

CATALOG

Profix system aluminium profile support structure for ventilated stone, concrete and ceramic cladding panel

TYPE:
PFK

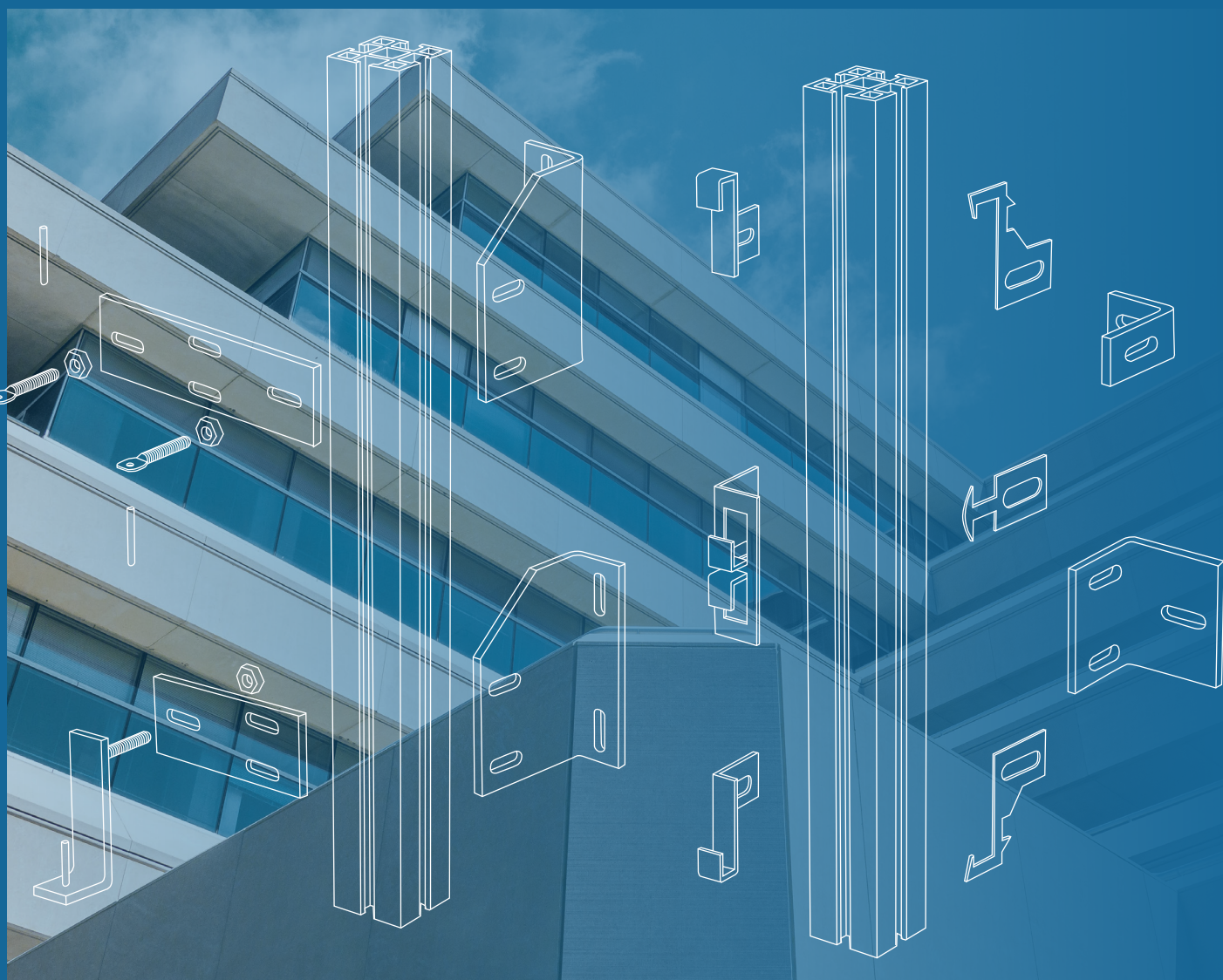


NATIONAL TECHNICAL ASSESSMENT: A-124/2018



TÜVRheinland®

FACADE FIRE-SPREAD TEST NMÉ-HU20DQNZ 001/2021



**PFK MOUNTING PROFILE
VERTICAL INSTALLATION
MOUNTING ILLUSTRATION**

1. PFK mounting profile

2. 2MFT cover sheet

3. GF 5x60 clamping pin

4. TF threaded head

5. Hlf screw

6. MFT cover sheet

7. TQR/1 support bracket

8. Hlf screw

9. GF 5x60 clamping pin

10. TF threaded head

11. MFT/L cover angle

