



Conforme à VDI 6022



QLI

INDUCTION-TYPE DISPLACEMENT FLOW DIFFUSER IN NOMINAL LENGTHS OF 900, 1200 AND 1500 MM, WITH VERTICAL HEAT EXCHANGER AND CONDENSATE DRIP TRAY

Induction-type displacement flow diffuser with 2-pipe or 4-pipe heat exchanger, for installation under a sill. The condensate drip tray is useful if the temperature temporarily falls below the dew point.

- High heating and cooling capacity with a low conditioned primary air volume flow rate and low sound power level
- High comfort levels due to low airflow velocity in the occupied zone
- Three nozzle variants to optimise induction based on demand
- Two different heat exchanger positions

Optional equipment and accessories

- Control package
- Fixing systems for wall and floor fixing
- Powder coating in many different colours, e.g. RAL CLASSIC or NCS

Application



Application

- Induction-type displacement flow diffusers of Type QLI for installation under a sill
- High comfort levels due to low-turbulence airflow and low airflow velocity in the occupied zone
- 2-pipe or 4-pipe heat exchangers enable good comfort levels with a low conditioned primary air volume flow rate
- Energy-efficient solution since water is used as a medium for heating and cooling
- Inducing displacement flow
- Choice of location for primary air spigot at a narrow side; end cap may have to be changed accordingly

Special characteristics

- Low-turbulence supply air discharge as inducing displacement flow
- Vertical heat exchanger as 2-pipe or 4-pipe system, optional condensate drip tray including condensate drain that can be connected to a condensate pipe (to be provided by others)
- Water connections at the narrow side, G½" external thread and flat seal

Description



Variants

- WVL: Heat exchanger at the front, water connections on the left
- WVR: Heat exchanger at the front, water connections on the right
- WHL: Heat exchanger at the rear, water connections on the left
- WHR: Heat exchanger at the rear, water connections on the right

Construction

- Galvanised
- P1: Powder-coated RAL 9005, black, gloss level 70 %

Accessories

- W0: Wall fixing
- B0: Floor fixing
- WB: Wall and floor fixing
- Condensate drip tray

Useful additions

- Connecting hoses
- Control equipment consisting of a control panel including a controller with integral room temperature sensor; valves and valve actuators; and compression couplers

Construction features

- Spigot is suitable for circular ducts to EN 1506 or EN 13180
- Three nozzle variants to optimise induction based on demand
- Vent valves

Materials and surfaces

- Casing, supply air grille, and primary air plenum with punched nozzles are made of galvanised sheet steel
- Heat exchanger with copper tubes and aluminium fins
- Exposed surfaces either galvanised or black (RAL 9005)

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Functional description

Induction-type displacement flow diffusers provide centrally conditioned primary air (fresh air) to the room and use heat exchangers for cooling and/or heating.

The primary air is discharged through nozzles and induces secondary air (room air), which passes through the heat exchanger.

Primary and secondary air mix and are then supplied to the room, causing only very little turbulence.

Schematic illustration of QLI



Nominal length	900, 1200, 1500 mm
Length	975, 1275, 1575 mm
Width	195 mm
Height	729 mm
Primary air volume flow rate	4 – 50 l/s, 14 – 180 m³/h
Cooling capacity	Up to 1000 W
Heating capacity	Up to 750 W
Max. operating pressure, water side	6 bar
Max. operating temperature, water side	75 °C

