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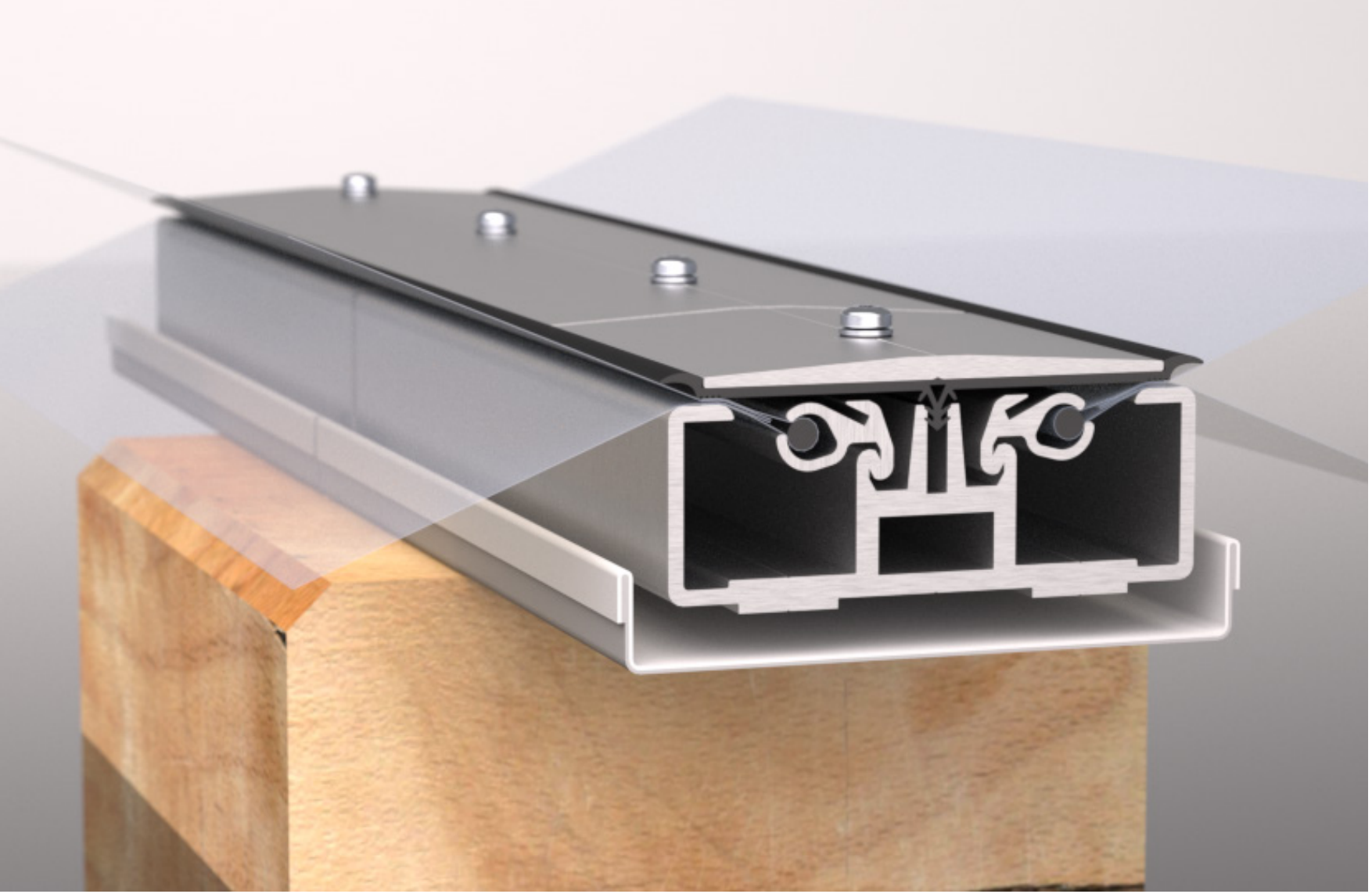
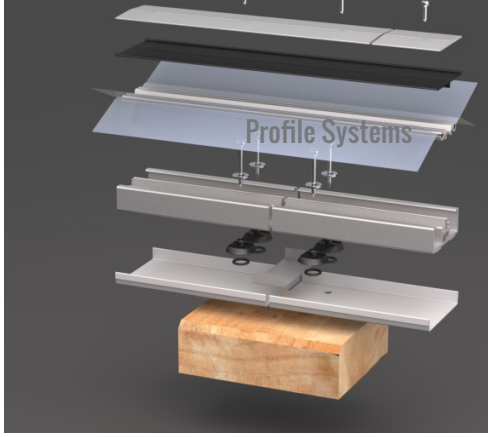
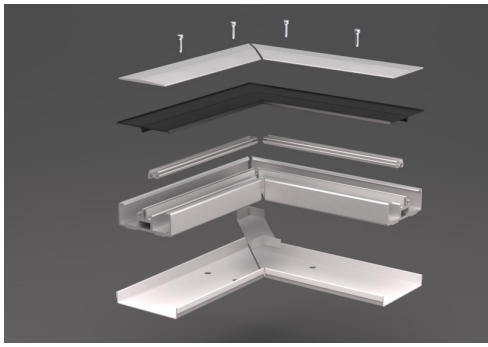
ETFE Foil Constructions

Systems, Air Management and Applications

Release: Feb 2020







KS-P01-01 Electra on wood

Two-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction.

- can be screwed on wood and on steel structures
- push-through installation
- optional cap screw with countersunk
- thermal separation of extrusion system from secondary structure
- compatible with bird deterrent KS-A200
- form-closed coupling at joints and pre-assembled nodes as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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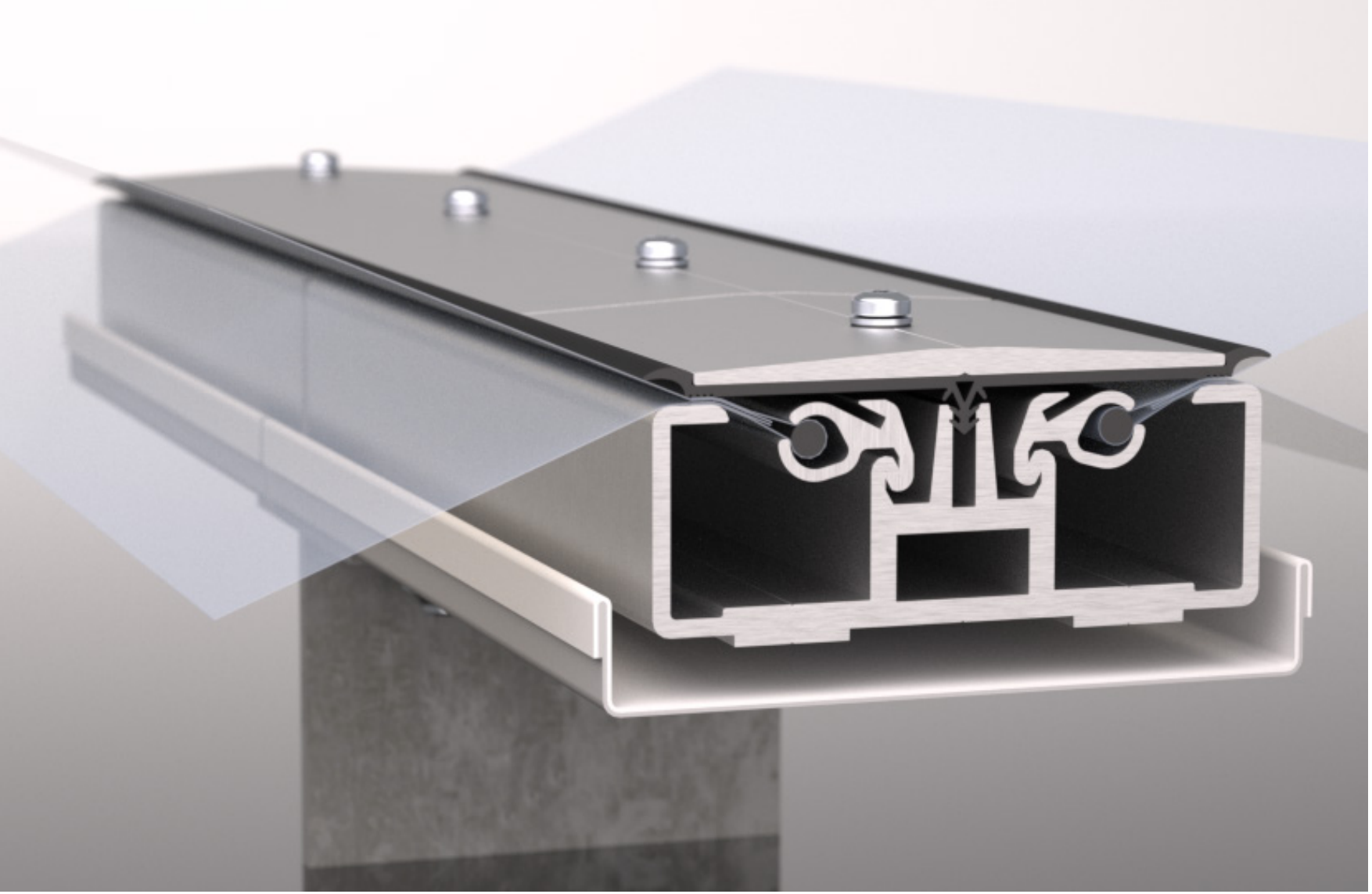

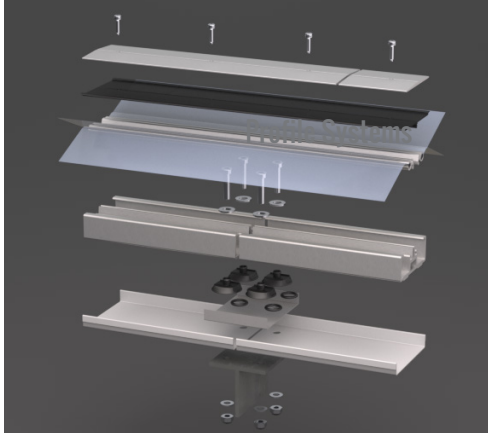

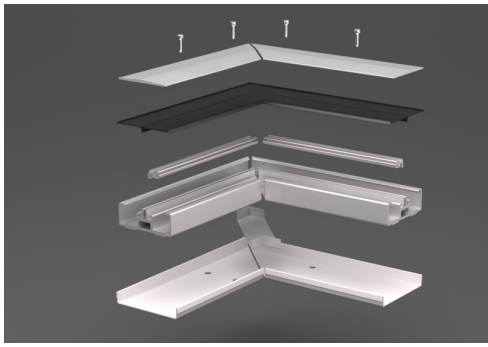

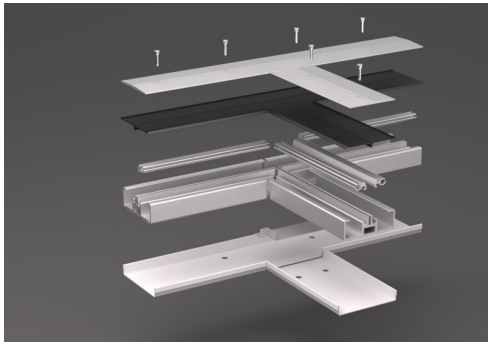

KS-P01-01 Electra on steel

Two-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction.

- can be screwed on wood and on steel structures
- push-through installation
- optional cap screw with countersunk
- thermal separation of extrusion system from secondary structure
- compatible with bird deterrent KS-A200
- form-closed coupling at joints and pre-assembled nodes as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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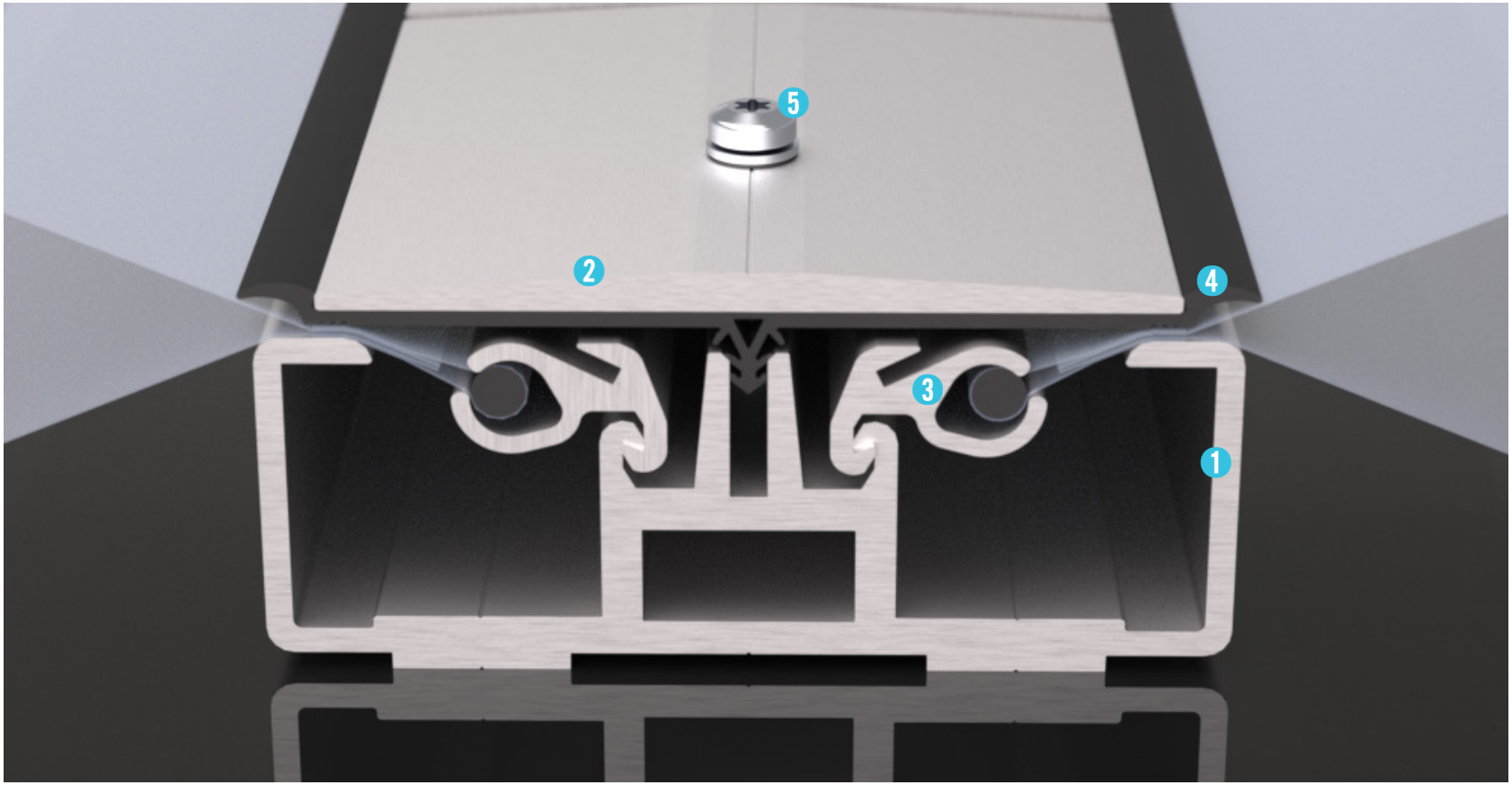
KS-P01-01 Electra



		item no.	material	finish	weight	dimensions
1	base extrusion	KS-P01-01	aluminium	anodized E6/EV1	3,19 kg/m	108 x 40 mm
2	cap extrusion	KS-P01-02	aluminium	anodized E6/EV1	0,87 kg/m	94 x 4,5 mm
3	keder extrusion	KS-P01-03	aluminium	anodized E6/EV1	0,37 kg/m	23 x 14,5 mm
4	cap sealing	KS-P01-04	EPDM	schwarz SH60	0,31 kg/m	108 x 2 mm
5	cap screw, incl. sealing washer	KS-P01-05	A4	-	5,0 g/pc	