12. PFC-6V/2V vertical console

k

13. PFC-6V/2H
horizontal
console

k

**PFK MOUNTING PROFILE -
HORIZONTAL INSTALLATION -
MOUNTING ILLUSTRATION**

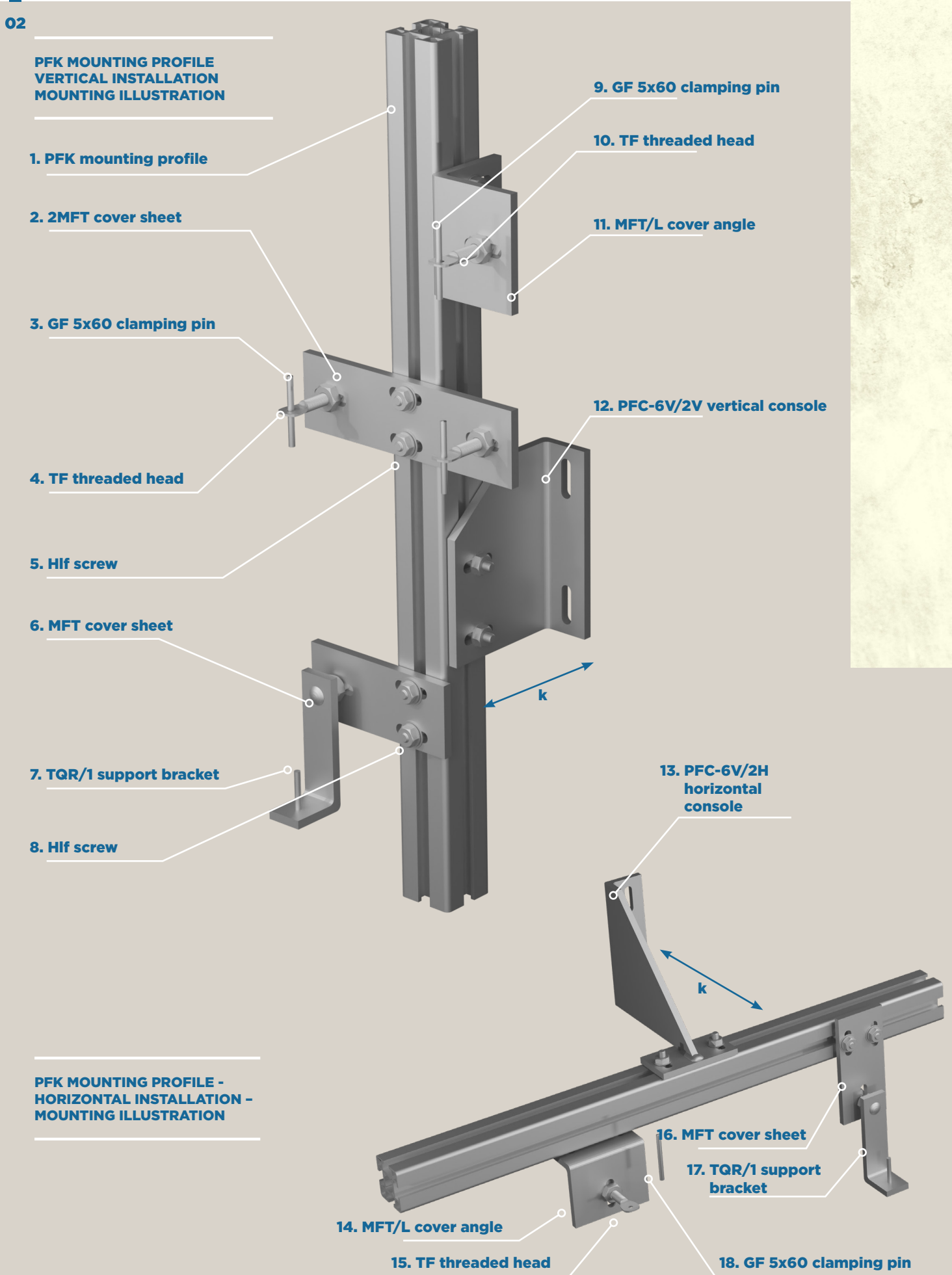
14. MFT/L cover angle

15. TF threaded head

16. MFT cover sheet

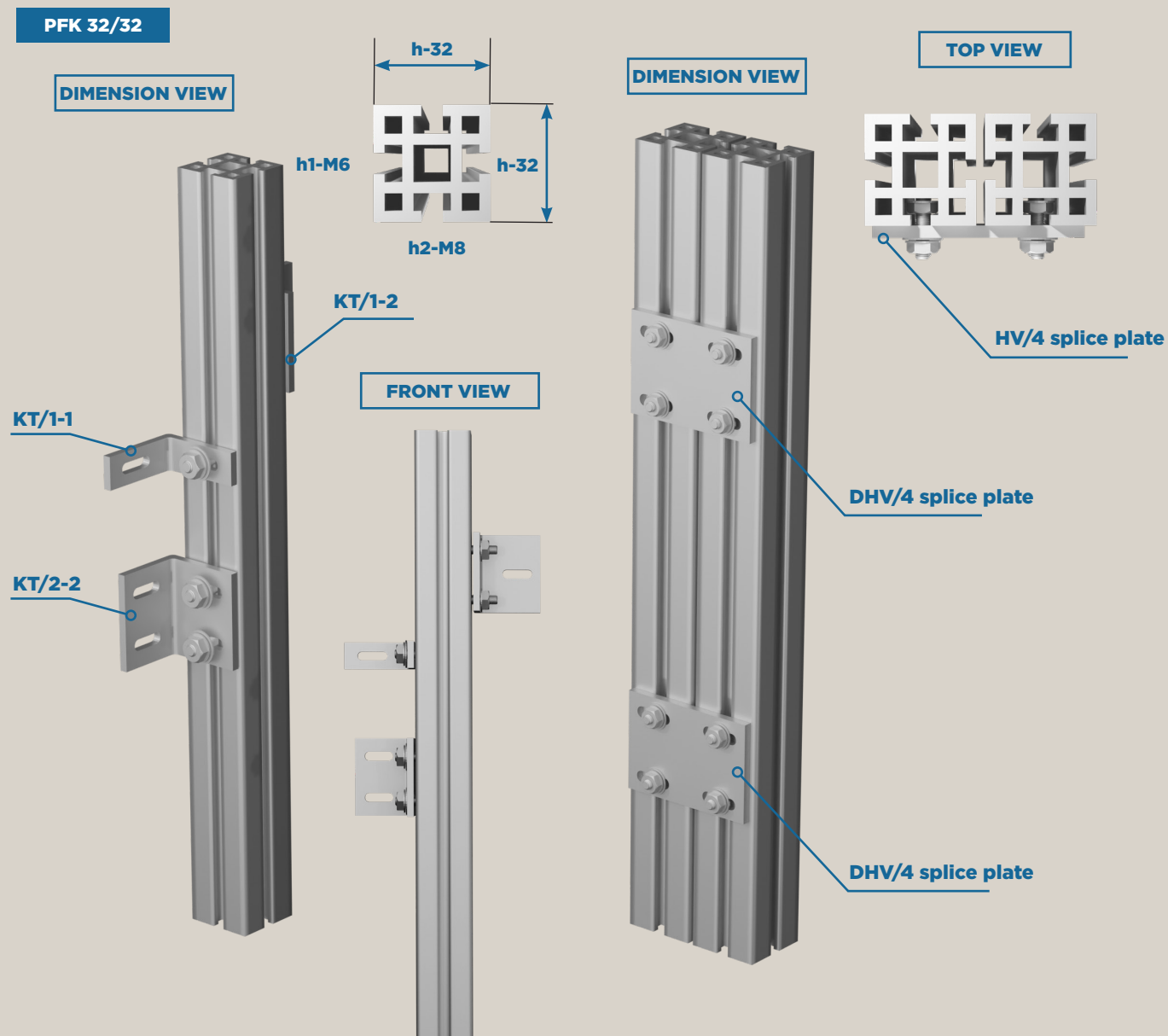
17. TQR/1 support bracket

18. GF 5x60 clamping pin



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PFK 32/32 TYPE M6-M8 GROOVED-SCREW ALUMINUM MOUNTING PROFILE - FOR THIN PANEL CLADDING



Type	Dimensions h/h (mm)	Groove h1	Groove h2	Wall thickness (mm)	Length (mm)
PFK 32/32	32/32	M6	M8	2,00	3 000

