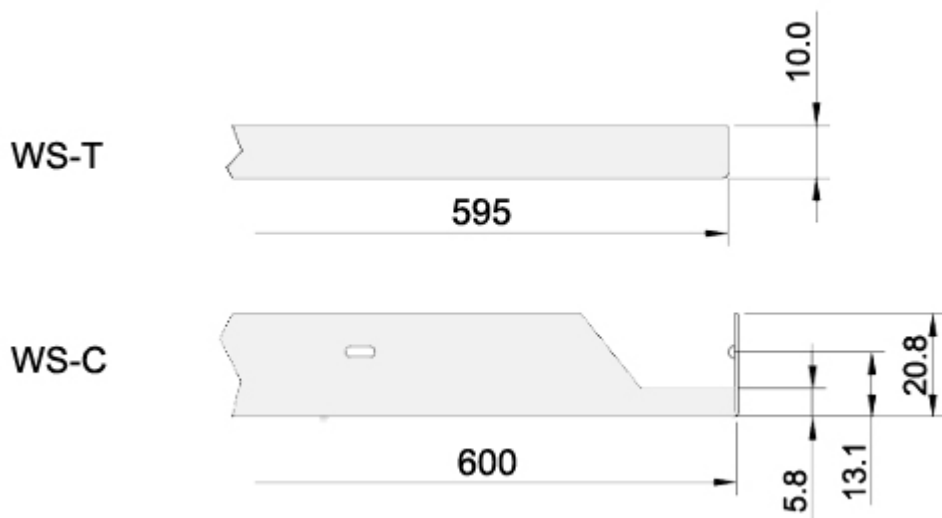




NS	W	W1 (WS=T)	W1 (WS=C)	H	ØD
125	300	595	600	119	124
160	300	595	600	124	159
200	450	595	600	129	199
250	450	595	600	139	249

WS-T = Standard T-bar, tile 600×600

WS-C = Clip-in ceiling, tile 600×600 (Dampa)



Weight

NS	kg
125	1.5
160	1.5
200	3.3
250	3.4
315	6.6

Material

Part	Material	Note
Upper plate	Steel	–
Upper plate, ceiling integrated model (WS)	Steel	–
Front panel	Steel	–
Deflection panels (DP)	Foamed plastic	–
Coupling sleeve with gasket	Galvanised steel	Gasket rubber compound
Installation panel (PI)	Steel	–
Finishing	Painted, white (RAL 9003/30%)	Special colour available