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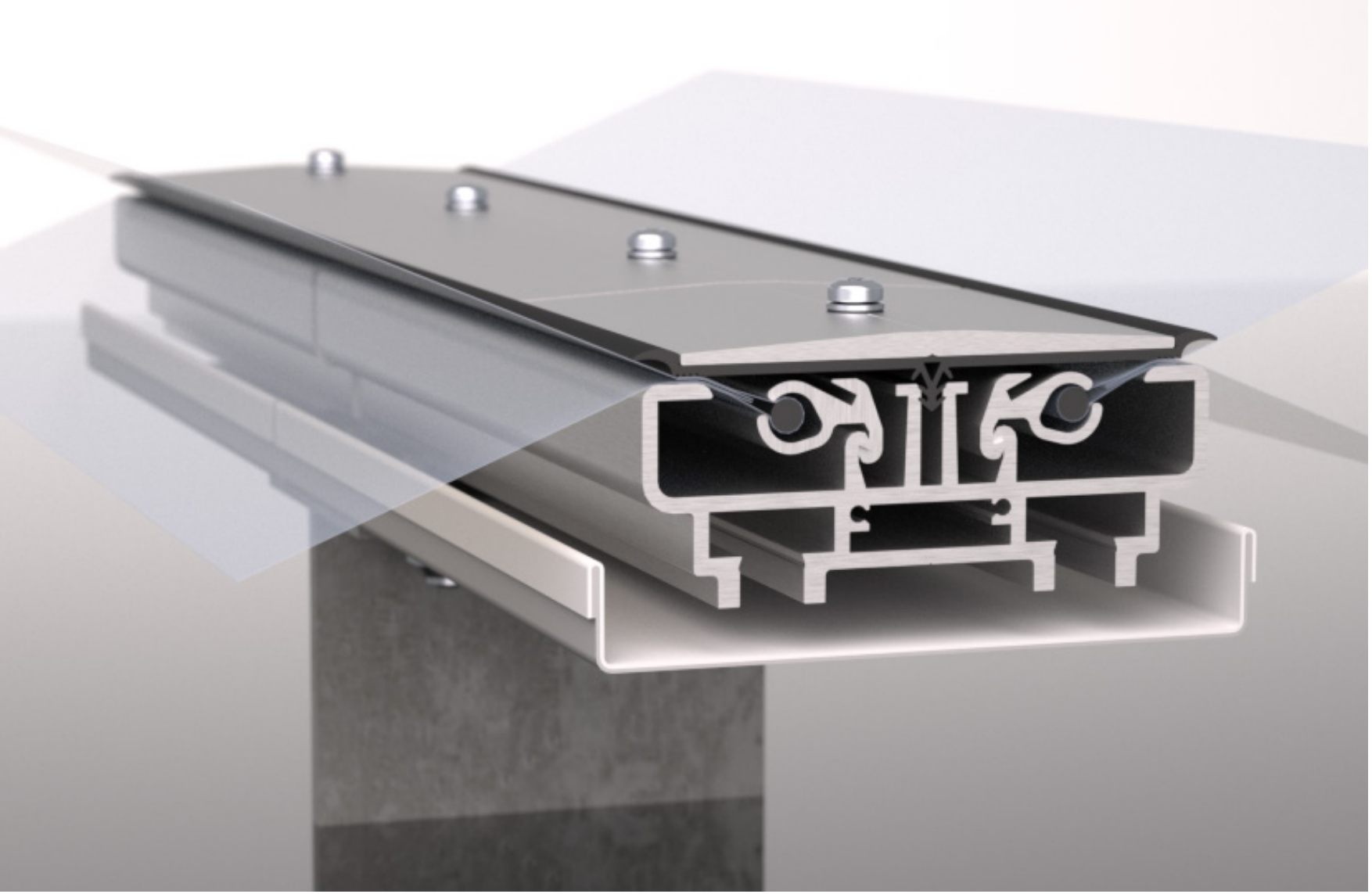

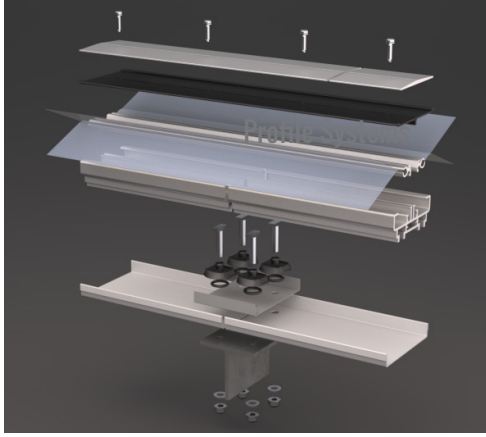

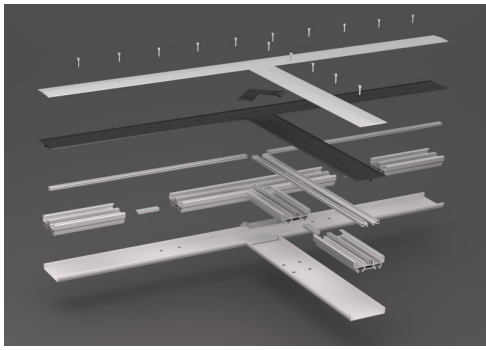

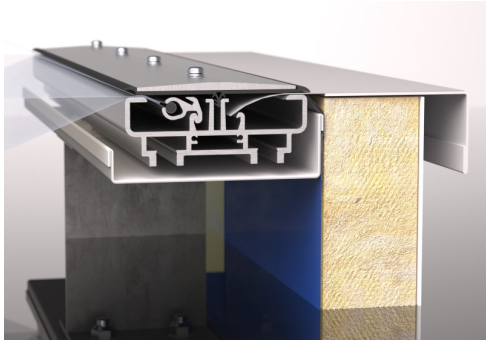

KS-P01-06 Electra with backup gutter

Two-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction.

- fixing with hammer-head-bolt requires no drilling of base extrusion
- base extrusion and backup gutter as second line of defense for drainage
- optional cap screw with countersunk
- thermal separation of extrusion system from secondary structure
- compatible with bird deterrent KS-A200
- form-closed coupling at joints and pre-assembled nodes as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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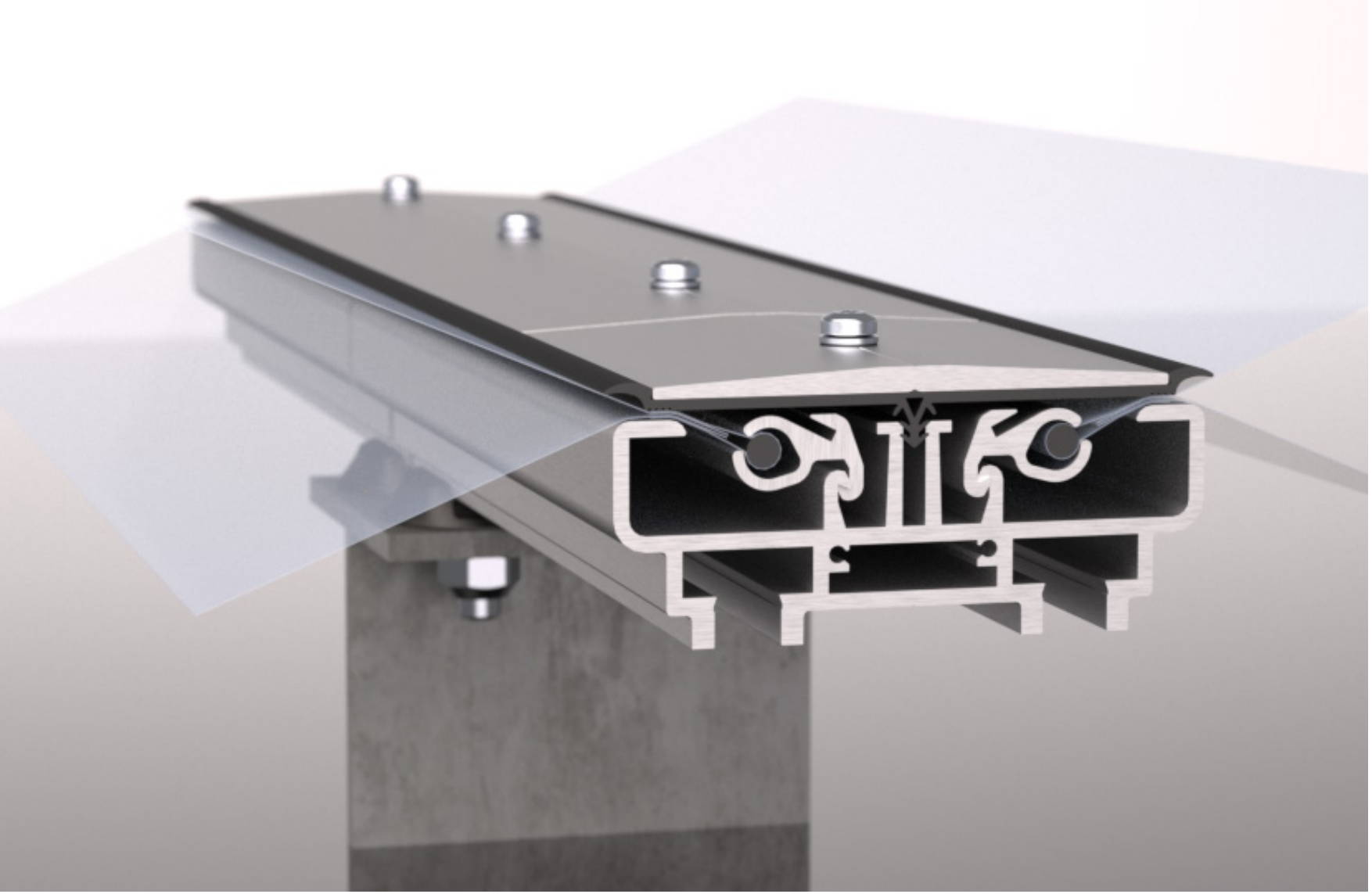

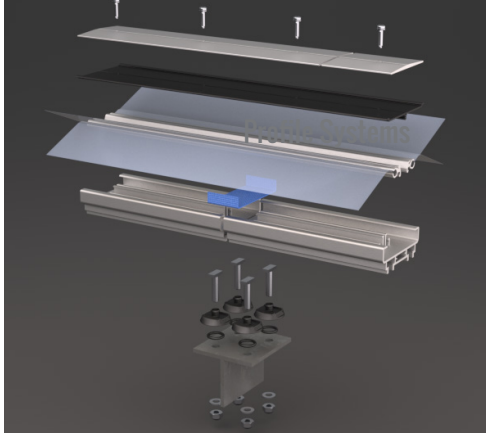

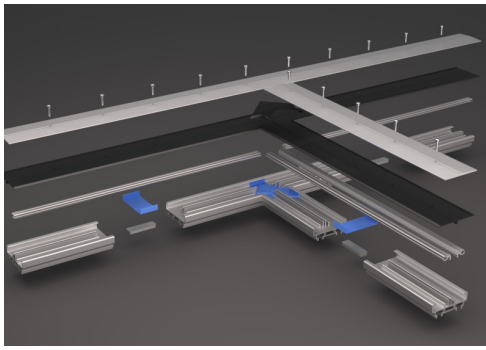

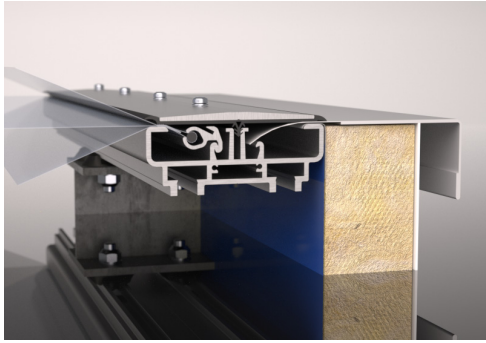

KS-P01-06 Electra without backup gutter

Two-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction.

- fixing with hammer-head-bolt requires no drilling of base extrusion
- base extrusion and backup gutter as second line of defense for drainage
- optional cap screw with countersunk
- thermal separation of extrusion system from secondary structure
- compatible with bird deterrent KS-A200
- form-closed coupling at joints and pre-assembled nodes as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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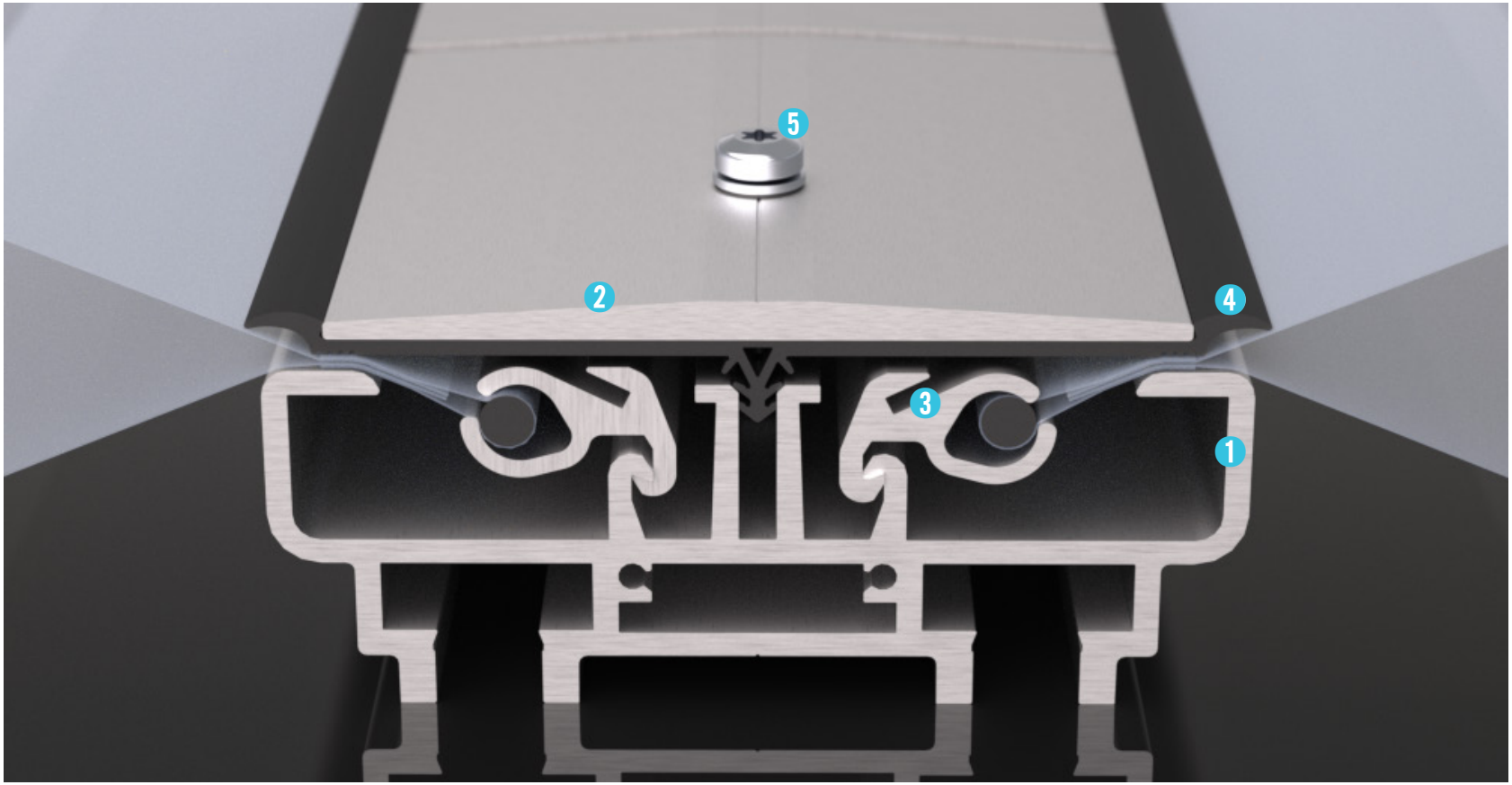
KS-P01-06 Electra



	item no.	material	finish	weight	dimensions
1 base extrusion	KS-P01-06A	aluminium	anodized E6/EV1	3,16 kg/m	108 x 40 mm
2 cap extrusion	KS-P01-02	aluminium	anodized E6/EV1	0,87 kg/m	94 x 4,5 mm
3 keder extrusion	KS-P01-03	aluminium	anodized E6/EV1	0,37 kg/m	23 x 14,5 mm
4 cap sealing	KS-P01-04	EPDM	black SH60	0,31 kg/m	108 x 2 mm
5 cap screw, incl. sealing washer	KS-P01-05	A4	-	5,0 g/pc	