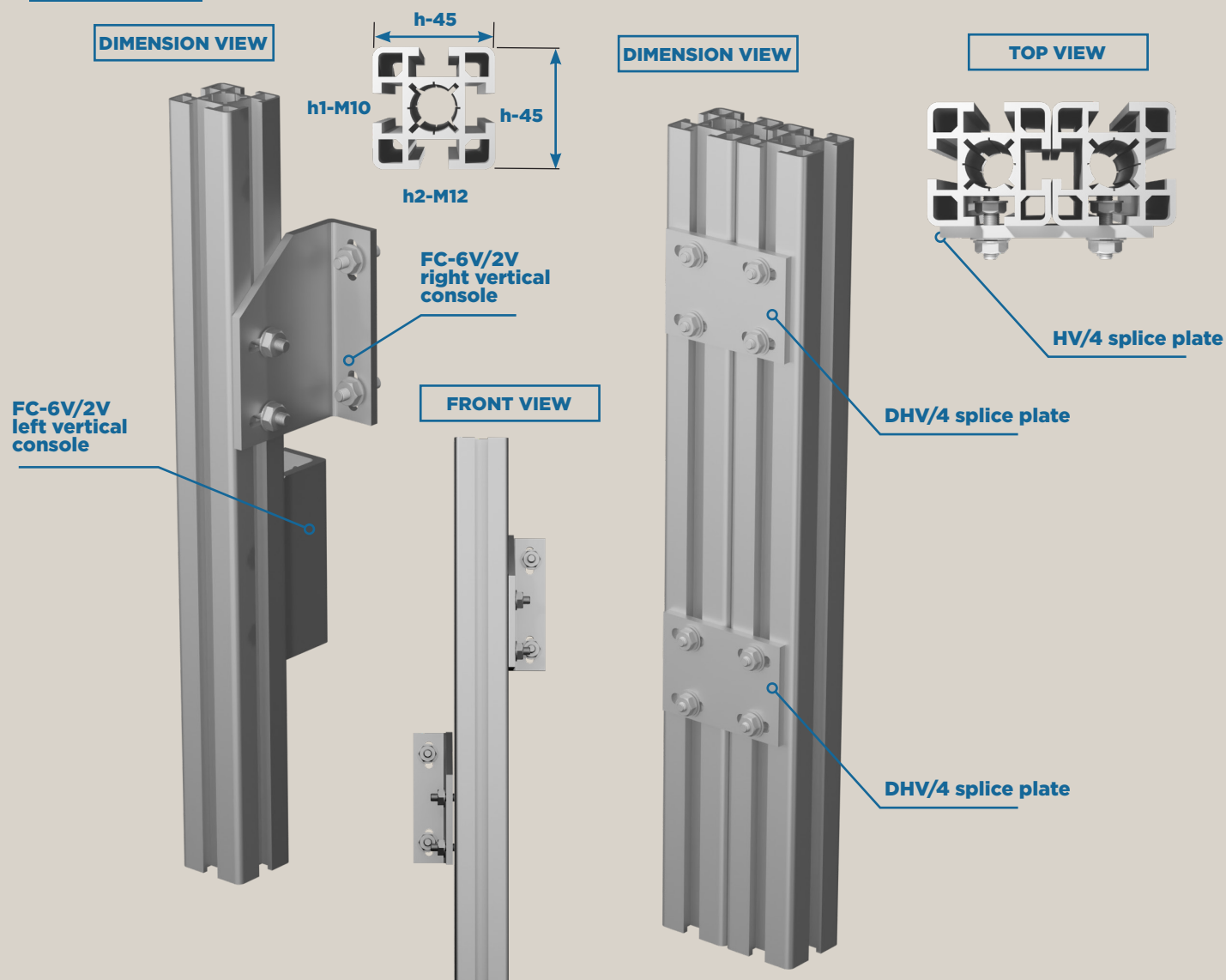
Load capacity: 0.3 kN per fixing point

Further sizes according to claims, based on individual sizing.

Base material: Aluminum EN AW 6060 T66

PFK 45/45 TYPE M10-M12 GROOVED-SCREW ALUMINUM MOUNTING PROFILE - FOR STONE AND CONCRETE PANEL

PFK 45/45



Type	Dimensions h/h (mm)	Groove h1	Groove h2	Wall thickness (mm)	Length (mm)
PFK 45/45	45/45	M10	M12	2,00	3 000

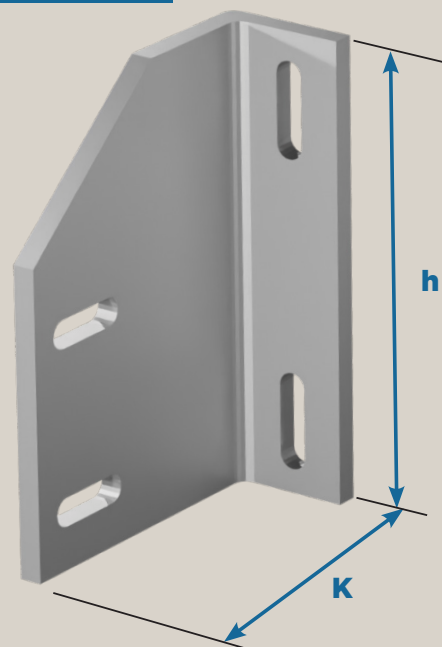
Load capacity: 0.6 kN per fixing point

Further sizes according to claims, based on individual sizing.

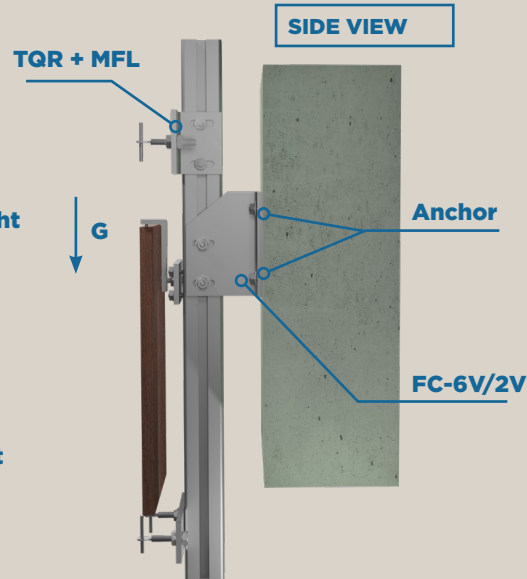
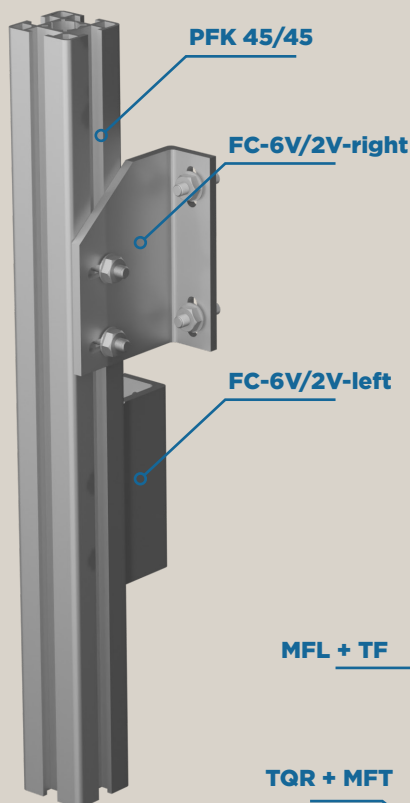
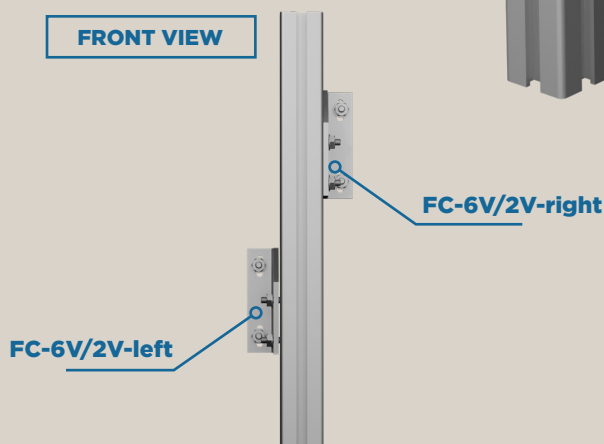
Base material: Aluminum EN AW 6060 T66

