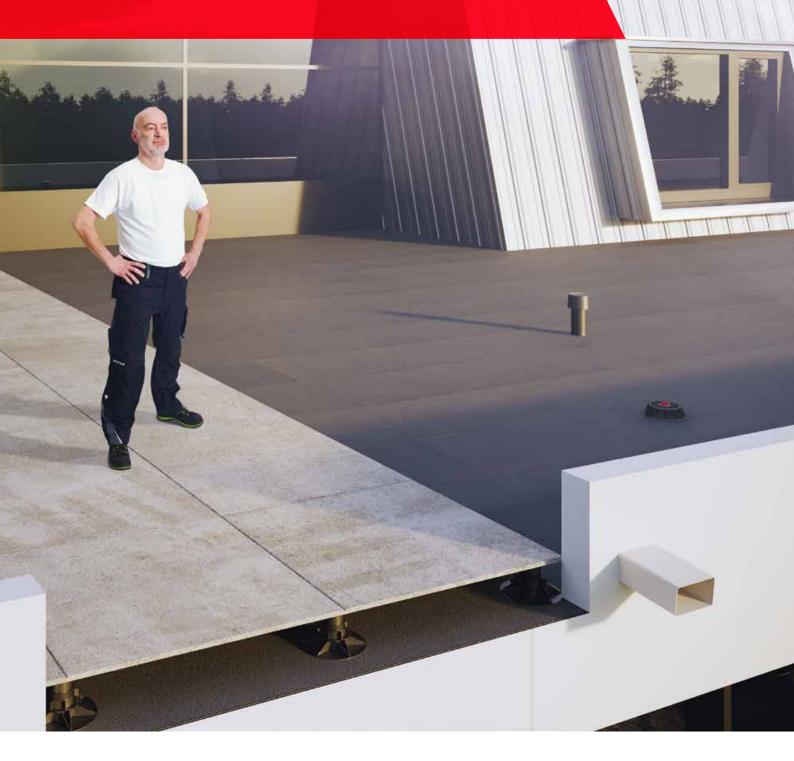


Catalogue 2024 flat roofs + terraces.



KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG Am Römerhof 19 D-78727 Oberndorf











Because your time is valuable.

Dear readers,

Welcome! Work should also be fun. This means using the right products. The new KALA catalogue is a great resource for your projects. KALA's solutions and products enable fast, easy work – for rapid advances on the construction site.

What makes our flat roof drainage systems, fans, terrace support systems, grommets and many other products ideal? The fact that we are also experienced users and know the various on-site requirements. We care about continuously improving our products based on practical experience and implementing new ideas in ways that satisfy our users' requirements. Our aim is to be THE benchmark for what you consider useful – from the communication around consulting, ordering and delivery to the suitability and long-term durability of our products under the harshest conditions.

This is important to us for several reasons. We know that your time is very precious. That is why our products must be quick, simple and safe to install, sparing valuable time during assembly and removing the need for laborious modifications and re-works. A proper, durable function of the roof accesories matters. Our products are subjected to the hardest test imaginable: your experiences. And our roof and service teams are also extremely critical, providing us with suggestions and ideas for improvement, to which we quickly react with product adaptations and improvements.

Finally, sustainability is increasingly important to you and your customers. And here's the thing: a product that is made from single materials rather than hard-to-recycle combinations, produced in clever plastic formulations and production processes that preserve resources and protect the environment, and then optimally packaged, is very sustainable. Selecting a product that needs replacement after a few years is the wrong answer to today's problems. So when we confidently say "That's how it's done" when presenting our product range, we have good reasons for this. We believe in the quality of what we are offering. And we are happy to discuss any customisations your projects may require regarding the materials, the dimensions or even your own variants. Because we know how it's done. As do you.

Get in touch!

+49 7423 8687 600 info@kala.de

Or visit our website at www.kala.de.





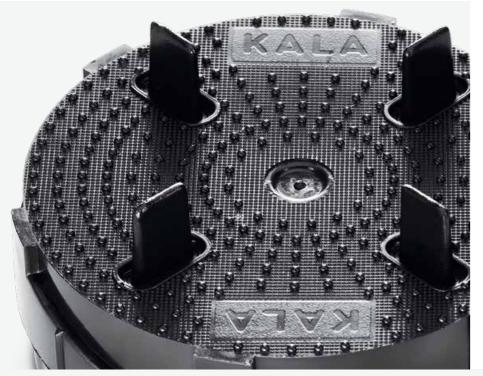




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KALA systems for terraces: That's how it's do

Professional terrace laying – durable and safe, without damaging sealants o KALA terrace support systems

- Underlayable terrace support system
- Height-adjustable terrace support system H1
- Height-adjustable terrace support system H2
- KALA terrace support system H-MAX
- KALA terrace support system H-MAX MultiLevel
- Accessories for KALA terrace support systems

Cross/tile spacers

Cross spacers – height: 18 mm Tile spacers for ceramic tiles and other slabs with support – height: 11 mm

Roof systems: That's how it's done.

- The original red flexible tube Ventilators for bitumen shingle roofs
- Bird deterrent "bird spikes", transparent

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Flat roof systems: That's how it's done.



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Smart solutions for flat roofs

KALA roof systems: That's how it's done.

Smart products and matching accessories for flat roofs: Learn more about our systems for drainage, ventilation, detailing and lightning protection.

Reliable flat roof drainage

Drains, round and rectangular emergency overflows and scuppers as well as matching vapor barrier sheets and drain grates

Aeration and ventilation systems for flat roofs

Cold roof fans, Flat roof fans, Forced ventilation for aerating and ventilating interiors and roof structures

Flat roof accessories

Inspection fittings, Universal grommets, Gravel baskets, lightning protection wire holders and many more products

Get in touch!

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Flat roof drainage you can rely on. Even when it's pouring down.

Drains



Drains ⁴				
Item No.	Material	Technical information		PU
100741	BIT	With bitumen sleeve,	D 50 mm (DN 50)	1
100802		Pipe length 320 mm ^{1,3}	D 75 mm (DN 70)	
100833	=		D 90 mm	
100857	-		D 95 mm	
100864	-		D 110 mm (DN 100)	
100925	-		D 125 mm (DN 125)	
100987	-		D 160 mm (DN 150)	



Drains ⁴	
Item No.	Material
102998	PVC
400007	similar to RAL
103087	Light grey
103124	
103162	
103209	
103247	
103322	



Drains ⁴	
Item No.	Material
100901	FPO/PP ²
101205	similar to RAL
101205	Silk grey
101304	
101403	
101502	
101601	
101809	

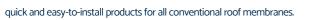
Matching accessories

You can find our suitable retaining ring on page 18.

You can find more flat roof accessories from seals to lightning protection starting on page 20.

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) /³ other diameter sizes available upon request / ⁴Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

Reliable drainage for all structures – from balconies to industrial properties Permanent and emergency drainage solutions to meet all requirements: KALA offers smart,



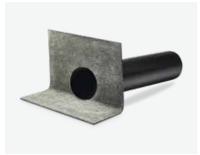




	Technical information		PU
	Basket D 300 mm	D 50 mm (DN 50)	1
7035,	Pipe length 320 mm ^{1,3}	D 75 mm (DN 70)	
	Basket D 380 mm Pipe length 320 mm ^{1,3}	D 90 mm	
		D 95 mm	
		D 110 mm (DN 100)	
		D 125 mm (DN 125)	
		D 160 mm (DN 150)	

	Technical information		PU
	Basket D 300 mm	D 50 mm (DN 50)	1
Basket D 3	Pipe length 320 mm ^{1,3}	D 75 mm (DN 70)	
	Basket D 380 mm	D 90 mm	
	Pipe length 320 mm ¹³	D 95 mm	
		D 110 mm (DN 100)	
		D 125 mm (DN 125)	
		D 160 mm (DN 150)	

Scupper, round



Scupper, r	ound ³			
Item No.	Material	Technical information		PU
101113	BIT	With bitumen sleeve,	D 50 mm (DN 50)	1
100994	-	Pipe length 480 mm ¹	D 63 mm	
101083	=		D 75 mm (DN 70)	
101120	-		D 90 mm	
101144			D 110 mm (DN 100)	
101168			D 125 mm (DN 125)]



Scupper, round ³ Item No. Material



Item No.	Material	Technical information		PU
Scupper, r	ound ³			
				_
103520	-		D 125 mm (DN 125)	
103483			D 110 mm (DN 100)	
103445			D 90 mm	
103407	Light grey		D 75 mm (DN 70)	
103360	similar to RAL 7035,		D 63 mm	
103346	PVC	Pipe length 480 mm ¹	D 50 mm (DN 50)	1

Technical information

PU

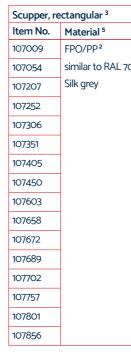
Scupper, round ³ Technical information PU 101861 FPO/PP ² Pipe length 480 mm ¹ D 50 mm (DN 50) 1 101908 similar to RAL 7044, D 63 mm D 63 mm D 75 mm (DN 70) 102004 Silk grey D 90 mm D 90 mm D 90 mm				
Item No.	Material	Technical information		PU
101861	FPO/PP ²	Pipe length 480 mm ¹	D 50 mm (DN 50)	1
101908	similar to RAL 7044,		D 63 mm	
102004	Silk grey		D 75 mm (DN 70)	
102103			D 90 mm	
102134	-		D 110 mm (DN 100)	
102165	-		D 125 mm (DN 125)	

Scupper, rectangular



Scupper, r	ectangular ³		
Item No.	Material ⁵	Duct = W x H x L mm ^{1,4}	PU
106002	PVC	120 x 60 x L 300	1
106057	similar to RAL 7047,	120 x 60 x L 600	
106200	Telegrey 4	180 x 80 x L 300	
106255		180 x 80 x L 600	
106309		300 x 80 x L 300	
106354		300 x 80 x L 600	
106408		300 x 100 x L 300	
106453		300 x 100 x L 600	
106606		500 x 100 x L 300	
106651		500 x 100 x L 600	
106675		600 x 100 x L 300	
106682]	600 x 100 x L 600	
106705		750 x 100 x L 300	
106750]	750 x 100 x L 600	
106804		1000 x 100 x L 300	
106859		1000 x 100 x L 600	





Matching accessories

You can find our suitable retaining ring on page 18.

You can find more flat roof accessories from seals to lightning protection starting on page 20.

 $^{\rm 1}{\rm Special}$ lengths available on request / $^{\rm 2}$ also available in PE (roofing membranes based on PE) /

³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

¹Special sizes available on request /² also available in PE (PE-based roof membranes) and BIT (sealed with liquid plastic) / ³ alternatively also available with a retaining ring in the desired height / ⁴ custom designs are non-returnable / ⁵ **Attention**: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



	Duct = W x H x L mm ^{1,4}	PU
	120 x 60 x L 300	1
44,	120 x 60 x L 600	
	180 x 80 x L 300	
	180 x 80 x L 600	
	300 x 80 x L 300	
	300 x 80 x L 600	
	300 x 100 x L 300	
	300 x 100 x L 600	
	500 x 100 x L 300	
	500 x 100 x L 600	
	600 x 100 x L 300	
	600 x 100 x L 600	
	750 x 100 x L 300	
	750 x 100 x L 600	
	1000 x 100 x L 300	
	1000 x 100 x L 600	

Emergency overflow, round



Emergenc	Emergency overflow, round			
ltem No.	Material ³	Technical information		PU
101137	BIT	With bitumen sleeve,	D 50 mm (DN 50)	1
101182	_	Pipe length 490 mm ¹	D 63 mm	
101151	_		D 75 mm (DN 70)	
101199			D 110 mm (DN 100)	
101175			D 125 mm (DN 125)	



Item No.	Material ³	Technical information		PU
103537	PVC	Pipe length 490 mm ¹	D 50 mm (DN 50)	1
103544	similar to RAL 7035,		D 63 mm	
103551	Light grey		D 75 mm (DN 70)	
103575			D 110 mm (DN 100)	
103582			D 125 mm (DN 125)	



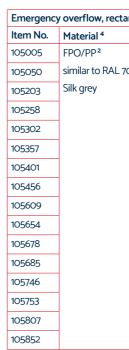
ltem No.	Material ³	Technical information		PL
102141	FPO/PP ²	Pipe length 490 mm ¹	D 50 mm (DN 50)	1
		ripe lengur 490 min		'
102202	similar to RAL 7044,		D 63 mm	
102158	Silk grey		D 75 mm (DN 70)	
102127			D 110 mm (DN 100)	
102226	1		D 125 mm (DN 125)	

Emergency overflow, rectangular



Emergenc	y overflow, rectangular		
Item No.	Material ^₄	Duct = W x H x L mm ^{1,3}	PU
104008	PVC	120 x 60 x L 300	1
104053	similar to RAL 7047,	120 x 60 x L 600	
104206	Telegrey 4	180 x 80 x L 300	
104251		180 x 80 x L 600	
104305		300 x 80 x L 300	
104350		300 x 80 x L 600	
104404		300 x 100 x L 300	
104459		300 x 100 x L 600	
104602		500 x 100 x L 300	
104657		500 x 100 x L 600	
104671		600 x 100 x L 300	
104688	1	600 x 100 x L 600	
104701		750 x 100 x L 300	
104756		750 x 100 x L 600	
104800		1000 x 100 x L 300	
104855		1000 x 100 x L 600	





¹Special lengths available on request / ² also available in PE (roofing membranes based on PE) /

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¹Special sizes available on request /² also available in PE (PE-based roof membranes) and BIT (sealed with liquid plastic) /³ custom designs are non-returnable / ⁴Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



	Duct = W x H x L mm ^{1,3}	PU
	120 x 60 x L 300	1
044,	120 x 60 x L 600	
	180 x 80 x L 300	
	180 x 80 x L 600	
	300 x 80 x L 300	
	300 x 80 x L 600	
	300 x 100 x L 300	
	300 x 100 x L 600	
	500 x 100 x L 300	
	500 x 100 x L 600	
	600 x 100 x L 300	
	600 x 100 x L 600	
	750 x 100 x L 300	
	750 x 100 x L 600	
	1000 x 100 x L 300	
	1000 x 100 x L 600	

Aeration and ventilation systems for flat roofs

Flat roof fans for ventilation lines with weather cap



ltem No.	Material ³	Technical information	Height	PU
900013	PVC	D 75 mm (DN 70)	654 mm	1
900020	similar to RAL 7035, Light grey	D 110 mm (DN 100)	Pipe length above / below tray	
900037		D 125 mm (DN 125)	300/320 mm ¹	
900044		D 160 mm (DN 150)	1	



ltem No.	Material ³	Technical information	Height	PU
900105	FPO/PP ²	D 75 mm (DN 70)	654 mm	1
	similar to RAL 7044, Silk	Due (DNues)	Pipe length above /	
900112	grey	D 110 mm (DN 100)	below tray	
900129	- 57	D 125 mm (DN 125)	300/320 mm ¹	

Flat roof fans for new builds and refurbishments

Reliable and durable accessories for your house provided by our systems for ventilating interiors and roof structures.



 1 Special lengths available on request / 2 also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

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Flat roof fans for cold roofs with weather cap



Item No.	Material ³	Technical information	Height	PU
901003	BIT	D 75 mm (DN 70)	354 mm ¹	1
901010	_	D 110 mm (DN 100)	_	
901027	-	D 125 mm (DN 125)		
901034	-	D 160 mm (DN 150)		



Flat roof fans for cold roofs with weather cap						
Item No.	Material ³	Technical information	Height	PU		
900709	PVC	D 75 mm (DN 70)	354 mm ¹	1		
900716	similar to RAL 7035, Light grey	D 110 mm (DN 100)				
900723		D 125 mm (DN 125)				
900730	-	D 160 mm (DN 150)	-			

Flat roof refurbishment fans with forced ventilation



Flat roof re	efurbishment fa
Item No.	Material
111969	BIT
111976	



111921 PVC D 125 mm (DN 125) 518 mm ¹ similar to RAL 7035, Light grey	1
grey	
111938 D 160 mm (DN 150)	
338 D 160 mm (DN 150)	



	Flat roof fa		
	Item No.	Ma	
	900808	FP	
	900815	sin gre	
)	900822	- 9.1	
	900839	1	

fans for cold roofs with weather cap						
Material ³	Technical information	Height	PU			
FPO/PP ²	D 75 mm (DN 70)	354 mm ¹	1			
similar to RAL 7044, Silk grey	D 110 mm (DN 100)					
	D 125 mm (DN 125)					
	D 160 mm (DN 150)					
	Material ³ FPO/PP ²	Material ³ Technical information FPO/PP ² D 75 mm (DN 70) similar to RAL 7044, Silk D 110 mm (DN 100) grey D 125 mm (DN 125)	Material ³ Technical information Height FPO/PP ² D 75 mm (DN 70) 354 mm ¹ similar to RAL 7044, Silk grey D 110 mm (DN 100) D 125 mm (DN 125)			

Flat roof refurbishment fans with forced ventilation ³				
ltem No.	Material	Technical information	Height	PU
111945	FPO/PP ² similar to RAL 7044, Silk	D 125 mm (DN 125)	518 mm ¹	1
111952	grey	D 160 mm (DN 150)		

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) /

³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



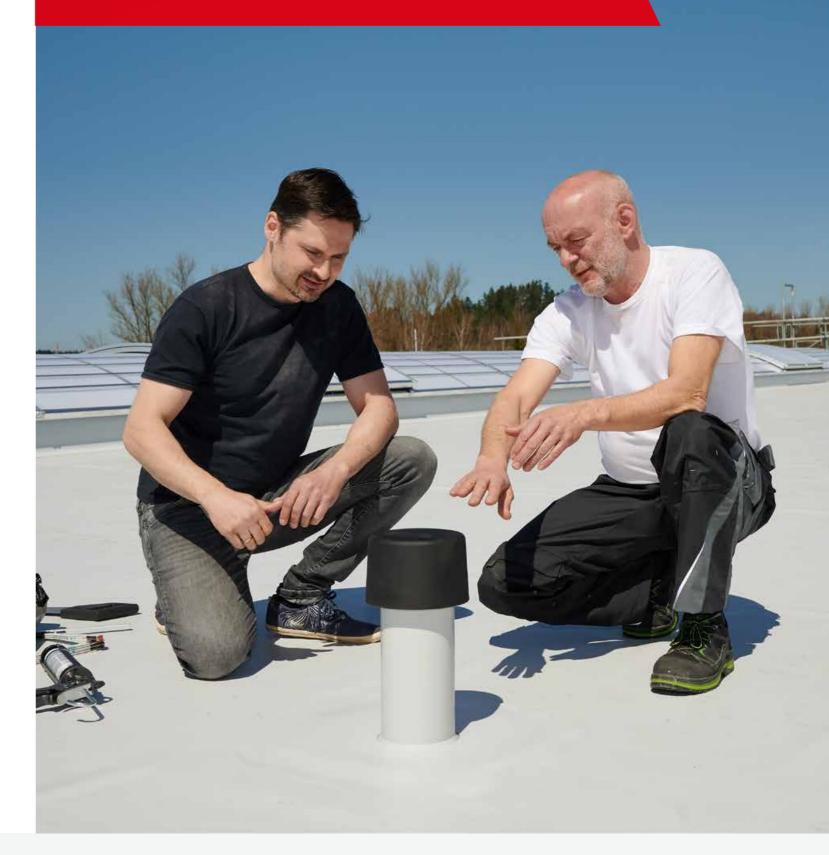
ns with forced ventilation ³			
	Technical information	Height	PU
	D 125 mm (DN 125)	518 mm ¹	1
	D 160 mm (DN 150)		

Ventalu forced ventilation DR-S



Item No.	Accessory suitable for	Technical information	PU
112201	Refurbishment fans	D 125 mm (DN 125)	1
112218	-	D 160 mm (DN 150)	

Flat roof + terrace -That's how it's done.