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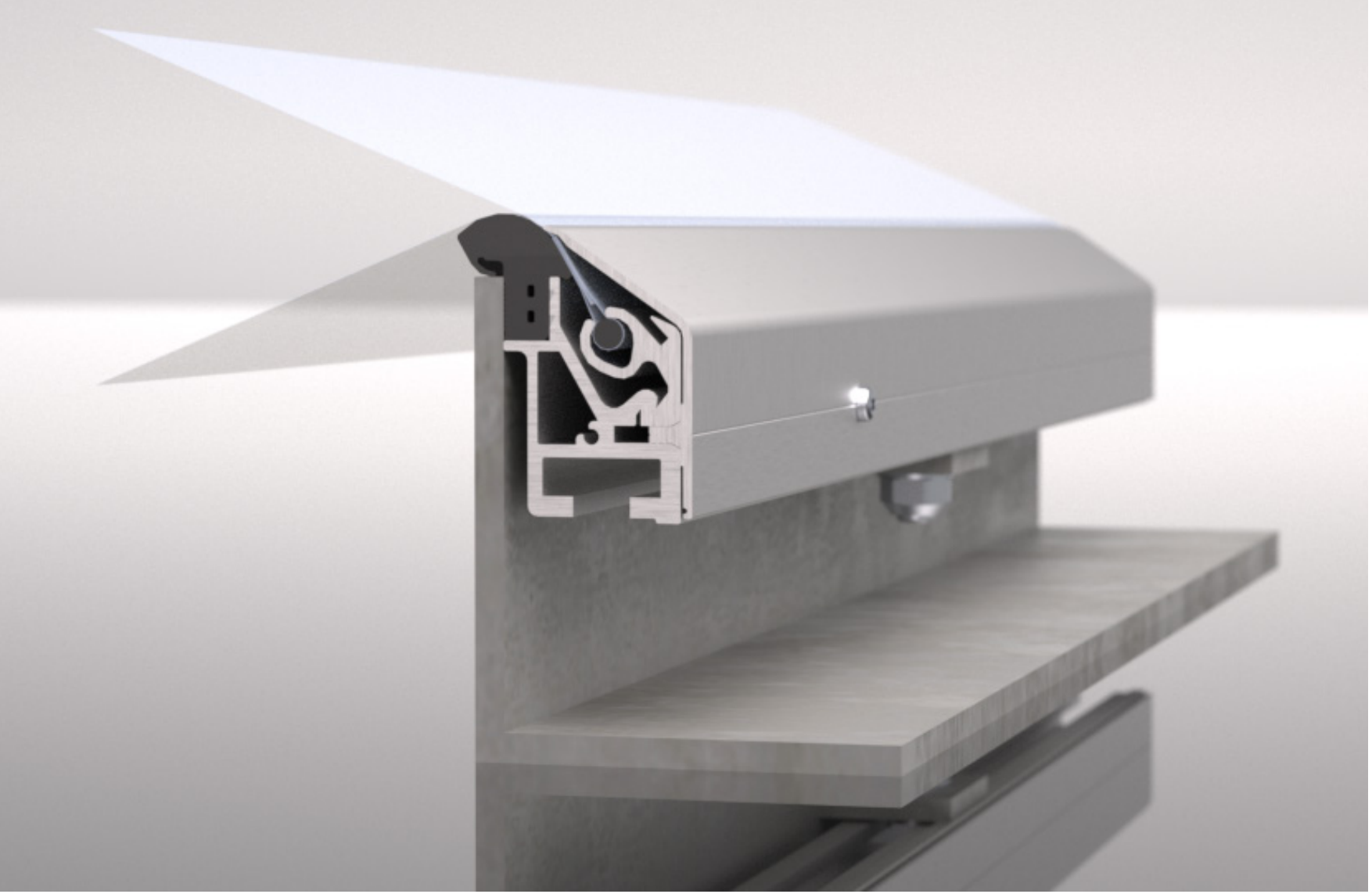

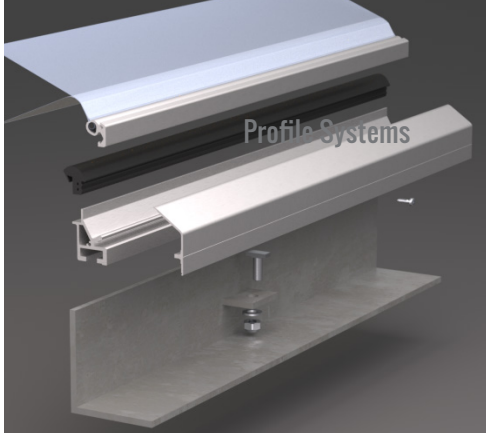

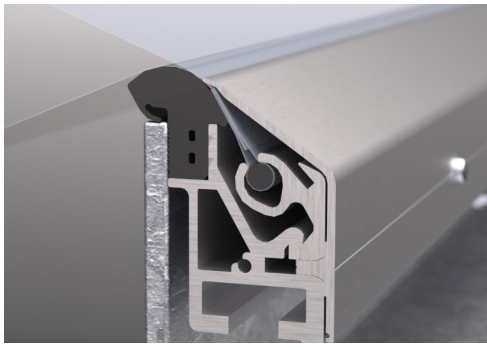

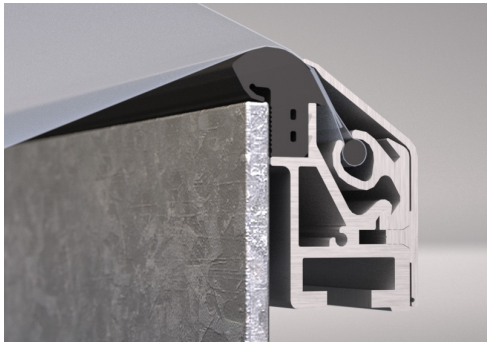

KS-P02 Solitaire

Single-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction.

- no penetration of water-bearing level required
- air- and watertight connection to secondary structure, steel gutter due to sealing profile
- fixing with hammer-head-bolt
- form-closed coupling at joints as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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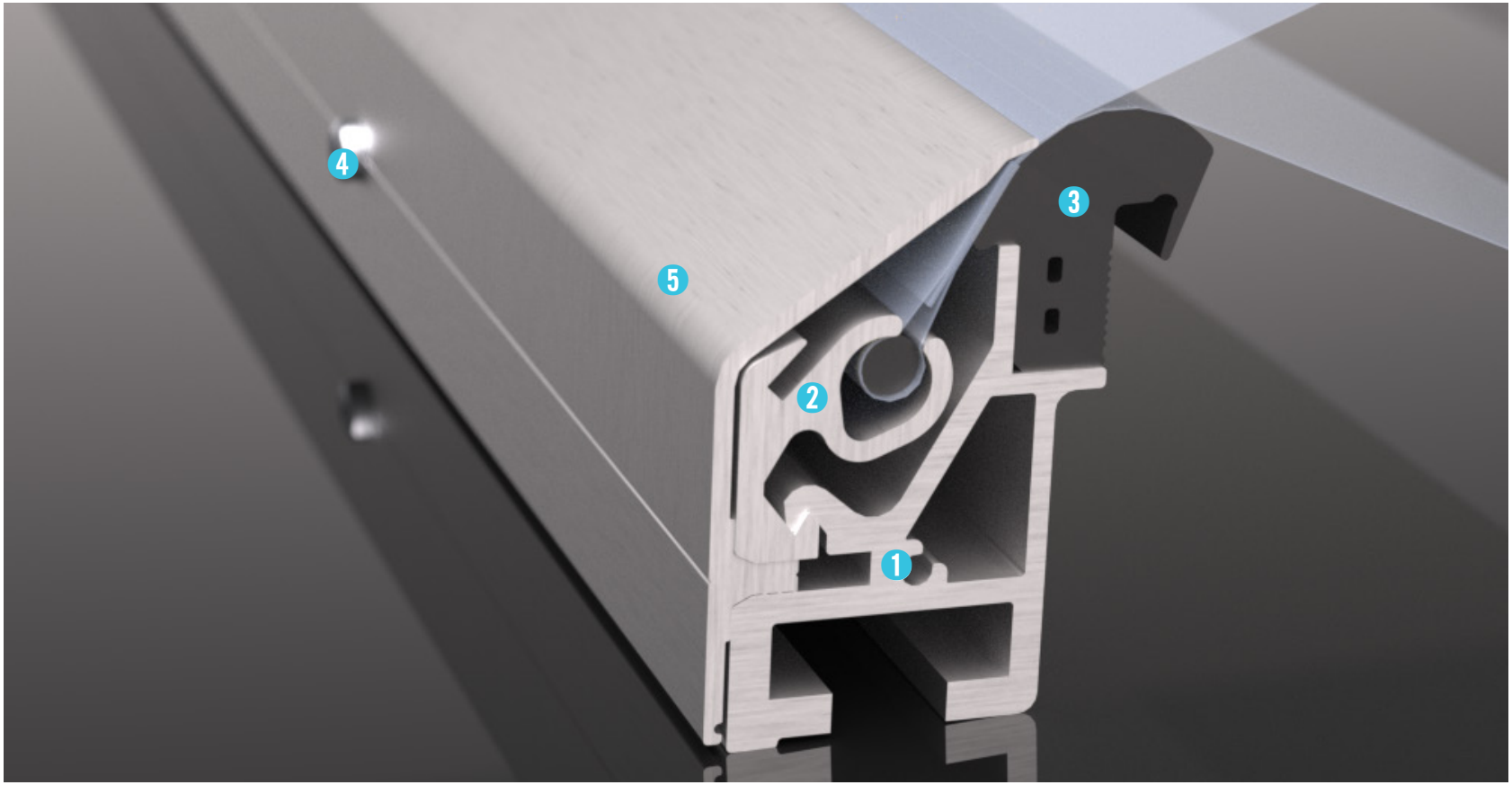
KS-P02 Solitaire



	item no.	material	finish	weight	dimensions
1 base profile	KS-P02-01	aluminium	anodized E6/EV1	1,11 kg/m	36 x 48 mm
2 keder profile	KS-P02-02	aluminium	anodized E6/EV1	0,47 kg/m	24 x 38 mm
3 sealing rubber	KS-P02-03	EPDM	black SH80	0,40 kg/m	23 x 25 mm
4 safety screw	KS-P02-04	A4	-	4,0 g/pc	-
5 cap extrusion	KS-P02-06	aluminium	anodized E6/EV1	0,44 kg/m	30 x 57 mm

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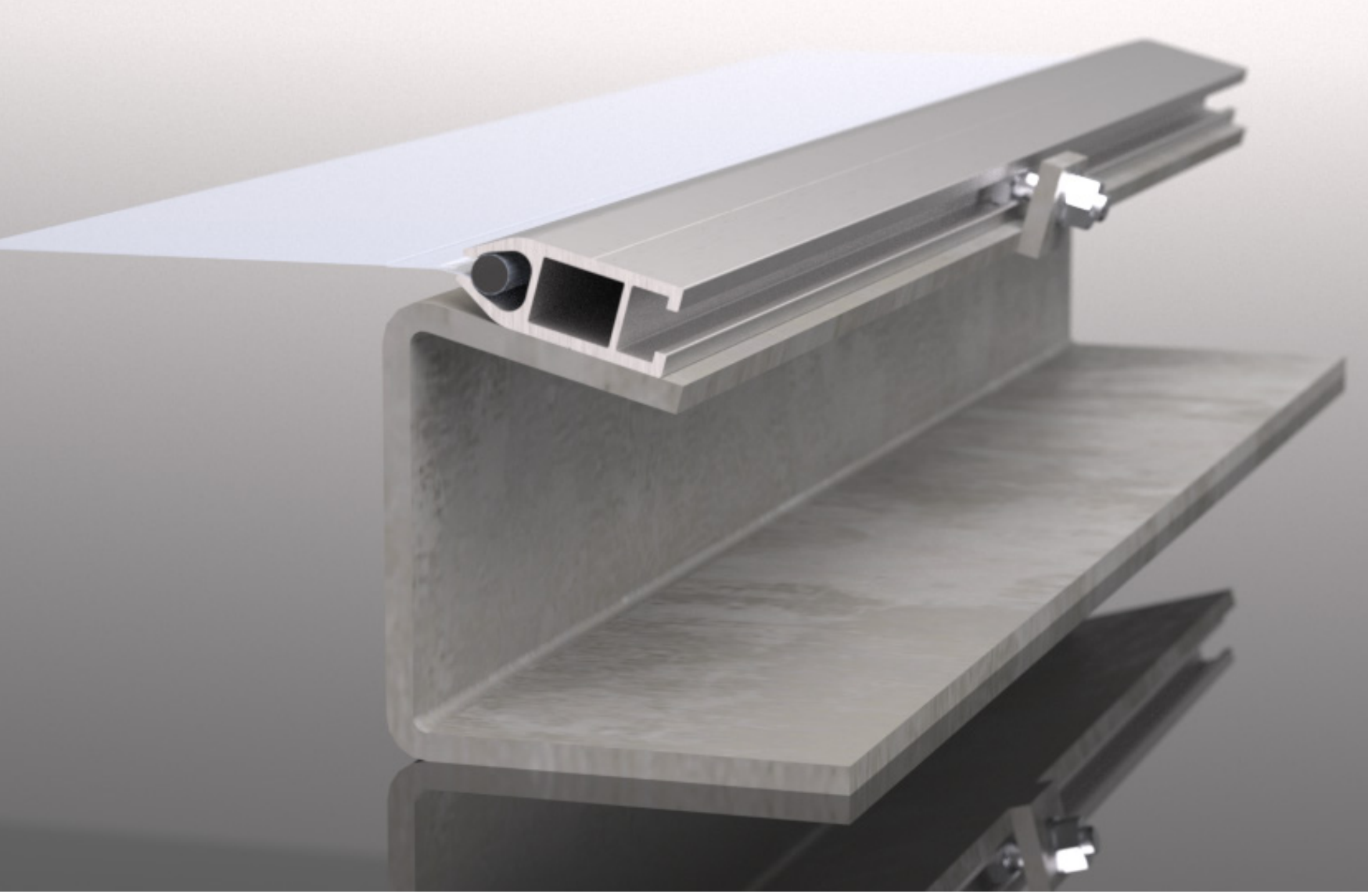

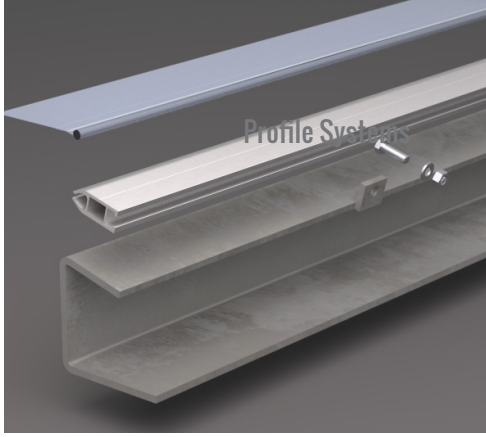

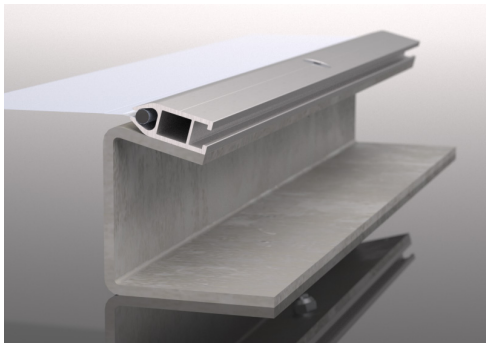

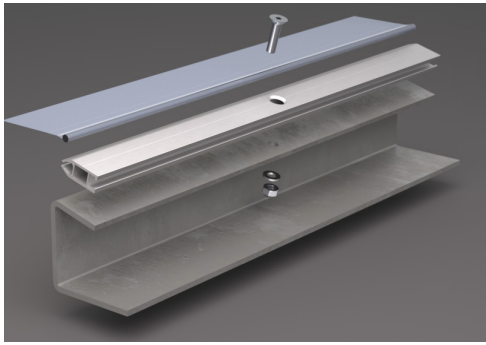

KS-P03 Carver

Attachment system / keder extrusion for mechanical prestressed ETFE foil construction and light fabric.