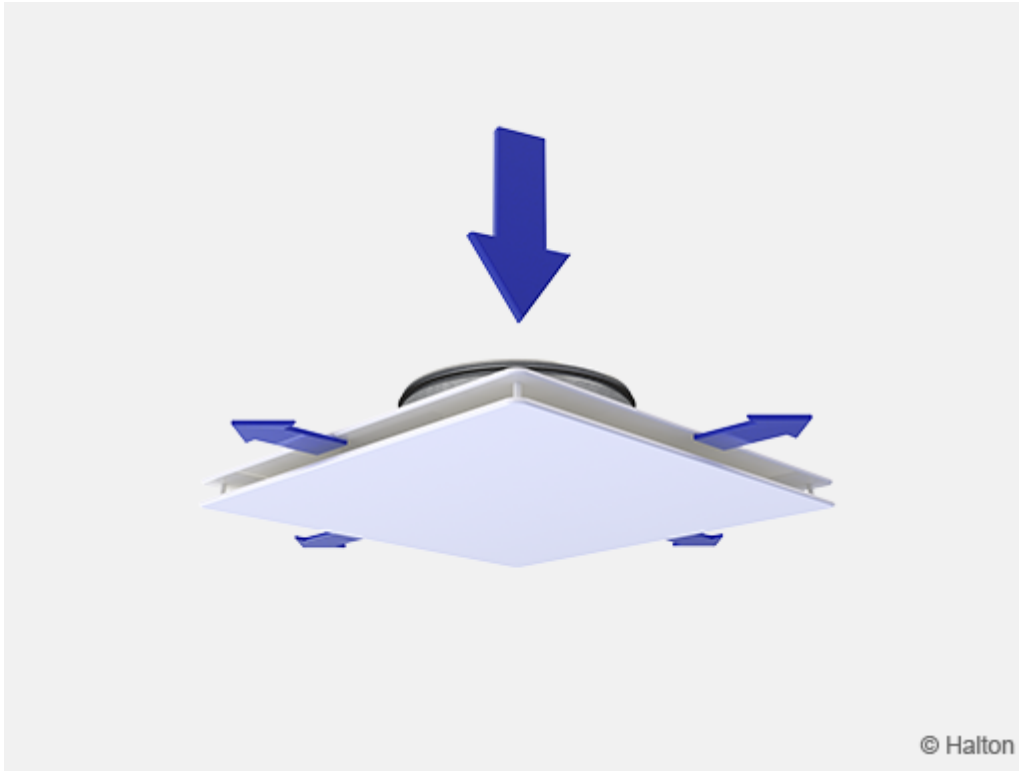
Accessories

Accessory	Code	Description
Deflector panel	DP	A set of panels for providing the flow pattern in 3, 2 and 1 directions
Balancing plenum	TRI	For balancing and equalising the airflow and attenuating the duct noise (polyester fibre)
Balancing plenum	TRH	For balancing and equalising the airflow and attenuating the duct noise (mineral wool)
Installation panel	PI-N	For standard 600×600 module ceiling installation, colour white (RAL 9003)
	PI-C	For Clip-In module ceiling installation, colour white (RAL 9003)

Installation panel (PI)



Function



- Air is supplied into the space through the side slots and mixed with the room air outside the diffuser.
- Recommended maximum air temperature difference between supply and room air is 10 °C.
- The throw pattern can be deflected in different (1, 2 and 3) directions with the deflection panels

Product models

Halton Jaz JDA/S (solid front panel)



Halton Jaz JDA/P (perforated front panel)



Halton Jaz JDA, ceiling integrated (WS=T or C)



Installation

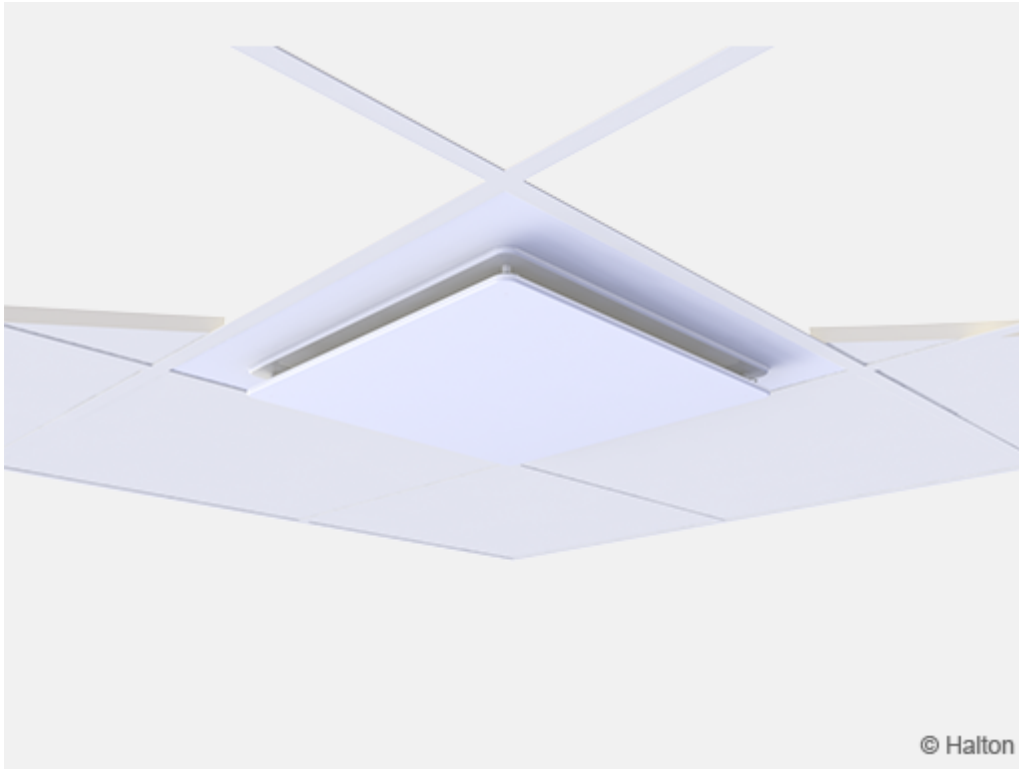


Fig.1. Halton Jaz JDA (solid) installed with installation panel (PI)

