

# KOOLAIR

## DF-47-NARROW

Linear nozzles with a  
medium-to-long throw

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Long throw diffusers



ISO 9001

BUREAU VERITAS  
Certification

Sistema de Gestión



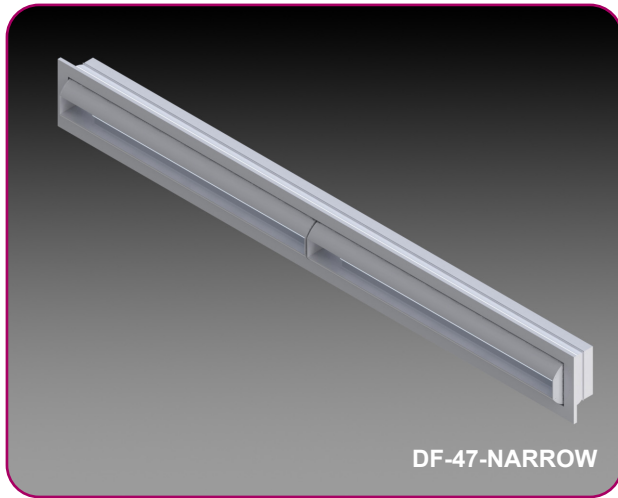
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## General characteristics



DF-47-NARROW

### Description

High induction linear diffuser for medium-to-long throw, DF-47-NARROW model, with length L mm and slot H mm for air flow.

Allows  $\pm 30^\circ$  vertical turn of core (linear nozzle), due to a narrow slot that makes it possible to cover medium and long throws, achieving comfort with both cooling and heating and providing an excellent aesthetics.

They are suitable for both ceiling and wall installation. Particularly appropriate for constant air volume, although the design allows excellent operation with variable air volume as well.

The diffusers with 15 and 20 mm slots can be installed in ceilings to discharge horizontally creating the coanda effect (air jet adheres to the ceiling) by turning the nozzle core to the maximum angle. This allows requirements for a long horizontal range to be met when the design conditions of the system do not allow for exposed duct or wall installations.



DF-47-NARROW

### Application

These medium-to-long throw diffusers are very appropriate in cases that require a long-distance air jet or a medium-distance air jet with low sound levels.

They are especially indicated for commercial facilities, mezzanines, shops, residences, etc.

This diffuser is suitable for both supply and return. High-quality aesthetics and performance are further enhanced by alternating the return diffusers with supply diffusers in the same continuous line.

### Finishes

Manufactured entirely of extruded aluminium sections.

The unit can include a directional (-O), directional blades (-G) (not available in slot size 15) volume control damper and plenum box of galvanized steel sheet (internally insulated (-PFA) or uninsulated (-PF)).

There are two types of plenum box: fixed or detachable.

If a plenum box is included, a volume control damper can be included in the connection inlet, annulling the damper (-O).

In the DF-47-NARROW-IC and DF-47-NARROW-CC models, the frame or duct is constructed of galvanized steel and the diffuser is made of aluminium.

Standard finish in anodized or painted in RAL-9010 glossy white.



DF-47-NARROW

## General characteristics

### Models

DF-47-NARROW - Long throw linear diffuser with manual movement and 20x6 frame.

DF-47-NARROW-S - Long throw linear diffuser with manual movement and 14x4 frame.

DF-47-NARROW-IC - Long throw linear diffuser integrated in duct.

DF-47-NARROW-CC - Long throw linear diffuser with duct adaption.

### Mounting

The mounting systems available for the diffuser element are shown in detail on page 10.

### Operating mechanisms

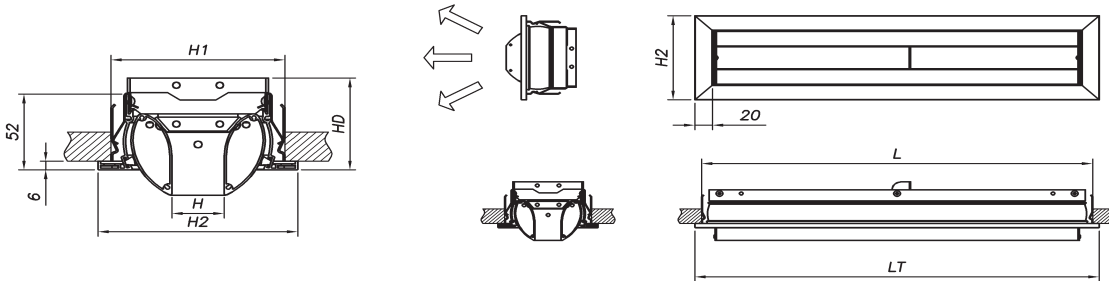
Three drive versions are available:

