

VZ-AR

Circular duct diffuser for supply- or extract air



QUICK FACTS

- Duct diffuser in a circular design
- Meets high decorative requirements for suspended installations
- Mounted horizontally as standard, but can also be mounted vertically
- High flexibility with the adjustable air deflectors
- Non-painted as standard
- Air deflectors in standard colour Jet Black RAL 9005

VZ-AR					
Length L_r (mm)	Slot/ perforation length A (mm)	Diameter D (mm)	Number of slots/ perforation rows	Recommended air flow V	
				l/s	m ³ /h
1490	1200	160-800	1	31	112
		160-800	2	62	224
		200-800	3	93	336
		224-800	4	124	448
		224-800	5	156	560
		250-800	6	187	672
		355-800	8	249	896

More sizes and information on the duct diffuser dimensions on page 5.

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Technical description

Design

The VZ-AR circular duct diffuser is available in a supply- or extract air variant.

VZ-AR for supply air consists of slots equipped with 75 mm air deflectors, featuring rectifier blades and double boomerang profiles, each individually adjustable.

In the extract air variant, the diffuser has perforations. The perforations are arranged transverse to the longitudinal axis, with dimensions determined according to the required extract air flow.

Individual duct sections can be connected using plain duct ends with duct joints and rubber seals. Alternatively, versions with METU flanges are available.

The diffuser is intended for suspended installation and meets the highest architectural and ventilation performance requirements.

Functionality

The duct diffuser is designed for horizontal installation as standard, but vertical installation is also possible.

The individually adjustable air deflectors allow all air discharge directions to be set within a 180° range.

Additional configuration options are available through different arrangements of the slot/perforated rows, which can be positioned in random or varied sectors of the duct diffuser's circumference. When multiple duct diffusers are connected in continuous lengths, internal air flow balancing is ensured by an integrated scoop switch.

Material and surface treatment

Duct diffuser

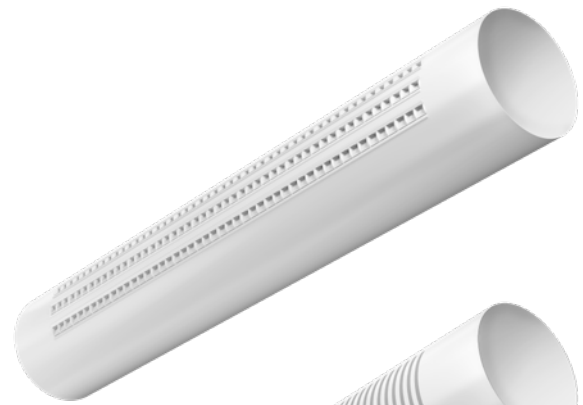
- Made of galvanised steel.
- Standard colour:
 - Non-painted
- Alternative standard colours:
 - RAL 9010, pure white, gloss 30
 - RAL 9003, signal white, gloss 70
 - RAL 9006, white aluminium, gloss 70
 - RAL 9007, grey aluminium, gloss 30
 - RAL 9005, jet black, gloss 70
 - RAL 7035, light grey, gloss 70

Slots

- Made of extruded aluminium profiles.
- Painted in the same colour as the duct diffuser.

Air deflectors

- Made of impact-resistant plastic.
- Standard colour (similar to):
 - RAL 9005, jet black
- Alternative standard colours (similar to):
 - RAL 9010, pure white
 - RAL 9003, signal white
 - RAL 9006, white aluminium
 - RAL 7035, light grey



VZ-AR – Supply air.



VZ-AR-AL – Extract air.