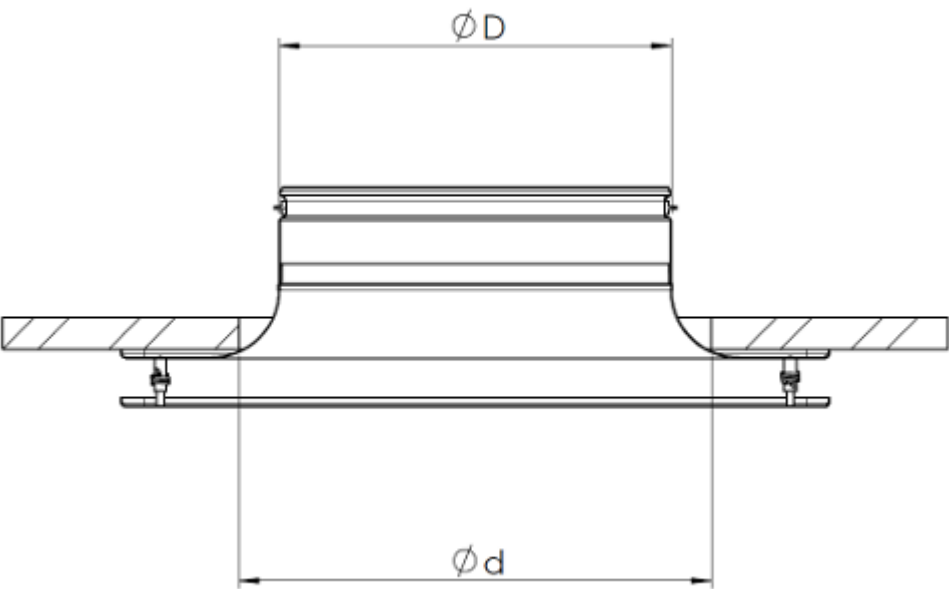
The diffuser is connected either directly to the duct by screwing or riveting, or alternatively to the Halton TRI or Halton TRH balancing plenum.

The desired flow pattern is selected during installation with the deflector panels, according to the installation manual.

The recommended minimum safety distance upstream of the diffuser is $3xD$.

In an exhaust application deflector panel is not used.