PFK 45/45 ALUMINUM-PROFILE FC 6V/2V VERTICAL CONSOLE - FOR STONE PANEL

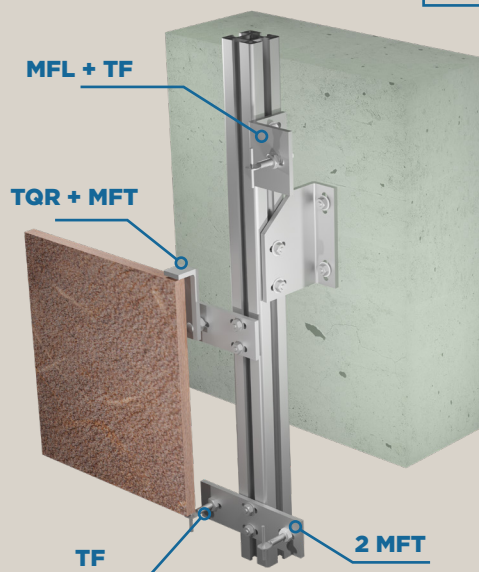
FC-6V/2V



FRONT VIEW



DIMENSION VIEW



FC PROFILE CONSOLE

Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC 6V/2V	100-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Load capacity: 0.6 kN per fixing point

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 2 pcs FC-6V/2V profile console + PFK aluminum profile

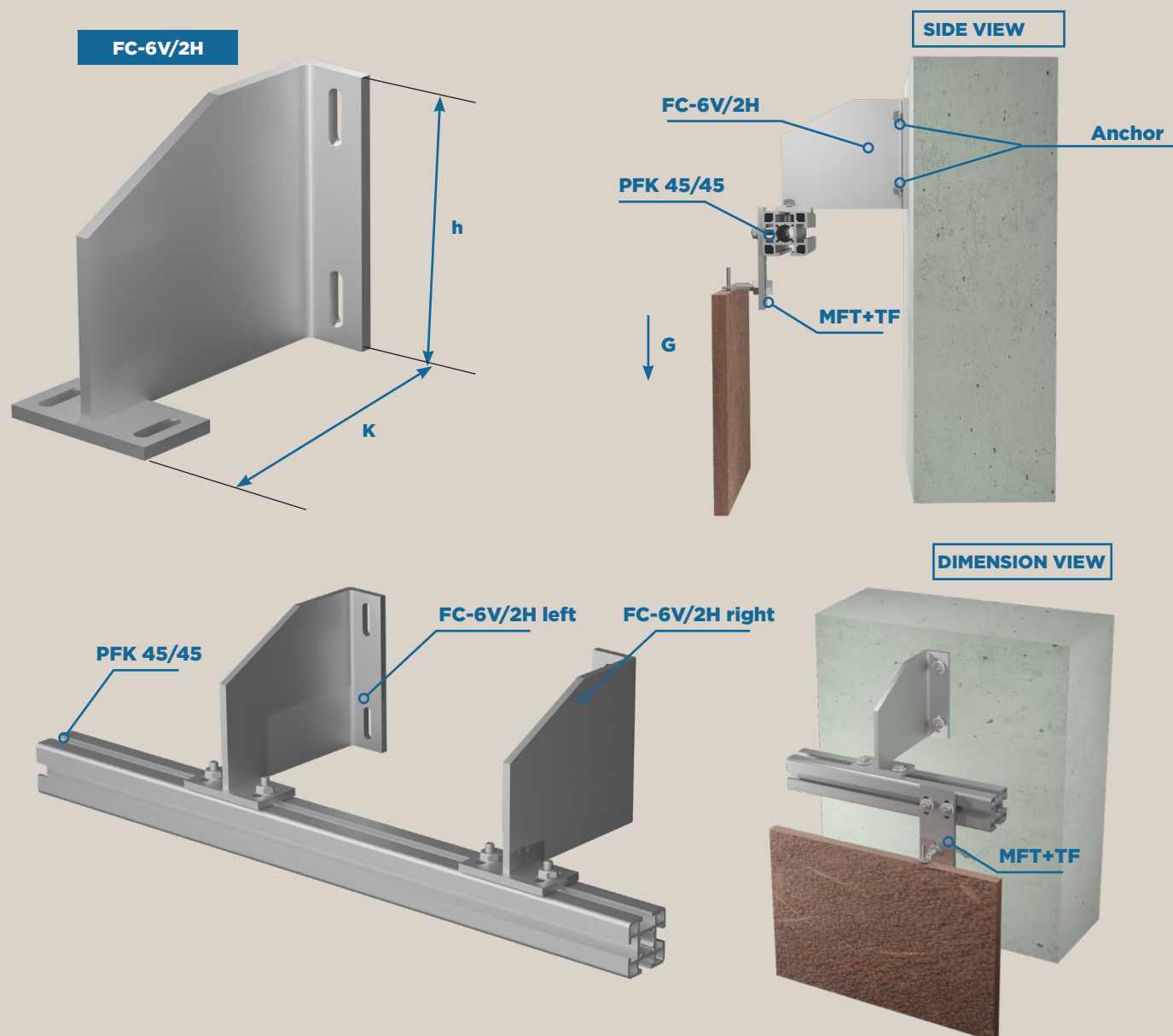
Fixing: The used anchors are according to the producer's technical datas

Marking: FC-6V/2V console protrusion (K) + PFK aluminum profile length (L)

Example: FC-6V/2V -300 + PFK 45/45-1200

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM-PROFILE FC 6V/2H HORIZONTAL CONSOLE - FOR STONE PANEL



FC PROFILE CONSOLE

Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC-6V/2H	100-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Load capacity: 0.6 kN per fixing point

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 2 pcs FC-6H/2H profile console + PFK aluminum profile