- push-through installation enables a fix connection
- adjustable attachment due to hexagon bolt (M8) in C-chanel
- form-closed coupling at joints as an option available
- keder-diameter d = 8 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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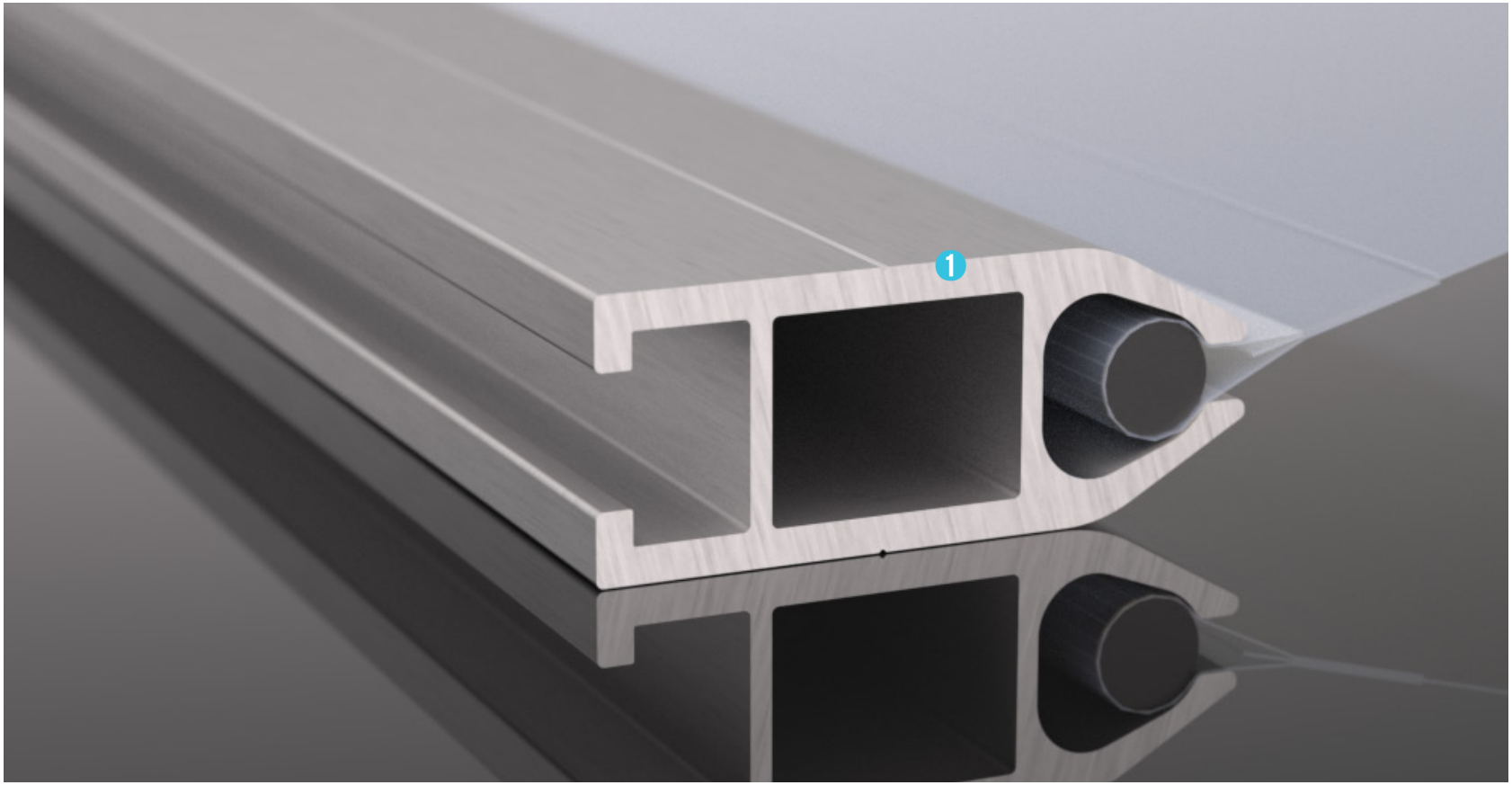
KS-P03 Carver



	item no.	material	finish	weight	dimensions
1 keder-extrusion	KS-P03	aluminum	anodized E6/EV1	0,80 kg/m	47 x 19 mm

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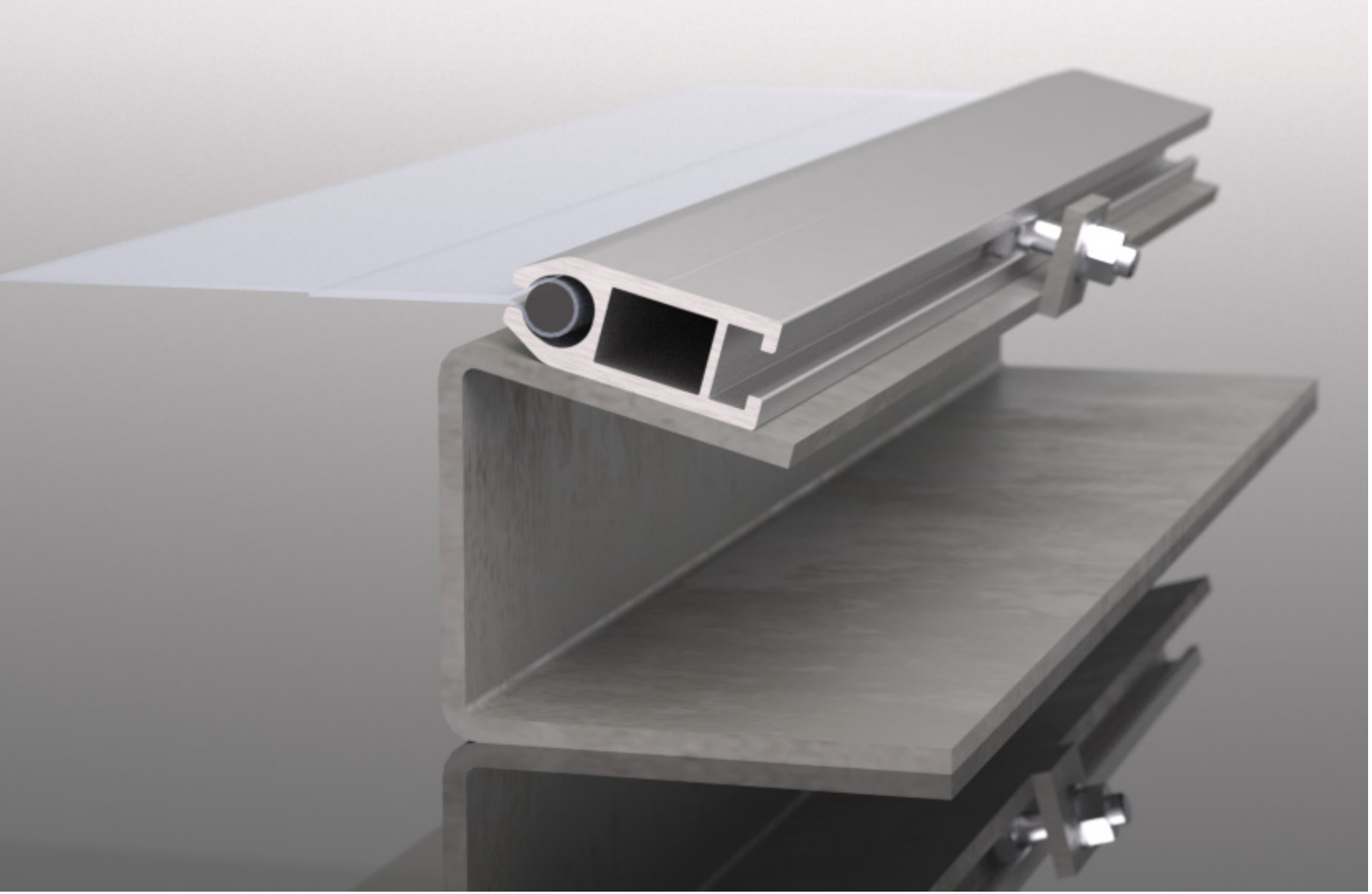

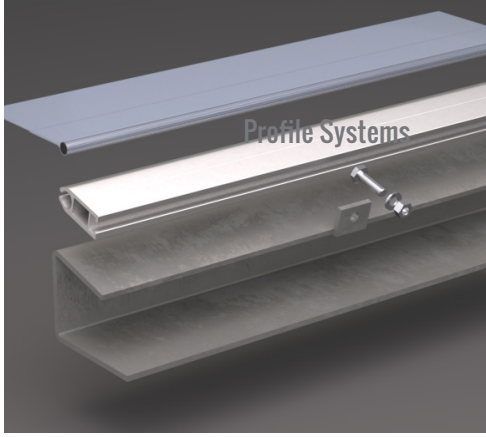

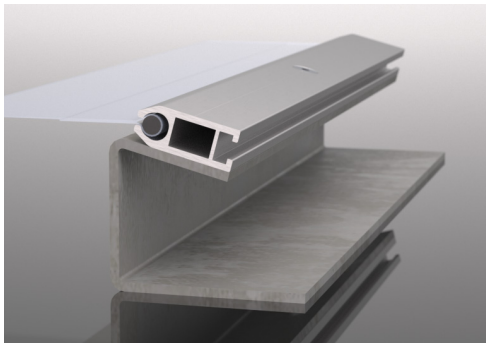

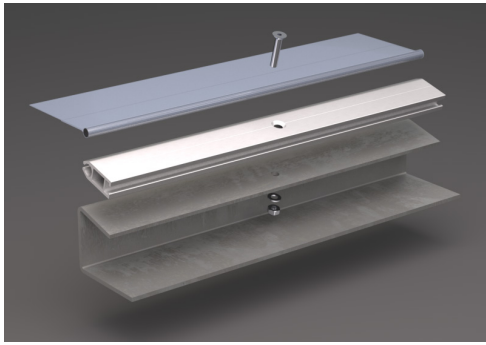

KS-P04 Rider

Attachment system / keder extrusion for mechanical prestressed ETFE foil construction and heavy fabric.

- push-through installation enables a fix connection
- adjustable attachment due to hexagon bolt (M8) in C-chanel
- form-closed coupling at joints as an option available
- keder-diameter d = 12 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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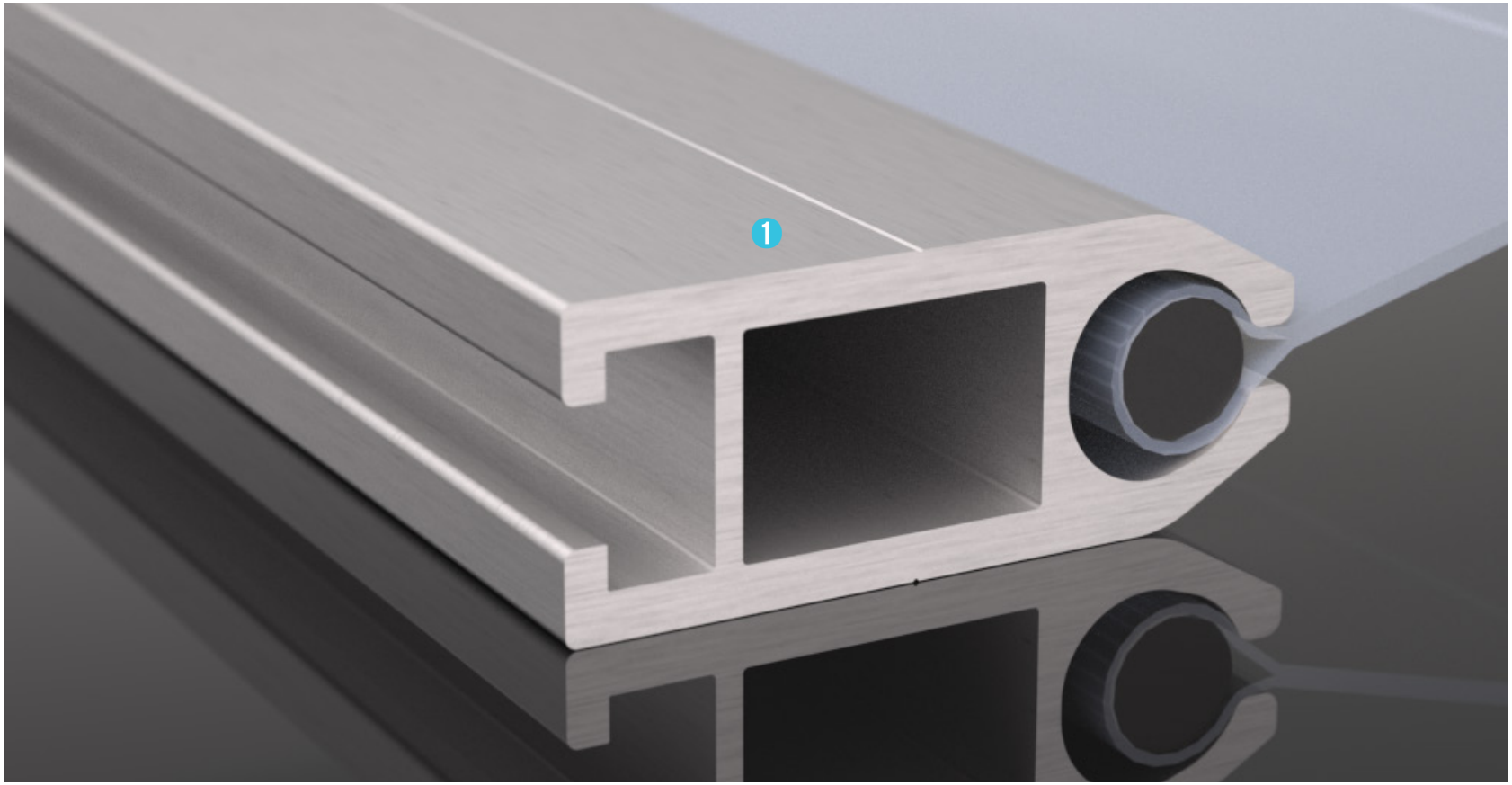
KS-P04 Rider



		item no.	material	finish	weight	dimensions
1	keder-extrusion	KS-P04	aluminum	anodized E6/EV1	1,84 kg/m	36 x 48 mm

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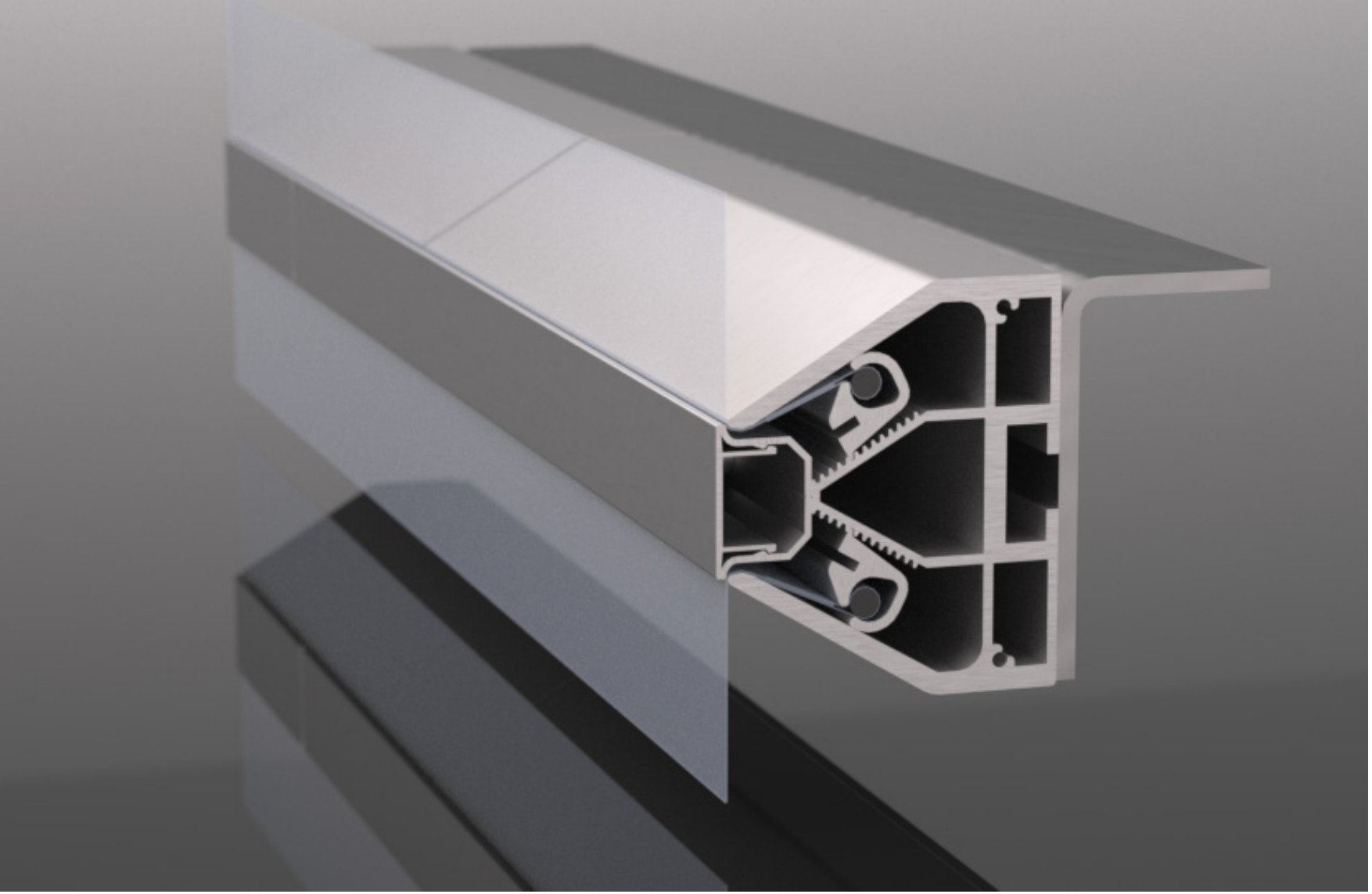