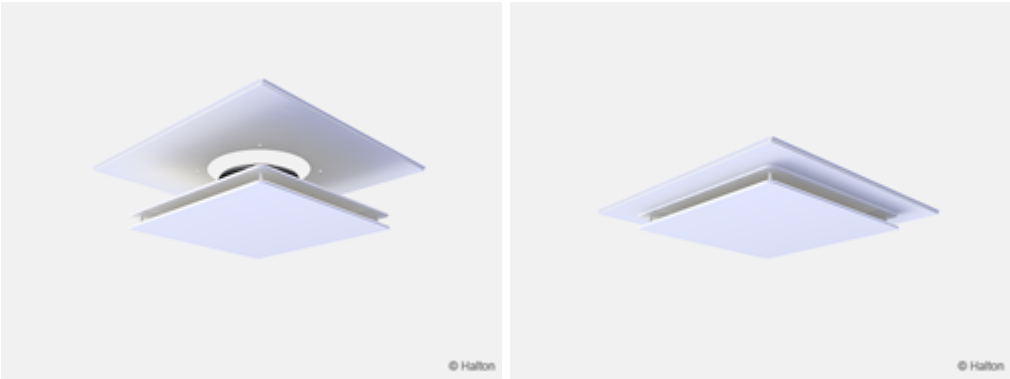
Installation in suspend ceiling

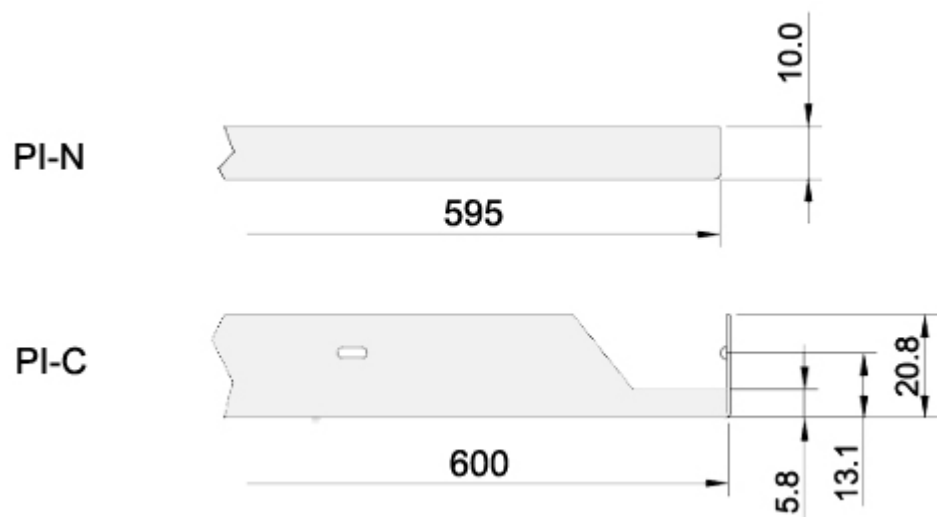


Ø D	Ø d
124	160
159	215
199	255
249	320
314	405

Installation with ceiling panel (PI)

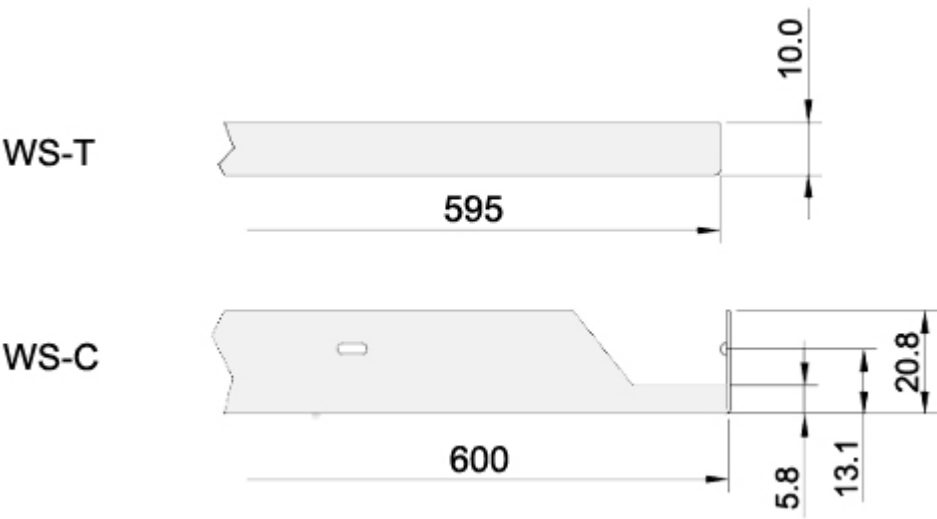
The ceiling panel will enable installation in different modular suspend ceiling tiles.