Universal weather cap for flat roof fans



Universal weather cap for flat roof fans				
Item No.	Accessory suitable for	Colour	Diameter	PU
111358	Cold roof fans,	Gray	D 75 mm (DN 70)	1
	Flat roof fans			
111693		Black	D 110 mm (DN 100)	
			D 125 mm (DN 125)	
111389		Gray	D 160 mm (DN 150)	

Accumulation ring for drains and scupper



Accumulation ring for drains ^{1,2,3}				
Item No.	Accessory suitable for	Material	PU	
109607	Accumulation ring for drains,	The material of the accumulation ring	1	
	Accumulation height: 50 mm,	depends on the base material of the drain.		
	D 50 up to D 125			

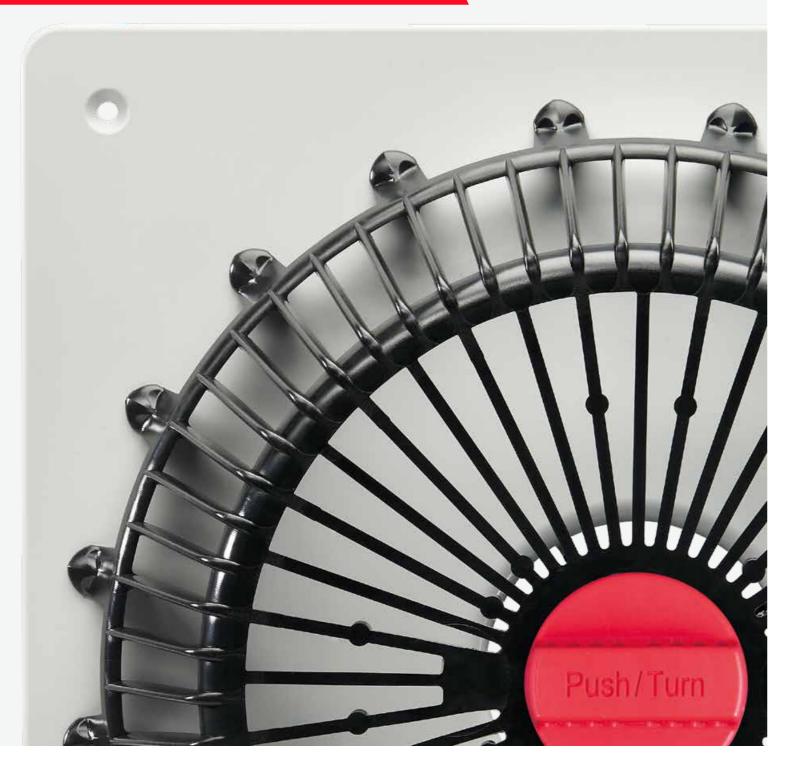


	PU
nulation ring	1
terial of the drain.	
	mulation ring aterial of the drain.

¹Not available for BIT variant /²Attention: Additional charge for Accumulation ring /³Custom designs are non-returnable



Flat roof accessories from seals to lightning protection



Practical accessories for all your flat roof needs, whether you require detailing and drainage, or safety and lightning protection. From the right vapour barrier for emergency spillovers and spouts to grommets and inner and outer corners for simple detailing in PP, PVC and bitumen: clever flat roof accessories!

Specifications on p. 64.

Smart accessories for durable flat roofs



Gravel basket Vario Fix – infinitely adjustable				
ltem No.	Accessory suitable for	Diameter	PU	
109553	Drains	Basket-D 260 mm	10	
	D 50 mm (DN 50) - D 160 mm (DN 150)	Basket-H 95 mm		
109508	Scupper D 50 mm (DN 50) - D 125 mm (DN 125)			



Gravel basket Classic - with centering cross			
ltem No.	Accessory suitable for	Diameter	PU
109515	Drains	Basket-D 262 mm	10
	D 50 mm (DN 50) - D 160 mm (DN 150)	Basket-H 77,5 mm	
109546	Scupper		
	D 50 mm (DN 50) - D 125 mm (DN 125)		



Gravel guard frame		
Item No.	Dimensions mn	
120114	Length: 380	
	Width: 380	
	Height: 80	







Lip seal for pipe connections			
ltem No.	suitable for	External dimensions / height	PU
103865	Drain pipe diameter D 50 mm	73 x 29 mm	1
103872	Drain pipe diameter D 75 mm	109 x 38 mm	
103889	Drain pipe diameter D 95 mm small	113 x 19 mm	
103919	Drain pipe diameter D 95 mm large	146 x 30 mm	
103926	Drain pipe diameter D 110 mm	126 x 35 mm	
103933	Drain pipe diameter D 125 mm	172 x 32 mm	
103940	Drain pipe diameter D 160 mm	207 x 33 mm	



ım	Material	PU
	PVC	1

ım	Material	PU
	PVC	1

Smart accessories for durable flat roofs



Universal o	Universal grommets					
Item No.	Material ²	Height mm	Length mm	Inner-D in mm	PU	
303906	BIT sanded ¹	300,	80	D 10	10/60	
304903		with heat-shrink		D 20		
305900		tube		D 30		
306907				D 42	1	
307904				D 50	1	
309601		320,	100	D 68	5	
309700		with heat-shrink		D 82	1	
309809		tube		D 100	1	
309908				D 115]	
309526				D 150		

Universal g	Universal grommets					
Item No.	Material ²	Height mm	Length mm	Inner-D in mm	PU	
303807	PVC Light grey	300, with heat-shrink	80	D 10	40	
304804		tube		D 20	35	
305801				D 30	30	
306808				D 42	25	
307805				D 50	20	



Universal grommets						
Item No.	Material ²	Height mm	Length mm	Inner-D in mm	PU	
303302	FPO/PP Gray ¹	300,	80	D 10	40	
304309		with heat-shrink		D 20	35	
305306		tube		D 30	30	
306303				D 42	25	
307300				D 50	20	





ltem No.	Material ²	Height mm	Length mm	Inner-D in mm	PU
303500	FPO/PP Anthracite gray	300,	80	D 10	40
304507		with heat-shrink		D 20	35
305504		tube	D 30	D 30	30
306501				D 42	25
307508	1			D 50	20

Universal grommets					
Item No.	Material ²	Height mm	Length mm	Inner-D in mm	PU
303104	FPO/PP White	300,	80	D 10	40
304101		with heat-shrink		D 20	35
305108		tube		D 30	30
306105				D 42	25
307102	1			D 50	20

¹Also available in PE (roofing membranes based on PE) / ²Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



	Height mm	Length mm	Inner-D in mm	PU
gray	300,	80	D 10	40
	with heat-shrink		D 20	35
	tube		D 30	30
			D 42	25
			D 50	20

Smart accessories for durable flat roofs



ltem No.	Material ¹	Height	Diameter	PU
120305	BIT	605 mm	D 125 mm (DN 125)	1



-	
Cas	







Item No.	Material ¹	Height	Diameter	PU
120817	PVC	605 mm	D 125 mm (DN 125)	1
	similar to RAL 7035, Light			
	grey			

One-piece inspection fitting for flat roof systems				
ltem No.	Material ¹	Height	Diameter	PU
120824	FPO/PP	605 mm	D 125 mm (DN 125)	1
	similar to RAL 7044,			
	Silk grey			

Gooseneck/cable conduit (Supplied without flat roof fan)				
ltem No.	Material	Diameter	PU	
111402	FPO/PP,	D 75 mm (DN 70)	10	
111563	Black	D 110 mm (DN 100)		
111570		D 125 mm (DN 125)		
111587		D 160 mm (DN 150)		

Vapour barrier sheet for Scupper, round and Emergency overflow, round				
Item No.	Material	for Diameter	PU	
108501	Basket PVC sheet	D 50 mm (DN 50)	1	
108556	300 x 300 mm	D 75 mm (DN 70)		
108600	similar to RAL 7047,	D 95 mm		
108655	Telegrey 4	D 110 mm (DN 100)		
108709		D 125 mm (DN 125)		

Vapour barrier sheet for Scupper and Emergency overflow, rectangular				
ltem No.	Material	Duct = W x H x L mm	PU	
108006	Basket PVC sheet	for 120 x 60	1	
108051	similar to RAL 7047,	for 180 x 80		
108105	Telegrey 4	for 300 x 80		
108150		for 300 x 100		
108204		for 500 x 100		
108259		for 600 x 100		
108303		for 750 x 100		
108358		for 1000 x 100		

¹Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



Internal corners for roof n		
Item No.	Material ³	
300806	PVC Light grey	
300301	FPO/PP Gray ¹	
300202	FPO/PP Beige g	
300509	FPO/PP Anthra	
300103	FPO/PP White	



External corners for roof			
Item No.	Material ³		
301803	PVC Light grey		
301308	FPO/PP Gray ¹		
301209	FPO/PP Beige g		
301605	FPO/PP Anthra		
301100	FPO/PP White		





 $^1 \rm Also$ available in PE (roofing membranes based on PE) $/^2$ optionally other sizes and lengths available / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to;; Materials and used material compounds may be subject to change.



embranes				
	Technical information	PU		
	Prefab corners,	25		
	weldable to roof membrane			
gray				
cite gray				

iembranes		
	Technical information	PU
	Prefab corners,	25
	weldable to roof membrane	
jray		
cite gray		

	Diameter ranges	Length mm	PU
	22/6 mm (D 10)	80	10
nodified			
	28/6 mm (D 20)		
	40/12 mm (D 30)		
	40/12 MIN (D 30)		
	55/16 mm (D 42)		
	65/19 mm (D 50)		

Smart accessories for durable flat roofs



W4 hose clamps (in place of heat-shrink tube)				
ltem No.	Diameter ranges	Metal strip width	PU	
111518	10/16 (D 10)	4 mm	10	
111525	16/27 (D 20)			
111686	25/40 (D 30)			
111532	32/50 (D 42)			
111549	40/60 (D 50)			



ltem No.	Material	For lightning protection wires	PU
109102	Polyamide (PA)	D 8 - 10 mm	50







Item No.	Material ²	Technical information	PU
109157	BIT	Accessory for holder,	50
		weldable with roof membrane	
109126	PVC		
109133	FPO/PP1		

 $^{\rm 1}{\rm Also}$ available in PE (roofing membranes based on PE) /

² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.





Novelty **Nexo Fix**

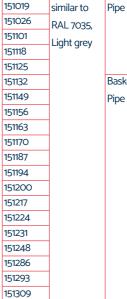


- ✓ Saving time through work already done
- Minimizing vulnerabilities in sealing
- Professional and manufacturer compliant
- Highest quality standard
- ✓ Solidly welded no clamping, no sticking

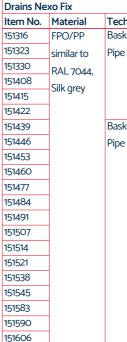
Drains Nexo Fix

NEW









We are bringing the upgrade to the roof range.

Our scuppers, emergency overflows, drains and flat roof fans are now available with an industrial manufactured, pre-welded foil connection. No clamping, no sticking. The firmly welded foil connection with a width of 20 mm is manufactured professionally and in accordance with standards. This saves you the trouble of manually welding the fixed flange to the soft sealing film on the construction site. Easy to use, perfect results. That's how it's done.

All information at: highlights.kala.de



Matching accessories

You can find our suitable retaining ring on page 18.

You can find more flat roof accessories from seals to lightning protection starting on page 20.

¹Special lengths available on request / ² other diameter sizes available upon request / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



Technical information		PU
Basket D 300 mm,	D 50 mm	1
Pipe length 320 mm ^{1, 2}	(DN 50)	
	D 75 mm	-
	(DN 70)	
Basket D 380 mm,	D 90 mm	_
Pipe length 320 mm ^{1,2}		
	D 95 mm	
	D 110 mm	_
	(DN 100)	
	D 125 mm	-
	(DN 125)	
	D 160 mm	-
	(DN 150)	

chnical information		Manufacturer ³	Foil connection	PU
sket D 300 mm, D 50 mm		Bauder	Thermoplan T	1
e length 320 mm ^{1, 2}	(DN 50)	SIKA	Sarnafil TS77	1
5		Soprema	FLAGON Premio	1
	D 75 mm	Bauder	Thermoplan T	1
	(DN 70)	SIKA	Sarnafil TS77	1
		Soprema	FLAGON Premio	1
sket D 380 mm,	D 90 mm	Bauder	Thermoplan T	1
e length 320 mm ^{1, 2}		SIKA	Sarnafil TS77	1
-		Soprema	FLAGON Premio	1
	D 95 mm	Bauder	Thermoplan T	1
		SIKA	Sarnafil TS77	
		Soprema	FLAGON Premio	1
	D 110 mm	Bauder	Thermoplan T	1
	(DN 100)	SIKA	Sarnafil TS77	1
		Soprema	FLAGON Premio	
	D 125 mm	Bauder	Thermoplan T	1
	(DN 125)	SIKA	Sarnafil TS77	1
		Soprema	FLAGON Premio	1
	D 160 mm	Bauder	Thermoplan T	1
	(DN 150)	SIKA	Sarnafil TS77	1
		Soprema	FLAGON Premio	1

Scupper Nexo Fix, round



Item No.	Material	Technical information		PU
152009	PVC	Pipe length 480 mm ¹	D 50 mm	1
152016	similar to		(DN 50)	
152023	RAL 7035,			
152030	Light grey		D 63 mm	
152047				
152054				
152061			D 75 mm	
152078			(DN 70)	
152085				
152092			D 90 mm	
152108				
152115				
152122			D 110 mm	
152139]		(DN 100)	
152146	1			

Scupper N	lexo Fix PVC	, rectangular ³	
	Material	Duct = W x H x L mm ^{1,2}	PU
160004	PVC	120 x 60 x L 300	1
160011	similar to		
160028	RAL 7047,		
160035	Telegrey 4	120 x 60 x L 600	
160042			
160059			
160066		180 x 80 x L 300	
160073			
160080			
160097		180 x 80 x L 600	
160103			
160110			
160127		300 x 80 x L 300	
160134			
160141			
160158	_	300 x 80 x L 600	
160165	_		
160172	_		
160189	_	300 x 100 x L 300	
160196	_		
160202	-		
160219	_	300 x 100 x L 600	
160226	_		
160233	-		
160240	-	500 x 100 x L 300	
160257 160264	-		
	-	500 × 100 × 1 600	
160271 160288	-	500 x 100 x L 600	
160295	-		
160301	-	600 x 100 x L 300	
160318	-		
160325	-		
160332	-	600 x 100 x L 600	
160349	1		
160356	1		



Scupper N	exo Fix, roun	d				
Item No.	Material	Technical information		Manufacturer ²	Foil connection	PU
152184	FPO/PP	Pipe length 480 mm ¹	D 50 mm	Bauder	Thermoplan T	1
152191	similar to		(DN 50)	SIKA	Sarnafil TS77	1
152207	RAL 7044,			Soprema	FLAGON Premio	1
152214	Silk grey		D 63 mm	Bauder	Thermoplan T	1
152221				SIKA	Sarnafil TS77	1
152238				Soprema	FLAGON Premio	1
152245			D 75 mm	Bauder	Thermoplan T	1
152252			(DN 70)	SIKA	Sarnafil TS77	1
152269				Soprema	FLAGON Premio	1
152276			D 90 mm	Bauder	Thermoplan T	1
152283				SIKA	Sarnafil TS77	1
152290				Soprema	FLAGON Premio	1
152306			D 110 mm	Bauder	Thermoplan T	1
152313			(DN 100)	SIKA	Sarnafil TS77	1
152320				Soprema	FLAGON Premio	

Matching accessories

You can find our suitable retaining ring on page 18.

You can find more flat roof accessories from seals to lightning protection starting on page 20.

¹Special lengths available on request /

² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

¹Special sizes available on request /²custom designs are non-returnable /³ alternatively also available with a retaining ring in the desired height.

NEW!



Scupper Nexo Fix PVC, rectangular

Scupper Nexo Fix FPO/PP, rectangular

Scupper Nexo Fix FPO/PP, rectangular ³



ltem No.	Material	Duct = $W \times H \times L \text{ mm}^{1,2}$	Manufacturer ⁴	Foil connection	PU
160363	FPO/PP	120 x 60 x L 300	Bauder	Thermoplan T	1
160370	similar to		SIKA	Sarnafil TS77	
160387	RAL 7044,		Soprema	FLAGON Premio]
160394	Silk grey	120 x 60 x L 600	Bauder	Thermoplan T	
160400			SIKA	Sarnafil TS77]
160417			Soprema	FLAGON Premio]
160424		180 x 80 x L 300	Bauder	Thermoplan T]
160431			SIKA	Sarnafil TS77]
160448			Soprema	FLAGON Premio	1
160455		180 x 80 x L 600	Bauder	Thermoplan T]
160462			SIKA	Sarnafil TS77	
160479			Soprema	FLAGON Premio	
160486		300 x 80 x L 300	Bauder	Thermoplan T	
160493			SIKA	Sarnafil TS77	
160509			Soprema	FLAGON Premio	
160516		300 x 80 x L 600	Bauder	Thermoplan T	
160523			SIKA	Sarnafil TS77	
160530			Soprema	FLAGON Premio	
160547		300 x 100 x L 300	Bauder	Thermoplan T	
160554			SIKA	Sarnafil TS77	
160561			Soprema	FLAGON Premio	
160578	_	300 x 100 x L 600	Bauder	Thermoplan T	1
160585	_		SIKA	Sarnafil TS77	1
160592	_		Soprema	FLAGON Premio	1
160608	-	500 x 100 x L 300	Bauder	Thermoplan T	1
160615			SIKA	Sarnafil TS77	1
160622			Soprema	FLAGON Premio	1
160639		500 x 100 x L 600	Bauder	Thermoplan T	1
160646			SIKA	Sarnafil TS77	1
160653	-		Soprema	FLAGON Premio	1
160660		600 x 100 x L 300	Bauder	Thermoplan T	1
160677	-		SIKA	Sarnafil TS77	1
160684			Soprema	FLAGON Premio	1
160691		600 x 100 x L 600	Bauder	Thermoplan T	1
160707	1		SIKA	Sarnafil TS77	1
160714			Soprema	FLAGON Premio]

Emergency overflow Nexo Fix, round



NEW!