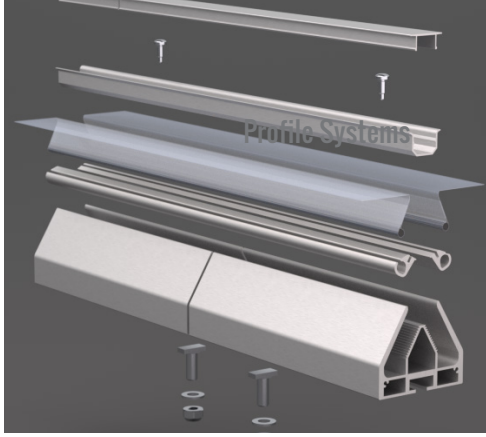

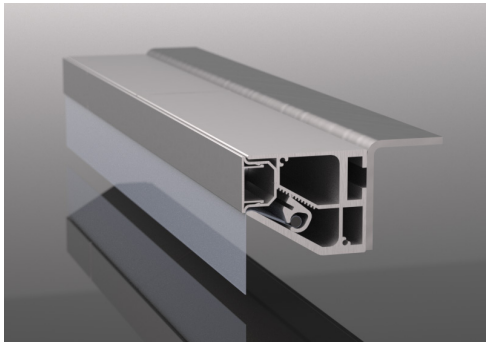

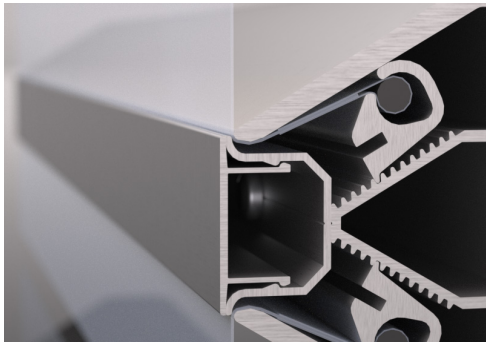

KS-P05 Lamora

Single- or two-sided attachment system for pneumatical supported and mechanical prestressed ETFE foil construction and light fabric.

- adjustable position of keder extrusion due to click-system
- slender face width and screw free cover make it ideal for façade elements
- easy fixing with hammer-head-bolt
- form-closed coupling at joints as an option available
- keder-diameter d = 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- all installation aids available as accessories

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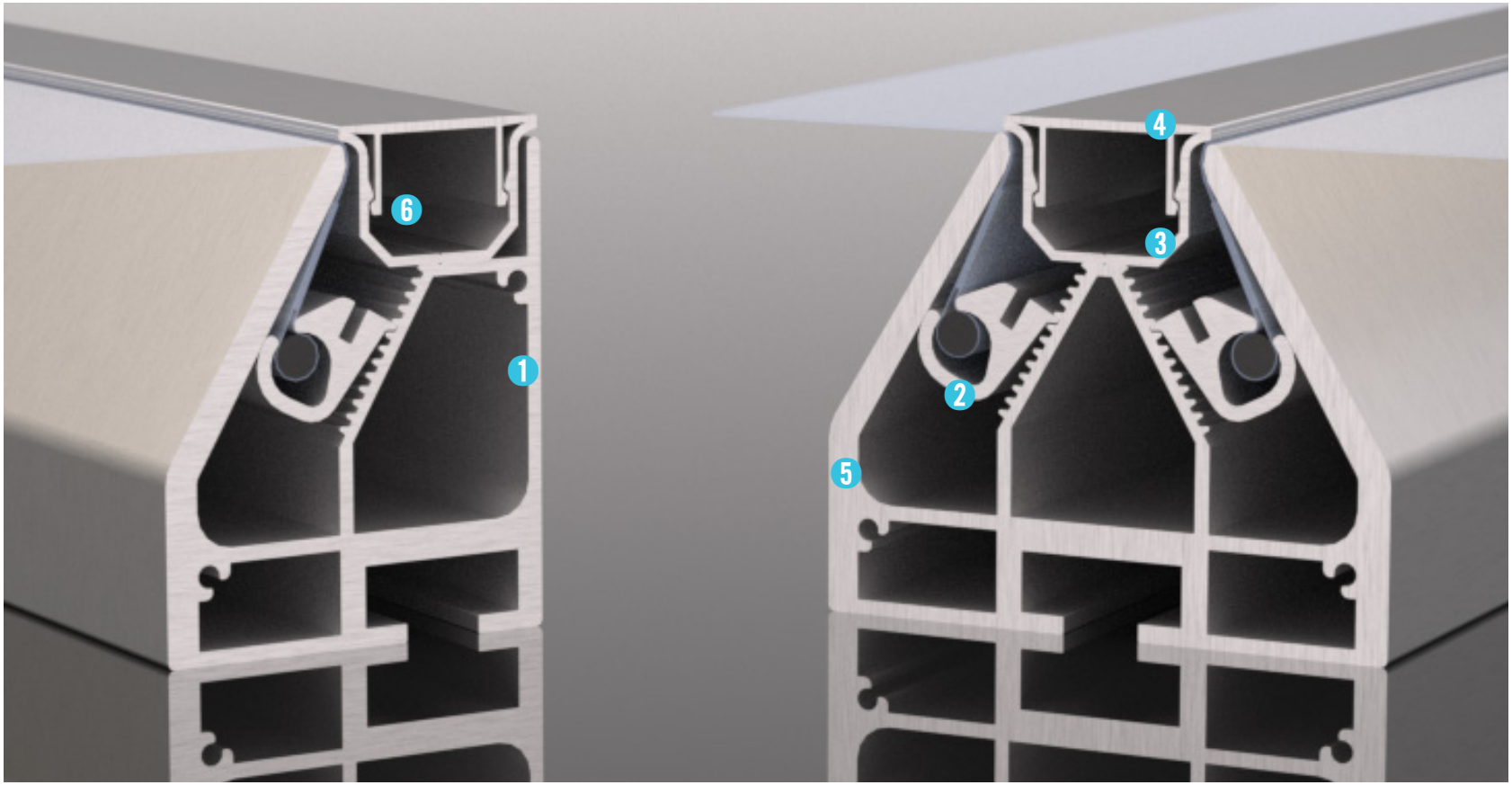
KS-P05 Lamora



		item no.	material	finish	weight	dimensions
1	base extrusion single-sided	KS-P05-01	aluminium	anodized E6/EV1	2,27 kg/m	56 x 67 mm
2	keder extrusion	KS-P05-02	aluminium	anodized E6/EV1	0,32 kg/m	17 x 18 mm
3	cap extrusion 1	KS-P05-03	aluminium	anodized E6/EV1	0,20 kg/m	30 x 12 mm
4	cap extrusion 2	KS-P05-04	aluminium	anodized E6/EV1	0,20 kg/m	30 x 12 mm
5	base extrusion double-sided	KS-P05-05	aluminium	anodized E6/EV1	3,31 kg/m	72 x 67 mm
6	cap screw	KS-P05-11	A4	-	4g / pc	-

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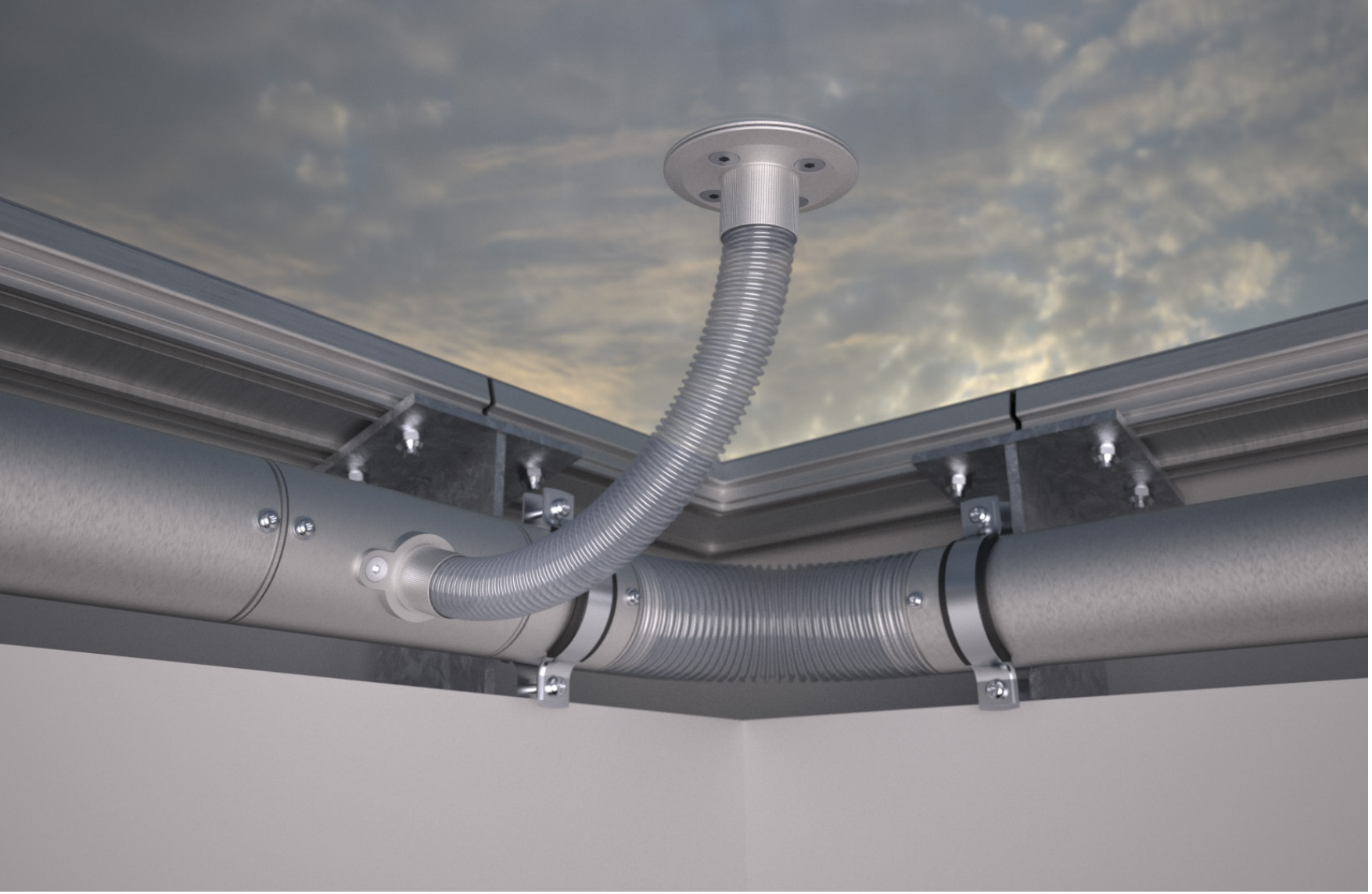

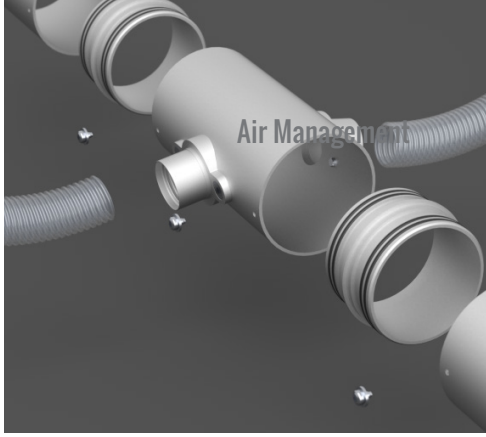

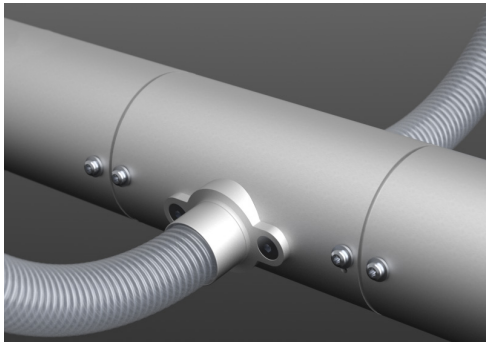

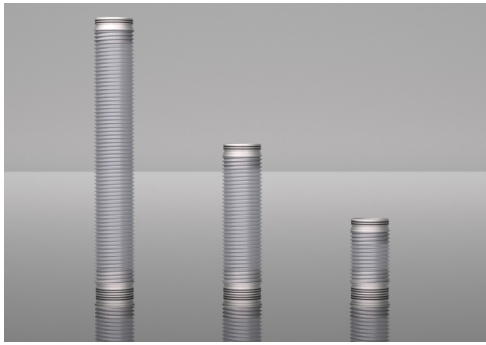

KS-A80 air duct konstruct

Airduct system for pneumatic supported structures.