- Manual drive (-M).
- Motorised drive (-MT) moves the diffuser vertically, (up and down) at an angle of approximately  $\pm 30$ . The motorised drive requires one motor for each diffuser, even in multiple units (not available for DF-47-NARROW-LT version).
- Thermally self-adjusting drive (-TR), with a diffuser swivel range of  $\pm 30$  degrees (not available for DF-47-NARROW-LT version).



## Dimensions

### DF-47-NARROW-MM

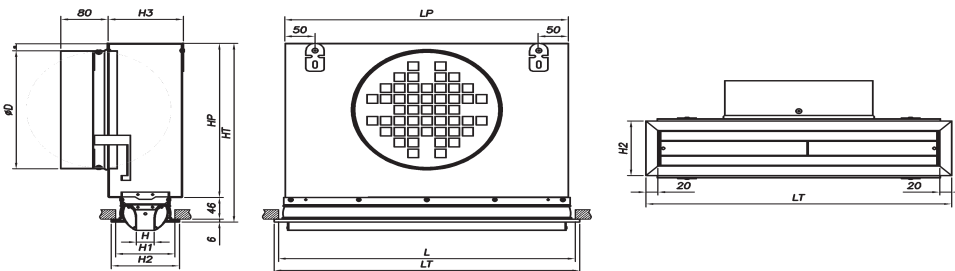


H	H1	H2	HD
15	90	105	60
20	95	110	61
30	105	120	63
40	115	130	65
50	125	140	67

L	LT
500 - 2000	L + 15

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-PFL-RL

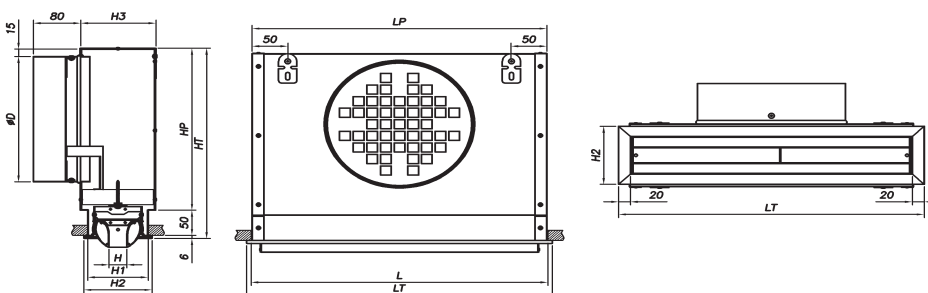


H	H1	H2	H3	Ø D	HP	HT
15	90	105	115	158	233	285
20	95	110	120	198	273	325
30	105	120	130	248	323	375
40	115	130	195	313	273	325
50	125	140		OVVAL		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 23
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-PM-PDL-RL



H	H1	H2	H3	Ø D	HP	HT
15	90	105	115	158	235	291
20	95	110	120	198	275	331
30	105	120	130	248	325	381
40	115	130	195	313	275	331
50	125	140		OVVAL		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