NEW

Item No.	Material	Technical information		PU
153006	PVC	Pipe length 490 mm ¹	D 50 mm	1
153013	similar to		(DN 50)	
153020	RAL 7035,			
153037	Light grey		D 63 mm	
153044	1			
153051]			
153068]		D 75 mm	
153075]		(DN 70)	
153082]			
153099]		D 110 mm	
153105]		(DN 100)	
153112]			
153129]		D 125 mm	
153136			(DN 125)	
153143]			



Item No.	Material	Technical information		Manufacturer ²	Foil connection	PU
153150	FPO/PP	Pipe length 490 mm ¹	D 50 mm	Bauder	Thermoplan T	1
153167	similar to		(DN 50)	SIKA	Sarnafil TS77	7
153174	RAL 7044,			Soprema	FLAGON Premio	7
153181	Silk grey		D 63 mm	Bauder	Thermoplan T	7
153198				SIKA	Sarnafil TS77	1
153204	1			Soprema	FLAGON Premio	1
153211	1		D 75 mm	Bauder	Thermoplan T	1
153228]		(DN 70)	SIKA	Sarnafil TS77	7
153235				Soprema	FLAGON Premio	1
153242			D 110 mm	Bauder	Thermoplan T	1
153259			(DN 100)	SIKA	Sarnafil TS77	1
153266]			Soprema	FLAGON Premio	7
153273]		D 125 mm	Bauder	Thermoplan T	7
153280]		(DN 125)	SIKA	Sarnafil TS77	7
153297	1			Soprema	FLAGON Premio	1

¹Special sizes available on request /²custom designs are non-returnable /³alternatively also available with a retaining ring in the desired height / ⁴ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



Emergency overflow Nexo Fix PVC, rectangular

Emergency overflow Nexo Fix PVC, rectangular



sinilar to sinilar to sinilar to RAL 7047, redgrey 4 120 x 60 x L 600 siona 180 x 80 x L 300 siona 300 x 100 x L 300 siona 300 x 100 x L 300 siona 300 x 100 x L 600 siona 500 x 100 x L 600 siona 500 x 100 x L 600 siona 500 x 100 x L 600 siona 600 x 100 x L 300 siona 600 x 100 x L 300 siona 600 x 100 x L 600	em No.	Material	$Duct = W x H x L mm^{1,2}$	PU
R4L 7047, Image: Constant of the second	5009	PVC	120 x 60 x L 300	1
Felgrey 4 120 x 60 x L 600 15050 180 x 80 x L 300 15050 180 x 80 x L 600 15015 300 x 80 x L 600 1515 300 x 100 x L 300 15517 300 x 100 x L 300 15520 500 x 100 x L 600 15521 500 x 100 x L 600 15522 500 x 100 x L 600 15523 500 x 100 x L 600 15524 500 x 100 x L 300 15525 500 x 100 x L 600 15526 500 x 100 x L 600 15527 500 x 100 x L 600 15528 500 x 100 x L 600 15529 500 x 100 x L 600 15531 600 x 100 x L 600 15533 600 x 100 x L 600	5016	similar to		
55047 180 x 80 x L 300 55058 180 x 80 x L 300 55058 180 x 80 x L 600 55058 300 x 80 x L 300 55150 300 x 80 x L 300 55153 300 x 80 x L 600 55154 300 x 80 x L 600 55153 300 x 80 x L 600 55154 300 x 100 x L 300 55151 300 x 100 x L 300 55152 500 x 100 x L 300 5522 500 x 100 x L 300 5523 500 x 100 x L 300 5524 500 x 100 x L 300 55252 500 x 100 x L 300 55253 500 x 100 x L 300 55256 500 x 100 x L 300 55256 500 x 100 x L 300 55256 500 x 100 x L 600 55276 500 x 100 x L 600 55276 500 x 100 x L 600 55276 600 x 100 x L 300 55283 600 x 100 x L 300 5537 600 x 100 x L 600 55337 600 x 100 x L 600	5023	RAL 7047,		
35054 Image: state s	5030	Telegrey 4	120 x 60 x L 600	
35061 180 x 80 x L 300 35078 180 x 80 x L 600 35078 180 x 80 x L 600 35175 300 x 80 x L 300 35175 300 x 80 x L 300 3518 300 x 80 x L 600 35175 300 x 80 x L 600 3518 300 x 80 x L 600 3517 300 x 100 x L 300 3518 300 x 100 x L 300 35214 300 x 100 x L 600 35225 500 x 100 x L 300 35236 500 x 100 x L 300 35237 600 x 100 x L 300 35330 600 x 100 x L 600 35331 600 x 100 x L 300 35337 600 x 100 x L 600	5047			
35078 8 3508 180 x 80 x L 600 3515 300 x 80 x L 300 35130 300 x 80 x L 300 35130 300 x 80 x L 600 35150 300 x 80 x L 600 35170 300 x 100 x L 300 35184 300 x 100 x L 300 35270 300 x 100 x L 300 35271 300 x 100 x L 300 35272 300 x 100 x L 300 35274 500 x 100 x L 300 35275 500 x 100 x L 300 35276 500 x 100 x L 400 35370 600 x 100 x L 400 35371 600 x 100 x L 600	5054			
3595 180 x 80 x L 600 3515 300 x 80 x L 300 35130 300 x 80 x L 300 3515 300 x 80 x L 600 35160 300 x 80 x L 600 35170 300 x 100 x L 300 35184 300 x 100 x L 300 35171 300 x 100 x L 300 35221 300 x 100 x L 600 35232 300 x 100 x L 600 35232 500 x 100 x L 300 35252 500 x 100 x L 300 35253 500 x 100 x L 300 35254 500 x 100 x L 600 35253 500 x 100 x L 600 35254 500 x 100 x L 600 35253 500 x 100 x L 600 35370 600 x 100 x L 300 35330 600 x 100 x L 600 35331 600 x 100 x L 600 35337 600 x 100 x L 600	5061		180 x 80 x L 300	
36992 180 x 80 x L 600 3615 300 x 80 x L 300 35139 300 x 80 x L 300 35130 300 x 80 x L 600 35153 300 x 80 x L 600 35174 300 x 100 x L 300 35174 300 x 100 x L 300 35174 300 x 100 x L 600 3521 300 x 100 x L 600 3522 500 x 100 x L 300 35236 500 x 100 x L 300 3524 500 x 100 x L 600 35252 500 x 100 x L 300 35269 500 x 100 x L 600 35230 600 x 100 x L 300 35230 600 x 100 x L 300 35330 600 x 100 x L 300 35331 600 x 100 x L 600 35332 600 x 100 x L 300	5078			
3638 Image: Second	5085			
1915 1 1912 300 x 80 x L 300 1914 300 x 80 x L 300 1915 300 x 80 x L 600 1915 300 x 80 x L 600 1917 300 x 100 x L 300 1918 300 x 100 x L 300 1917 300 x 100 x L 600 1917 300 x 100 x L 300 1918 500 x 100 x L 300 1921 500 x 100 x L 300 1922 500 x 100 x L 300 1923 500 x 100 x L 300 1924 500 x 100 x L 300 1925 500 x 100 x L 300 1925 500 x 100 x L 300 1926 500 x 100 x L 300 1927 500 x 100 x L 300 1928 600 x 100 x L 300 1929 500 x 100 x L 600 1929 500 x 100 x L 600	5092		180 x 80 x L 600	
300 x 80 x L 300 35122 35139 35140 35553 35560 35570 35177 35184 35191 35207 3521 35221 35222 35238 35252 35260 35276 35283 35290 35290 35291 35292 35293 35293 35294 35295 35295 35296 35297 35390 35390	65108			
3539 A 35130 A 35131 A 35140 A 35170 A 35184 A 35191 A 35207 A 35214 A 35237 A 35244 A 35252 A 35260 A 35276 A 35283 A 35290 A 35330 A 35337 A 35341 A	55115			
35146 Image: spin spin spin spin spin spin spin spin	5122		300 x 80 x L 300	
300 x 80 x L 600 35153 35154 35184 35184 35184 35184 35191 35207 35214 300 x 100 x L 300 35214 300 x 100 x L 600 35221 35238 35244 3500 x 100 x L 300 35252 35269 35276 35283 35290 35236 35237 35334	5139			
isi60 Image: sine sine sine sine sine sine sine sine	65146			
isi177 Image: singer state	5153		300 x 80 x L 600	
35184 300 x 100 x L 300 35214 300 x 100 x L 600 35221 300 x 100 x L 600 35238 500 x 100 x L 300 35252 500 x 100 x L 300 35256 500 x 100 x L 600 35257 500 x 100 x L 600 35263 500 x 100 x L 600 35276 500 x 100 x L 600 35283 500 x 100 x L 300 35290 600 x 100 x L 300 35331 600 x 100 x L 300 35337 600 x 100 x L 600	65160			
35191	65177			
35207 Image: space s	5184		300 x 100 x L 300	
300 x 100 x L 600 35214 35238 35245 55252 55252 55252 55252 55252 55252 55252 55252 55252 55252 55252 55252 55253 55253 55254 55255 55256 55256 600 x 100 x L 600 55337 600 x 100 x L 600 55337 600 x 100 x L 600	55191			
35221	5207			
55238 55238 155245 500 x 100 x L 300 155252 500 x 100 x L 300 155269 500 x 100 x L 600 155276 500 x 100 x L 600 155280 600 x 100 x L 300 155306 600 x 100 x L 300 15537 600 x 100 x L 600 15537 600 x 100 x L 600	5214		300 x 100 x L 600	
35245 500 x 100 x L 300 35252 500 x 100 x L 300 35276 500 x 100 x L 600 35283 600 x 100 x L 300 35306 600 x 100 x L 300 35337 600 x 100 x L 600 35337 600 x 100 x L 600	55221			
i5252 i5252 i5252 i52590 i5283 500 x 100 x L 600 i52900 600 x 100 x L 300 i53313 600 x 100 x L 600 i5337 600 x 100 x L 600 i5337 600 x 100 x L 600	5238			
i5269 500 x 100 x L 600 i5283 500 x 100 x L 600 i5290 600 x 100 x L 300 i5306 600 x 100 x L 300 i5320 600 x 100 x L 600 i5337 600 x 100 x L 600	5245		500 x 100 x L 300	
i5276 500 x 100 x L 600 i5283 500 x 100 x L 600 i5290 600 x 100 x L 300 i5310 600 x 100 x L 600 i5337 600 x 100 x L 600	5252			
i5283 i5283 i5290 i5306 i5306 600 x 100 x L 300 i5313 i5320 i5337 600 x 100 x L 600 i5344 600 x 100 x L 600	5269			
35290 600 x 100 x L 300 35313 600 x 100 x L 300 35337 600 x 100 x L 600 35344 600 x 100 x L 600	65276		500 x 100 x L 600	
i5306 600 x 100 x L 300 i5313 i5320 i5337 600 x 100 x L 600 i5344 i5320	5283			
55313 55320 55337 55344	5290			
55320 55337 55344	5306		600 x 100 x L 300	
55337 600 x 100 x L 600 55344	5313]		
5344	5320]		
	5337]	600 x 100 x L 600	
5351	5344]		
	5351]		

NEW!

NEW!

Emergency overflow Nexo Fix FPO/PP, rectangular

Item No.	Material	Duct = $W \times H \times L mm^{1,2}$	Manufacturer ³	Foil connection
165368	FPO/PP	120 x 60 x L 300	Bauder	Thermoplan T
165375	similar to		SIKA	Sarnafil TS77
165382	RAL 7044,		Soprema	FLAGON Premie
165399	Silk grey	120 x 60 x L 600	Bauder	Thermoplan T
165405	1		SIKA	Sarnafil TS77
165412	1		Soprema	FLAGON Premie
165429	1	180 x 80 x L 300	Bauder	Thermoplan T
165436			SIKA	Sarnafil TS77
165443	1		Soprema	FLAGON Premie
165450	1	180 x 80 x L 600	Bauder	Thermoplan T
165467	1		SIKA	Sarnafil TS77
165474	1		Soprema	FLAGON Premie
165481	1	300 x 80 x L 300	Bauder	Thermoplan T
165498	1		SIKA	Sarnafil TS77
165504	1		Soprema	FLAGON Premie
165511	1	300 x 80 x L 600	Bauder	Thermoplan T
165528	-		SIKA	Sarnafil TS77
165535			Soprema	FLAGON Premie
165542	1	300 x 100 x L 300	Bauder	Thermoplan T
165559			SIKA	Sarnafil TS77
165566			Soprema	FLAGON Premie
165573	1	300 x 100 x L 600	Bauder	Thermoplan T
165580	1		SIKA	Sarnafil TS77
165597	1		Soprema	FLAGON Premi
165603	1	500 x 100 x L 300	Bauder	Thermoplan T
165610]		SIKA	Sarnafil TS77
165627]		Soprema	FLAGON Premi
165634]	500 x 100 x L 600	Bauder	Thermoplan T
165641			SIKA	Sarnafil TS77
165658]		Soprema	FLAGON Premie
165665		600 x 100 x L 300	Bauder	Thermoplan T
165672]		SIKA	Sarnafil TS77
165689]		Soprema	FLAGON Premie
165696		600 x 100 x L 600	Bauder	Thermoplan T
165702			SIKA	Sarnafil TS77
165719			Soprema	FLAGON Premio

¹Special sizes available on request /² custom designs are non-returnable / ³Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.

¹Special sizes available on request /² custom designs are non-returnable.



Flat roof fans Nexo Fix for ventilation lines with weather cap



Item No.	Material	Technical information	Height	PU
972003	PVC	D 75 mm (DN 70)	654 mm Pipe length above /	1
972010	similar to		below tray 300 / 320 mm ¹	
972027	RAL 7035,			
972034	Light grey	D 110 mm (DN 100)		
972041				
972058				
972065		D 125 mm (DN 125)		
972072				
972089				
972096		D 160 mm (DN 150)		
972102				
972119	1			

NEW!



Item No.	Material	Technical information	Height	Manufacturer ²	Foil connection	PU
972126	FPO/PP ²	D 75 mm (DN 70)	654 mm	Bauder	Thermoplan T	1
972133	similar to		Pipe length	SIKA	Sarnafil TS77]
972140	RAL 7044,		above /	Soprema	FLAGON Premio]
972157	Silk grey	D 110 mm (DN 100)	below tray	Bauder	Thermoplan T]
972164			300 /	SIKA	Sarnafil TS77]
972171			320 mm ¹	Soprema	FLAGON Premio]
972188		D 125 mm (DN 125)		Bauder	Thermoplan T]
972195				SIKA	Sarnafil TS77]
972201				Soprema	FLAGON Premio]
972218		D 160 mm (DN 150)		Bauder	Thermoplan T	1
972225				SIKA	Sarnafil TS77	1
972232	1			Soprema	FLAGON Premio	1

Flat roof fans Nexo Fix for cold roofs with weather cap



NEW!

Flat roof f	ans Nexo Fi	x for cold roofs with weat	her cap	
Item No.	Material	Technical information	Height	PU
971006	PVC	D 75 mm (DN 70)	354 mm ¹	1
971013	similar to			
971020	RAL 7035,			
971037	Light grey	D 110 mm (DN 100)		
971044				
971051				
971068		D 125 mm (DN 125)		
971075				
971082				
971099		D 160 mm (DN 150)		
971105				
971112				



Item No.	Material	Technical information	Height	Manufacturer ²	Foil connection	PU
971129	FPO/PP	D 75 mm (DN 70)	354 mm ¹	Bauder	Thermoplan T	1
971136	similar to			SIKA	Sarnafil TS77	
971143	RAL 7044,			Soprema	FLAGON Premio	
971150	Silk grey	D 110 mm (DN 100)		Bauder	Thermoplan T	
971167				SIKA	Sarnafil TS77	
971174	1			Soprema	FLAGON Premio	
971181	1	D 125 mm (DN 125)		Bauder	Thermoplan T	
971198	1			SIKA	Sarnafil TS77	
971204]			Soprema	FLAGON Premio	
971242	1	D 160 mm (DN 150)		Bauder	Thermoplan T	
971259	1			SIKA	Sarnafil TS77	
971266	1			Soprema	FLAGON Premio	1



Flat roof refurbishment fans Nexo Fix with forced ventilation



Item No.	Material	Technical information	Height	PU
156007	PVC	D 125 mm (DN 125)	518 mm ¹	1
156014	similar to			
156021	RAL 7035,			
156038	Light grey	D 160 mm (DN 150)		
156045	1			
156052				

NEW!



						DU
ltem No.	Material	Technical information	Height	Manufacturer ²	Foil connection	PU
156069	FPO/PP	D 125 mm (DN 125)	518 mm ¹	Bauder	Thermoplan T	1
156076	similar to			SIKA	Sarnafil TS77]
156083	RAL 7044,			Soprema	FLAGON Premio	1
156090	Silk grey	D 160 mm (DN 150)	7	Bauder	Thermoplan T	1
156106				SIKA	Sarnafil TS77	1
156113				Soprema	FLAGON Premio	1

One-piece inspection fitting Nexo Fix for flat roof systems



0	

NEW!

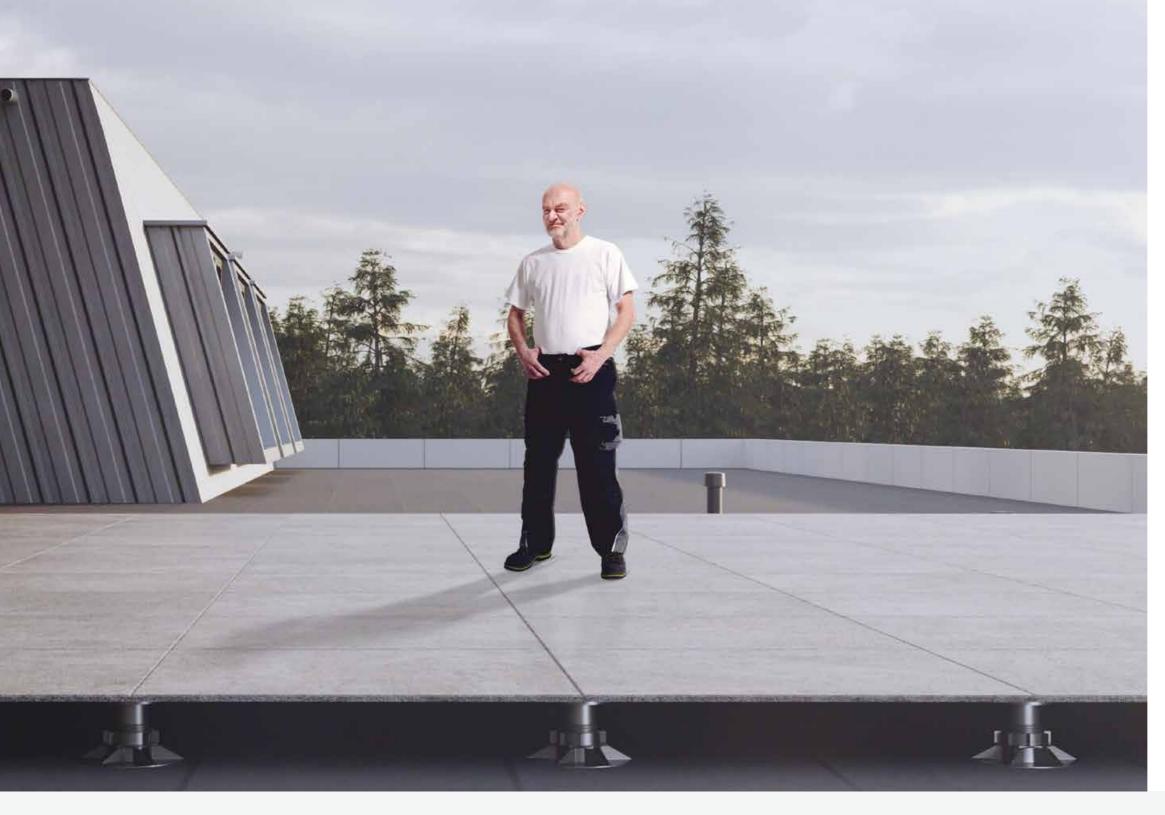
Item No.	Material	Technical information	Height	Manufacturer ²	Foil connection	PL
157035	FPO/PP similar to	D 125 mm (DN 125)	605 mm ¹	Bauder	Thermoplan T	1
157042	RAL 7044, Silk grey			SIKA	Sarnafil TS77	_
157059	<u>3</u>)			Soprema	FLAGON Premio	

¹Special lengths available on request / ²Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change.



ng Nexo Fix for flat roof systems				
hnical information	Height	PU		
25 mm (DN 125)	605 mm ¹	1		

KALA systems for terraces: That's how it's done.



40 | KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG | Am Römerhof 19 | D-78727 Oberndorf | +49 7423 8687 600 | info@kala.de



Professional terrace laying – durable and safe, without damaging sealants or pressing into the substrate

Smart solutions for quick terrace construction and durable protection of the underlying seal: Use KALA terrace support systems to achieve a durable and optimally fitted patio!

Complete underlayable terrace support system	43
Support system for wood, concrete or stone surfaces that can be quickly	
installed free-standing and with incremental height adjustment	
Height-adjustable terrace support system H1	44
Supports adjustable in fine increments for free-standing installation of	
terrace surfaces in wood, concrete and stone	
Height-adjustable terrace support system H2	45
Freely height-adjustable raised floor support for quick and precise	
installation of sealed roof terraces	
KALA terrace support system H-MAX	46
Freely height-adjustable, inclinable raised floor support for quick terrace	
construction and levelling on difficult substrates	
KALA terrace support system H-MAX MultiLevel	47
Discover all KALA terrace supports, including the optimal variant for	
wood sub-structures!	
Accessories for KALA terrace support systems	48
Cross/tile spacers	50

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KALA terrace support systems

Underlayable terrace support system



Item No.	Height mm
100093	21
Solo joint o	divider for unde
Solo joint o Item No.	divider for unde Height mm

3



Solo base element for uno		
Item No.	Height mm	
100178	18	

100161

5	

Equaliser disc, splits into q		
Item No.	Height mm	
100277	3	



Equaliser ri	ualiser ring for underla		
Item No.	Height mm		
100307	6		

Underlayable terrace	Joint dividers solo Equaliser disc, splits into quarters
support system	Equaliser ring
Large pressure disc	

Support system for precise and durable terrace construction

The KALA terrace support system for fast and durable terrace constructions – including on sensitive substrates like flat roof sealing liners; can be directly installed on the sealing without protective mats.