- Pipe diameter do / di = 80 / 76 mm
- high fitting accuracy of joints
- high-class look with anodized surface
- fast and accurate installation
- flexible pipe connectors enable variable kink angles / individual offsets
- sliding pipe couplings balance thermal elongation

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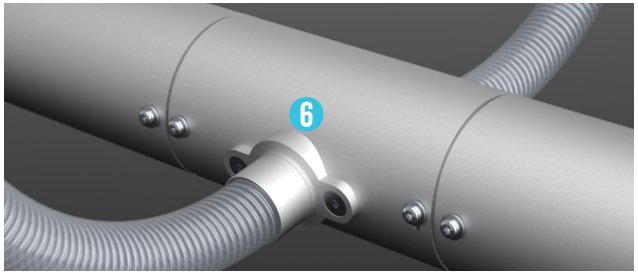
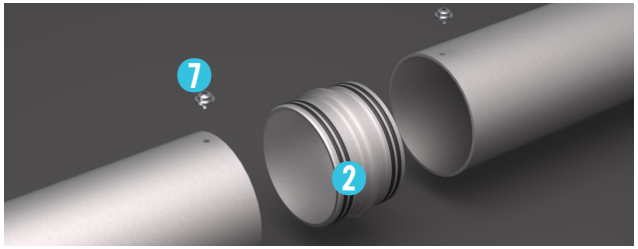
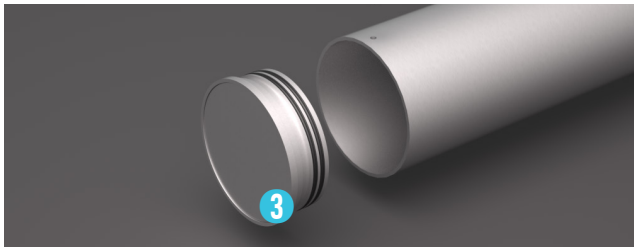
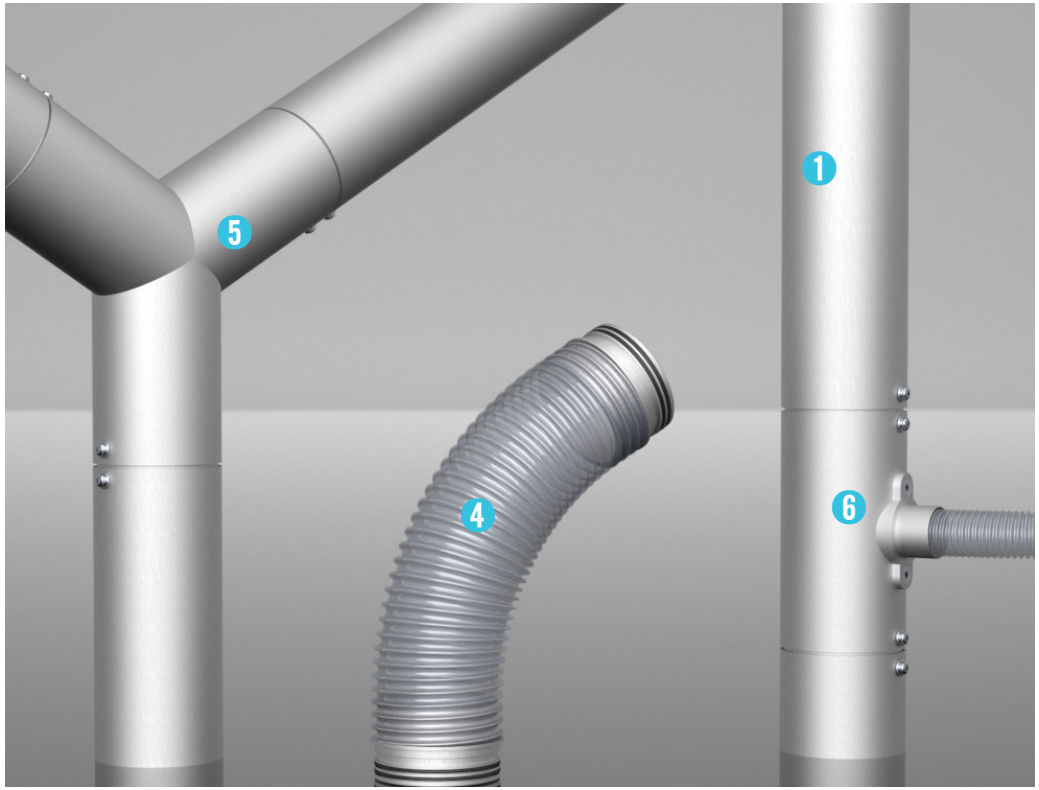
KS-A80 Luftleitung









	item no.	material	finish	weight	dimensions
1 main airpipe straight	KS-A80-01	aluminium	anodized E6/EV1		d=80 mm
2 pipe coupling	KS-A80-02	aluminium	anodized E6/EV1		d=80 mm
3 end cap	KS-A80-03	aluminium	anodized E6/EV1		d=80 mm
4 flex pipe coupling	KS-A80-04/05/06	aluminium / fluorpolymere	anodized E6/EV1		d=80 mm
5 T-piece L-piece	KS-A80-07/08	aluminium	anodized E6/EV1		d=80 mm
6 bypass single-/doublesided 25/50	KS-A80-09/10/11/12	aluminium	anodized E6/EV1		d=80 mm, 25mm/50mm
7 safety screw	KS-A80-15	A4			

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KS-A01 Thermal Seperation

Thermal separation between KS-P01 Electra base extrusion, backup gutter and secondary structure.

- form closure with base extrusion to transmit shear forces and to avoid screw bending
- durable sealing to backup gutter due to O-ring
- easy installation with click-in system
- avoidance of contact corrosion

	item no.	material	finish	weight	dimensions
1 thermal separation, incl. O-ring	KS-A01	PBT-fibreglas-reinforced	black	5 g/pc	54 x 4 mm

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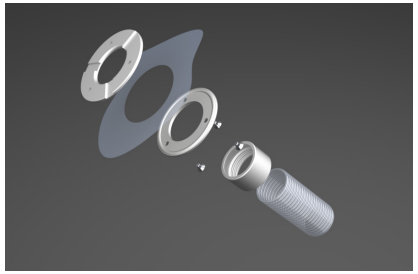
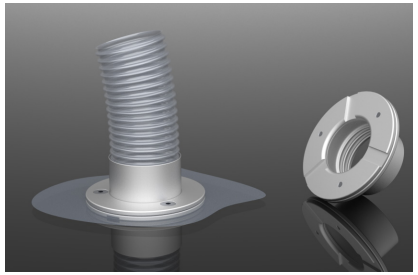
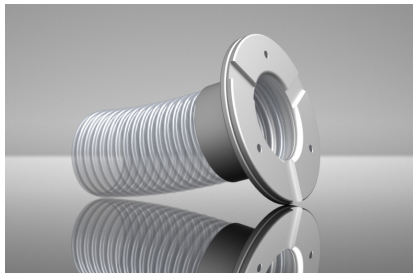
KS-A02-03 Air Inlet 50







Air inlet to connect the air duct system to pneumatic supported foil cushions.

- adapter with right / left -hand thread enables fast and safe installation of KS-A02-100, fluorine polymer (FP) flexpipe
- flexpipe inside diameter DN 50 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A02-01	aluminum	anodized E6/EV1	62 g/pc	100 x 4 mm
2 clamping plate 2	KS-A02-02	aluminum	anodized E6/EV1	58 g/pc	100 x 5 mm
3 adapter	KS-A02-03	aluminum	anodized E6/EV1	35 g/pc	60 x 35 mm
4 countersunk screw		A4		2,5 g/pc	M6 x 8 mm

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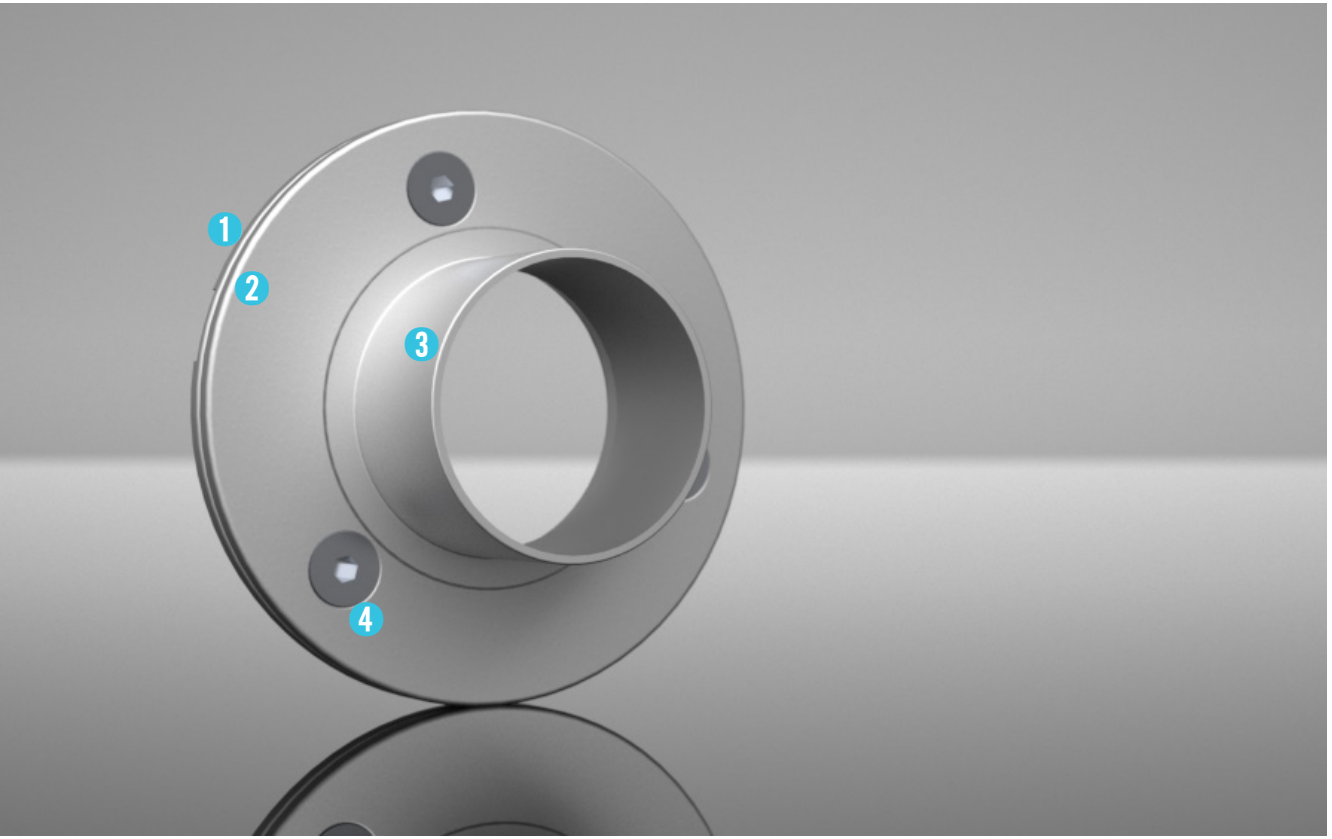
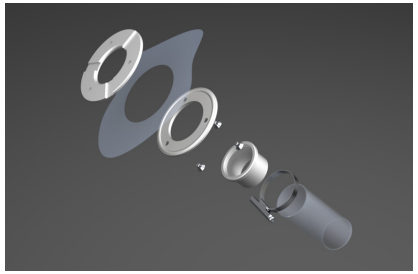
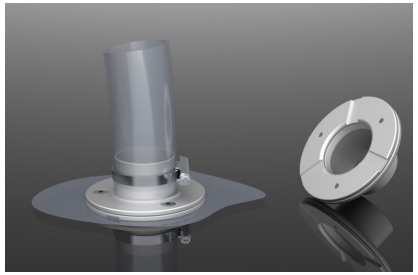
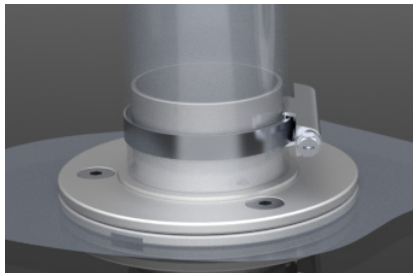
KS-A02-04 Air Inlet 50









Air inlet to connect the air duct system to pneumatic supported foil cushions.

- adapter to connect a flexible hose with a hose clamp
- fits to flexible hoses with inside diameter DN 50 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A02-01	aluminum	anodized E6/EV1	62 g/pc	100 x 4 mm
2 clamping plate 2	KS-A02-02	aluminum	anodized E6/EV1	58 g/pc	100 x 5 mm
3 adapter	KS-A02-04	aluminum	anodized E6/EV1	35 g/pc	60 x 35 mm
4 countersunk screw		A4		2,5 g/pc	M6 x 8 mm

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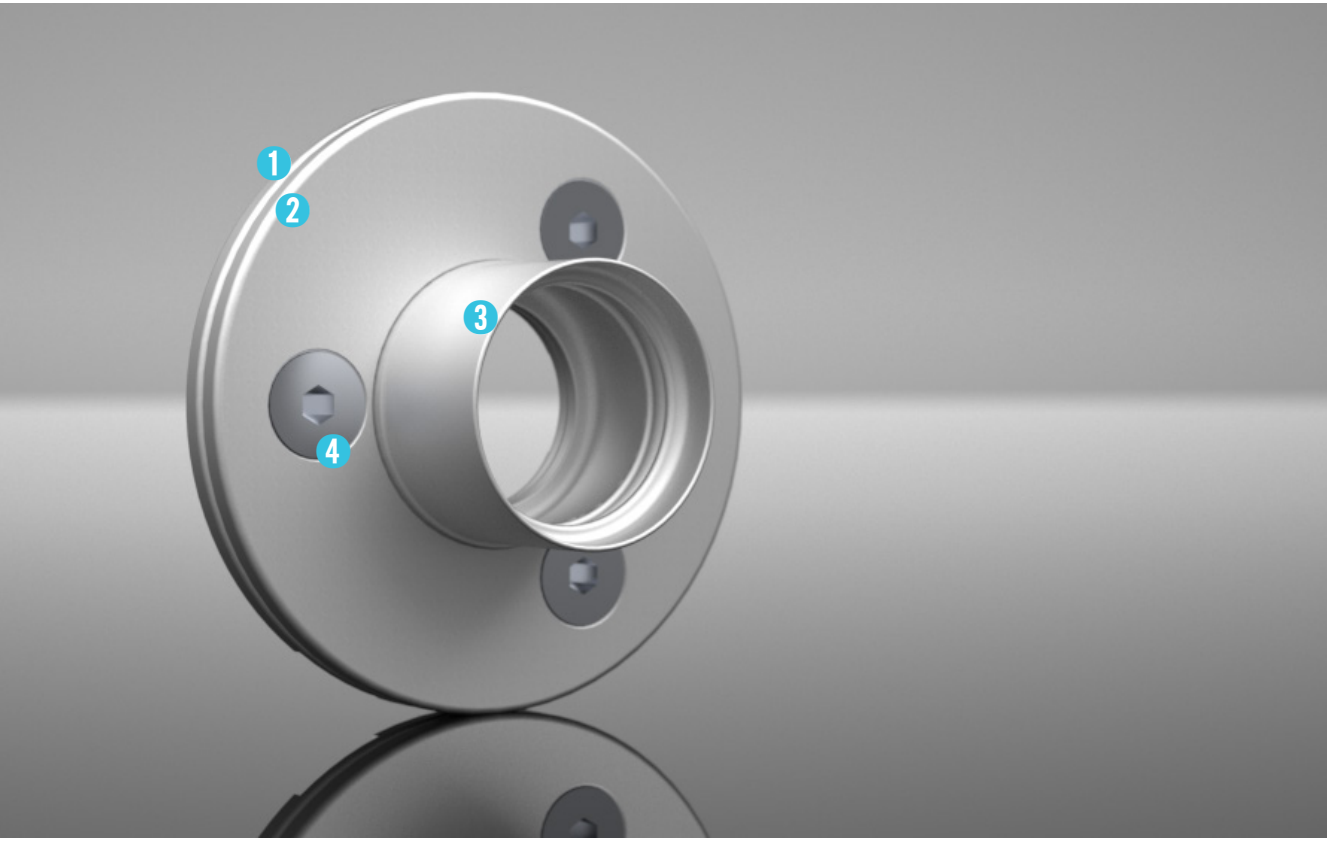
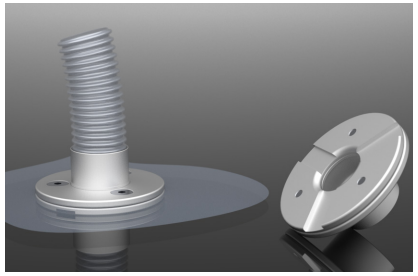
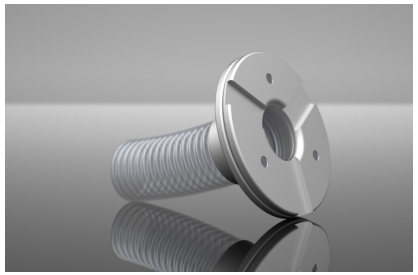
KS-A03 Air Inlet 25







Air inlet to connect the air duct system to pneumatic supported foil cushions.

- adapter with right / left -hand thread enables fast and safe installation of KS-A03-100, fluorine polymer (FP) flexpipe
- flexpipe inside diameter DN 25 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A03-01A	aluminum	anodized E6/EV1	38 g/pc	74 x 4 mm
2 clamping plate 2	KS-A03-02	aluminum	anodized E6/EV1	32 g/pc	74 x 5 mm
3 adapter	KS-A03-03	aluminum	anodized E6/EV1	13 g/pc	34 x 25 mm
4 countersunk screw		A4		2,5 g/pc	M6 x 8 mm

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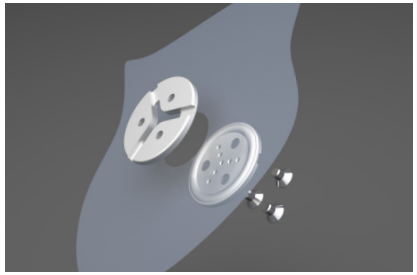
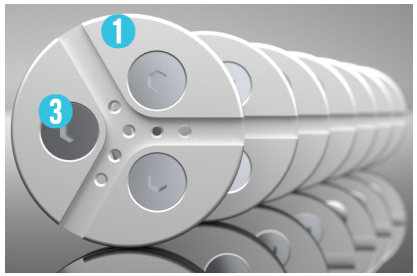
KS-A04 Transfer Port





The transfer port creates pressure differences between the single cushion chambers or to the atmospheric pressure at pneumatic supported foil cushions.