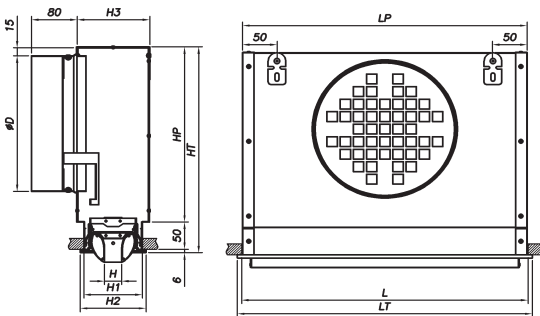
# DF-47-NARROW

Linear nozzles with a medium-to-long throw



## Dimensions

### DF-47-NARROW-MM-PDL-RL

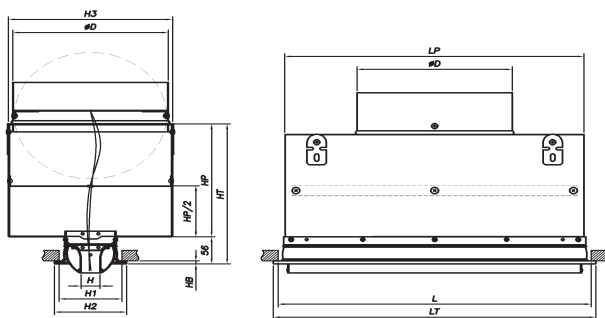


H	H1	H2	H3	∅ D	HP	HT
15	90	105	115	158	235	291
20	95	110	120	198	275	331
30	105	120	130	248	325	381
40	115	130	195	313	275	331
50	125	140		OVAL		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-PFS-RC



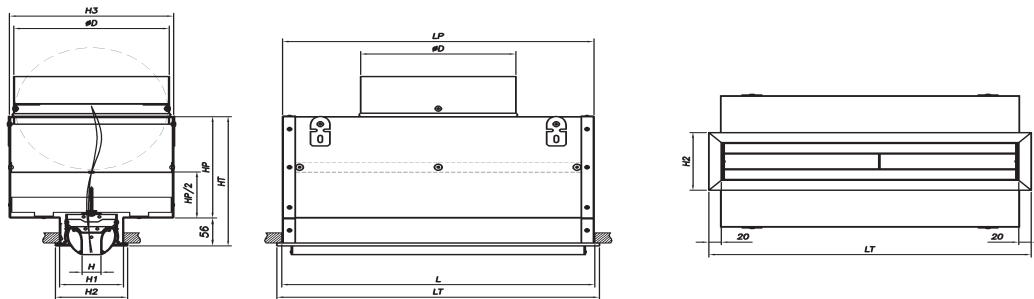
H	H1	H2	H3	∅ D	HP	HT
15	90	105	172	158	157	213
20	95	110	212	198	177	233
30	105	120	262	248	202	258
40	115	130	212	313	177	233
50	125	140		(OVAL)		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

## Dimensions

### DF-47-NARROW-PM-PDS-RC

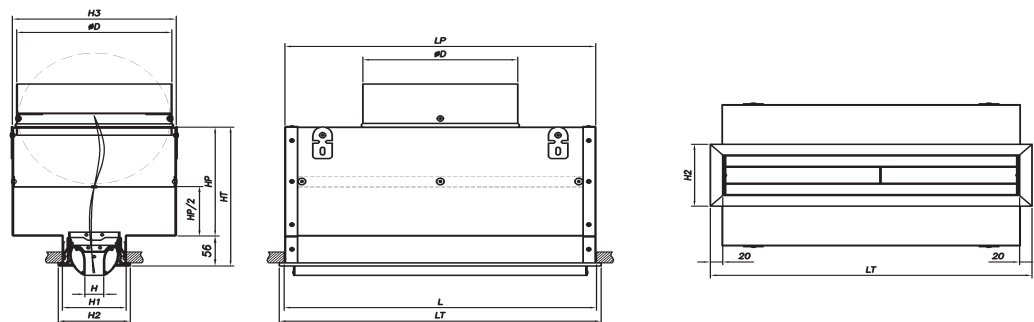


H	H1	H2	H3	∅ D	HP	HT
15	90	105	172	158	157	213
20	95	110	212	198	177	233
30	105	120	262	248	202	258
40	115	130	212	313	177	233
50	125	140		(OVAL)		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-MM-PDS-RC



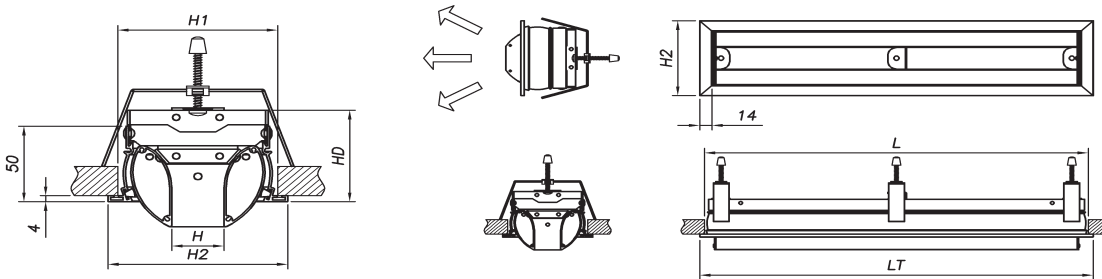
H	H1	H2	H3	∅ D	HP	HT
15	90	105	172	158	157	213
20	95	110	212	198	177	233
30	105	120	262	248	202	258
40	115	130	212	313	177	233
50	125	140		(OVAL)		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