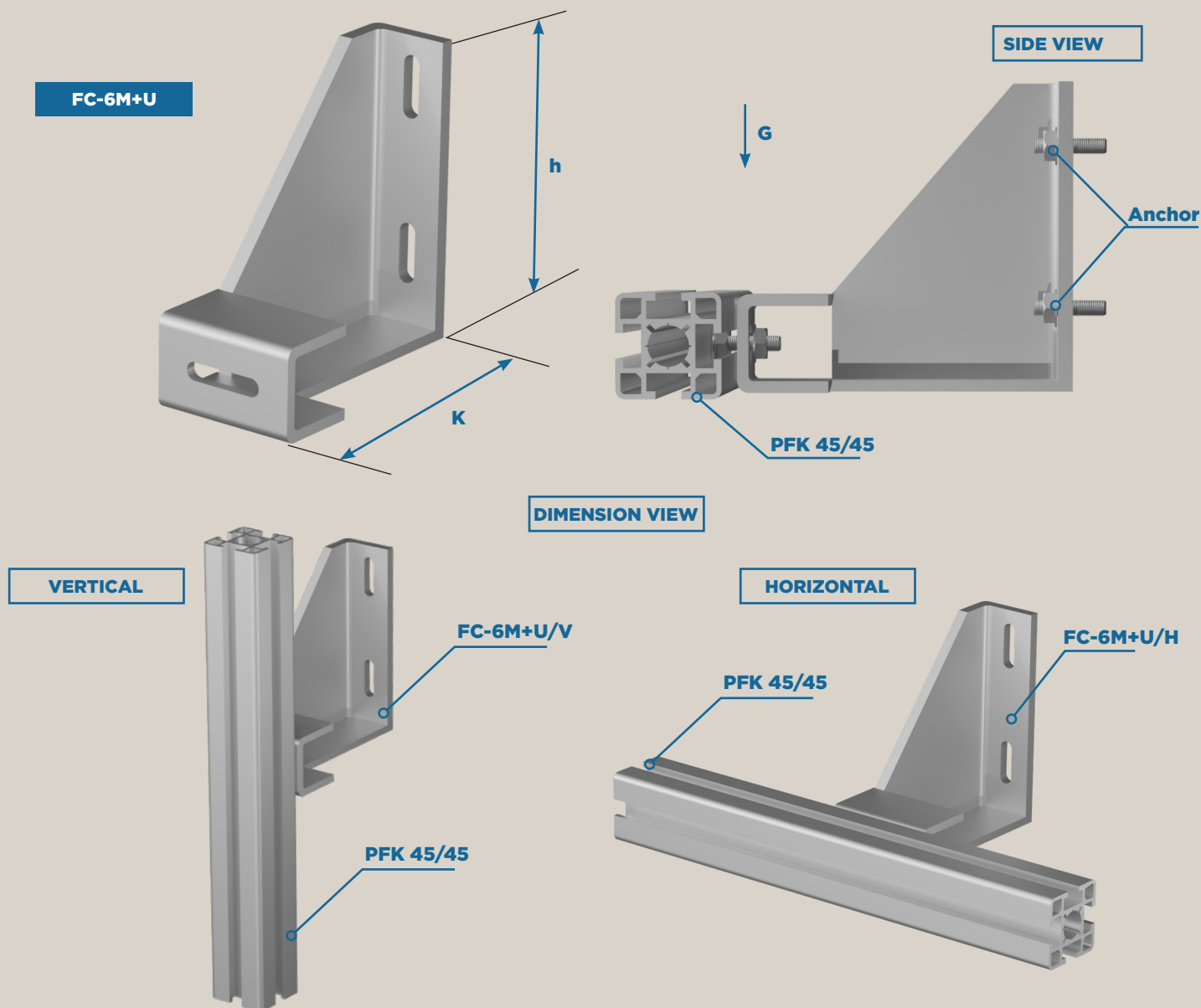
Fixing: The used anchors are according to the producer's technical datas

Marking: FC-6V/2H console protrusion (K) + PFK aluminum profile length (L)

Example: FC-6V/2H -300 + PFK 45/45-1200

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM-PROFILE FC-6M+U/V+H VERTICAL AND HORIZONTAL U-CONSOLE - FOR STONE PANEL



Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC 6M+U	100-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc FC-6M+U console + PFK aluminum profile

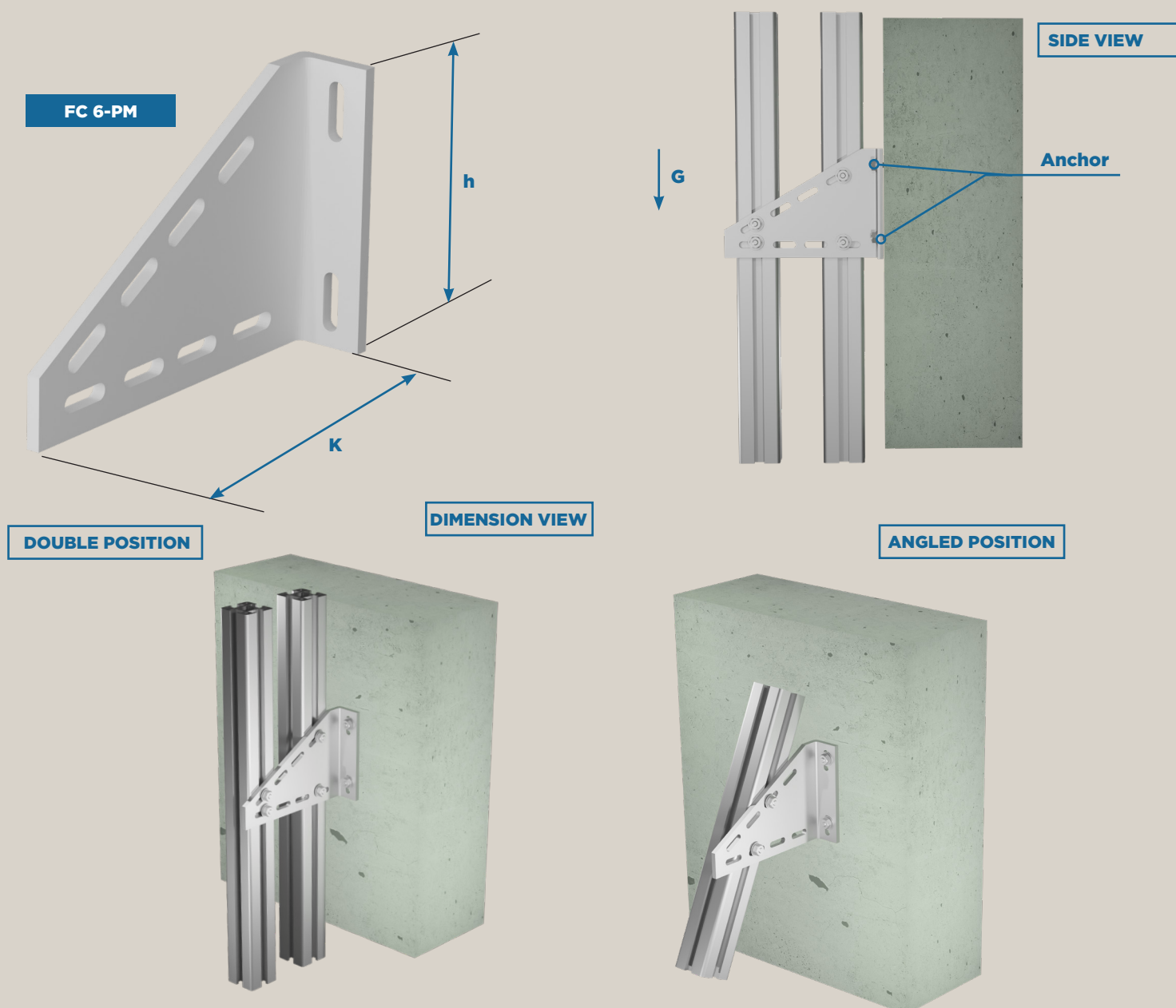
Fixing: The used anchors are according to the producer's technical datas

Marking: FC-6M+U/V vagy FC-6M+U/H consol protrusion (K) + PFK aluminum profile length (L)

Example: FC-6M+U/V-300+PFK 45/45-1200 or FC-6M+U/H-250+PFC 45/45-1000

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM-PROFILE FC 6-PM PROFILE-MODULE CONSOLE - FOR STONE PANEL



Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC 6-PM	100-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc FC 6-PM console + PFK aluminum profile