With KALA terrace support systems, you can realise professional, durable, and safe solutions for all types of terrace constructions. Whether renovation or new construction, for extremely low or extra high constructions – we have the right solution for your terrace. With KALA's support system, the support stands freely on a pressure disc. Movements and loads are decoupled from the underlying sealing and distributed over a sufficiently large area.





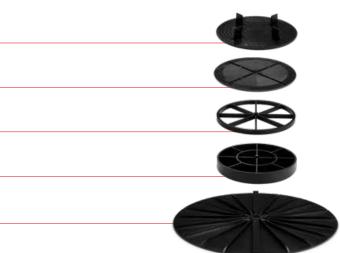
Complete underlayable terrace support system				
Item No. Height mm Diameter mm				
100093	21	Joint dividers 3 mm, D 120	100	

rlayable terrace support systems			
	Diameter mm P		
	Joint dividers 3 mm, D 120	300	
Joint dividers 4 mm, D 120		300	

erlayable terrace support systems			
Diameter mm		PU	
	D 120	150	

uarters for underlayable terrace support systems			
	Diameter mm	PU	
	D 120	300	

able terrace support systems			
Diameter mm		PU	
	D 120	300	



Height-adjustable terrace support system H1

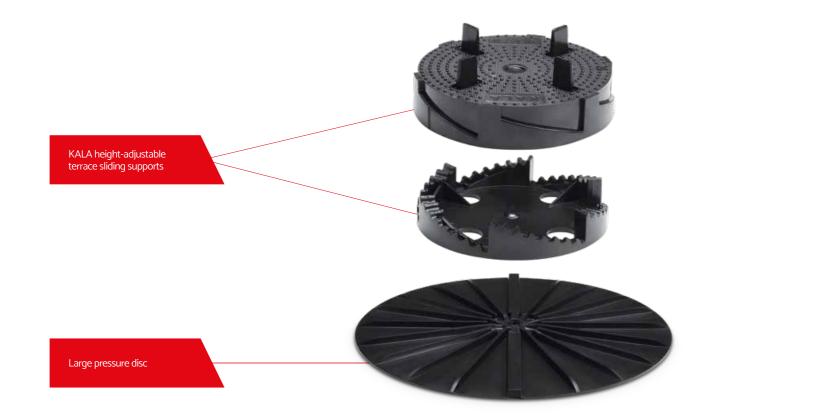


ltem No.	Height mm	Diameter mm	PL
100017	28 - 42	Joint dividers 3 mm, D 120	50
100031	28 - 42	Joint dividers 4 mm, D 120	
100048	28 - 42	Without joint dividers, D 120	

Height-adjustable terrace support system H2



Item No.	Height mm	Diameter mm	PU
100055	40 - 70	Joint dividers 3 mm, D 120	50
100079	40 - 70	Joint dividers 4 mm, D 120	
100086	40 - 70	Without joint dividers, D 120	



KALA height-adjustable terrace sliding supports

Install terraces on flat roof sealing liners and fine-tune height differences – quickly and easily!

The KALA terrace sliding support system precisely incrementally adjusted to your desired height is capable of more than just enabling the precise installation of terrace slabs on delicate substrates: It also facilitates easy levelling of height differences. Can also be combined with the ProSilent equaliser disc to reduce the impact noise that occurs.

Large pressure disc

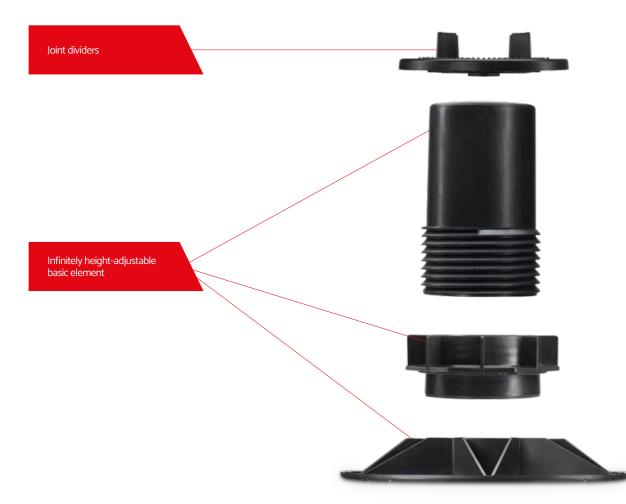




KALA terrace support system H-MAX

(V)	

KALA terra	ace support system H-MAX		
ltem No.	Height mm	Diameter mm	PU
100574	65 - 100	Joint dividers 3 mm,	25
100642	95 - 130	Pressure disc D 205	
100611	125 - 160		
100666	155 - 190		
100659	185 - 220		



The precisely adjustable terrace support system from KALA: construct terraces with screw adjustment at a wide range of heights

Permanently raise terrace surfaces to the correct height in a few simple steps with the freely height-adjustable terrace support system H-MAX. The large support surface also protects the delicate seals below against damage and prevents the terrace from sinking into soft surfaces. Learn more about our floor support system!

KALA terrace support system H-MAX MultiLevel



KALA terrace support system H-MAX MultiLevel			
Item No.	Height mm	Diameter mm	PU
100598	62 - 82	Joint dividers 3 mm,	25
100604	77 - 112	Pressure disc D 200	
100635	107 - 142		
100628	137 - 227		

Joint dividers

(Support head with integrated rubber plate for sound insulation and inclinable head up to 5°)

Infinitely height-adjustable basic element

Seamlessly adjustable terrace support with inclinable head for fast and non-damaging terrace construction on uneven and/or sealed substrates

The KALA freely height-adjustable terrace support system H-MAX MultiLevel features an inclinable head, making it ideal for accurately planning the laying of all kinds of terrace surfaces. Simple levelling of uneven surfaces and slopes thanks to free height adjustment and a head which tilts up to 50 degrees. The large support surface protects the delicate seals below against damage and prevents sinking into soft surfaces.





Accessories for KALA terrace support systems



Need even more variation? No problem: with our accessory portfolio for our terrace support systems, you can get the most out of your project. Here you will find everything you need to even out surfaces easily, distribute loads or create precise joints simply and quickly.



Accessories for KALA terrace support systems



ltem No.	Height mm	Diameter mm	Material	PU
100253	1	D 112	PVC	50



Large pressure disc		
Item No.	Height mm	
100215	7	



Small pressure disc			
Item No.	Height mm	Diameter mm	PU
100246	3	D 200	100
Accessory	suitable for height-adjustable or	underlayable terrace support systems	

Valid from 01.04.2024



	Diameter mm	PU
	D 250	100
t-adjustable or underlava	ble terrace support systems	

Accessory suitable for height-adjustable or underlayable terrace support systems

Cross/tile spacers



Permanent and secure joint filling for all slab types with KALA spacers, also ideal for staggered and border installation!



Cross spacers - height: 18 mm

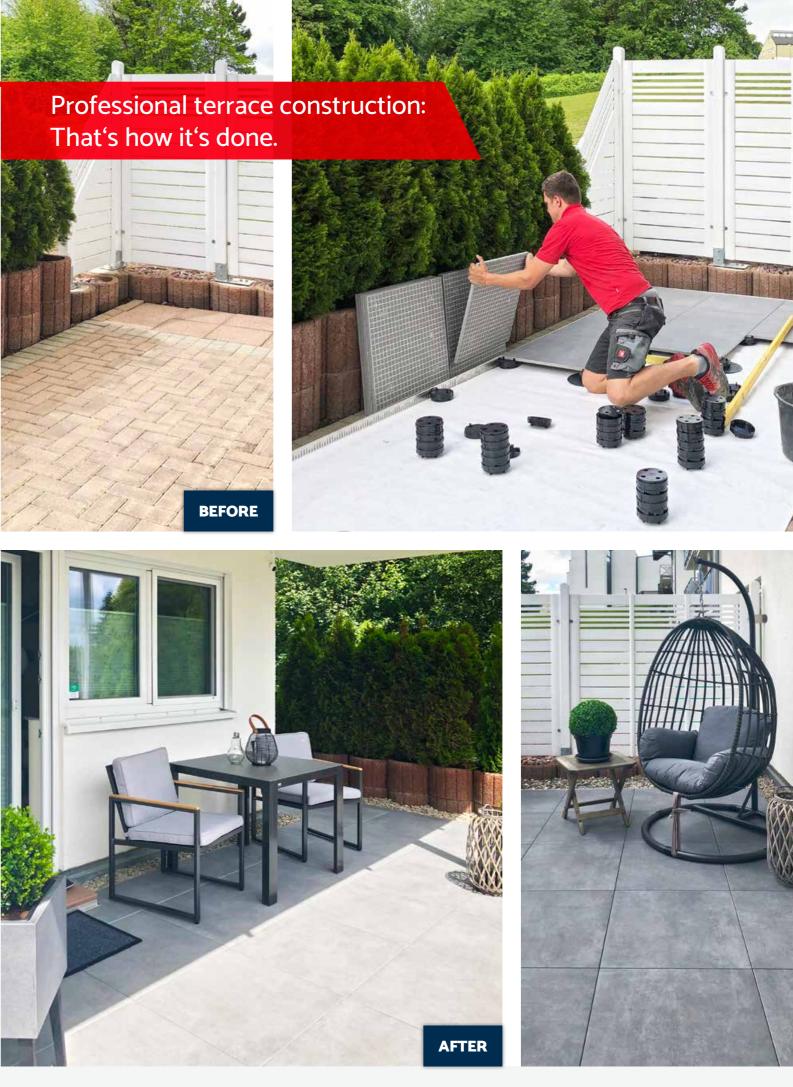


Cross spacers – height: 18 mm				
ltem No.	Number of wings	Cross width	Colour	PU
100338	4 wings	3 mm	Black	300
100352	4 wings	3 mm	Transparent	_
100369	4 wings	5 mm	Black	_
100383	4 wings	5 mm	Transparent	_
100390	4 wings	10 mm	Black	_
100345	4 wings	4 mm	Black with support	
100376	4 wings	4 mm	Transparent with support	
100420	3 wings	3 mm	Black	_
100451	3 wings	5 mm	Black	

Tile spacers for safely laying ceramic tile terraces

A simple way to achieve even and non-moving terrace joints by placing cross spacers in the joints between terrace slabs when laying on grit or gravel beds. The spacers ensure both a uniform appearance and adequate drainage of rainwater in the substrate. The wings can easily be snapped off for staggered or border installation.



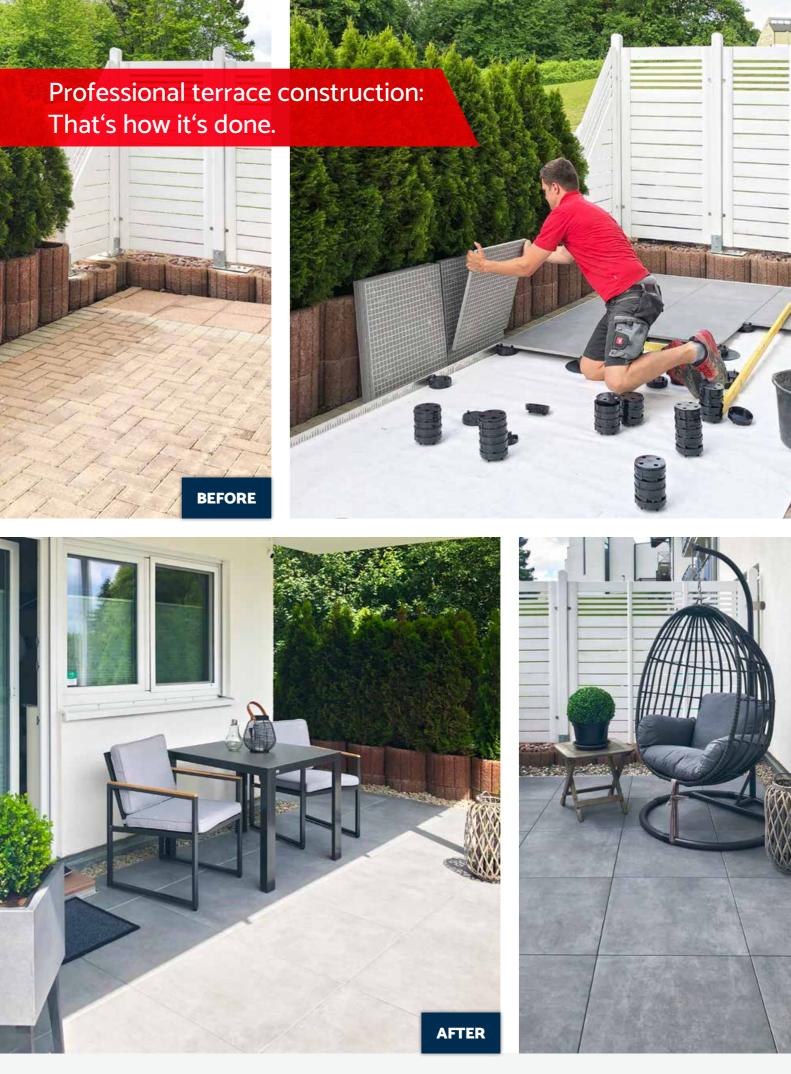




PU

300





Tile spacers for ceramic tiles and other slabs with support – height: 11 mm

Item No. Number of wings



100505	4 wings	3 mm	Black with support
100512	4 wings	3 mm	Transparent with support
100529	4 wings	4 mm	Black with support
100536	4 wings	4 mm	Transparent with support
100543	4 wings	5 mm	Black with support
100550	4 wings	5 mm	Transparent with support

Tile spacers for ceramic tiles and other slabs with support - height: 11 mm

Cross width

Colour

Tile spacers for safely laying ceramic tile terraces

A simple way to achieve even and non-moving terrace joints by placing tile spacers in the joints between ceramic tiles or other thin, light slabs when laying on grit or gravel beds. The tile spacers ensure both a uniform appearance and adequate drainage of rainwater in the substrate. The wings can easily be snapped off for staggered or border installation.

Roof systems: That's how it's done.



Quality in every detail.

Flexible outlet vent connection/flexible tube for reliable building ventilation, protection from birds and shingle ventilation.

Solutions for steep roofs Learn more about our ventilator and bird deterrent products for steep roofs.

The original red flexible tube	56
Flexible outlet vent connection for connecting all conventional aeration	
and ventilation systems.	
Ventilators for bitumen shingle roofs	57
Roof structure ventilation	
Bird deterrent "bird spikes", transparent	58

Animal-friendly bird deterrent ledge with rounded spike ends.

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The original red flexible tube





Item No.	Material	Technical informatio	n	PU
200014	PVC, UV-resistant	Length 50 cm	DN 70/100	10
200083	-	Length 100 cm	DN 70/100	6
200144	_	Length 60 cm	DN 125	10

Ventilators for bitumen shingle roofs



Item No.	Colour	Technical information	PU
200120	Black	180 cm ² ventilation	10
200151	Brown		
200182	Red		
200212	Gray		

Item No.	Material	Technical information	PL
200243	PVC,	DN 50/70/100	1
	UV-resistant	Length 30 cm	

Ready-to-install flexible tube for connection to all standard roof fans

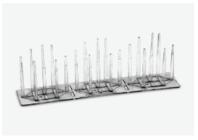
Easy and reliable connection of roof fans and ventilation ducts that end in buildings with the highly flexible tube. Capable of handling heavy conduits whilst maintaining the full cable cross-section. The pre-assembled hose clamps can be used to attach the free hose end to the air duct.

The ideal vent for roof construction or building ventilation, with optional outlet vent connections for shingle roofs

The shingle vent is an easy-to-install element for effective ventilation of steep roof spaces covered with bitumen shingles. The clip-on flexible vapour pipe is capable of diverting exhaust air from the building interior in a simple yet well-sealed manner. The roof's appearance remains uniform thanks to uniform use as a vent or vapour pipe.

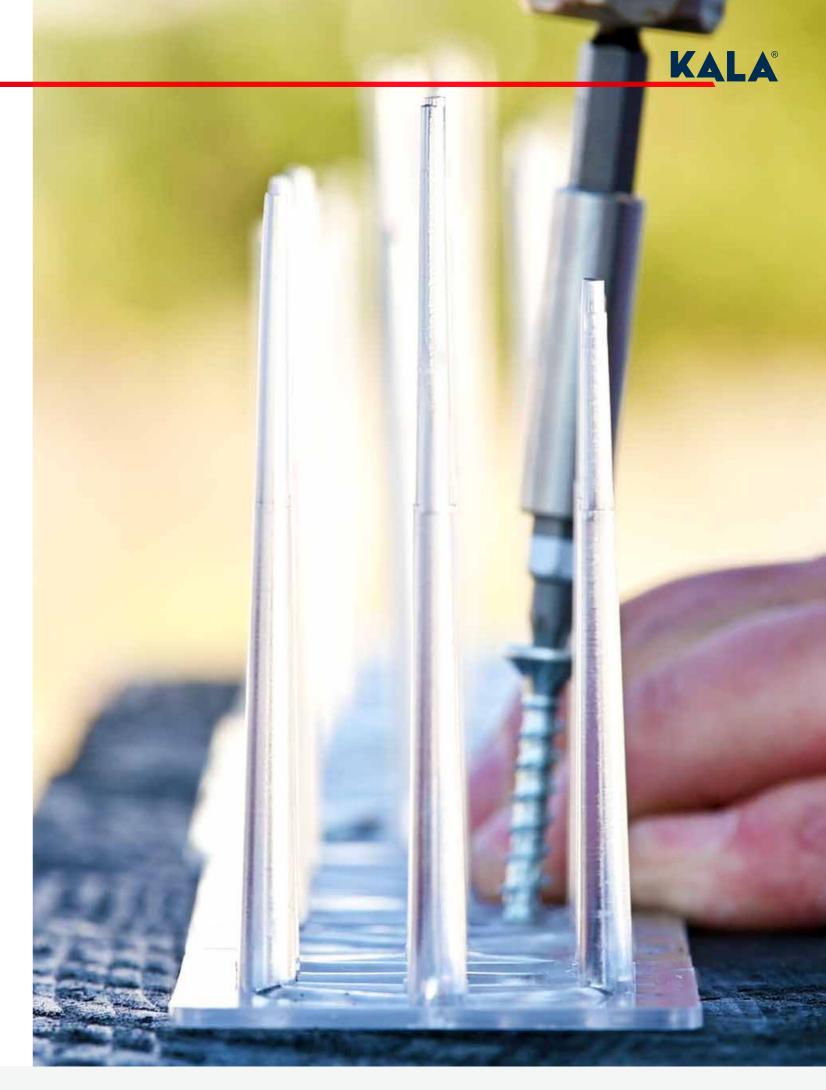


Bird deterrent "bird spikes", transparent



Bird deterrent "bird spikes", transparent				
Item No.	Material	Technical informatio	n	PU
200915	PC Polycarbonate, transparent, UV-resistant	L 25 x W 5 cm	Screw-in or glue-on	50

In order to protect buildings and other structures from bird droppings or nesting, KALA bird spikes offer an animal-friendly alternativelyelye to potentially harmful deterrent ledges with wire tips. The spiked elements prevent approaching birds, particularly pigeons, from landing and force them to fly elsewhere, significantly reducing the pollution and contamination of buildings caused by birds. The bird deterrent is made from transparent polycarbonate and is therefore weatherproof and UV-resistant. The transparent design ensures that the bird spikes have a minimal impact on the structure's overall appearance.







Customer service – That's how it's done.

Customer service is our number one priority, and not just in terms of quick delivery or instructions for the optimum installation of our products. We are happy to provide advice, instructions and general information!