## Dimensions

### DF-47-NARROW-S-PM

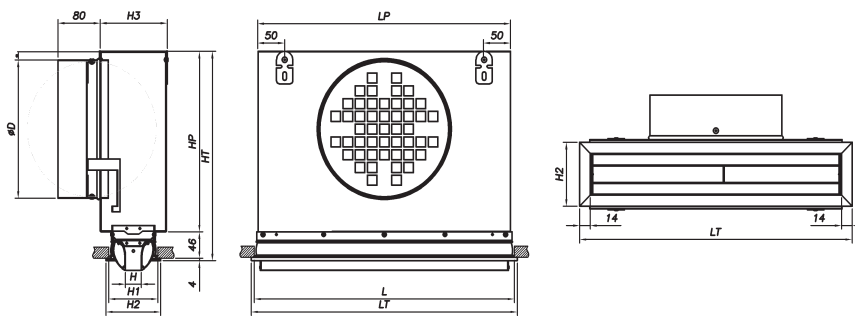


H	H1	H2	HD
15	83	93	58
20	88	98	59
30	98	108	61
40	108	118	63
50	118	128	65

L	LT
500 - 2000	L + 10

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-S-PFL-RL

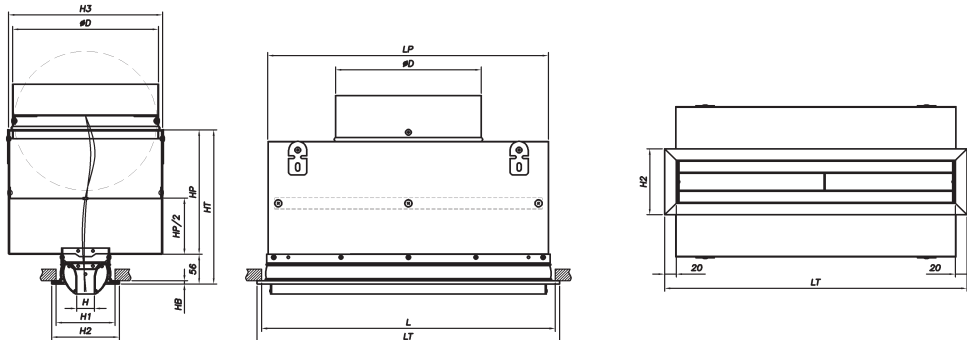


H	H1	H2	H3	Ø D	HP	HT
15	83	93	115	158	233	283
20	88	98	120	198	273	323
30	98	108	130	248	323	373
40	108	118	195	313	273	323
50	118	128		OVAL		

L	SPIGOTS	LT	LP
500 - 1000	1	L + 10	L - 11,6
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT

### DF-47-NARROW-S-PFS-RC



H	H1	H2	H3	Ø D	HP	HT
15	90	105	172	158	157	213
20	95	110	212	198	177	233
30	105	120	262	248	202	258
40	115	130	212	313	177	233
50	125	140		(OVAL)		

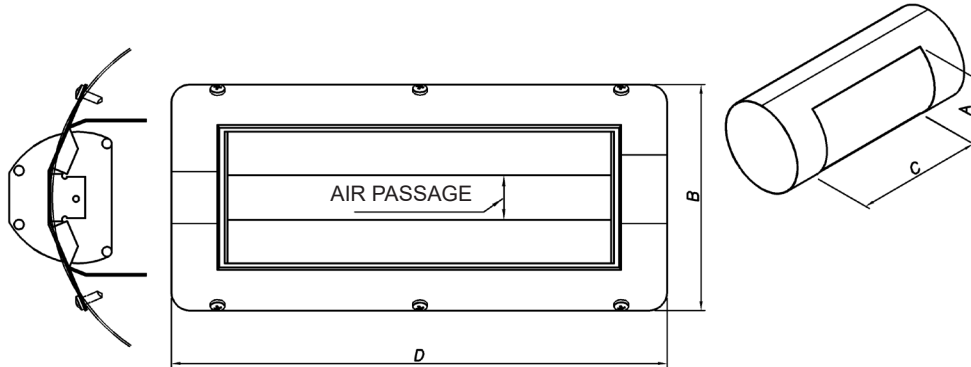
L	SPIGOTS	LT	LP
500 - 1000	1	L + 15	L - 3
1001 - 2000	2		