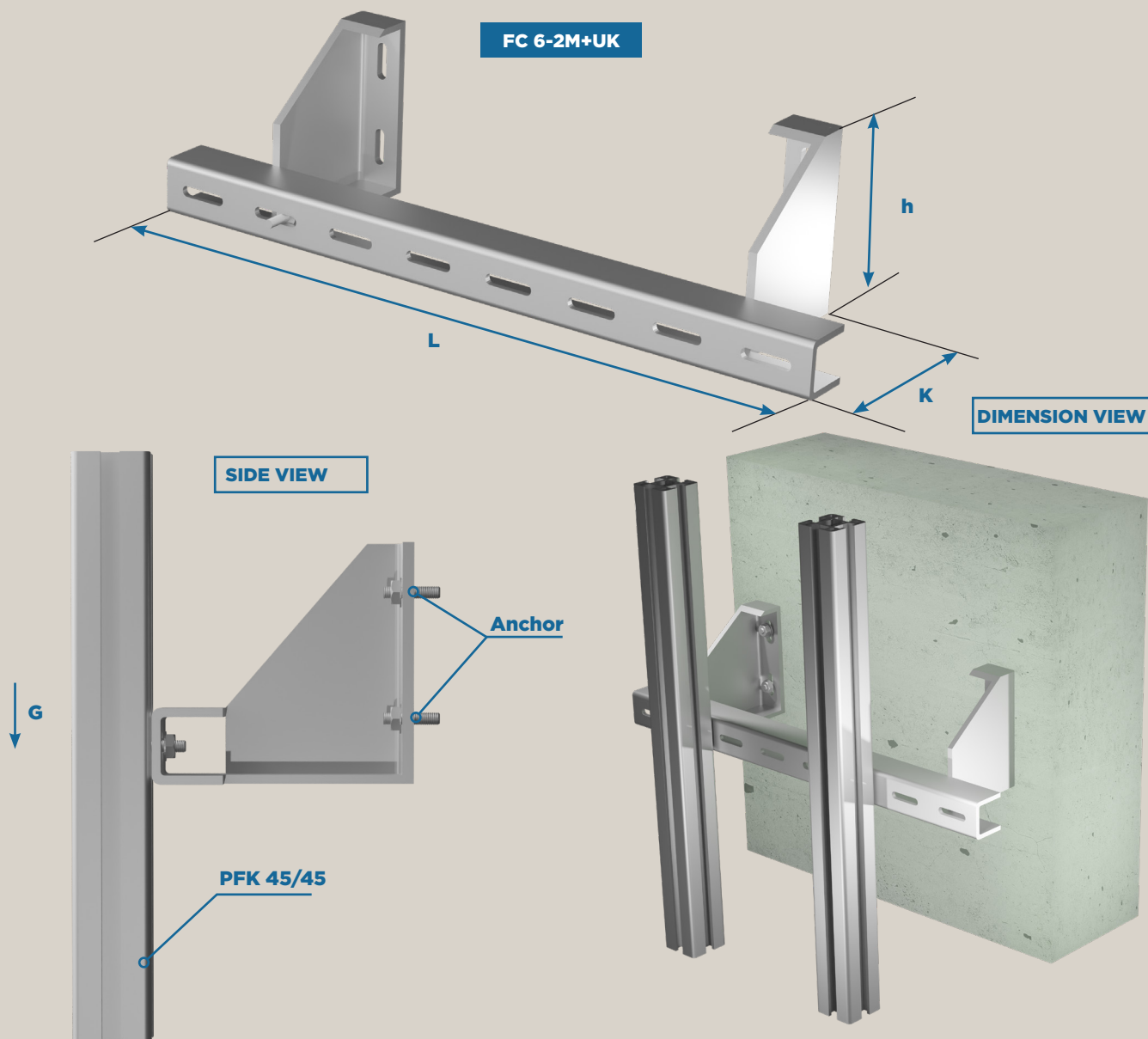
Fixing: The used anchors are according to the producer's technical datas

Marking: FC 6-PM console protrusion (K) + PFK aluminum profile length (L)

Example: FC 6-PM-300+PFK 45/45-1200

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM-PROFILE FC 6-2M+UK TWO-MODULE U-CONSOLE- FOR STONE PANEL



Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC 6-2M+UK	130-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 2 pcs FC-6-2M+UK profile console + PFK aluminum profile

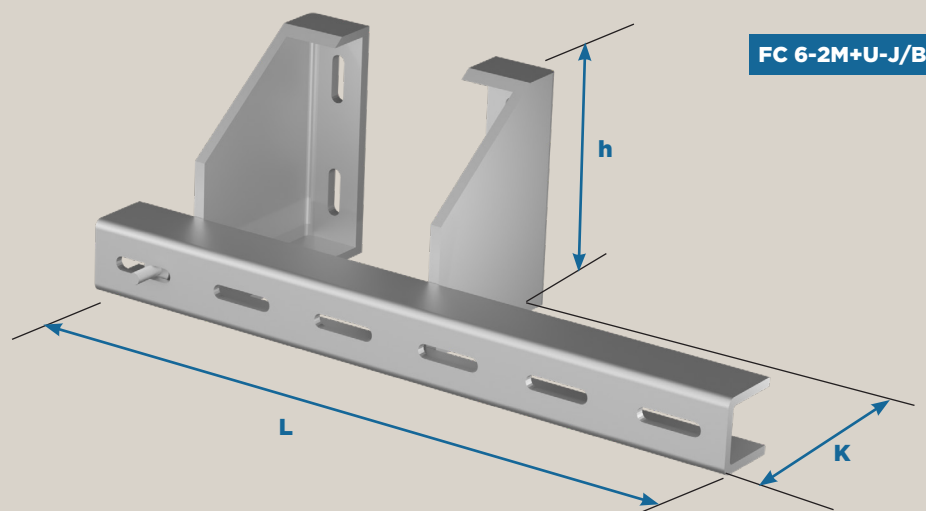
Fixing: The used anchors are according to the producer's technical datas

Marking: FC-6-2M+UK console protrusion (K) + U perforated profile length (L)

Example: FC-6-2M+UK-300/1000

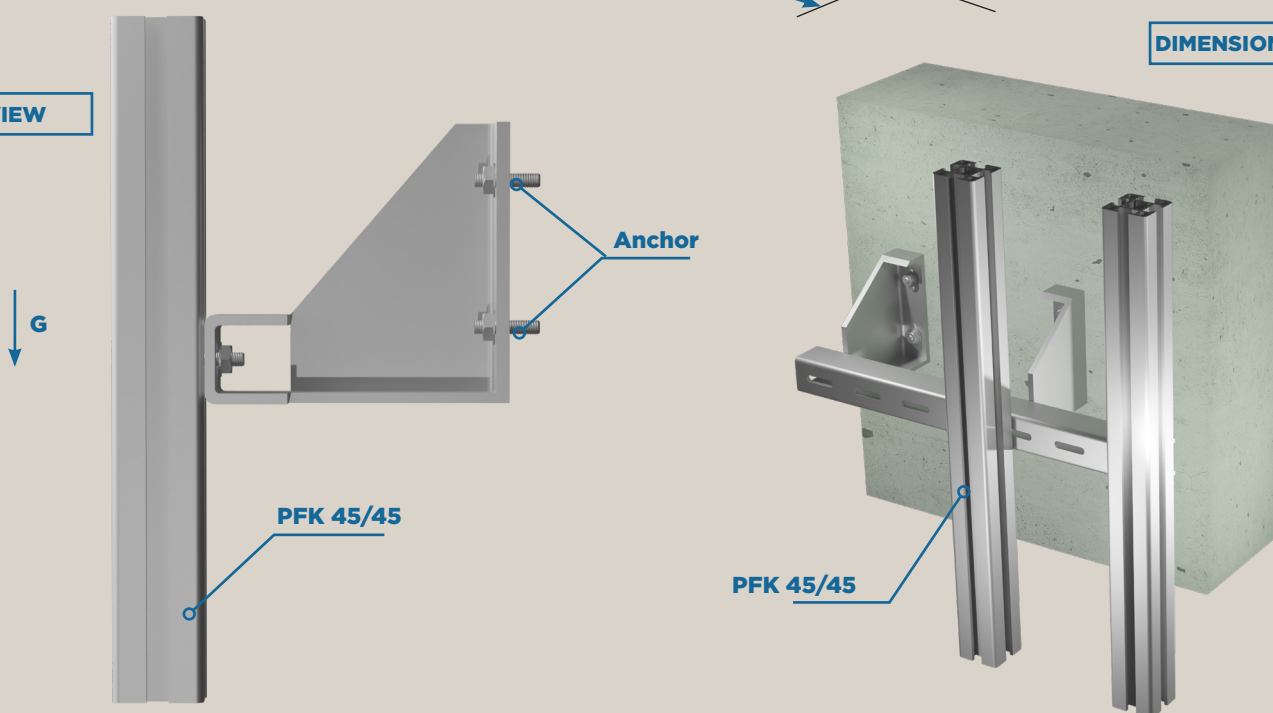
Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM-PROFILE FC 6-2M+U-J/B TWO-MODULE RIGHT/LEFT U-CONSOLE - FOR STONE PANEL