Adaptation

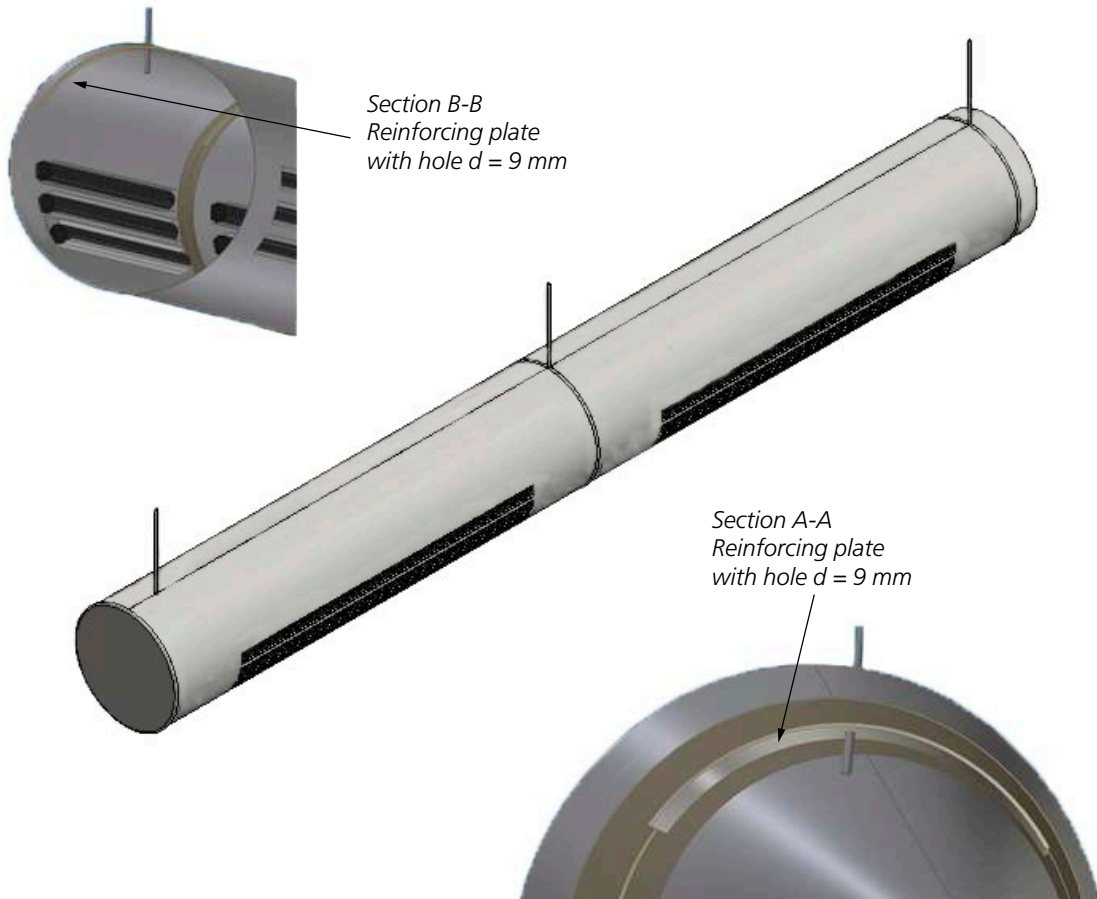
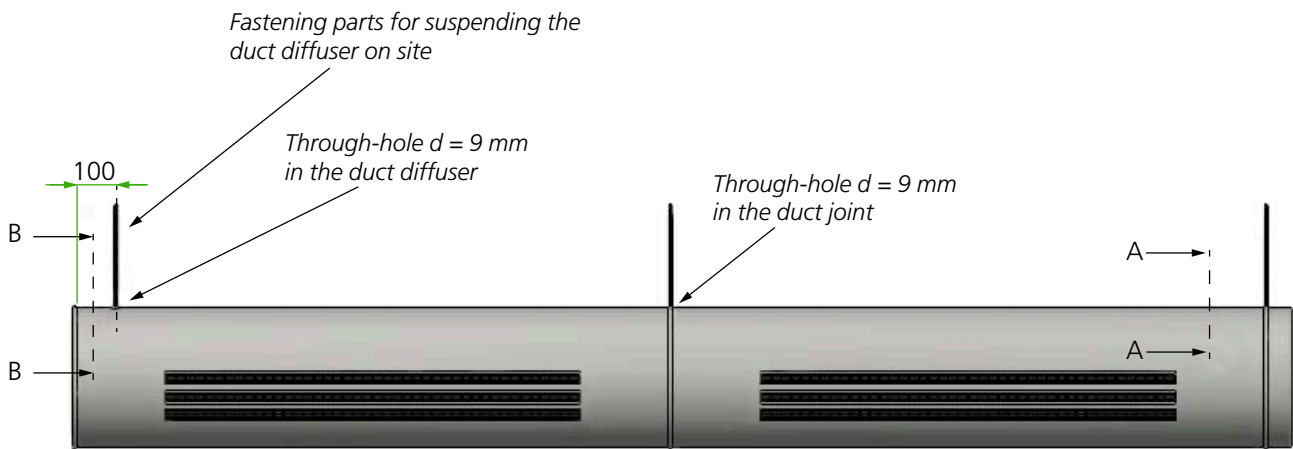
- Other colours available on request.
- Available in aluminium or stainless steel on request.
- Fittings with rubber seal.