INFO	
L	OPENING LENGTH
H1	OPENING WIDTH
LT	TOTAL LENGTH
H2	TOTAL WIDTH
HD	DIFFUSER HEIGHT



## Dimensions

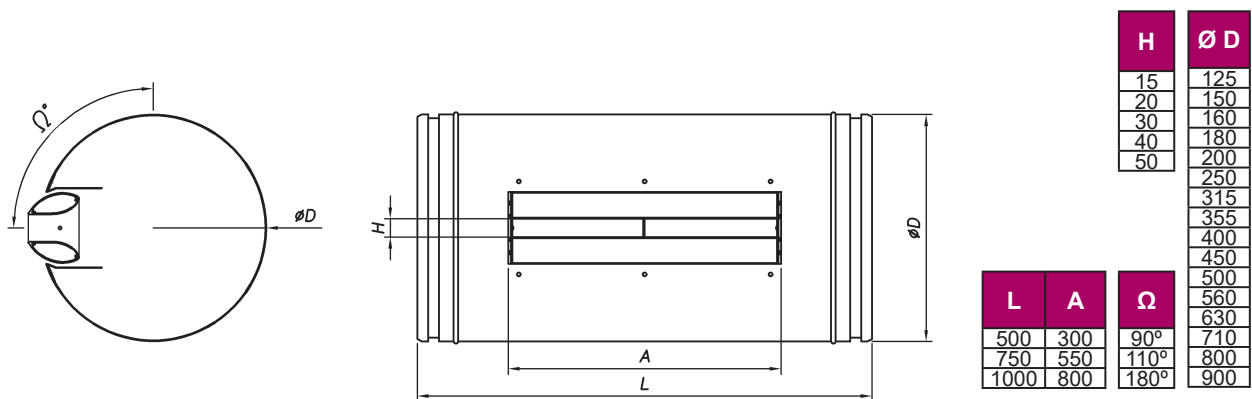
### DF-47-NARROW-CC



NOMINAL (Ø CONDUCT)	AIR PASSAGE									
	15		20		30		40		50	
	A	B	A	B	A	B	A	B	A	B
200	85	113	88	115	97	123	107	130	-	-
250	84	113	89	118	97	123	106	133	115	138
300	84	113	89	118	97	126	106	133	115	141
315	83	113	89	118	97	126	106	133	116	143
355	83	113	88	118	97	126	107	136	116	146
400	83	113	88	118	97	126	107	136	117	146
450	83	114	88	119	96	126	106	136	117	146
500	83	114	88	119	96	126	106	136	117	146
560	83	114	88	119	96	126	106	136	117	146
630	83	114	88	119	96	127	104	135	116	146
710	83	114	88	119	96	127	104	135	116	146
800	83	114	88	119	96	127	104	135	116	146
900	83	114	88	119	96	127	104	135	116	146