SIDE VIEW

DIMENSION VIEW



Type	Protrusion K (mm)	Height h (mm)	No. of fixing points	Console screw size	Anchor	Load capacity per fixing point G (kN)
FC 6-2M+U-J/B	130-300	200	2	Hlf M10x25 Hlf M12x25	M10x95	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 2 pcs FC 6-2M+U-J/B profile console + PFK aluminum profile

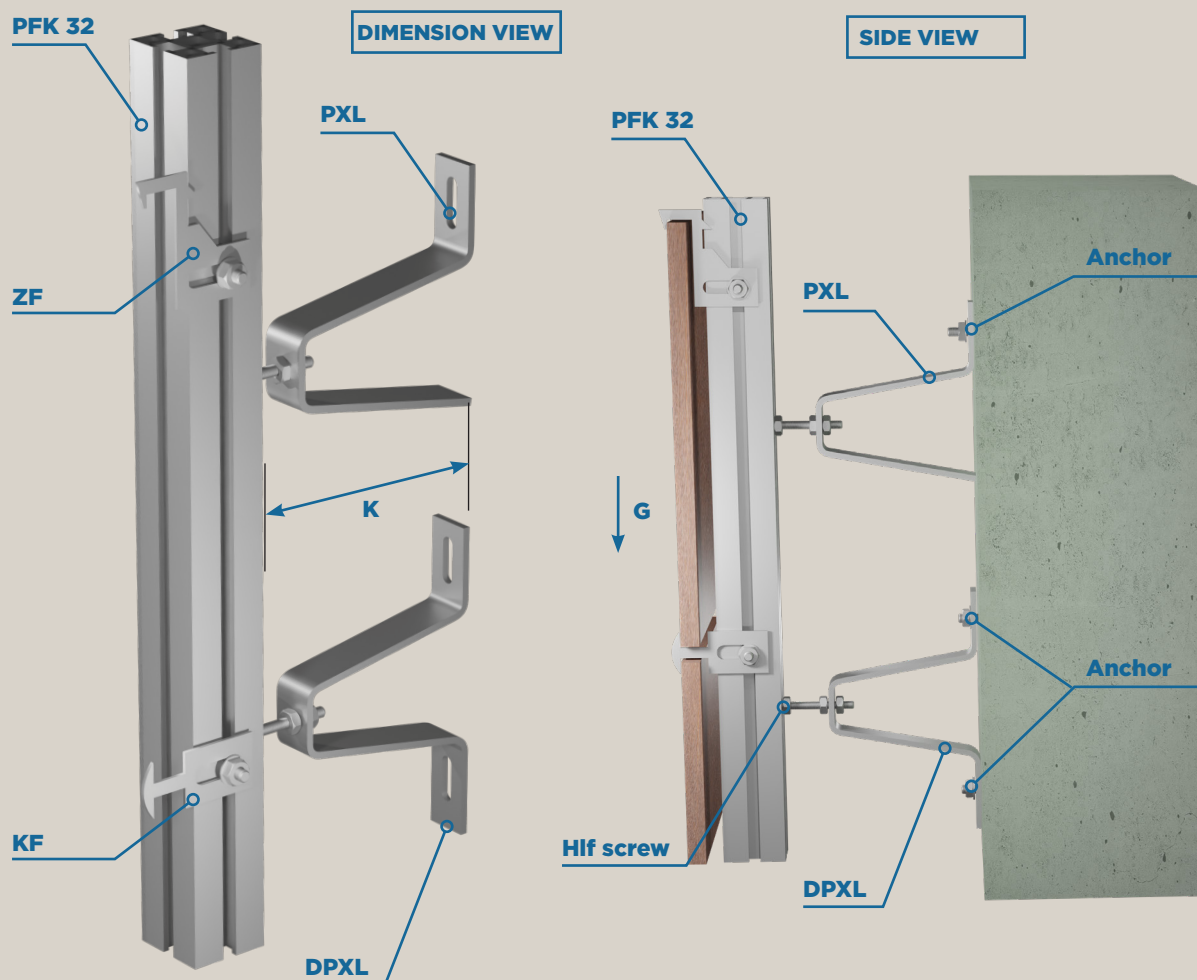
Fixing: The used anchors are according to the producer's technical datas

Marking: FC 6-2M+U-J/B console protrusion (K) + U perforated profile length (L)

Example: FC 6-2M+U-J/B -300/1000

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 32/32 ALUMINUM PROFILE PXL CLAMP WITH WALL SUPPORT - FOR THIN PANEL



Type	Clamp size (K) mm	Screw size (Mxl)	Anchor	Load capacity G (kN)
PXL	20-260	Hif M6x20	M8x75	0,3-0,45
DPXL		Hif M8x100	M10x100-160	

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc PXL or DPXL fixing clamp, 1 pc Hif M screw, 3 pcs HI nut