- seven different types available, adapted to the required pressure differences / volume flows
- guaranteed function also at superimposed cushion layers
- high accuracy of pressure differences (approx. ± 3%)
- pressure differences 4 - 1000 Pa *
- volume flows 0,1 - 2,7 m³/h *
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

* Values measured by accredited test laboratory (IFT Rosenheim, report No. 19-003312-PR01).

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A04-01	aluminum	anodized E6/EV1	19 g/pc	50 x 5 mm
2 clamping plate 2	KS-A04-02	aluminum	anodized E6/EV1	16 g/pc	50 x 4 mm
3 countersunk screw	KS-A04-03	A4		2,5 g/pc	M6 x 8 mm

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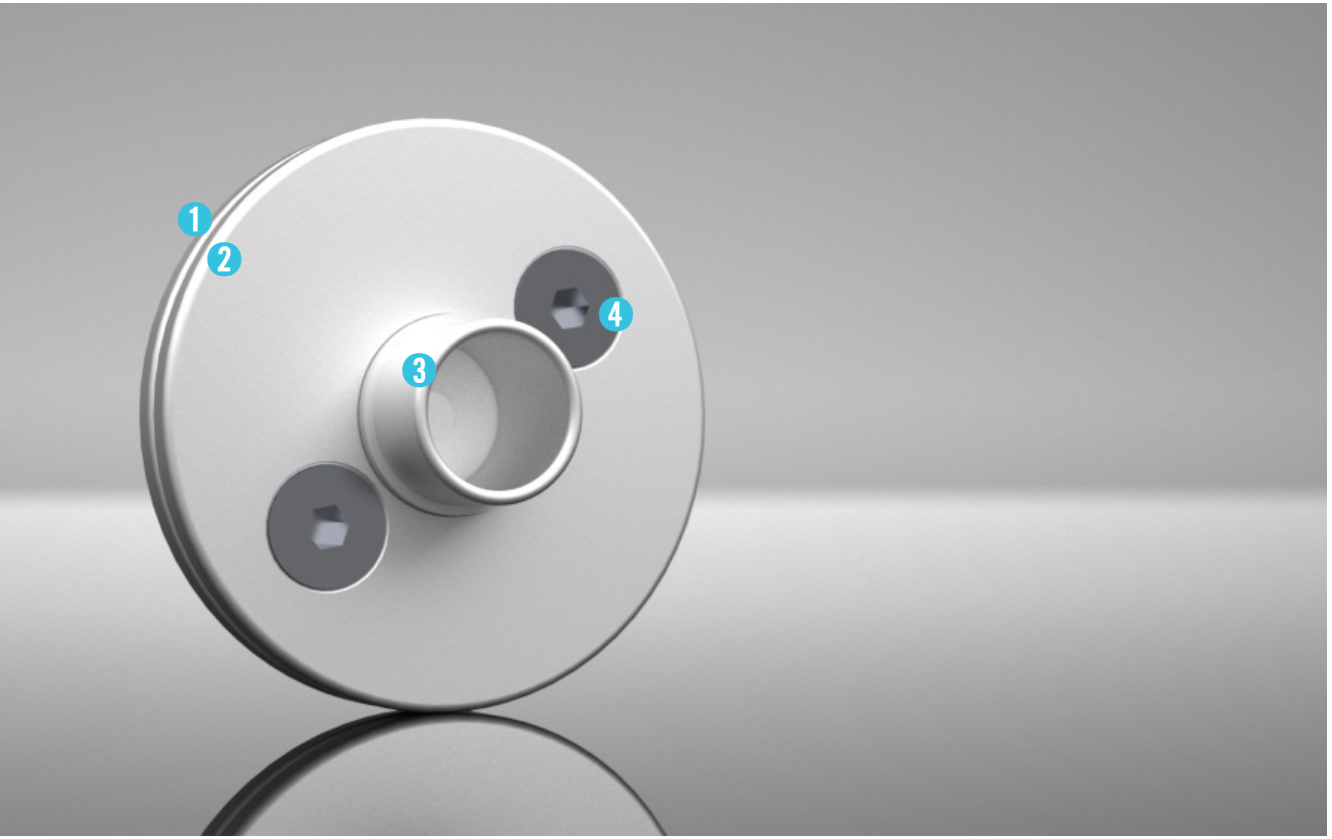
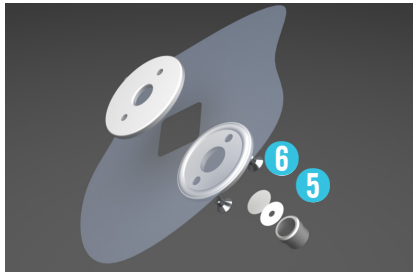
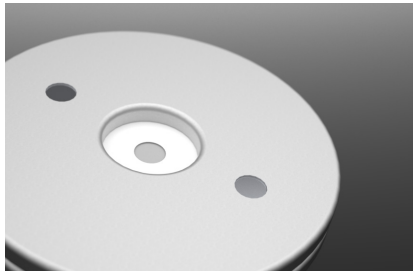
KS-A05 Air Outlet







The air outlet creates a pressure difference between the cushion chamber and the atmospheric pressure at pneumatic supported foil cushions.

- required pressure difference / volume flow adjustable with different reduction plates
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A05-01	aluminum	anodized E6/EV1	28 g/pc	60 x 4 mm
2 clamping plate 2	KS-A05-02	aluminum	anodized E6/EV1	26 g/pc	60 x 5 mm
3 socket	KS-A05-03	aluminum	anodized E6/EV1	4 g/pc	20 x 16 mm
4 countersunk screw	KS-A05-04	A4		2,5 g/pc	M6 x 8 mm
5 reduction plate	KS-A05-05	ETFE-foil			19 mm
6 mesh disc	KS-A05-06	ETFE-mesh			19 mm

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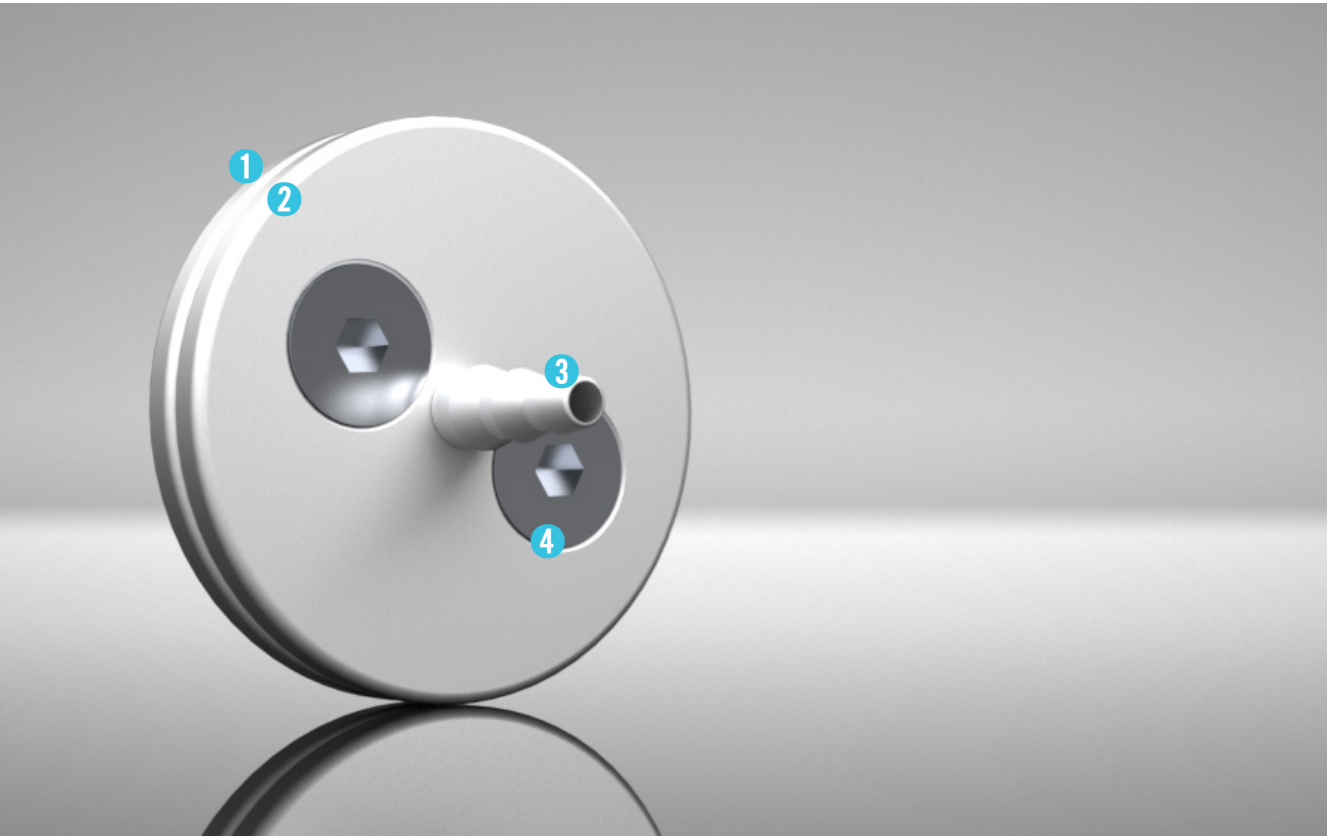
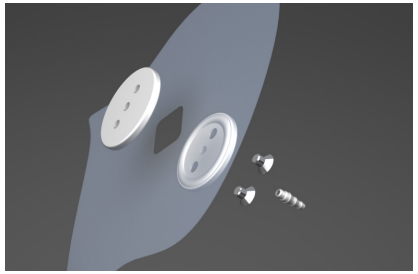
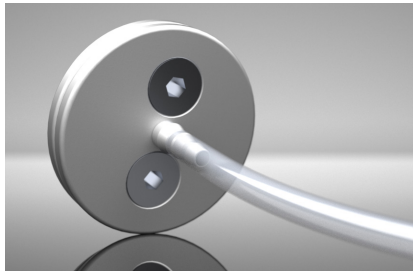
KS-A06 Pressure Management Adapter







The air pressure measurement adapter enables the connection of a hose to air filled cushions to measure the inside pressure.

- fast and safe hose connection due to fins at the adapter
- fits to flexible hoses with inside diameter 4 - 6 mm
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

		item no.	material	finish	weight	dimensions
1	clamping plate 1	KS-A06-01	aluminium	anodized E6/EV1	19 g / pc	45 x 4 mm
2	clamping plate 2	KS-A06-02	aluminium	anodized E6/EV1	21 g / pc	45 x 5 mm
3	adapter	KS-A06-03	aluminium	anodized E6/EV1	1 g / pc	6 x 20 mm
4	countersunk screw	KS-A06-04	A4		2,5 g / pc	M6 x 8 mm

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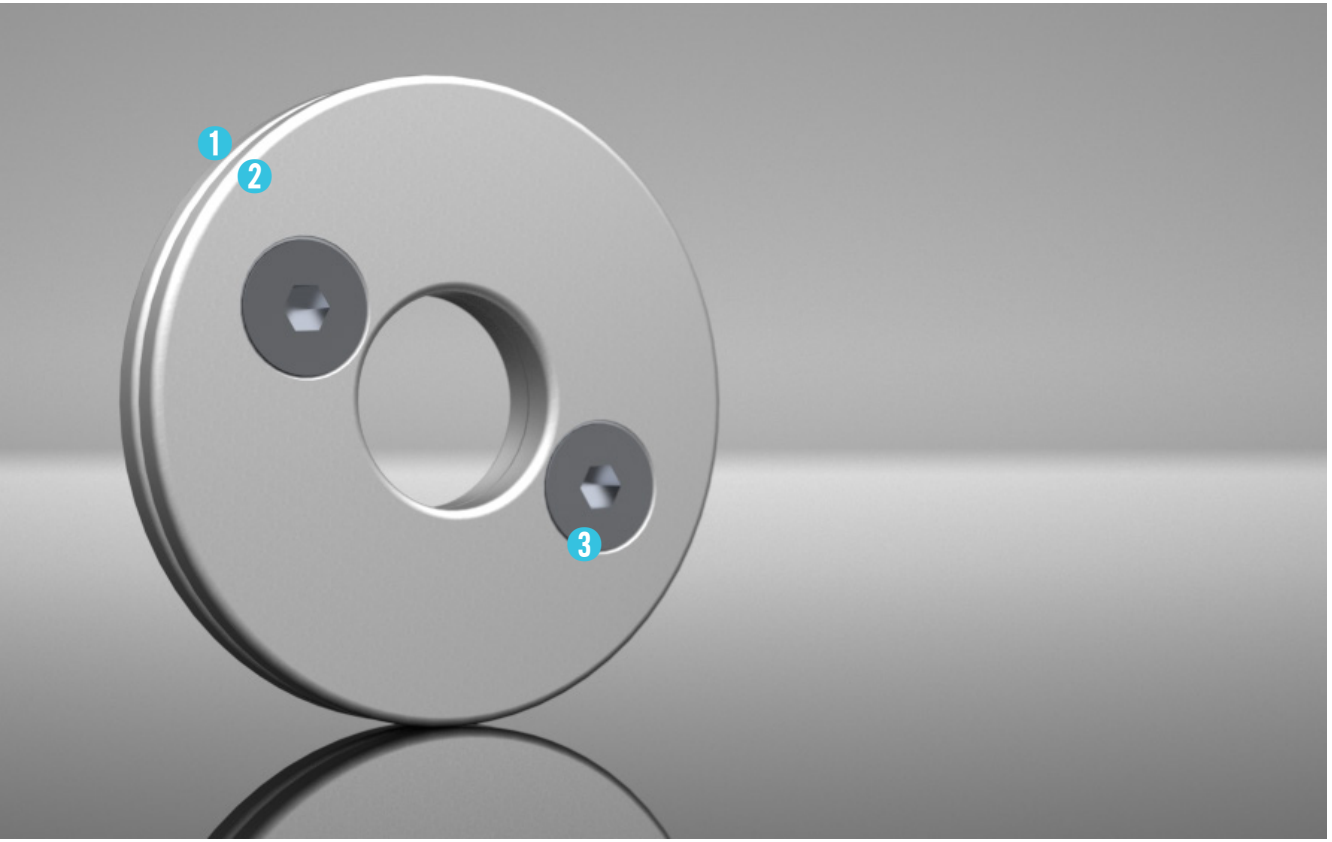
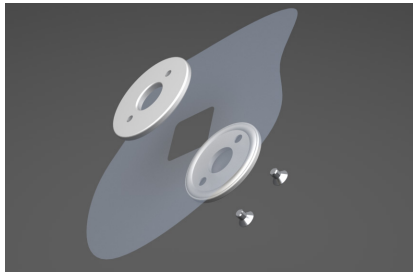
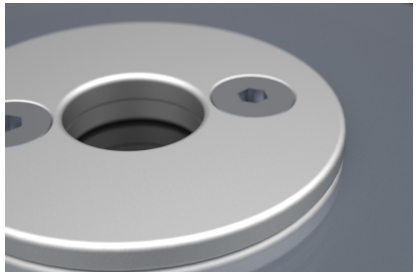
KS-A07 Clamping Ring







The clamping ring creates no pressure difference between the single cushion chambers in pneumatic supported foil cushions.

- opening cross-section 20 mm
- max. volume flow approx. 5 m³/h
- standard surface aluminium anodized E6/EV1, further finishes on demand
- also available in stainless steel A4

	item no.	material	finish	weight	dimensions
1 clamping plate 1	KS-A06-01	aluminum	anodized E6/EV1	38 g/pc	60 x 4 mm
2 clamping plate 2	KS-A06-02	aluminum	anodized E6/EV1	39 g/pc	60 x 5 mm
3 countersunk screw	KS-A06-03	A4		2,5 g/pc	M6 x 8 mm

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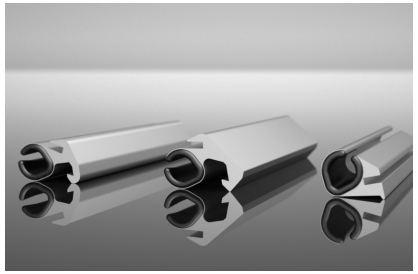
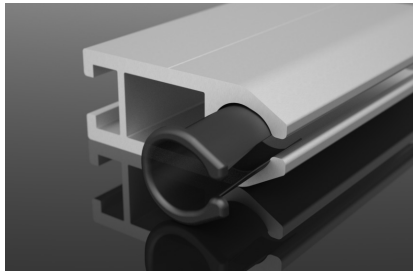
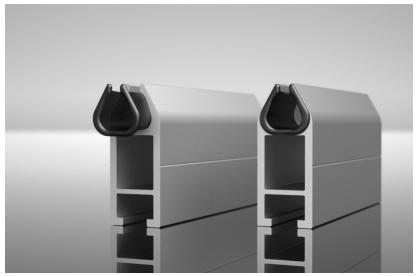
KS-A08/A09/A10 Protection-Kit







Installation aid to slide in the keder into the keder extrusion.