MODEL	C	D
500	500	525
600	600	625
700	700	725
800	800	825
900	900	925
1000	1000	1025
1100	1100	1125
1200	1200	1225

### DF-47-NARROW-IC

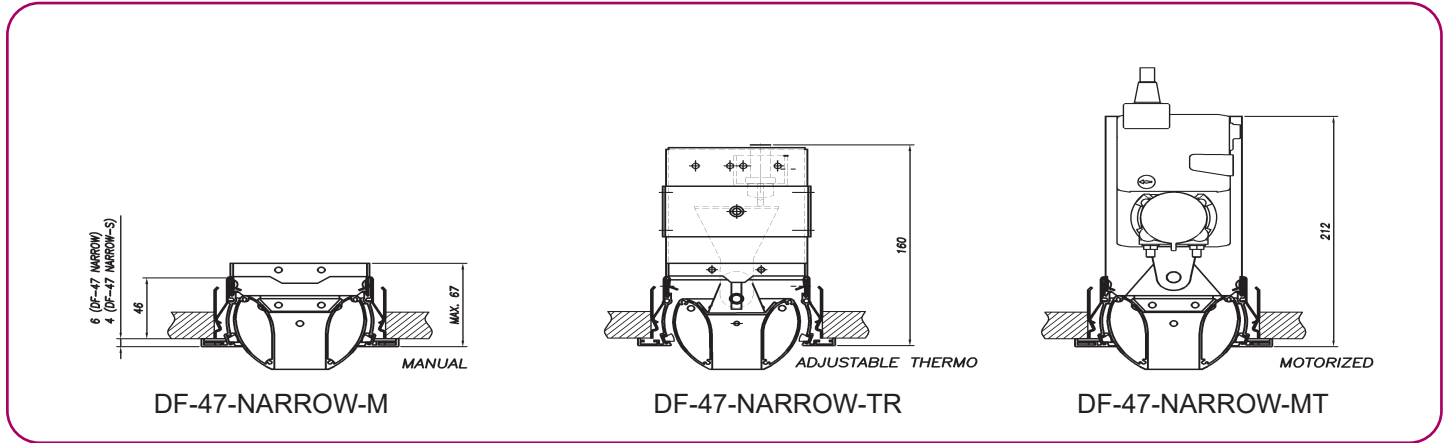


H	ØD
15	125
20	150
30	160
40	180
50	200

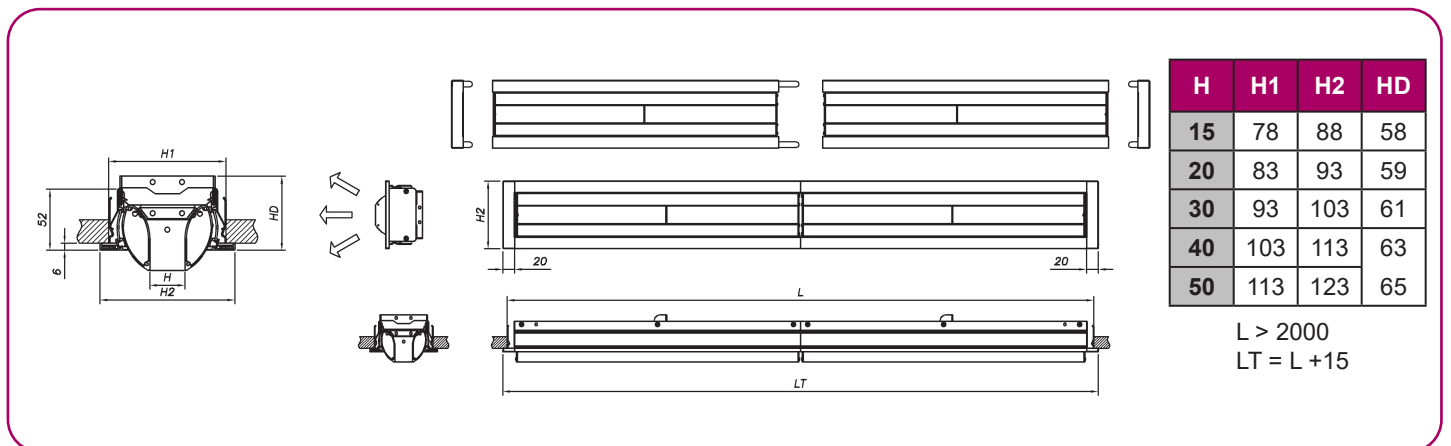
L	A	Ω
500	300	90°
750	550	110°
1000	800	180°