Quick sizing

L _N		Primary air				②	Cooling				Heating			
①	V _{pr}	l/s		m³/h	Pa	L _{WA}	2-pipe and 4-pipe systems				4-pipe system			
							Q _{tot}		Δt _W	Δp _W	Q _{tot} = Q _{tot}		Δt _W	Δp _W
		Pa	dB (A)	W	K	W	K							
900	M	4	14	53	<20	237	188	1.5	3.1	228	3.9	0.2		
		6	22	121	24	332	260	2.0	3.1	314	5.4	0.2		
		8	29	217	32	415	318	2.5	3.1	386	6.6	0.2		
	G	7	25	40	<20	317	233	1.8	3.1	281	4.8	0.2		
		11	40	102	22	456	323	2.5	3.1	392	6.7	0.2		
		15	54	191	31	571	391	3.1	3.1	474	8.2	0.2		
	U	17	43	42	<20	387	242	1.9	3.1	293	5.0	0.2		
		19	68	108	28	550	321	2.5	3.1	389	6.7	0.2		
		26	94	204	37	677	364	2.8	3.1	441	7.6	0.2		
	M	5	18	45	<20	293	233	1.8	3.8	281	4.8	0.3		
		8	29	117	23	431	335	2.6	3.8	406	7.0	0.3		
		11	40	222	32	548	416	3.3	3.8	505	8.7	0.3		
1200	G	9	32	37	<20	401	293	2.3	3.8	355	6.1	0.3		
		15	54	106	23	601	420	3.3	3.8	510	8.8	0.3		
		21	46	208	33	761	508	4.0	3.8	618	10.6	0.3		
	U	16	56	45	<20	506	313	2.4	3.8	379	6.5	0.3		
		25	90	112	31	709	428	3.2	3.8	495	8.5	0.3		
		34	122	207	40	871	481	3.6	3.8	590	9.6	0.3		
	M	6	22	41	<20	347	275	2.2	4.5	333	5.7	0.4		
		10	36	115	23	526	405	3.2	4.5	492	8.5	0.4		
		14	50	228	33	674	505	3.9	4.5	614	10.6	0.4		
	G	11	40	36	<20	483	350	2.7	4.5	424	7.3	0.4		
		19	68	111	25	737	508	4.0	4.5	618	10.6	0.4		
		27	97	225	35	939	613	4.8	4.5	747	12.9	0.4		
U	20	72	49	23	621	360	3.0	4.5	451	7.9	0.4			
	28	101	96	33	802	464	3.6	4.5	564	9.7	0.4			
	36	130	163	41	956	521	4.1	4.5	634	10.9	0.4			

① Nozzle variant

② Air-regenerated noise

Reference values

Parameter	Cooling	Heating
t _h	26 °C	22 °C
t _{pr}	16 °C	22 °C
t _{prv}	16 °C	50 °C
V _W	110 l/h	50 l/h

Induction-type displacement flow diffuser of Type QLI, with one-way discharge and high thermal output, providing high thermal comfort levels.

For installation on a wall or under the sill

The units consist of a casing with a primary air plenum, spigot, non-combustible nozzles, and vertical heat exchanger; a condensate drip tray is optional.

Special characteristics

- Low-turbulence supply air discharge as inducing displacement flow
- Vertical heat exchanger as 2-pipe or 4-pipe system, optional condensate drip tray including condensate drain that can be connected to a condensate pipe (to be provided by others)
- Water connections at the narrow side, G½" external thread and flat seal

Materials and surfaces

- Casing, supply air grille, and primary air plenum with punched nozzles are made of galvanised sheet steel
- Heat exchanger with copper tubes and aluminium fins
- Exposed surfaces either galvanised or black (RAL 9005)

Construction

- Galvanised
- P1: Powder-coated RAL 9005, black, gloss level 70 %

Technical data

- Nominal length: 900, 1200, 1500 mm
- Length: 975, 1275, 1575 mm
- Width: 195 mm
- Height: 729 mm
- Primary air volume flow rate: 4 – 50 l/s or 14 – 180 m³/h
- Cooling capacity: up to 1000 W
- Heating capacity: up to 750 W
- Max. operating pressure: 6 bar
- Max. operating temperature: 75 °C

QLI

QLI – 2 – M – WVR – KW / 900 / W0 / P1 / VS								
1	2	3	4	5	6	7	8	9

1 Type		6 Nominal length [mm]	
QLI	Under sill induction unit	900	
		1200	
		1500	
2 Heat exchanger		7 Fixing material (supplied separately)	
2	2-pipe	No entry: none	
4	4-pipe	W0 Wall fixing	
3 Nozzle variants		B0 Floor fixing	
M	Medium	WB Wall and floor fixing	
G	Large		
U	Extra large		
4 Arrangement of heat exchanger and water connections		8 Surface	
WVL	Heat exchanger at the front, water connections on the left	No entry: galvanised steel	
WVR	Heat exchanger at the front, water connections on the right	P1 Powder-coated RAL 9005, black, gloss level 70 %	
WHL	Heat exchanger at the rear, water connections on the left	9 Valves and actuators	
WHR	Heat exchanger at the rear, water connections on the right	No entry: none	
5 Condensate drip tray		VS With	
No entry: none			
KW	With		