- easy insertion into keder channel
- protection of keder pocket without debur-ring the keder extrusion
- different models fitting to our diverse keder extrusions available

	item no.	material	finish	weight	dimensions
1 Protection Kit	KS-A08	PBT	-	1 g/pc	
2 Protection Kit	KS-A09	PBT	-	1 g/pc	
3 Protection Kit	KS-A10	PBT	-	1 g/pc	

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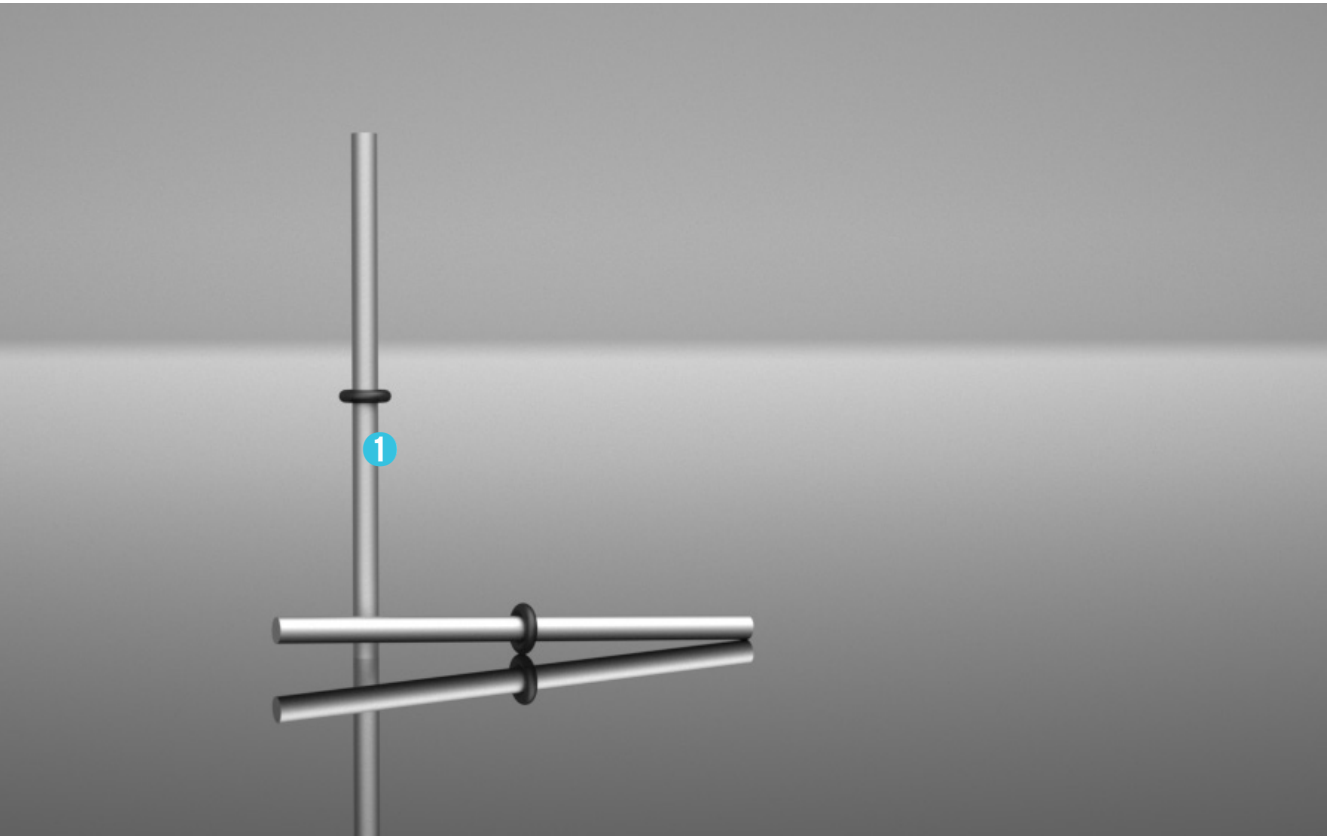
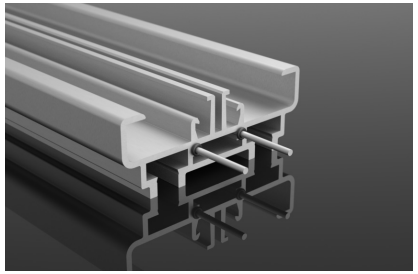
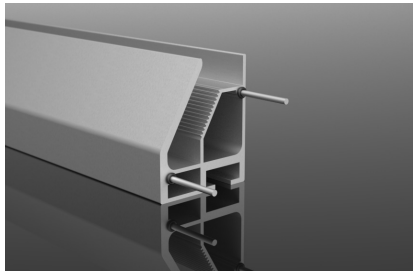
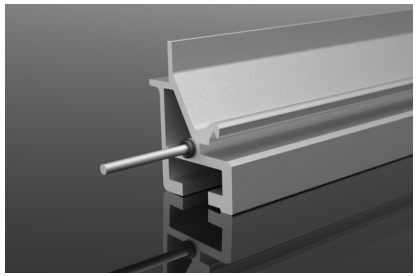
KS-A12 Connector Pin









Form-closed coupling of profile joints.

- easy and exact installation of profile joints
- perfect crossover at straight joints

		item no.	material	finish	weight	dimensions
1	connection-pin	KS-A12	aluminium	-	18 g/pc	3 x 60 mm

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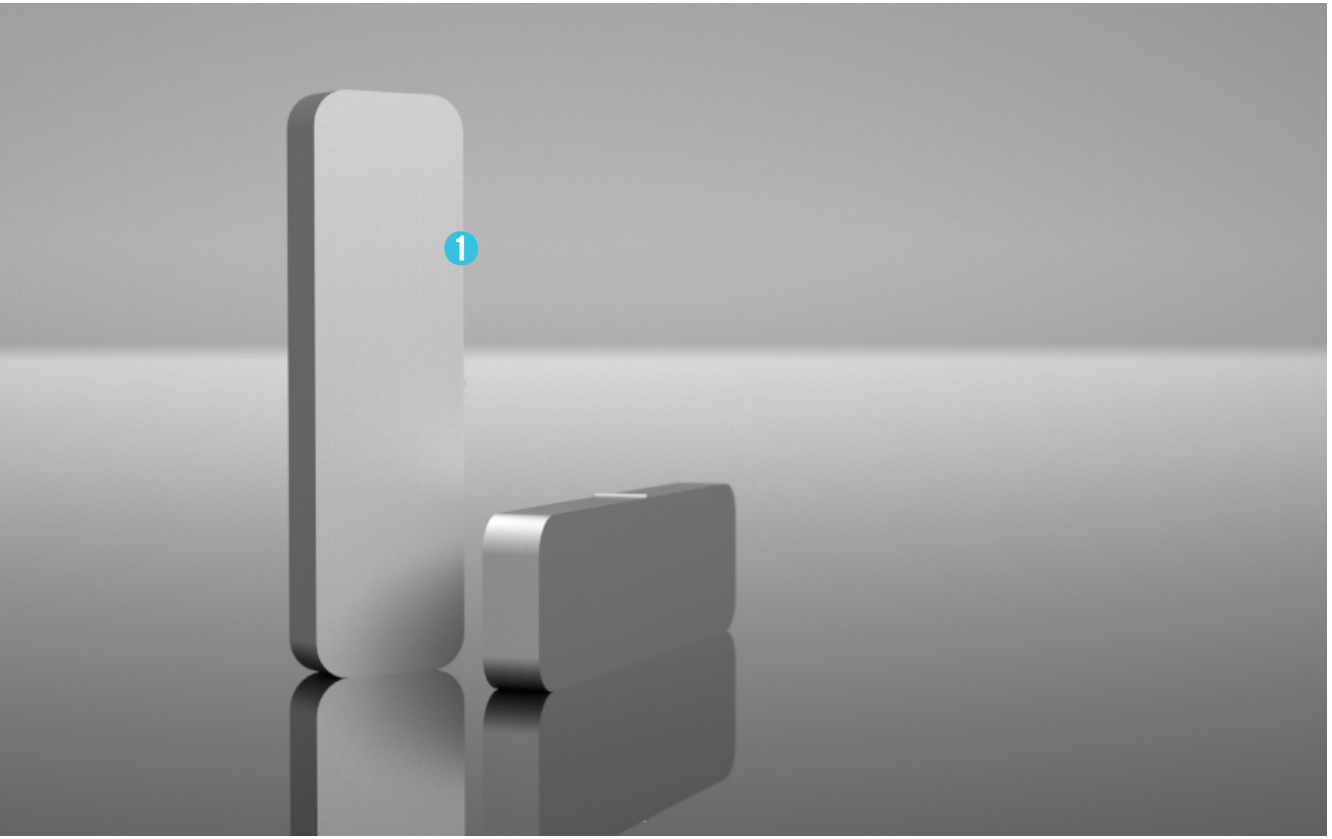
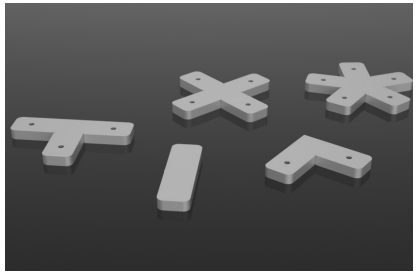
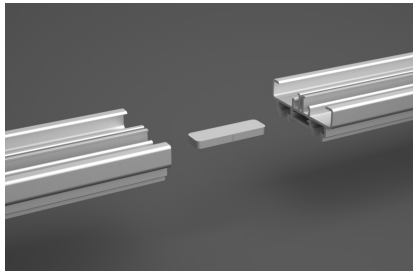
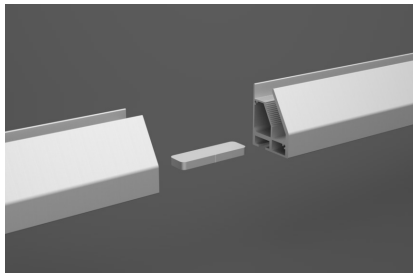
KS-A50 Connecting Bar









Form- and force-closed coupling at profile joints and junctions.

- different geometries correspondent to project-specific junctions available
- fast and angle angularly accurate preassembly / installation of junctions
- perfect crossover also at strongly curved and twisted joints
- for all attachment systems available

		item no.	material	finish	weight	dimensions
1	connecting bar	KS-P01-10	aluminum	-	74 g/pc	23 x 8 x 80 mm

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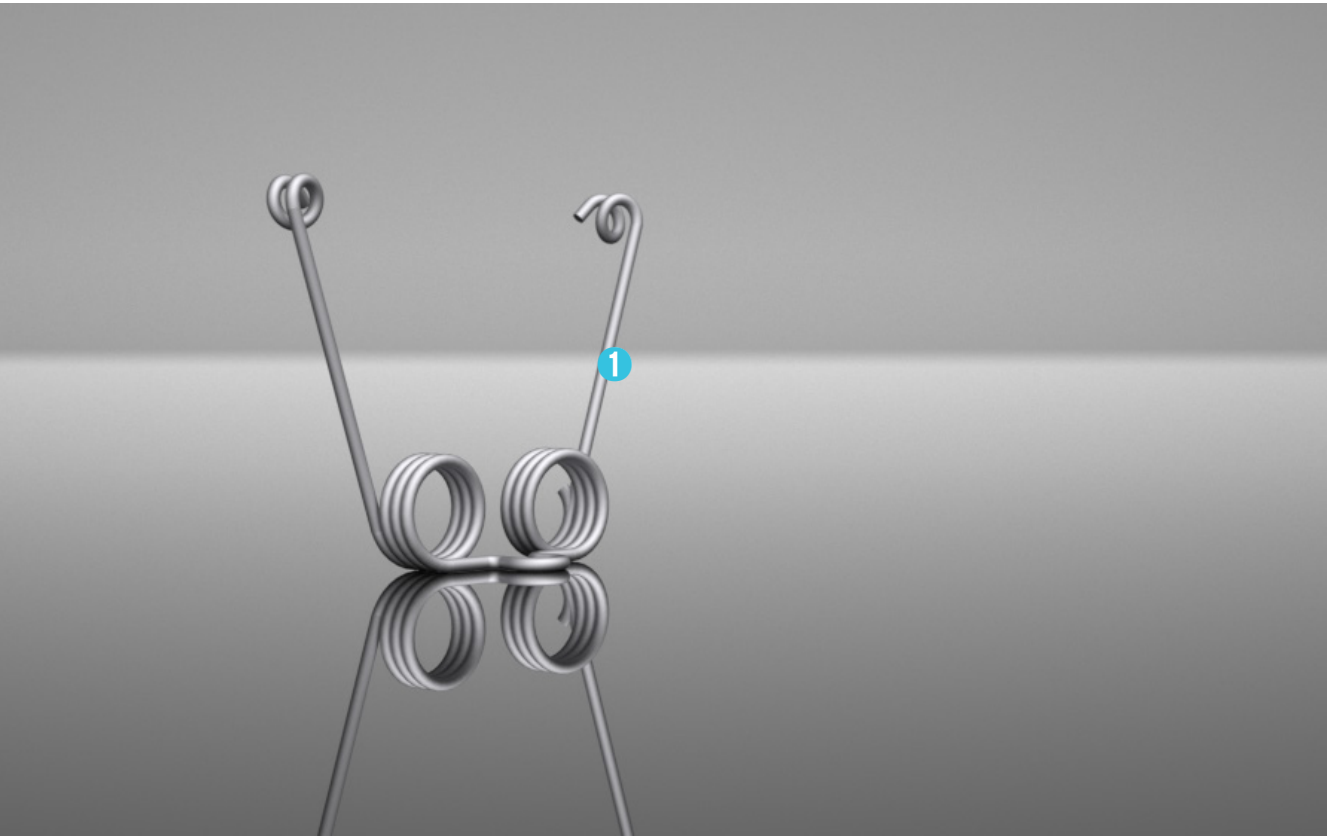
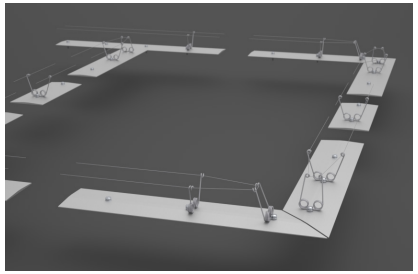
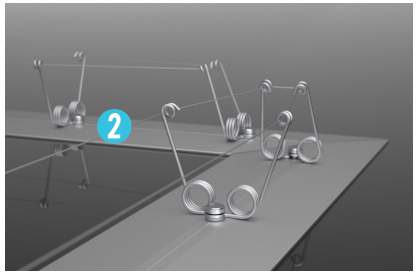
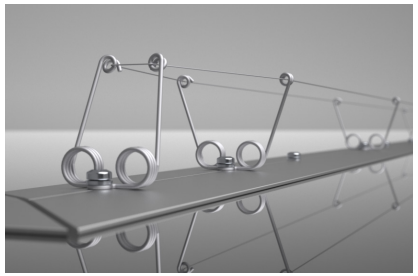
KS-A200 Bird Control System









The bird control bracket fixes and pretensions the bird control wire on attachment systems.

- the brackets spring action pretensions the wire without additional springs
- high flexibility enables elastic deformation in all directions
- flexes down during maintenance operations without being damaged
- Material stainless steel A2

		item no.	material	finish	weight	dimensions
1	socket bird control	KS-A200	A2	-		72 x 56 x 18 mm
2	wire bird control	KS-A203	A2	-		d=0,6 mm

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