Good advice is always free at KALA

Our services don't stop at great products. Are you a planner or project developer looking for the right products for your project? Or do you need some tips on how to select and use our products? Get in touch today.

Quick solutions for every issue

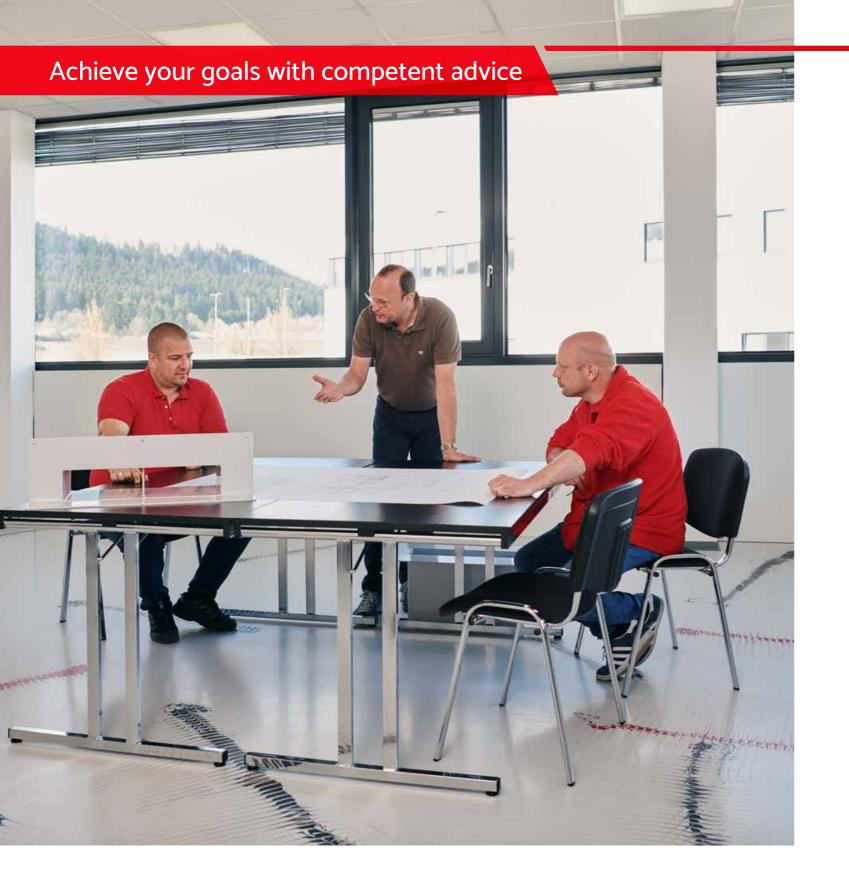
Do you have a question that requires a consultation and quick resolution? Get in touch with us for competent advice. We can also provide quick solutions for minor details such as express delivery, product queries or installation recommendations!

Get in touch!

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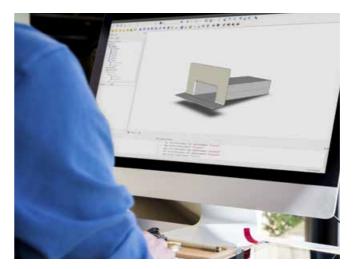
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Customer service: That's how it's done.







KALA offers customers more than just great products: We are a reliable partner from the get go. Contact us to arrange a consultation.

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Your partner for roof and terrace products

The search for a competent supplier for your roof and terrace product range ends with us: Gain an experienced OEM partner at your side. We can manufacture roof and terrace products for you and your brand from the range found on our website - we can also develop customised solutions to meet your requirements. Always with the top quality that your customers deserve.

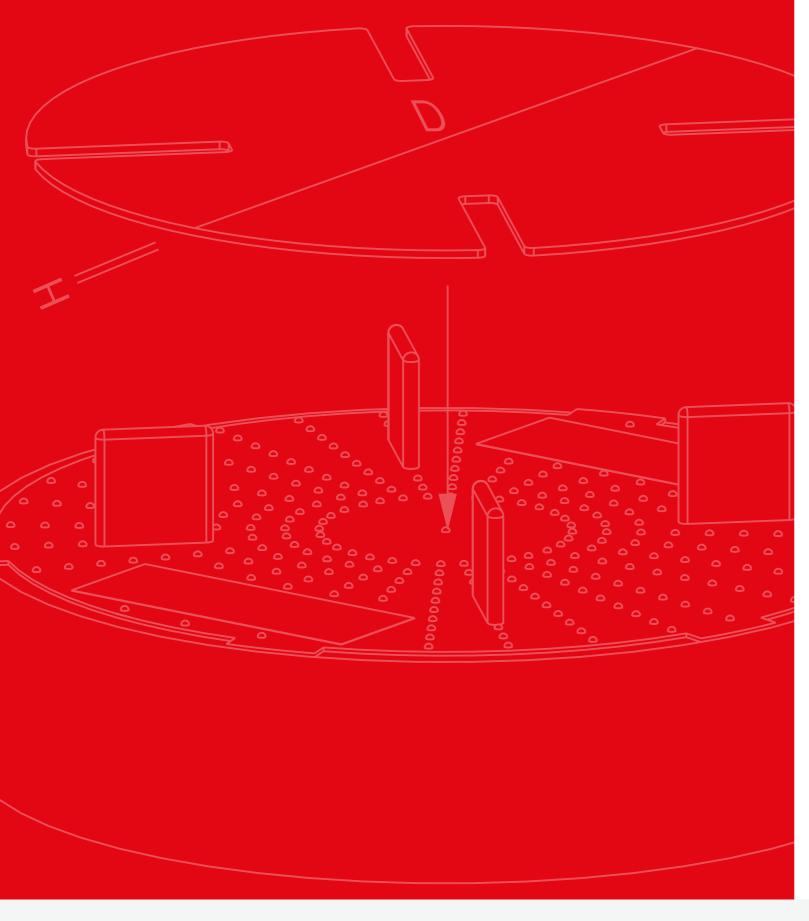
Your partner for customised solutions

Are you a planner looking for a partner who not only provides reliable and effective products for flat roofs and terrace construction, but also offers customised solutions for specific requirements? Look no further! We are happy to make modifications to products found in our existing portfolio according to your requirements, or we can use our expertise to design entirely new products for your individual project. Take advantage of our expert advice for architects and planners: get in touch with us today!

Your partner for construction support

Our products may be self-explanatory, but sometimes a quick tip or two on how to use them properly can be a great help. We are happy to provide assistance with technical questions on our products: Give us a call or write an email and let us know about the issue. We'll take care of it, we promise!

Data sheets



... Tender text KALA supports

	Quantity unit	Price per unit	Total amount	
Item				
Laying slabs on KALA terrace supports, height-				
adjustable H1 (28 - 42 mm) / H2 (40 - 70 mm) and				
KALA pressure disc Ø 250 mm across the surface	m²	€	€	
Sourcing reference: KALA - KUNSTSTOFFE Karl-Heinz Lange GmbH+Co.KG +49 7423 8687 600 info@kala.de				
Item				
Cutting and laying the panels in the edge area	lin. m	€	€	

... Variants

- No or minimal height differences: Laying on KALA terrace supports that can be placed underneath (height compensation with compensation elements).
- Compensation for greater heights or steep gradients: Laying KALA terrace supports H-MAX (5 variants from 65 - 220 mm) or H-MAX MultiLevel (4 variants from 62 - 227 mm).
- Pressure-resistant substrate, only protection of the seal necessary:

If the substrate is pressure-resistant (concrete, screed, foam glass, PUR rigid foam under the seal), laying with the small Ø 200 mm pressure compensating disc is possible.



Needs assessment			
Panel size:	Number of supports / sqm:		
30 x 30 cm	11,11		
40 x 40 cm	6,25		
40 x 60 cm	4,17		
50 x 50 cm	4,00		
60 x 60 cm	2,78		
70 x 70 cm	2,04		

Drains

Function:

Structural part for vertical drainage through the roof system. Connect to a pipe system for water drainage or install as an extension element for a roof gully. It's important to ensure that adequate backwater protection is installed.

Material⁵:

Our drains are available in PVC, FPO/PP² and BIT for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

• D 95 mm

Available sizes ³:

• D 50 mm (DN 50)	
• D 75 mm (DN 70)	
• D 90 mm	

• D 160 mm (DN 150) • D 110 mm (DN 100) • D 125 mm (DN 125)

Package units:

Supplied in cartons, PU 1 unit

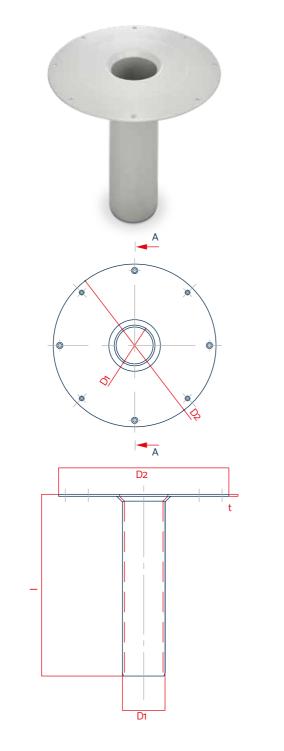
Accessories:

- Gravel basket Classic for drains
- Gravel basket Vario Fix for drains
- · Lip seal for pipe connections
- Roll Ring⁴

Drainage performance litre/sec.:

LGA-certified characteristics

Diameter	Accumulation height	
	35 mm	65 mm
D 50 mm (DN 50)	3,70	N/A
D 75 mm (DN 70)	4,60	13,20
D 90 mm	5,30	14,60
D 110 mm (DN 100)	5,55	15,80
D 125 mm (DN 125)	5,55	16,00
D 160 mm (DN 150)	5,60	18,60



Tech	Technical data					
D1	50 / 56 / 63 / 75	90 / 95 / 110 / 125 / 160				
D2	300	380				
T	320 ¹	320 ¹	mm			
t	3,5	3,5				

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) /³ other diameter sizes available upon request /⁴ Attention: We would like to point out that installation with a rolling ring does not conform to the standards. Backflow security is not guaranteed / ⁵ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Scupper, round

Function:

Structure part for horizontal drainage through the parapets of flat roofs or terrace. Install by connecting to a pipe system for water drainage, or use for free-flow drainage. When installing the scupper, the precise installation point depends on the water level.

Material³:

Our scuppers are available in PVC, FPO/PP² and BIT for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

Available sizes:

• D 50 mm (DN 50)	• D 90 mm
• D 63 mm	• D 110 mm (DN 100)
• D 75 mm (DN 70)	• D 125 mm (DN 125)

Package units:

Supplied in cartons, PU 1 unit

Accessories:

Gravel basket Classic for scupper

- Gravel basket Vario Fix for scupper
- · Vapour barrier sheet for scupper and emergency overflow, round

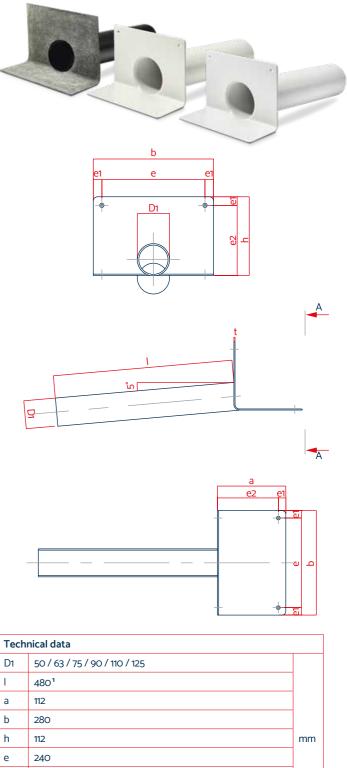
Drainage performance litre/sec.:

LGA-certified characteristics

Diameter	Accumulation height			
	35 mm	65 mm		
D 50 mm (DN 50)	0,51	1,31		
D 75 mm (DN 70)	0,65	1,65		
D 90 mm	0,65	1,90		
D 110 mm (DN 100)	1,00	2,65		
D 125 mm (DN 125)	1,00	2,80		

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Pipe inclination 5°

20

92

3

Scupper, rectangular

Function:

Moulded part for horizontal drainage or emergency drainage through the parapet wall. When installing the emergency overflow, the precise installation point depends on the water level.

Material 5:

PVC and FPO/PP² models for connection to the respective matching roofing membrane material type. Perform connection for bituminous waterproofing using liquid plastic. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

Available sizes (W x H - Internal dimensions) 1:

•120 x 60 mm	• 300 x 80 mm	• 500 x 100 mm	• 750 x 100 mm
•180 x 80 mm	• 300 x 100 mm	• 600 x 100 mm	• 1000 x 100 mm

Available length(I):

•600 mm • 300 mm

Colours:

 • PVC similar to RAL 7047, Telegrey 4 • FPO/PP similar to RAL 7044, Silk grey

Package units:

Supplied in cartons, PU 1 unit

Accessories 3:

Vapour barrier sheet for scupper and emergency overflow, rectangular

Drainage performance litre/sec.:

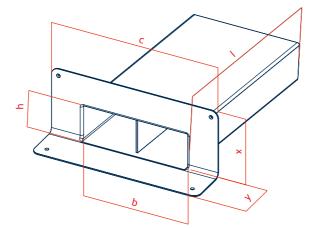
LGA-certified characteristics

Duct = $W \times H^{1,4}$	Accumulation height			
	35 mm	65 mm		
120 x 60	1,30	3,50		
180 x 80	1,90	5,00		
300 x 80	3,00	7,80		
300 x 100	3,00	7,80		
500 x 100	5,50	13,40		
600 x 100	7,20	N/A		
750 x 100	7,50	19,20		
1000 x 100	12,60	29,40		

Technical data ⁴						
Duct = W x H	b	h	с	x	у	
120 x 60	120	60	300	153	100	
180 x 80	180	80	360	173	100	
300 x 80	300	80	480	173	100	
300 x 100	300	100	480	193	100	
500 x 100	500	100	680	193	100	mm
600 x 100	600	100	780	193	100	
750 x 100	750	100	930	193	100	
1000 x 100	1000	100	1180	193	100	
Pipe inclination 5° in each case						

¹Special sizes available on request /² also available in PE (PE-based roof membranes) and BIT (sealed with liquid plastic) /³ alternatively also available with a retaining ring in the desired height / ⁴ custom designs are non-returnable /⁵ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Emergency overflow, round

Function:

Moulded part for horizontal emergency drainage through the parapet wall. Install by connecting to a pipe system for water drainage, or use for free-flow drainage. When installing the emergency overflow, the precise installation point depends on the water level.

Material³:

Our emergency overflows are available in PVC, FPO/PP² and BIT for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

Available sizes:

• D 50 mm (DN 50) • D 63 mm • D 75 mm (DN 70)

• D 110 mm (DN 100) • D 125 mm (DN 125)

Package units:

Supplied in cartons, PU 1 unit

Accessories:

Vapour barrier sheet for scupper and emergency overflow, round

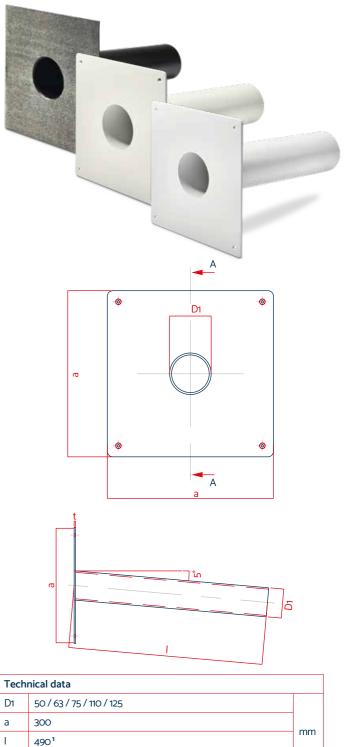
Drainage performance litre/sec.:

LGA-certified characteristics

Diameter	Accumulation height		Accumulation height		Technical data	
	35 mm	65 mm	D1	50 / 63 / 75		
D 50 mm (DN 50)	0,51	1,31	а	300		
D 75 mm (DN 70)	0,65	1,65	T	490 ¹		
D 110 mm (DN 100)	1,00	2,65	t	3,0		
D 125 mm (DN 125)	1,00	2,80	Pipe i	nclination 5°		

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Emergency overflow, rectangular

Function:

Moulded part for horizontal drainage or emergency drainage through the parapet wall. When installing the emergency overflow, the precise installation point depends on the water level.

Material 4:

PVC and FPO/PP² models for connection to the respective matching roofing membrane material type. Perform connection for bituminous waterproofing using liquid plastic. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

Available sizes (W x H – Internal dimensions) 1:

 • 120 x 60 mm
 • 300 x 80 mm
 • 500 x 100 mm
 • 750 x 100 mm

 • 180 x 80 mm
 • 300 x 100 mm
 • 600 x 100 mm
 • 1000 x 100 mm

Available length (I):

• 300 mm • 600 mm

Colours:

PVC similar to RAL 7047, Telegrey 4
FPO/PP similar to RAL 7044, Silk grey

Package units:

Supplied in cartons, PU 1 unit

Accessories:

Vapour barrier sheet for scupper and emergency overflow, rectangular

Drainage performance litre/sec.:

LGA-certified characteristics

Duct = W x H ³	Accu	Accumulation height		
	35 mm	65 mm		
120 x 60	12,60	29,40		
180 x 80	7,50	19,20		
300 x 80	7,20	N/A		
300 x 100	5,50	13,40		
500 x 100	3,00	7,80		
600 x 100	3,00	7,80		
750 x 100	1,90	5,00		
1000 x 100	1,30	3,50		

Technical data ³							
Duct = W x H	b	h	с	x			
120 x 60	120	60	300	240			
180 x 80	180	80	360	260			
300 x 80	300	80	480	260			
300 x 100	300	100	480	280			
500 x 100	500	100	680	280	mm		
600 x 100	600	100	780	280			
750 x 100	750	100	930	280			
1000 x 100	1000	100	1180	280			
Pipe inclination 5° in each case							

¹Special sizes available on request /² also available in PE (PE-based roof membranes) and BIT (sealed with liquid plastic) /³ custom designs are non-returnable / ⁴ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.



... Tender text Drainage / emergency drainage, rectangular

Item ...

Rectangular emergency overflow made of **PVC**, with LGA-tested drainage capace section internal dimensions: W mm x H mm, pipe length mm, panel thickness 4 angled tray, pipe inclination 5°: deliver, install and professionally connect to sealin Proof of reference: KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG I +4 Item ...

Rectangular emergency overflow made of **FPO/PP**¹, with LGA-tested drainage of cross-section internal dimensions: W mm x H mm, pipe length mm, panel thicknes 90° angled tray, pipe inclination 5°: deliver, install and professionally connect to see Proof of reference: KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG I +4 Attention: Please add your internal dimensions to the fields marked with ______

¹Also available in PE (roofing membranes based on PE)



Quantity unit	Price per unit	Total amount				
pieces	€	€				
49 7423 8687 600 l info@kala.de						
pieces	€	€				
49 7423 8687 600 l info@kala.de						
	pieces o@kala.de	pieces € o@kala.de				

Installation guide for KALA – drainage and emergency drainage elements

- Position the element in the parapet, opening or ceiling hole provided by the customer and fix into place.
 Check the gap from the pipe to the wall and fill, if necessary.
 Make sure to fix the installation holes in place!
- 2. Pre-treating the surface: The tray and membrane to be applied must be clean, dry and free from any residues such as grease or silicones.
- The roof membrane then needs to be correctly connected to the element tray in line with the Flat Roof Directive ["Flachdachrcihtlinien"] and the installation guidelines published by the manufacturer.
- Suitable liquid plastic seals must be used to connect the bituminous seals of rectangular emergency overflows or scuppers.
- The trays with the bitumen connection must be set down horizontally on a flat surface to ensure proper storage of the BIT drains and grommets. We do not assume any liability for damage, e.g. delays, incurred by improper storage.