Accessories

- Plain duct section without slots or perforations.

Installation

Suspension of a duct diffuser length



Technical data

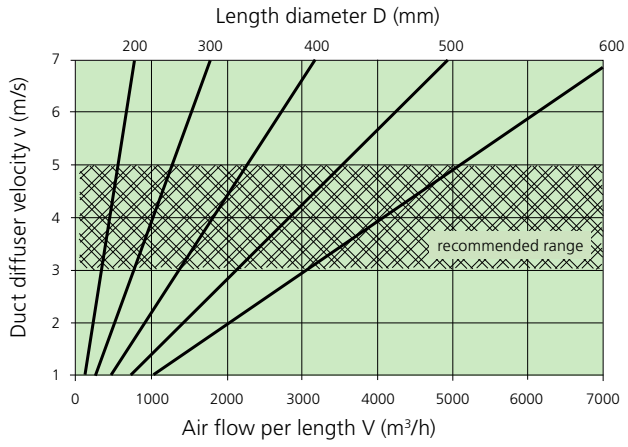
Quick selection

Length L_R (mm)	Slot/perforation length A (mm)	Number of slots/perforated rows	Recommended air flow V (m ³ /h) duct diffuser diameter D (mm)							
			160	200	224	250	280	300	315	355
990	750	1	70	70	70	70	70	70	70	70
		2	140	140	140	140	140	140	140	140
		3		210	210	210	210	210	210	210
		4		-	280	280	280	280	280	280
		5		-	350	350	350	350	350	350
		6		-	-	420	420	420	420	420
		8		-	-	-	-	-	-	560
		1490	1200	1	112	112	112	112	112	112
2	224			224	224	224	224	224	224	224
3				336	336	336	336	336	336	336
4				-	448	448	448	448	448	448
5				-	560	560	560	560	560	560
6				-	-	672	672	672	672	672
8				-	-	-	-	-	-	896
1990	1575			1		-	-	-	-	-
		2		-	-	-	-	-	-	294
		3		-	-	-	-	-	-	441
		4		-	-	-	-	-	-	588
		5		-	-	-	-	-	-	735
		6		-	-	-	-	-	-	882
		8		-	-	-	-	-	-	1176

Length L_R (mm)	Slot/perforation length A (mm)	Number of slots/perforated rows	Recommended air flow V (m ³ /h) duct diffuser diameter D (mm)							
			400	450	500	560	600	630	710	800
990	750	1	70	70	70	70	70	-	-	-
		2	140	140	140	140	140	-	-	-
		3	210	210	210	210	210	-	-	-
		4	280	280	280	280	280	-	-	-
		5	350	350	350	350	350	-	-	-
		6	420	420	420	420	420	-	-	-
		8	560	560	560	560	560	-	-	-
		1490	1200	1	112	112	112	112	112	112
2	224			224	224	224	224	224	224	224
3	336			336	336	336	336	336	336	336
4	448			448	448	448	448	448	448	448
5	560			560	560	560	560	560	560	560
6	672			672	672	672	672	672	672	672
8	896			896	896	896	896	896	896	896
1990	1575			1	147	147	147	147	147	147
		2	294	294	294	294	294	294	294	*
		3	441	441	441	441	441	441	441	*
		4	588	588	588	588	588	588	588	*
		5	735	735	735	735	735	735	735	*
		6	882	882	882	882	882	882	882	*
		8	1176	1176	1176	1176	1176	1176	1176	*

* For duct diameters from 800 mm, lengths over 1500 mm are not possible for technical production reasons.