Code	Description
PI-N	T-bar ceilings
PI-C	Clip-in (Dampa)

Installation with integrated ceiling model (WS)

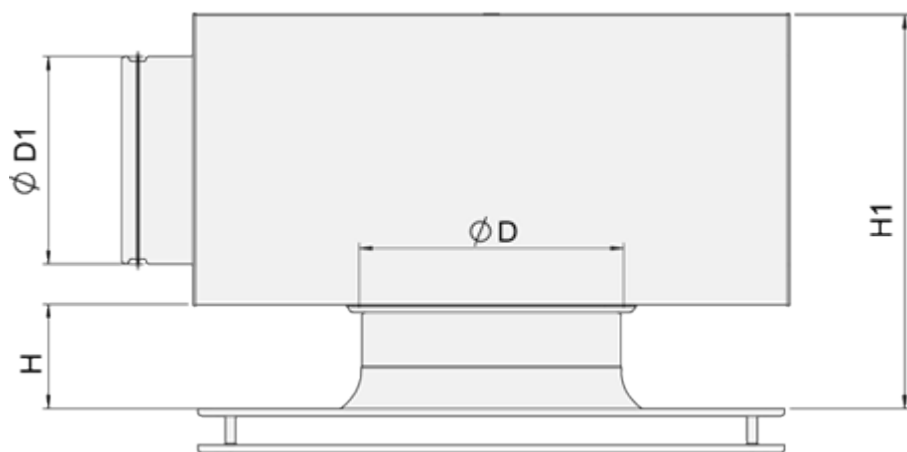


Code	Description
WS-T	T-bar ceilings
WS-C	Clip-in (Dampa)

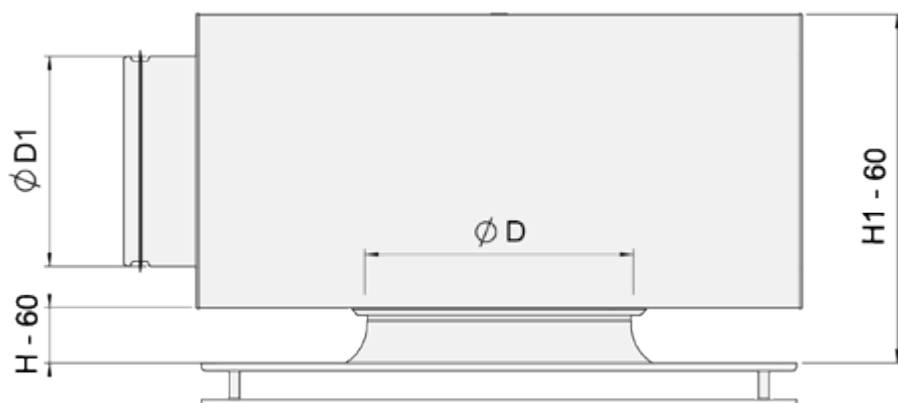
Installation with Halton TRI or Halton TRH

Diffuser collar of Halton TRI plenum can be installed either internally or externally onto the bottom of the plenum. The height of the unit for the external installation is presented in the table below. When the collar in Halton TRI is installed internally, the heights H and H1 are reduced by 60 mm (see images below).

Option 1: Diffuser collar installed externally (Halton TRI or Halton TRH)



Option 2: Diffuser collar installed internally (Halton TRI)



NS	Ø D1	Halton TRI	H	H1
125	100	TRI-100-125	91	248
125	125	TRI-125-125	91	278
160	100	TRI-100-160	96	253
160	125	TRI-125-160	96	283
160	160	TRI-160-160	96	323
200	125	TRI-125-200	101	288
200	160	TRI-160-200	101	328
200	200	TRI-200-200	101	378
250	160	TRI-160-250	111	338
250	200	TRI-200-250	111	388
250	250	TRI-250-250	111	452
315	200	TRI-200-315	121	398
315	250	TRI-250-315	121	462
315	315	TRI-315-315	121	508

NS	Ø D1	Halton TRH	H	H1
125	100	TRH-100-125	80	232
125	125	TRH-125-125	80	260
160	100	TRH-100-160	85	237
160	125	TRH-125-160	85	265
160	160	TRH-160-160	85	297
200	125	TRH-125-200	90	270
200	160	TRH-160-200	90	302
200	200	TRH-200-200	90	354
250	160	TRH-160-250	100	312
250	200	TRH-200-250	100	364
250	250	TRH-250-250	100	416
315	200	TRH-200-315	110	374
315	250	TRH-250-315	110	426
315	315	TRH-315-315	110	491

The technical performance for the combination of supply air diffuser and plenum is presented separately for these two different installation cases.