Flat roof fans for ventilation lines with weather cap

Function:

- The flat roof fan is used for ventilation purposes:
- · Ventilation of bathrooms and toilets without outside windows
- Wastewater aeration and ventilation
- · Ventilation of extractor hoods in kitchens
- Controlled ventilation of the home

Installation³:

Align the fan on the underlay and secure it in position at four points on the underlay using the holes drilled into the edge of the tray. Place the membrane on the tray and join the membrane and the tray with a weld seam at least 20 mm wide.

Material:

Our fans are available in PVC and FPO/PP² for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

Available sizes¹:

• D 75 mm (DN 70) • D • D 110 mm (DN 100) • D

D 125 mm (DN 125)
 D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 1 unit

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





			Н
		D2	
:			

٩	Dı	H2
		D2
٢		

Technical data			
H1 with cap	654 mm		
H2 without cap	620 mm		
D1	DN 70 / DN 100 / DN 125 / DN 150		
D sheet D2	For size DN 70 = 300 mm		
D SHEEL DZ	For all others = 380 mm		
h1 with cap	334 mm		
h2 without cap	300 mm		
h	320 mm		

Flat roof fans for cold roofs with weather cap

Function:

Ventilation and aeration of flat roof structures
For a drenched roof package for moisture removal and drying out

Installation³:

Align the fan on the underlay and secure it in position at four points on the underlay using the holes drilled into the edge of the tray. Place the membrane on the tray and join the membrane and the tray with a weld seam at least 20 mm wide. For the BIT option, incorporate the factory-laminated bitumen connection into the multi-layer waterproofing composite in a workmanlike manner.

Material:

Our fans are available in PVC, FPO/PP² and BIT for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

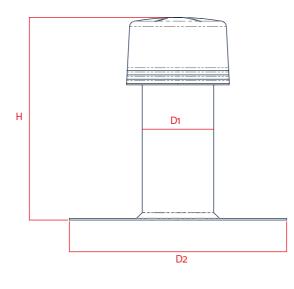
Available sizes¹:

D 75 mm (DN 70)
 D 125 mm (DN 125)
 D 110 mm (DN 100)
 D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 1 unit





Tec	Technical data		
Н	354 mm ¹		
D1	D 75 mm (DN 70) / D 110 mm (DN 100) / D 125 mm (DN 125) / D 160 mm (DN 150)		
D2	For size DN 70 = 300 mm For all others = 380 mm		

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Flat roof refurbishment fans with forced ventilation

Function:

Moisture removal, forced ventilation of roof structures
 For a drenched roof package for moisture removal and drying out

In this variant, a maintenance-free suction fan that is driven by the wind (achieves a very high air flow rate) is attached to the base body. The fan is resistant to driving rain and snow and is supplied completely ready for installation and can be welded directly to the roof membrane.

Installation³:

Align the fan on the underlay and secure it in position at four points on the underlay using the holes drilled into the edge of the tray. Place the membrane on the tray and join the membrane and the tray with a weld seam at least 20 mm wide. For the BIT option, incorporate the factory-laminated bitumen connection into the multi-layer waterproofing composite in a workmanlike manner.

Material:

Our fans are available in PVC, FPO/PP² and BIT for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant: UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact. The suction fan attachment is made of high-quality aluminium.

Available sizes¹:

• D 125 mm (DN 125)

• D 160 mm (DN 150)

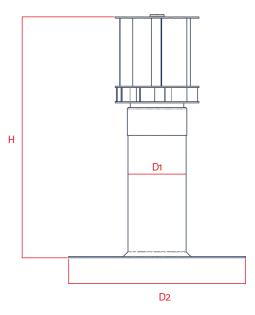
Package units:

Supplied in cartons, PU 1 unit

¹Special lengths available on request /² also available in PE (roofing membranes based on PE) / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Technical data		
Н	518 mm ¹	
D1	D 125 mm (DN 125) / D 160 mm (DN 150)	
D2	2 380 mm	

Universal weather cap for flat roof fans

Function:

Weatherproof cover for ventilation ducts. Securing the ventilation duct with the KALA weather protection cap prevents snow and rain from entering. The streamlined cross-section facilitates the exchange of air.

The weather protection cap is simply pushed onto the ventilation duct and pressed tight. The guide pins are designed for connection to DN 100 and DN 125 ventilation ducts. The design provides for a secure hold of the cap on the duct.

Material:

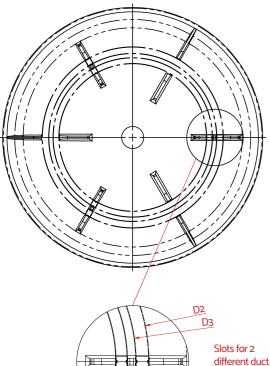
FPO/PP, impact resistant, weatherproof, UV-stabilized

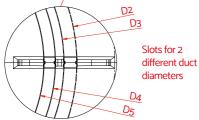
Versions:

 Suitable for use with DN 100 and DN 125 Colour black, other colors available on request

Package units:

Supplied in foil bags, PU 1 unit





KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.



D1

Gravel basket Vario Fix variably adjustable for drains and gullies

Function:

Moulded part as attachment to a drain or gully. Serves to retain coarse dirt particles to stop the drainage system from clogging up. The LGA-certified, flow-optimised design ensures minimal loss of flow and high performance, even during torrential rain.

Installation:

The delivery is ready for installation. Place the gravel basket centrally on the drain or gully, press the locking button down and turn it to the right to lock - done. The spreading feet can be continuously adjusted to the diameter of the drain or gully with the turning mechanism. For later removal, simply turn the knob to the left again to unlock and pull out. When unlocked, the spreader feet can simply be pressed together again.

Material:

• PE Black

Low-temperature impact resistant plastic, weatherproof, UV-stabilized

Available sizes:

Suitable for all diameters ranging from D 50 mm (DN 50) to D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 10 units

Fixed in the blink of an eye:





KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Technical data 118 mm

ø 180 mm

ø 125 mm

ø 116 mm

ø 110 mm

ø 102 mm

h

D1

D2

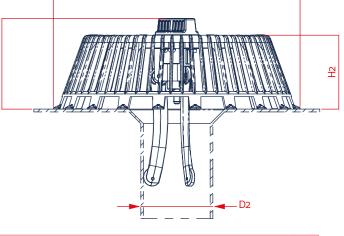
D3

D4

D5







Technical data		
95		
77,50		
260	mm	
D 50 - D 160		
	95 77,50 260	

Press





Gravel basket Vario Fix variably adjustable for scupper

Function:

Moulded part as an attachment to a spout. Serves to retain coarse dirt particles to stop the drainage system from clogging up. The flow-optimised geometry ensures low levels of loss and a high flow rate even in heavy rain.

Installation:

The delivery is ready for installation. Place the gravel basket centrally on the scupperpout, press the locking button down and turn to the right to lock - done. The spreading feet can be continuously adjusted to the diameter of the feeder with the turning mechanism. For later removal, simply turn the knob to the left again to unlock and pull out. When unlocked, the spreader feet can simply be pressed together again.

Material:

• PE Black

Low-temperature impact resistant plastic, weatherproof, UV-stabilized

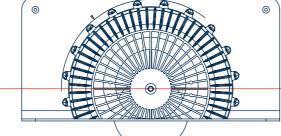
Available sizes:

Suitable for all diameters ranging from D 50 mm (DN 50) to D 125 mm (DN 125)

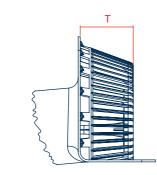
Package units:

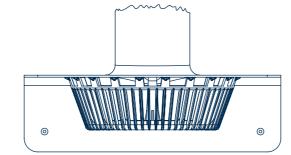
Supplied in cartons, PU 10 units





D





Tech	Technical data		
D	262		
Т	77,5	mm	

Gravel basket Classic with centering cross for drains and gullies

Function:

Moulded part as attachment to a drain or gully. Serves to retain coarse dirt particles to stop the drainage system from clogging up. The LGA-certified, flow-optimised design ensures minimal loss of flow and high performance, even during torrential rain.

Installation:

Shorten the four wings on the centring cross to match the inner diameter of the drain or gully, slightly oversize and simply press in. The cutting mark on all four wings makes it easy to cut them exactly to size. Fits all standard drains and gullies up to DN 150.

Material:

• PE Black

· Low-temperature impact resistant plastic, weatherproof, UV-stabilized

Available sizes:

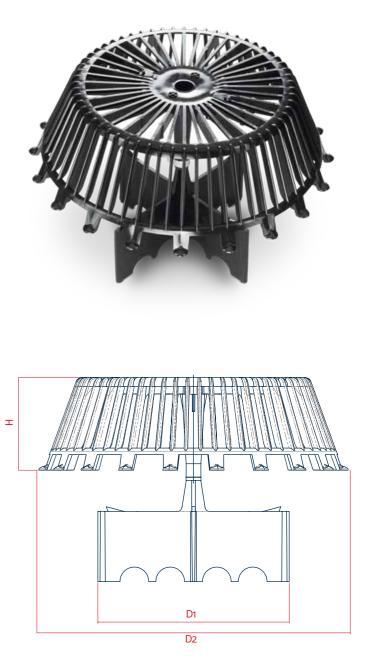
Suitable for all diameters ranging from D 50 mm (DN 50) to D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 10 units

KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Technical data				
H	77,5			
D1	160	mm		
D2	262			

Gravel basket Classic with centering cross for scupper

Function:

Moulded part as an attachment to a spout. Serves to retain coarse dirt particles to stop the drainage system from clogging up. The flow-optimised geometry ensures low levels of loss and a high flow rate even in heavy rain.

Installation:

Simply insert - the centring cross for attaching the spout screen in the pipe is already cut to size.

Material:

• PE Black

Low-temperature impact resistant plastic, weatherproof, UV-stabilized

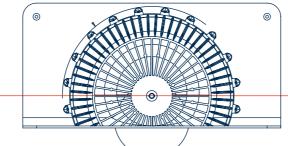
Available sizes:

Suitable for all diameters ranging from D 50 mm (DN 50) to D 125 mm (DN 125). Simply state your preferred size when ordering.

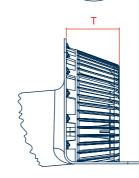
Package units:

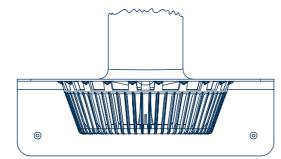
Supplied in cartons, PU 10 units





D





Tech	Technical data			
D	262			
Т	77,5	mm		

Gravel guard frame

Function:

The gravel guard frame reliably retains coarse dirt for gravel and other loads, preventing it from accumulating at the drain. Even with significant dirt accumulation, the gravel guard frame ensures the functionality of the drain.

Installation:

The gravel guard frame is placed centrally on the drainage point above the drain. The drain grate is then inserted into the opening and clamped into place. The gravel is then pushed against the gravel guard frame on all sides to fix it in position.

Material:

PVC Light grey, low-temperature impact resistant plastic, weatherproof

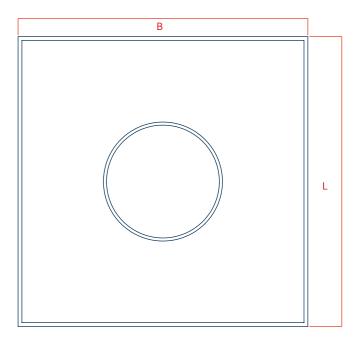
Delivery unit:

Gravel guard frame in welded design, ready to install, without drainage grating

Versions: Universal size; different dimensions available on request

Package units: Supplied in cartons, PU 1 unit





Technical data			
L	380 mm		
В	380 mm		
Н	80 mm		

Inspection chamber

Function:

The inspection chamber reliably retains coarse dirt on green roofs, preventing it from accumulating at the drain. Avoids larger dirt deposits while ensuring full drain functionality. The chamber cover can be removed for inspection purposes.

Installation:

The inspection chamber is placed centrally on the drainage point above the drain. The drain grate is then inserted into the opening and clamped into place. Following this, the chamber cover is placed on top. Gravel is then pushed against the inspection chamber on all sides to fix it into place and provide a filter layer in front of the green roof substrate. Do not fill the substrate directly against the inspection chamber.

Material:

PVC Light grey, low-temperature impact resistant plastic, weatherproof

Delivery unit:

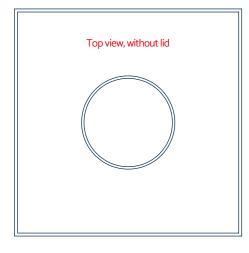
Inspection chamber; welded design with matching chamber cover, ready to install, without drain grate

Versions:

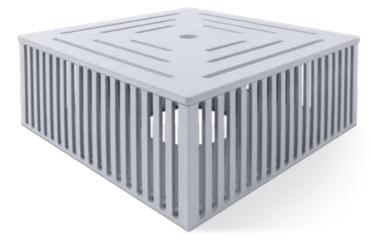
Universal size; different dimensions available on request

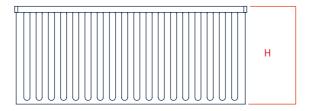
Package units:

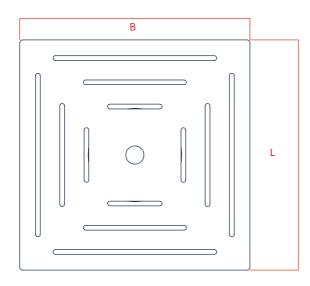
Supplied in cartons, PU 1 unit



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Technical data		
L	380 mm	
В	380 mm	
Н	160 mm	

Lip seal for pipe connections

Function:

When connecting gullies to flat roof drains, these leak-tested, backflow-proof and compliant seals for connecting two different pipe diameters are ideal for sealing purposes.

Material:

• EPDM, rubber black

- UV and ozone resistant
- strong resilience to chemicals, temperature and footsteps

Available sizes:

• D 50 mm (DN 50) • D 110 mm (DN 100) • D 75 mm (DN 70) • D 95 mm small • D 95 mm large

• D 125 mm (DN 125)

• D 160 mm (DN 150)

Package units:

Supplied in cartons / foil bags, PU 1 unit





Technical data				
Version lip seal	Size drains	External dimen- sions / height	Suitable for	
D 50 mm (DN 50)	D 50 mm (DN 50)	73 x 29 mm	D 75 mm (DN 70)	
D 75 mm (DN 70)	D 75 mm (DN 70)	109 x 38 mm	D 110 mm (DN 100)	
D 95 mm small	D 95 mm	113 x 19 mm	D 110 mm (DN 100)	
D 95 mm large	D 95 mm	146 x 30 mm	D 125 mm (DN 125)	
D 110 mm (DN 100)	D 110 mm (DN 100)	126 x 35 mm	D 125 mm (DN 125)	
D 125 mm (DN 125)	D 125 mm (DN 125)	172 x 32 mm	D 160 mm (DN 150)	
D 160 mm (DN 150)	D 150 mm (DN 150)	207 x 33 mm	D 165 mm up to D 180 mm	

Universal grommets

Function³:

Serves for feeding pipes, cables and lines, e.g. solar-thermal, photovoltaic and lightning protection systems and fall arresters through the roof package.

Connection Method:

The free upper end needs to be sealed against the line that is fed through, e.g. with the heat-shrink tubing supplied, to prevent water ingress.

Material:

Our universal grommets are available in PVC, FPO/PP¹ and BIT² for connection to the matching material used for the roof membrane. The materials are modified to be weather-resistant; UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact.

- $\scriptstyle \bullet \, {\rm PVC} \, {\rm Light} \, {\rm grey}$
- FPO/PP White, Beige gray, Gray, Anthracite gray
 BIT sanded

Available sizes:

$\mathsf{PVC},\mathsf{FPO}/\mathsf{PP}^1,\mathsf{BIT}$ with surrounding cutting markings and height information

• D 50 mm

• D 42 mm in carton, PU 25 units

• D 50 mm in carton, PU 20 units

• D 10 mm • D 30 mm • D 20 mm • D 42 mm

BIT

• D 68 mm	• D 100 mm	• D 150 mm
• D 82 mm	• D 115 mm	
Delivered with heat-shrink	tube	

Package units:

PVC, FPO/PP¹

D 10 mm in carton, PU 40 units
D 20 mm in carton, PU 35 units
D 30 mm in carton, PU 30 units

BIT

- D 10 mm D 50 mm in carton, PU 10/60 units
 D 68 mm D 150 mm in carton, PU 5 units
- .

Accessories:

Heat-shrink tube

W4 hose clamps

		_		
200			210	8200-A
Technical data D 10 -	D 50]	Technical data D 68 -	D 150
Height in mm	300		Height in mm	320
Inner diameter in mm	10 20 30 42 50		Inner diameter in mm	68 82 100 115 150
Material thickness of moulded part in mm	3		Material thickness of moulded part in mm	3,5
Connection sleeve in mm (only BIT)	D 430		Connection sleeve in mm (only BIT)	500 x 500

Material thickness of

bitumen sleeve in mm

Material thickness of 4 bitumen sleeve in mm

¹Also available in PE (roofing membranes based on PE) / ² optionally also deliverable in slate variant / ³ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.



One-piece inspection fitting for flat roof systems

Function:

The inspection fitting facilitates regular, simple and safe inspection of flat roofs without requiring any destructive penetration into the roof envelope. This ensures leaks are quickly detected and helps to significantly minimise the amount of damage.

Installation²:

The inspection fitting is positioned on the vapour barrier at the lowest point possible for each chosen section. As an option, the position can also be fixed to prevent shifting. Subsequent laying of the insulation and seal with connection of the seal to the pipe on the inspection fitting in a workmanlike manner.

Material:

PVC similar to RAL 7035, Light grey

• FPO/PP similar to RAL 7044, Silk grey

Versions

optionally als available in other pipe lengths ¹, as well as
 with bitumen sleeve (on request)

Delivery unit:

Inspection fitting, consisting of a main casing with a cap that can be pulled out in one piece, pre-mounted clamp and insulation core mounted in the cap (over the entire length of the fitting). Also available with bitumen connection sleeve on request.

Available sizes¹:

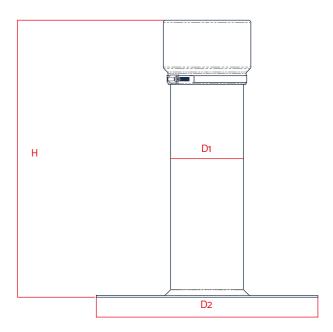
D 125 mm (DN 125)

Package units: Supplied in foil bags, PU 1 unit

¹Special sizes available on request /²Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Technical data		
Н	380	
D pipe D1	125	mm
D sheet D2	380	
The total height inclu	iding the polystyrene core is 605 mm	

Gooseneck/ cable conduit

Function:

For optimal and straightforward energy feedthrough for flat roofs such as pipes or cables. Can be used as a Gooseneck/cable conduit for flat roof fans.

Material:

FPO/PP Black
 Low-temperature impact resistant plastic, weatherproof

Available sizes:

• D 75 mm (DN 70) • D 110 mm (DN 100) • D 125 mm (DN 125) • D 160 mm (DN 150)

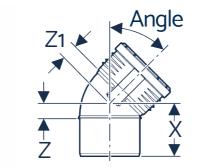
Package units:

Supplied in cartons, PU 10 units

Accessories:

EPDM end cap to secure the opening against vermin and for increased weather protection requirements (cut a suitable undersized hole in the base of the cover, the material is elastic and forms a seal against cables or pipes that have been fed through - see detailed illustration).





Technical data				
Diameter	Angle	х	Z	Z1
D 75 mm (DN 70)	45°	7,6 cm	2,0 cm	2,1 cm
D 110 mm (DN 100)	45°	9,7 cm	3,0 cm	2,9 cm
D 125 mm (DN 125)	45°	10,7 cm	3,3 cm	3,3 cm
D 160 mm (DN 150)	45°	12,2 cm	4,2 cm	4,0 cm

Vapour barrier sheet for round and rectangular scuppers and emergency overflows

Function:

Emergency overflows or spouts are difficult to feed through the parapet wall. The seal is usually inadequate. The vapour barrier plate is fitted to the parapet wall and guarantees the vapour-tight passage of the pipe through the wall.