Engineering graphs

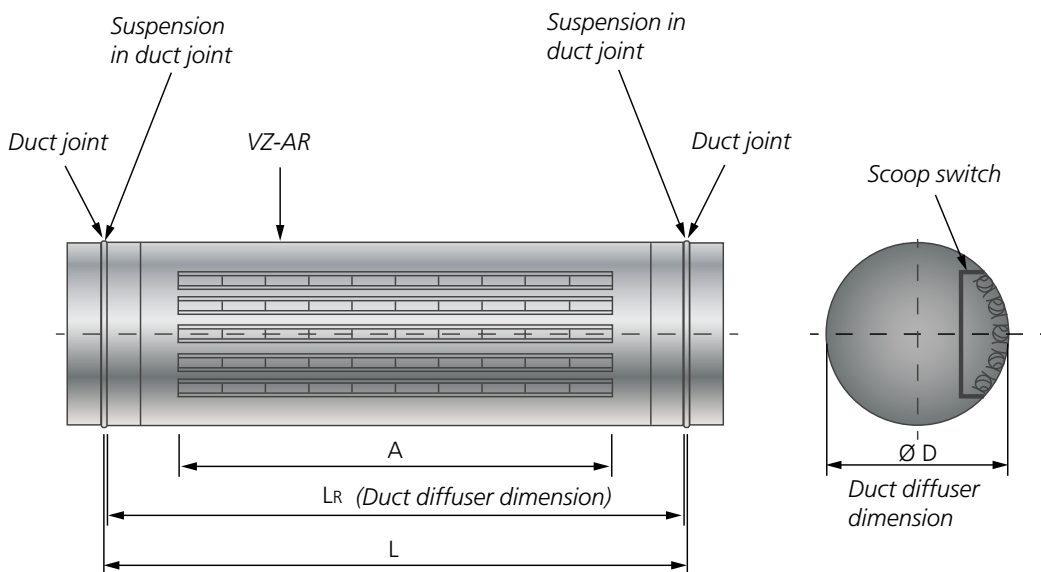


Dimensions

VZ-AR

ØD (mm)	L _{max} (mm)	L _{R max} (mm)	A (mm)
160 - 224	1500	1492 (L-8)	1200
250 - 355	2000	1992 (L-8)	1575
400 - 560	2000	1990 (L-10)	1575
600 - 710	2000	1988 (L-12)	1575
800 - 900	1500*	1488 (L-12)	1200

*For duct diameters from 800 mm, lengths over 1500 mm are not possible for technical production reasons.