Adjustment

The diffuser itself has no means for airflow adjustment.

In order to enable airflow adjustment and measurement of airflow rate it is recommended to connect the diffuser to the HaltonTRI/TRH balancing plenum. The supply flow rate is determined by using the measurement and adjustment module MSM.

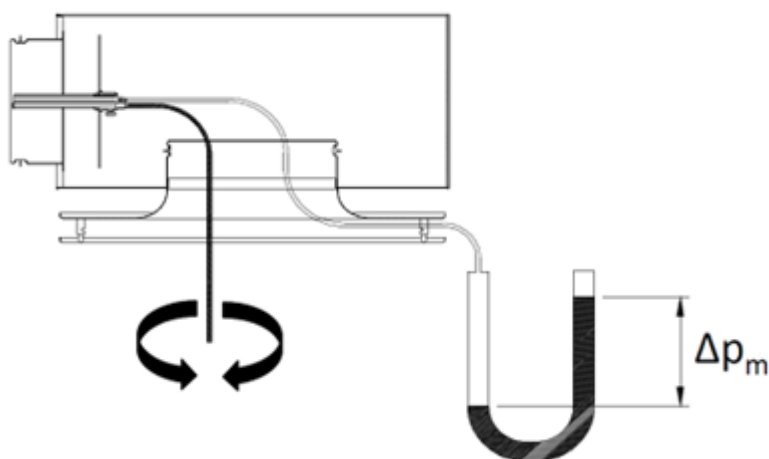
Open the front plate and pass the tubes and control spindle through the side slot of the diffuser. Replace the front panel.

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.

Set the tubes and spindle back into the plenum and push back the diffuser front panel.



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

TRI	> 8xD	min 3xD
100	6.0	7.5
125	9.9	12.6
160	16.9	21.9
200	28.3	32.0
250	47.9	51.5
315	78.6	–

TRH	> 8xD	min 3xD
100	6.5	7.5
125	10.8	12.6
160	19.4	21.9
200	29.7	31.0
250	48.8	51.5

Servicing

Open the front panel of the diffuser and clean the parts by wiping them with a damp cloth. Push the front panel back into place so that the springs lock.

Option with balancing plenum

Open the front panel of the diffuser.
Remove the measurement and adjustment module by gently pulling the shaft.
Note: 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 unit meets the stopper.
Push the front panel back into place so that the springs lock.

Specification

The diffuser shall be made of painted steel with a white (RAL 9003) standard colour. Air shall be introduced into the space through the side slot, ensuring a high mixing rate. Flow pattern of the diffuser shall be adjustable in 1, 2, or 3 -way directions by shaping the deflector.

Alternative 1: No balancing plenum

The diffuser shall have a spigot with integral gasket for connection to circular duct.
The diffuser shall have a detachable solid or perforated front panel to provide access to the duct.

Alternative 2: Option with balancing plenum

The diffuser shall be connected to a balancing plenum equipped with a measurement and adjustment module.
The diffuser shall have a detachable solid or perforated front panel to provide access to the

measurement and adjustment module in the plenum.

The balancing plenum shall have a spigot with integral gasket for airtight duct connection.

The balancing plenum shall comprise sound attenuation material made of polyester fibre with a washable surface.

Order code

JDA/S-D; CO-WS-ZT

S = Model

S Solid front panel

P Perforated front panel

D = Duct connection size (mm)

125, 160, 200, 250, 315

Other options and accessories

CO = Colour

SW Signal white (RAL 9003)

X Special colour (RAL xxxx)

WS = Ceiling integration model

NA Not assigned

T Standard T-bar ceiling, tile 600×600

C Clip-in ceiling, tile 600×600 (Dampa)

ZT = Tailored product

N No

Y Yes (ETO)

Sub products

DP Deflector panel

PI Panel for ceiling installation:

PI-N T-bar ceilings

PI-C Clip-in (Dampa)

Balancing plenums with airflow controls and sound attenuation

Halton TRI/S for supply air

Halton TRI/E for exhaust air

Halton TRH/S for supply air

Code example

JDA/S-200, CO=SW, WS=NA, ZT=N