## Types and connection system

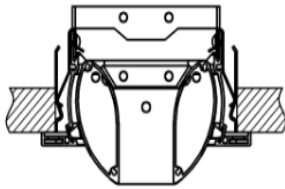
### Types



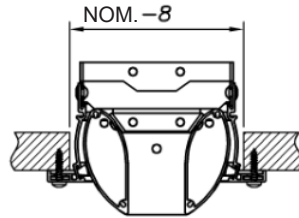
### Connection system



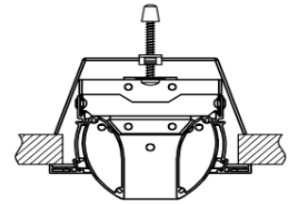
## Mounting



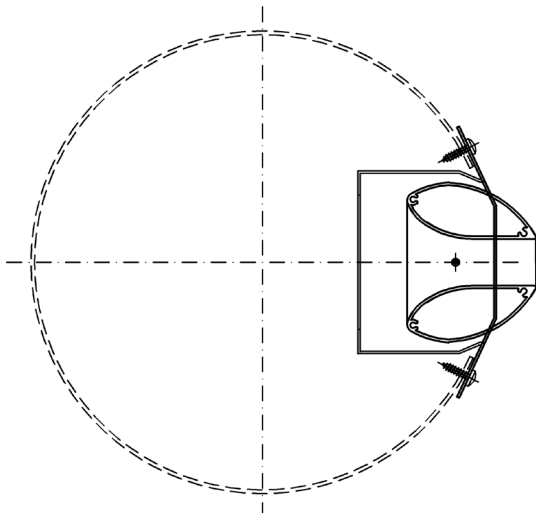
DF-47-NARROW + MM  
WITH MOUNTING FRAME (MM)



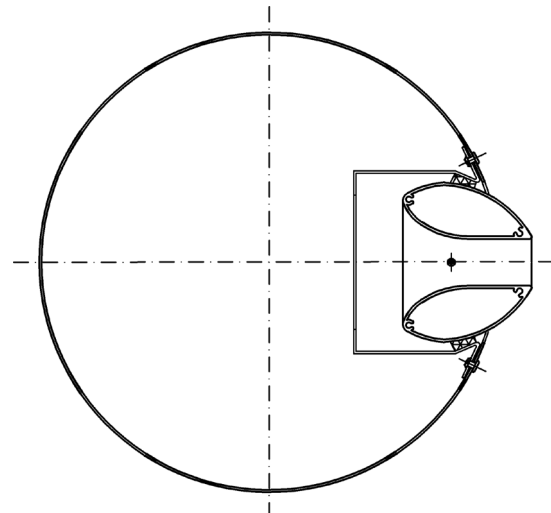
DF-47-NARROW-T  
WITH SCREWS (NOMINAL - 8)



DF-47-NARROW-PM  
WITH MOUNTING BRIDGE (PM)



DF-47-NARROW-CC  
ADAPTATION FOR DUCT



DF-47-NARROW-IC  
INTEGRATED WITH DUCT

## Codification

DF-47-NARROW - TR - 1000 - 20 - frame 20x6 - PDL - A - RL - CS - MM - G - cool.angle - heat.angle - RAL-9016 gloss

1

2

3

4

5

6

7

8

9

10

11

12

13

14

### 1. Model:

**DF-47-NARROW**  
**DF-47-NARROW-S**  
**DF-47-NARROW-IC**  
**DF-47-NARROW-CC**

### 2. Model:

**-M** - Manual  
**-TR** - Thermo adjustable  
**-MT** - Motorised

### 3. Length:

-

### 4. Air passage:

Air passage 15  
Air passage 20  
Air passage 30  
Air passage 40  
Air passage 50

### 5. Frame:

Frame 20x6  
Frame 14x6

### 6. Components 1:

**SP** - without plenum box  
**PFL** - fixed side entry plenum box  
**PFS** - top fixed plenum box  
**PDL** - demountable side entry plenum box  
**PDS** - demountable top entry plenum box

### 7. Components 2:

**-K** - uninsulated  
**-A** - insulated

### 8. Regulation:

**-SR** - without regulating damper  
**-RFS06** - sliding volume control damper  
**-O** - opposed blade volume control damper  
**-RL** - room-operated volume control damper  
**-RE** - control damper at the connection port  
**-RC** - rope control damper

### 9. Components 3:

**-CP** - decorative perforated sheet painted in RAL-9005  
**-CS** - without decorative perforated steel

### 10. Construction:

**-SK** - without installation accessories  
**-MM** - with mounting frame  
**-T** - with drill holes  
**-PM** - with mounting frame

### 11. Components 4:

- without G  
**-G - v**  
**-GP** - with G painted in RAL-9005

### 12. Adjustment angle 1:

Cooling angle

### 13. Adjustment angle 2:

Heating angle

### 14. Treatment:

RAL-9005 gloss  
RAL-9005 matt  
RAL-9010 glossy  
RAL-9010 matt  
Anodised

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