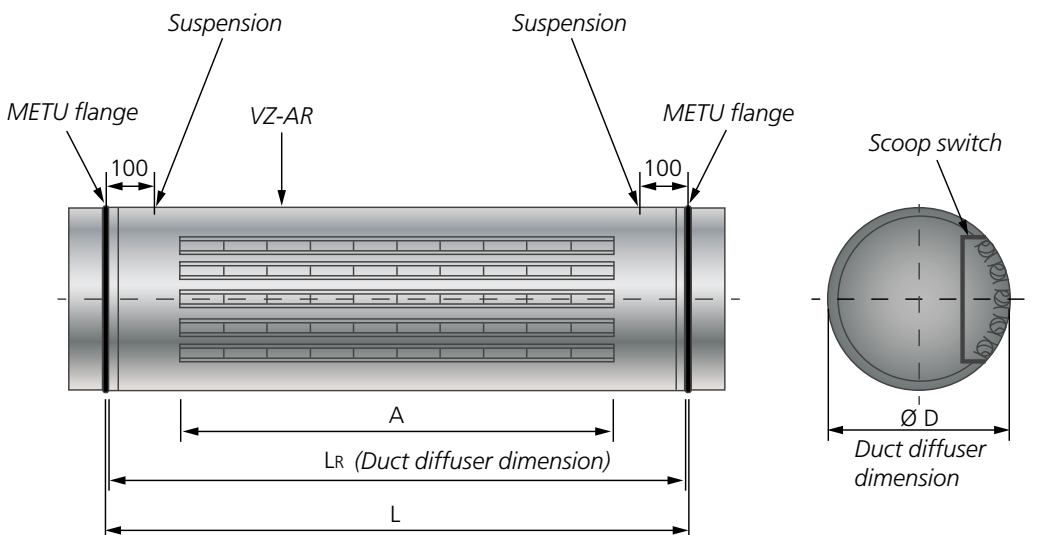


VZ-AR with METU flange

ØD (mm)	L _{max} (mm)	L _{R max} (mm)	A (mm)
200 - 224	1500	1492 (L-8)	1200
250 - 450	2000	1992 (L-8)	1575
500 - 710	2000	1990 (L-10)	1575
800 - 900	1500*	1490 (L-10)	1200

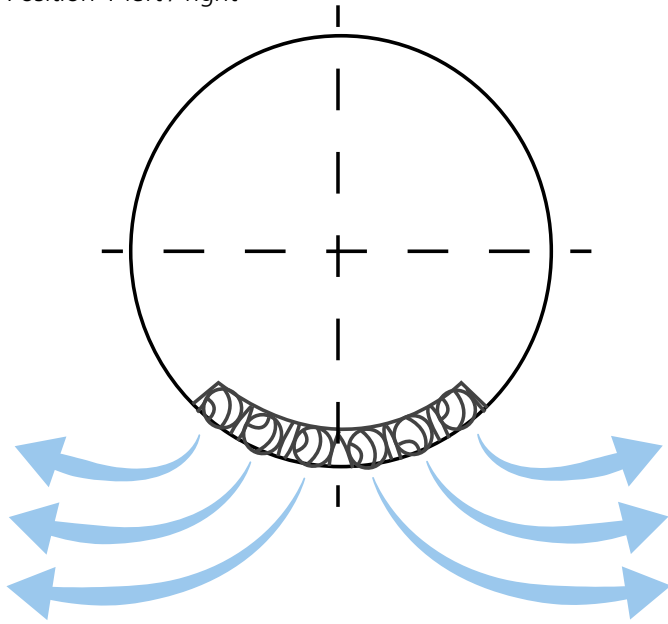
*For duct diameters from 800 mm, lengths over 1500 mm are not possible for technical production reasons.

Note that size Ø160 is not available with METU flange.

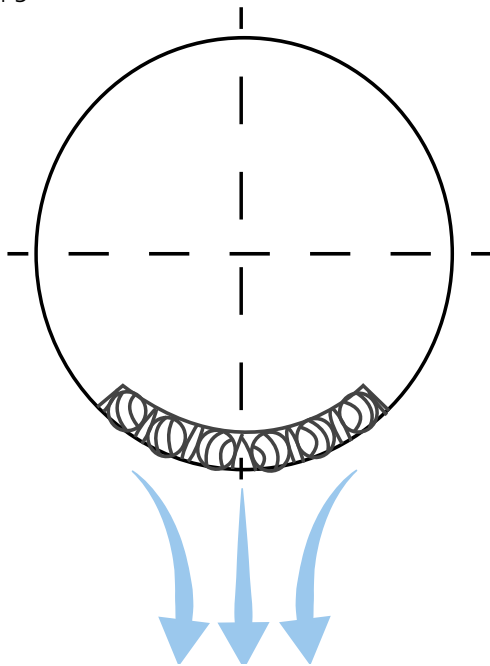


Air discharge directions

For classic cooling mode
Position 1 left / right



For classic heating mode
Position 5



Specification

For ordering, contact your local Swegon sales office.

Specification text

Circular duct diffuser VZ-AR for supply- or extract air, with the following features:

- Duct diffuser made of galvanised steel, non-painted.
- VZ-AR for supply air consists of slots with 75 mm individually adjustable air deflectors, featuring rectifier blades and double boomerang profiles.
 - Slots made of extruded aluminium, painted in the same colour as the duct diffuser.
 - Air deflectors made of plastic, standard colour black.
- VZ-AR-AL for extract air has perforations arranged transverse to the longitudinal axis.