Material:

Base: PVC

Seal: EPDM

Available sizes:

round:		
• D 50 mm (DN 50)	• D 95 mm	• D 125 mm (DN 125)
• D 75 mm (DN 70)	• D 110 mm (DN 110)	
and the second sec		

 rectangular:

 • 120 x 60 mm

 • 180 x 80 mm

 • 500 x 100 mm

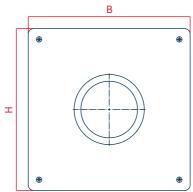
 • 300 x 80 mm

 • 600 x 100 mm

• 750 x 100 mm • 1000 x 100 mm

Package units:

Supplied in cartons, PU 1 unit

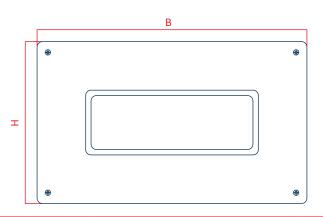


Technical data			
Version	Width B	Height H	
D 50 mm (DN 50)			
D 75 mm (DN 70)			
D 95 mm	300	300	mm
D 110 mm (DN 110)			
D 125 mm (DN 125)			

KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Technical data			
Version	Width B	Height H	
120 x 60	320	260	
180 x 80	380	280	
300 x 80	500	280	
300 x 100	500	300	mm
500 x 100	700	300	
600 x 100	800	300	
750 x 100	950	300	
1000 x 100	1200	300	

Internal and external corners for roof membranes

Function:

Moulded part for connections and terminations in corner formations, can be used on both sides (see illustration).

Versions:

PVC Light grey, FPO/PP in White, Gray, Beige gray and Anthracite gray for connection to the matching roofing membrane material type. The materials are modified to be weather-resistant; UV-stabilised, against heat degradation and oxidative ageing as well as resistant to cold impact

Connection Method:

Welding, for direct connection to the roof membrane

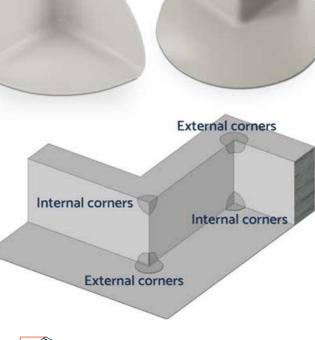
Material 1:

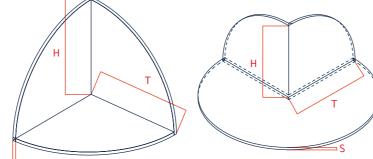
PVC Light grey

• FPO/PP White, Beige gray, Gray, Anthracite gray

Package units:

Supplied in cartons, PU 25 units





Tech	nical data		
	Interior corner	External corner	
Н	95	102	
Т	85	90	mm
S	2	2	

¹ Also available in PE (roofing membranes based on PE). KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Heat-shrink tube

Function:

Heat-shrinkable tubes with adhesive coating on the interior for the reliable sealing of the edging/bushings/solar/PV systems/fall arrest systems/lightning protection/handrail supports/... The shrink tubes can be shrunk directly using a hot air gun.

Technical information:

- · Polyolefin-based heat-shrinkable tubing
- Inner adhesive coating
- 3:1 shrink ratio
- Longitudinal shrinkage < 10%
- \cdot Continuous service temperature: -55° C to 110° C
- Flammability: flame retardant VW-1 flame resistant
- Tensile strength: > 14 Mpa
- Elongation at break: 400%
- Volume resistance: 10¹³ ohms/cm
- Water absorption: < 0.5 %
- Fungus and rot resistance test passed
- UV weather resistance test passed
- Colour Black

Available sizes1:

•22/6	• 55/16	•115/34
•28/6	• 65/19	•140/42
· 40/12	·95/25	•180/58

Package units:

Supplied in cartons / foil bags, PU 10 units





Technical data			
Size	Length in mm	Surround size	Wall thickness in mm after shrinkage
22/6	80	D 10	2,5
28/6	80	D 20	2,5
40/12	80	D 30	2,5
55/16	80	D 42	2,7
65/19	80	D 50	2,8
95/25	100	D 68 / 82 / 88	3,0
115/34	100	D 110	3,0
140/42	100	D 115	3,0
180/58	100	D 160	3,5

Lightning protection wire holders

Function:

For the simple and secure attachment of lightning protection lines on flat roofs

Material:

Polyamide Gray

- $\boldsymbol{\cdot}$ Low-temperature impact resistant plastic, weatherproof, UV-stabilized
- \cdot Application temperature is between +50 °C and -10 °C

Available sizes:

For lightning protection lines 8 - 10 mm

Package units:

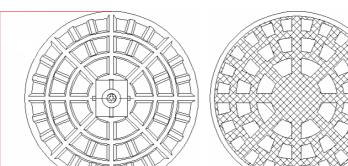
Supplied in cartons, PU 50 units

Accessories:

Metal blank for attachment to the roof sheeting: • PVC • FPO/PP¹

• BIT







Tech	nical data	
Н 53		
D1	8 - 10	
D2	110	mm
t	3]

¹Also available in PE (roofing membranes based on PE). KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Drains Nexo Fix

Function:

Molding for vertical drainage through the roof package. Installation with connection to a pipe system for water drainage or as an extension element for a roof drain. Pay attention to appropriate backflow protection.

Installation 4:

Position the drains in the opening in the roof structure, if used as an extension element, connect them to the gully underneath, align them with the subsurface and fasten them securely at four points in the subsurface using the holes on the edge of the tray. Weld the connection sleeve to the waterproofing membrane all around professionally and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes 2:

 • D 50 mm (DN 50)
 • D 95 mm
 • D 160 mm (DN 150)

 • D 75 mm (DN 70)
 • D 110 mm (DN 100)

 • D 90 mm
 • D 125 mm (DN 125)

Package units:

Supplied in cartons, PU 1 unit

Accessories:

Gravel basket Vario Fix for drains, gravel basket Classic for drains, lip seal, Roll Ring³

Drainage performance litre/sec.:

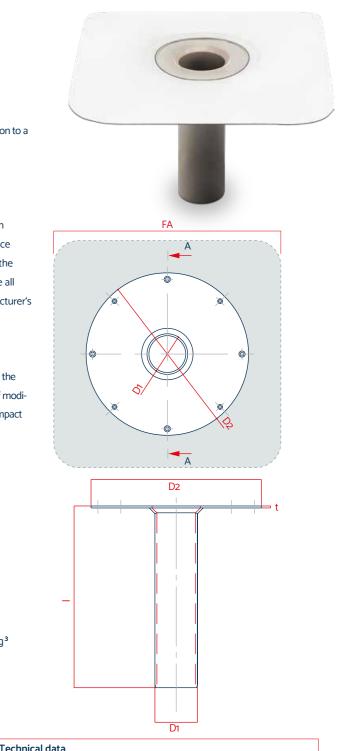
LGA-certified characteristics

leter	Accumulatio	on height	D1	
	35 mm	65 mm	Technical data	
) 50 mm (DN 50)	3,70	N/A	D1 50 / 75 90 / 95 / 110 / 125 / 160	
D 75 mm (DN 70)	4,60	13,20	D2 300 380	
D 90 mm	5,30	14,60	I 320 ¹ 320 ¹	
D 110 mm (DN 100)	5,55	15,80	t 3,5 3,5	
D 125 mm (DN 125)	5,55	16,00	Foil connection (FA) D 50 up to D 75 L 500 x B 500	
D 160 mm (DN 150)	5,60	18,60	Foil connection (FA) D 90 up to D 160 L 580 x B 580	

¹Special lengths available on request /² other diameter sizes available upon request / ³Attention: We would like to point out that installation with a rolling ring does not conform to the standards. Backflow security is not guaranteed / ⁴Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

D2





Scupper Nexo Fix, round

Function:

Molding for horizontal drainage through the parapet. Installation with connection to a pipe system for water drainage or free jet. When installing for emergency drainage, the exact installation point must be taken into account depending on the water height.

Installation²:

Push the scupper through the horizontal opening in the parapet, align it with the subsurface and securely attach it to four points in the subsurface using the holes on the edge of the tray. Weld the connection sleeve to the waterproofing membrane all around professionally and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes:

D 50 mm (DN 50)
 O 90 mm
 D 63 mm
 D 75 mm (DN 70)
 O

Package units:

Supplied in cartons, PU 1 unit

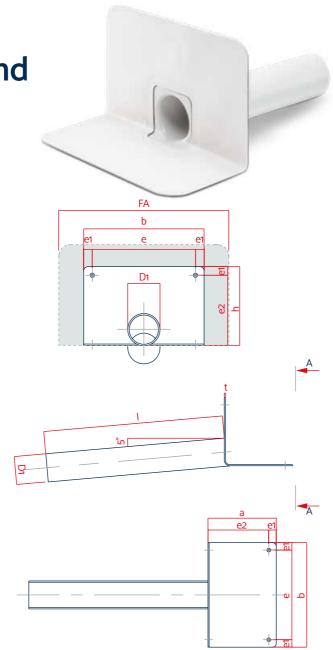
Accessories:

Gravel basket Classic for scupper, gravel basket Vario Fix for scupper, vapour barrier sheet for scupper and emergency overflow, round

Drainage performance litre/sec.:

LGA-certified characteristics

Diameter	Accumulation height		
	35 mm	65 mm	
D 50 mm (DN 50)	0,51	1,31	
D 75 mm (DN 70)	0,65	1,65	
D 90 mm	0,65	1,90	
D 110 mm (DN 100)	1,00	2,65	
D 125 mm (DN 125)	1,00	2,80	



Technical data		
D1	50 / 63 / 75 / 90 / 110 / 125	
I	480 ¹	
а	112	
b	280	
h	112	
e	240	mm
e1	20	
e2	92	
t	3	
Foil connection (FA)	L 494 x B 484	
Pipe inclination 5 °		

¹Special lengths available on request /² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Scupper Nexo Fix, rectangular

Function:

Molding for horizontal drainage or emergency drainage through the parapet. When installing, the exact installation point must be taken into account depending on the water height.

Installation*:

Push the scupper through the horizontal opening in the parapet, align it with the subsurface and securely attach it to four points in the subsurface using the holes on the edge of the tray. Weld the connection sleeve to the waterproofing membrane all around professionally and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes (W x H - Internal dimensions) 1:

• 120 x 60 mm • 300 x 100 mm • 600 x 100 mm • 300 x 80 mm • 500 x 100 mm

Available length (I):

•300 mm •600 mm

Colours:

Ground body:

PVC similar to RAL 7047, Telegrey 4

FPO/PP similar to RAL 7044, Silk grey

Roof membrane colors are determined by the respective manufacturer.

Package units:

Supplied in cartons, PU 1 unit

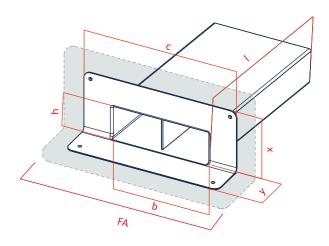
Accessories 2:

Vapour barrier sheet for scupper and emergency overflow, rectangular

¹Special sizes available on request / ² alternatively also available with a retaining ring in the desired height / ³ custom designs are non-returnable / ⁴ Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Technical data ³						
Duct = W x H	b	h	с	x	у	
120 x 60	120	60	300	153	100	
180 x 80	180	80	360	173	100	
300 x 80	300	80	480	173	100	
300 x 100	300	100	480	193	100	mm
500 x 100	500	100	680	193	100	
600 x 100	600	100	780	193	100	
Pipe inclination 5° in each case						

Foil connection (FA)						
Sizes (L x W) in mm	440 x 500	460 x 560	460 x 680	480 x 680	460 x 880	480 x 980
Sizes for	120 x 60 x 300/600	180 x 80 x 300/600	300 x 80 x 300/600	300 x 100 x 300/600	500 x 100 x 300/600	600 x 100 x 300/600

Drainage performance litre/sec.:

LGA-certified characteristics

Duct = W x H ^{1,3}	Accumulation height		
	35 mm	65 mm	
120 x 60	1,30	3,50	
180 x 80	1,90	5,00	
300 x 80	3,00	7,80	
300 x 100	3,00	7,80	
500 x 100	5,50	13,40	
600 x 100	7,20	N/A	

Emergency overflow Nexo Fix, round

Function:

Molding for horizontal emergency drainage through the parapet. Installation with Connection to a pipe system for water drainage or free jet. At the Installation, the exact installation point must be taken into account depending on the water height.

Installation²:

Push the emergency overflow through the horizontal opening in the parapet, align it on the subsurface and securely secure it in position at four points in the subsurface using the holes on the edge of the tray. The connection sleeve with the Sealing membrane all around professionally and according to the manufacturer's specifications of the roofing membrane manufacturer.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes:

 • D 50 mm (DN 50)
 • D 110 mm (DN 100)

 • D 63 mm
 • D 125 mm (DN 125)

 • D 75 mm (DN 70)
 • D 125 mm (DN 125)

Package units:

Supplied in cartons, PU 1 unit

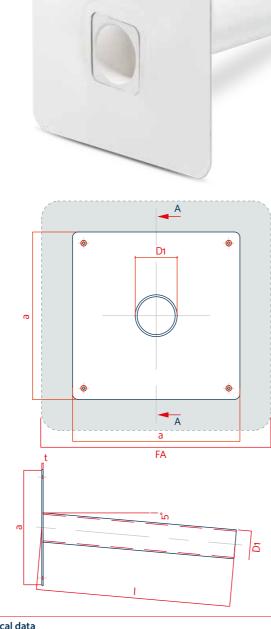
Accessories:

Vapour barrier sheet for scupper and emergency overflow, round

Drainage performance litre/sec.:

LGA-certified characteristics

Diameter	Accumulation height		
	35 mm	65 mm	
D 50 mm (DN 50)	0,51	1,31	
D 75 mm (DN 70)	0,65	1,65	
D 110 mm (DN 100)	1,00	2,65	
D 125 mm (DN 125)	1,00	2,80	



Technical data		
D1	50 / 63 / 75 / 110 / 125	
a	300	
I	490 ¹	mm
t	3,0	
Foil connection (FA)	L 500 x B 500	
Pipe inclination 5°		

¹Special lengths available on request /² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Emergency overflow Nexo Fix, rectangular

Function:

Molding for horizontal drainage or emergency drainage through the parapet. When installing, the exact installation point must be taken into account depending on the water height.

Installation ³:

Push the emergency overflow through the horizontal opening in the parapet, align it on the subsurface and securely secure it in position at four points in the subsurface using the holes on the edge of the tray. The connection Weld the sleeve to the waterproofing membrane professionally and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes (W x H - Internal dimensions) 1:

• 120 x 60 mm • 300 x 100 mm • 600 x 100 mm • 300 x 80 mm • 500 x 100 mm

Available length (I):

•300 mm •600 mm

Colours:

Ground body: • PVC similar to RAL 7047, Telegrey 4 • FPO/PP similar to RAL 7044, Silk grey Roof membrane colors are determined by the respective manufacturer

Package units:

Supplied in cartons, PU 1 unit

Accessories:

Vapour barrier sheet for scupper and emergency overflow, rectangular

¹Special sizes available on request /² custom designs are non-returnable / ³Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNST-STOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Technical data ²					
Duct = W x H	b	h	с	x	
120 x 60	120	60	300	240	
180 x 80	180	80	360	260	
300 x 80	300	80	480	260	
300 x 100	300	100	480	280	mm
500 x 100	500	100	680	280	
600 x 100	600	100	780	280	
Pipe inclination 5° in each case					

Foil connection (FA)						
Sizes (L x W) in mm	440 x 500	460 x 560	460 x 680	480 x 680	460 x 880	480 x 980
Sizes for	120 x 60 x 300/600	180 x 80 x 300/600	300 x 80 x 300/600	300 x 100 x 300/600	500 x 100 x 300/600	600 x 100 x 300/600

Drainage performance litre/sec.:

LGA-certified characteristics

Duct = W x H ²	Accumulation height		
	35 mm	65 mm	
120 x 60	12,60	29,40	
180 x 80	7,50	19,20	
300 x 80	7,20	N/A	
300 x 100	5,50	13,40	
500 x 100	3,00	7,80	
600 x 100	3,00	7,80	

Flat roof fans Nexo Fix for ventilation lines with weather cap

Function:

The flat roof fans are used for ventilation: Ventilation of bathrooms and toilets without outside windows Dirty water ventilation Ventilation of extractor hoods in kitchens Controlled living space ventilation

Installation¹:

Align the fan on the ground and over the holes on the Fasten the edge of the tray securely at four points in the subsurface. Professionally weld the connection sleeve to the sealing membrane all around and in accordance with the roofing membrane manufacturer's specifications.

Material:

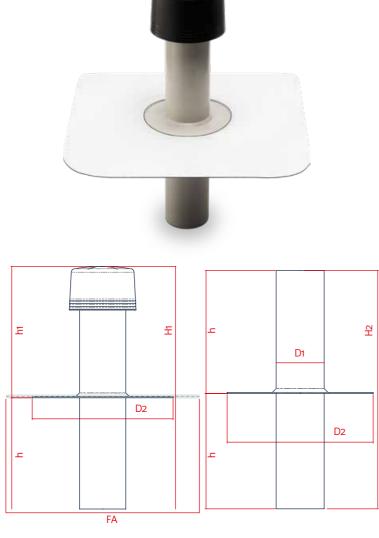
Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes¹:

• D 75 mm (DN 70) • D 125 mm (DN 125) • D 110 mm (DN 100) • D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 1 unit



Technical data				
H1 with cap	654 mm	654 mm		
H2 without cap	620 mm			
D1	DN 70 / DN 100 / D	DN 70 / DN 100 / DN 125 / DN 150		
D sheet D2		For size DN 70 = 300 mm For all others = 380 mm		
h1 with cap	334 mm	334 mm		
h2 without cap	300 mm	300 mm		
h	320 mm	320 mm		
Foil connection (FA)	D 75	D 75 L 500 x B 500 mm		
Foil connection (FA)	D 110 up to D 160	D 110 up to D 160 L 580 x B 580 mm		

¹Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

Function:

 Ventilation of roof structures · In the case of a damp roof package for moisture removal and drying out

Installation²:

Align the fan on the ground and over the holes on the Fasten the edge of the tray securely at four points in the subsurface. Professionally weld the connection sleeve to the sealing membrane all around and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

Available sizes¹:

• D 75 mm (DN 70) • D 110 mm (DN 100)

• D 125 mm (DN 125) • D 160 mm (DN 150)

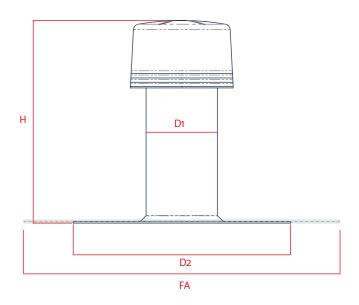
Package units:

Supplied in cartons, PU 1 unit

¹Special lengths available on request /² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Technical data					
н	354 mm ¹				
D1	D 75 mm (DN 70) / D 110 mm (DN 100) / D 125 mm (DN 125) / D 160 mm (DN 150)				
D2	D 75 mm = 300 mm D 110 up to D 160 mm = 380 mm				
Foil connection (FA)	D 75	L 500 x B 500 mm			
Foil connection (FA)	D 110 up to D 160	L 580 x B 580 mm			

Flat roof refurbishment fans Nexo Fix with forced ventilation

Function:

Moisture removal, forced ventilation of roof structures
 In the case of a damp roof package for moisture removal and drying out

This version has a maintenance-free suction fan that is blown by the wind is driven (achieves a very high air throughput) onto the ground body put on. The fan is resistant to driving rain and snow and is complete Delivered ready to install and can be welded directly to the roofing membrane.

Installation²:

Align the fan on the ground and over the holes on the Fasten the edge of the tray securely at four points in the subsurface. Professionally weld the connection sleeve to the sealing membrane all around and in accordance with the roofing membrane manufacturer's specifications.

Material:

Versions PVC and FPO/PP with welded connection sleeve for easy connection to the appropriate roofing membrane. The material of the ground body is weatherproof modified: UV-stabilized, against heat degradation and oxidative aging as well as cold impact resistant.

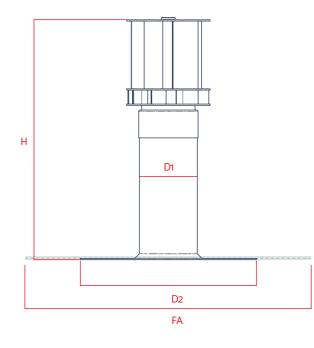
Available sizes1:

• D 125 mm (DN 125) • D 160 mm (DN 150)

Package units:

Supplied in cartons, PU 1 unit





Technical data			
Н	518 mm ¹		
D1	D 125 mm (DN 125) / D 160 mm (DN 150)		
D2	380 mm		
Foil connection (FA)	D 125 up to D 160	L 580 x B 580 mm	

One-piece inspection fitting Nexo Fix for flat roof systems

Function:

The inspection fitting is used for regular, simple and safe inspection of the flat roof without damaging openings. Leaks can therefore be discovered quickly and the extent of the damage can therefore be significantly reduced.

Installation²:

For each selected section, the inspection fitting is placed on the vapor barrier at the lowest point possible. Optionally, the position can be fixed to prevent displacement. Subsequently, laying the insulation and sealing with professional connection of the sealing to the pipe of the inspection fitting.

Material:

PVC similar to RAL 7035, Light grey

 \bullet FPO/PP similar to RAL 7044, Silk grey

Versions

optionally als available in other pipe lengths ¹, as well as
 with bitumen sleeve (on request)

Delivery unit:

Inspection fitting, consisting of ground body in one piece removable cap, pre-assembled clamp and insulating core mounted in the cap.

Available sizes1:

D 125 mm (DN 125)

Package units:

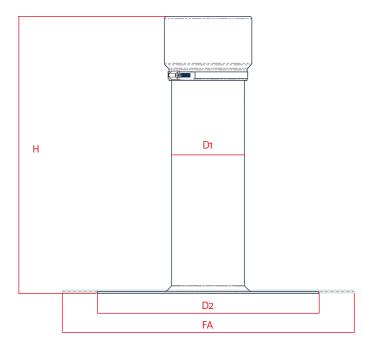
Supplied in foil bags, PU 1 unit

¹Special lengths available on request /² Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.

¹Special sizes available on request /²Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA - KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







echnical data				
ł	380			
) pipe D1	125			
) sheet D2	380		mm	
oil connection (FA)	D125	L 580 x B 580 mm		
he total height including the polystyrene core is 605 mm				

Release list for roofing membranes

PVC		
Manufacturer	Product	
Alwitra	Evalon	
Bauder	Thermofol	
BMI Wolfin	Cosmofin, Tectofin, Wolfin*	
FDT	Rhenofol	
Georg Börner	Logicroof V	
Icopal	Monarplan PVC	
Мареі	Mapeplan M, Mapeplan Plus	
Protan AS	Protan PVC	
Renolit	Alkorplan	
Sika	Sikaplan	
Soprema	Flagon SR, Flagon SV, Flagon S.150	
Sucoflex	Sucoflex B, Sucolfex M	
* Color deviation! Black roofing membrane, gray molding		
Information valid for Europe, roofing membranes produced for European markets		

FPO/PP

Manufacturer	Product	
Agru	Austroplan	
Bauder	Thermofin, Thermoplan	
BMI Icopal	Monarfin FPO	
BMI Vedag	Vedafin	
BMI Wolfin	EverGuard TPO	
Carlisle C.M.	Sure-Weld TPO	
Firestone	UltraPly	
Мареі	Mapeplan T I	
Sika	Sarnafil AT, Sarnafil T	
Soprema	Flagon Premio, P. Stick; Flagon Eco, Eco F; Flagon EP-S 150	
Sucoflex	Sucoflex TB, TM	
Information valid for Europe, roofing membranes produced for European markets		

KALA terrace support system

Function:

Terrace support for the installation of all surface types, particularly stone slabs and boardwalk finishes. The height adjustment and equalizing elements permit easy levelling of surfaces and slopes. In combination with the pressure disc, which is available as an accessory, the KALA support forms a sliding support system for direct installation on seals. Additional protective mats must be fitted in areas frequented by the public, such as entrances to public buildings, cafeterias, etc.

Versions:

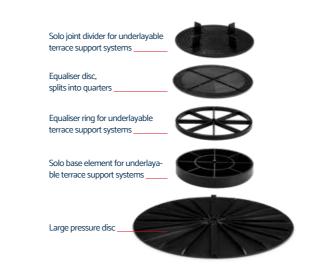
- Tile spacers for joint widths of 3 mm, alternativelyelyely 4 mm, different joint widths available as an option
- Detachable tile spacer for laying in bond or at the edge

Package units:

- Supplied in cartons, each containing 100 units
- Support system (joint divider and basic element) or joint divider solo, basic element solo

Accessories:

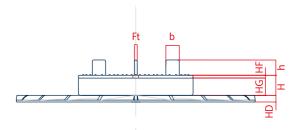
- ProSilent equaliser disc for terrace support systems,
- splits into quarters, D 112 mm
- Equaliser disc, splits into quarters, D 120 mm
- Equaliser ring for underlayable terrace support systems, D 120 mm
- Large pressure disc, D 250 mm
- Small pressure disc, D 200 mm

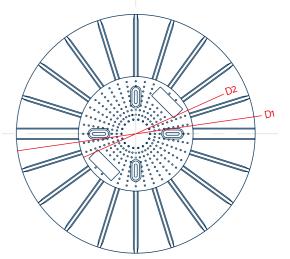


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Technical data		
D1	250	
D2	120	
Ft	3, alternativelyely 4	
Н	21	
HG	18	mm
HF	3	
HD	7	
h	16	
b	14	
Optional equalising elements: Equaliser disc, splits into quarters H=3 mm,		
Equaliser ring for underlayable terrace support systems H=6 mm		

Height-adjustable terrace support system

Function:

Terrace support for the installation of all surface types, particularly stone slabs and boardwalk finishes. The height adjustment and optional equalizing elements permit easy levelling of surfaces and slopes. In combination with the pressure disc, which is available as an accessory, the KALA support forms a sliding support system for direct installation on seals.

Additional protective mats must be fitted in areas frequented by the public, such as entrances to public buildings, cafeterias, etc.

Versions:

- Tile spacers for joint widths of 3 mm, alternatively 4 mm, different joint widths available as an option
- Detachable tile spacer for laying in bond or at the edge
- KALA Wood: Surface without joint dividers for underlaying wooden constructions

Package units:

Supplied in cartons, PU 50 units

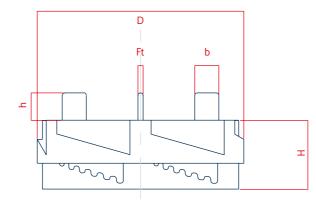
Accessories:

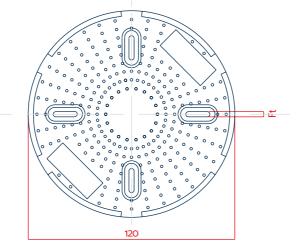
- ProSilent equaliser disc for terrace support systems,
- splits into quarters, D 112 mm
- Large pressure disc, D 250 mm
- Small pressure disc, D 200 mm



KALA - KUNSTSTOFFE | Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.







Tech	nnical data		
	H1	H2	
D	120	120	
Ft	3, alternativelyely 4	3, alternativelyely 4	
Н	28 - 42	40 - 70	mm
h	16	16	
b	14	14	

H-MAX terrace support system

Function:

Terrace support for the installation of all surface types, particularly stone slabs and boardwalk finishes. The height adjustment and optional equalizing elements permit easy levelling of surfaces and slopes. Additional protective mats must be fitted in areas frequented by the public, such as entrances to public buildings, cafeterias, etc.

Versions:

• 3 mm wide joint dividers

With snap-off wings

Package units:

Supplied in cartons, PU 25 units

Accessories:

 ProSilent equaliser disc for terrace support systems, splits into quarters, D 112 mm



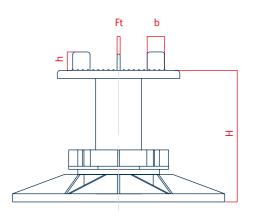


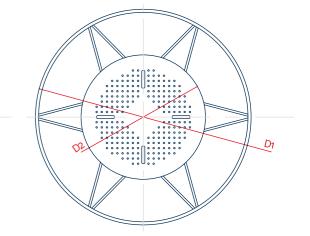












Tech	Technical data					
	65 - 100	95 - 130	125 - 160	155 - 190	185 - 220	
D1	208	208	208	208	208	
D2	120	120	120	120	120	
н	65 - 100	95 - 130	125 - 160	155 - 190	185 - 220	mm
h	18	18	18	18	18	
b	17	17	17	17	17	
Ft	3	3	3	3	3	

KALA terrace support system H-MAX MultiLevel

Function:

The H-MAX MultiLevel is our height-adjustable support system with an additional movable compensating head. It makes laying coverings of all kinds – whether wood, stone or ceramics – easy. The compensation head can also be moved by up to 5° to compensate for steep slopes and unevenness.

For direct installation on seals. Additional protective mats must be fitted in areas frequented by the public, such as entrances to public buildings, cafeterias, etc.

Versions:

- 3 mm wide joints
- Snap-off wings
- Integrated notch for trimming the base on the border
- Rubber support for sound insulation

Package units:

Supplied in cartons, PU 25 units

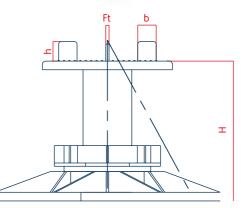


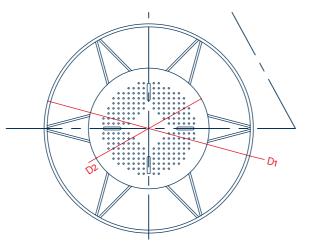












Tech	Technical data				
	62 - 82	77 - 112	107 - 142	137 - 227	
D1	200	200	200	200	
D2	120	120	120	120	
Н	62 - 82	77 - 112	107 - 142	137 - 227	mm
h	10	10	10	10	
b	13	13	13	13	
Ft	3	3	3	3	

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ProSilent equaliser disc for terrace support systems, splits into quarters

Function:

Made of extra-soft, long-term stabilised PVC, our ProSilent shim reduces impact noise and all other sounds caused by movement. The disc, which is only 1 mm thick, can be divided into quarters, which therefore means it can also be used for compensating for the finest height differences on a support system.

Material:

PVC

Version:

Colour Black

Package units:

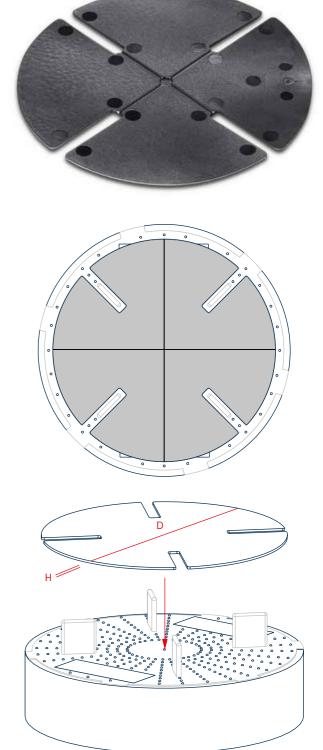
Supplied in cartons / foil bags, PU 50 units

Accessories:

- Complete underlayable terrace support system
- Terrace support system H1
- Terrace support system H2
- H-MAX terrace support system







Tech	Technical data			
D	112			
Н	1	mm		

Cross spacers height: 18 mm

Function:

For laying slabs in a gravel/grit bed. The tile spacers serve as spacers for forming permanent joints in accordance with the regulations. The three-armed tile spacers mean you can lay flooring cleanly in a bond or at the edge.

Versions:

• Joint widths 3, 41, 5 and 10 mm

• An arm can be easily broken off at the notch

Tile spacer with three wings (T-cross) for 3 and 5 mm joint widths

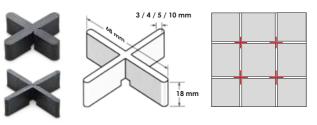
Default color black

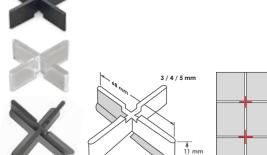
• A transparent model is also available for ultra high-end patios

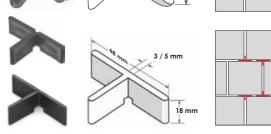
Special colors available on request

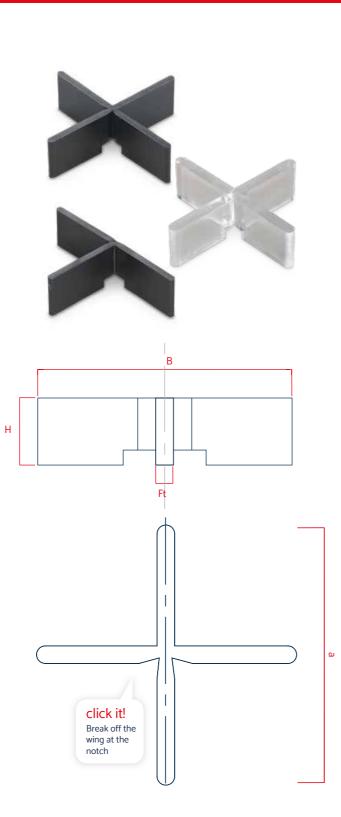
Package units:

Supplied in cartons, PU 300 units









Tech	Technical data		
В	68		
Н	18	mm	
Ft	3/4/5/10		

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Tile spacers height: 11 mm

Function:

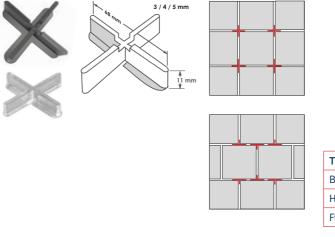
For laying ceramic tiles. The tile spacers serve as spacers for forming permanent joints in accordance with regulations.

Versions:

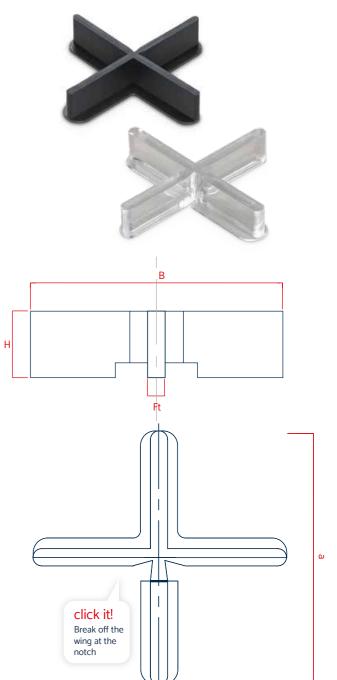
- Joint widths 3, 4 and 5 mm
- $\boldsymbol{\cdot}$ An arm can be easily broken off at the notch
- Universal tile spacer with support
- Default color black
- · A transparent model is also available for ultra high-end patios
- Special colors available on request

Package units:

Supplied in cartons, PU 300 units







Technical data		
В	68	
Н	11	mm
Ft	3/4/5	

The original red flexible tube 70/100 and 125

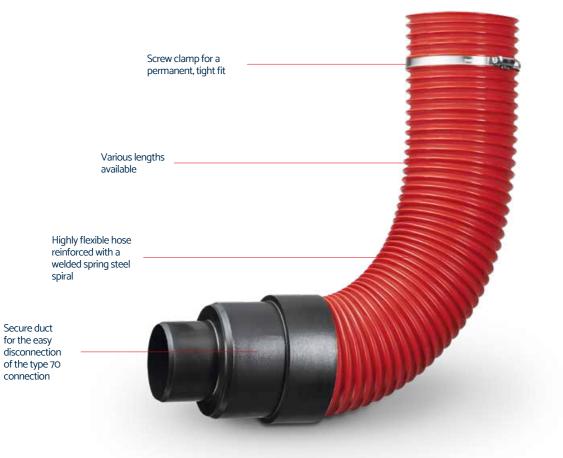
Function:

The flexible tube for all standard ventilation systems. The free end of the hose is pushed onto the lower end of the ventilator duct and fixed in place with the pre-assembled hose clamp. The connection sleeve is pushed into the underlying connection piece on the ventilation duct. Check that the lip seal inserted is properly seated in the connection piece during installation. Socket position when installed on an incline with a min. of 45°.

Versions:

- 70/100 flexible hose for connection to DN 70 or DN 100
 ventilation lines
- 125 flexible hose for connection to DN 70 ventilation line
- Hose length: type 70/100 500 mm; type 125 600 mm





Ventilators for bitumen shingle roofs

Function :

Ventilator to ensure air exchange on the levels to be back-ventilated for shingle roofs. The element can also be installed as an outlet vent using the flexible outlet vent connection, which is available as an accessory. Thus ensuring that the roofscape remains uniform.

Connection Method:

A 270 x 150 mm opening is cut in the underlay. The lower shingles are brought up to the opening and fitted into place properly. Now align the fan evenly in the centre over the opening and fasten it in place through the holes in the rebate.

Important: Maintain a distance of approx. 30 mm between the shingles and the ventilation duct at the sides and the top to ensure that water drains off freely.

Technical data vent for shingle roofs:

- Bottom section: length 410 mm, width 325 mm
- Top section: length 300 mm, width 195 mm
- Overall height: 120 mm
- Deck flange widths: 90/100 mm
- Default colors: brown and black
- Special colours (hood): grey and red
- Other colours available on request
- Interchangeable hood

Package units:

Supplied in cartons, PU 10 units

Accessories:

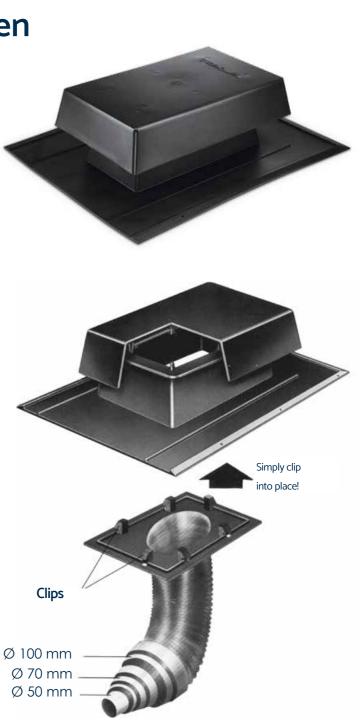
Outlet vent connection

Technical data Outlet vent connection:

- Length 260 mm
- Width 140 mm
- \cdot Air cross-section, fan: 170 cm^2
- Air cross-section, flexible hose: 80 cm²
- Flex hose 0:100 mm
- \cdot For 50/70/100 mm hose connection
- Colour black
- All flexible tubes are basically UV-resistant

¹Attention: The processing instructions of the roofing membrane manufacturer must be adhered to; Materials and used material compounds may be subject to change. KALA – KUNSTSTOFFE I Karl-Heinz Lange GmbH+Co.KG reserves the right to make technical changes.





Outlet vent connection

Bird deterrent "bird spikes", transparent

Function:

Bird deterrent, esp. pigeon deterrent. The spiked elements hinder the birds in their search for resting and nesting places and thereby serve to reduce their annoying presence on buildings and the related fouling. The rounded tips ensure that the birds are not injured. The transparent material also fulfils the strictest aesthetic demands and achieves this without any major investment.

Connection Method:

Depending on the surface, the bird repellent is either glued on (e.g. with silicone) or bolted down.

Material:

Polycarbonate, transparent

Dimensions:

• Length 250 mm

- Width 50 mm
- Height 85 mm

Package units:

Supplied in cartons, PU 50 units (corresponding to 12.5 linear metres)



Flat roof + terrace -That's how it's done.







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