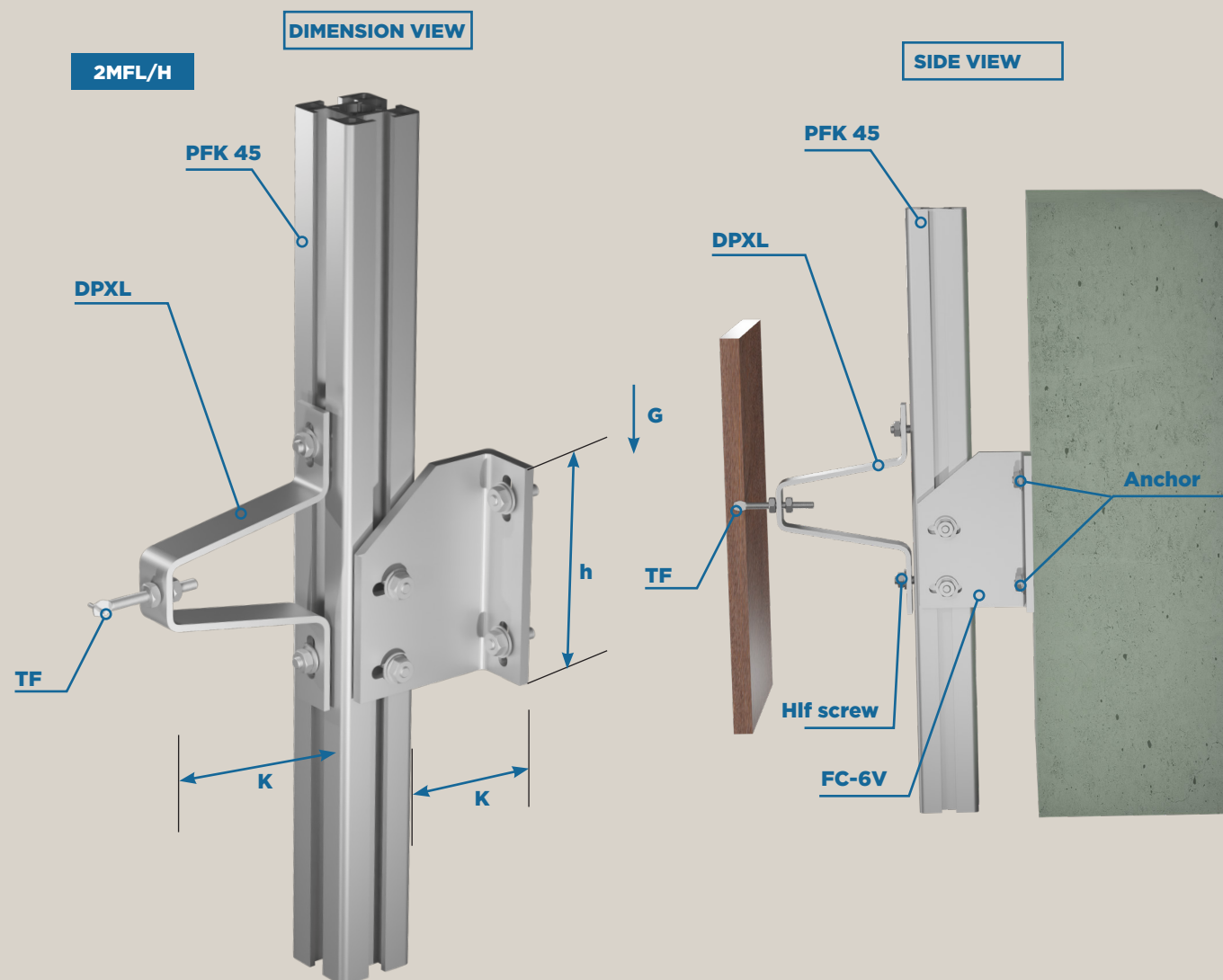
Fixing: The used anchors are according to the producer's technical datas

Marking: PXL clamp size (K) /load capacity (G) + Hif screw size Mxl

Example: PXL 120/0,3kN + Hif M8x100

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM PROFILE, FRONT-MOUNTED DPXL CLIP FIXING - FOR STONE PANEL



Type	Clamp size (K) mm	Screw size (Mxl)	Anchor	Load capacity G (kN)
DPXL	20-100	Hlf M10x20	M8-10x75-95	0,3-0,6
		Hlf M12x20	M10x100-160	

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc DPXL fixing clamp, 1 pc Hlf M screw, 3 pcs HI nut

Fixing: The used anchors are according to the producer's technical datas

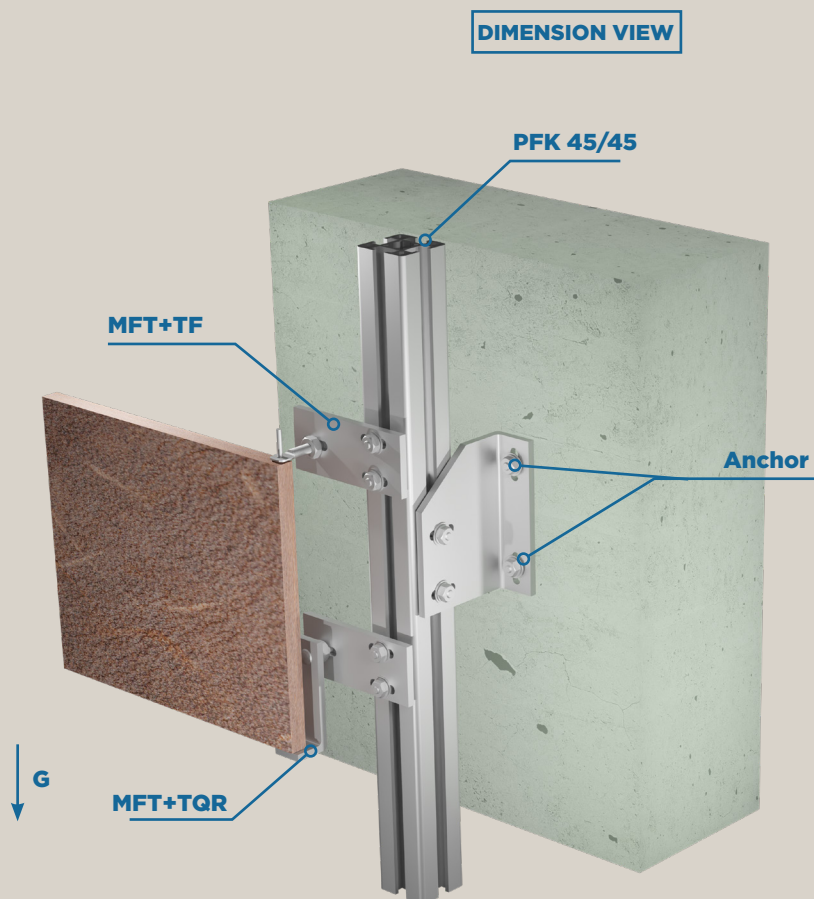
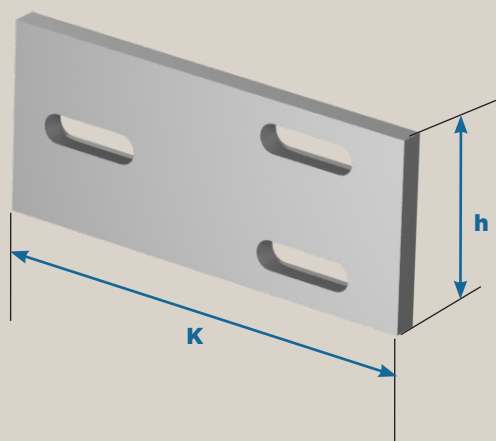
Marking: DPXL clamp size (K) /load capacity (G) + Hlf screw mérete Mxl

Example: DPXL 100/0,3kN + Hlf M10x20

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM PROFILE, MFT SINGLE-HEAD SUPPORT PLATE – FOR STONE PANEL

MFT



Type	Protrusion K (mm)	Width h (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
MFT	80	50	2	HI f M10x25 HI f M12x25	0,3-0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

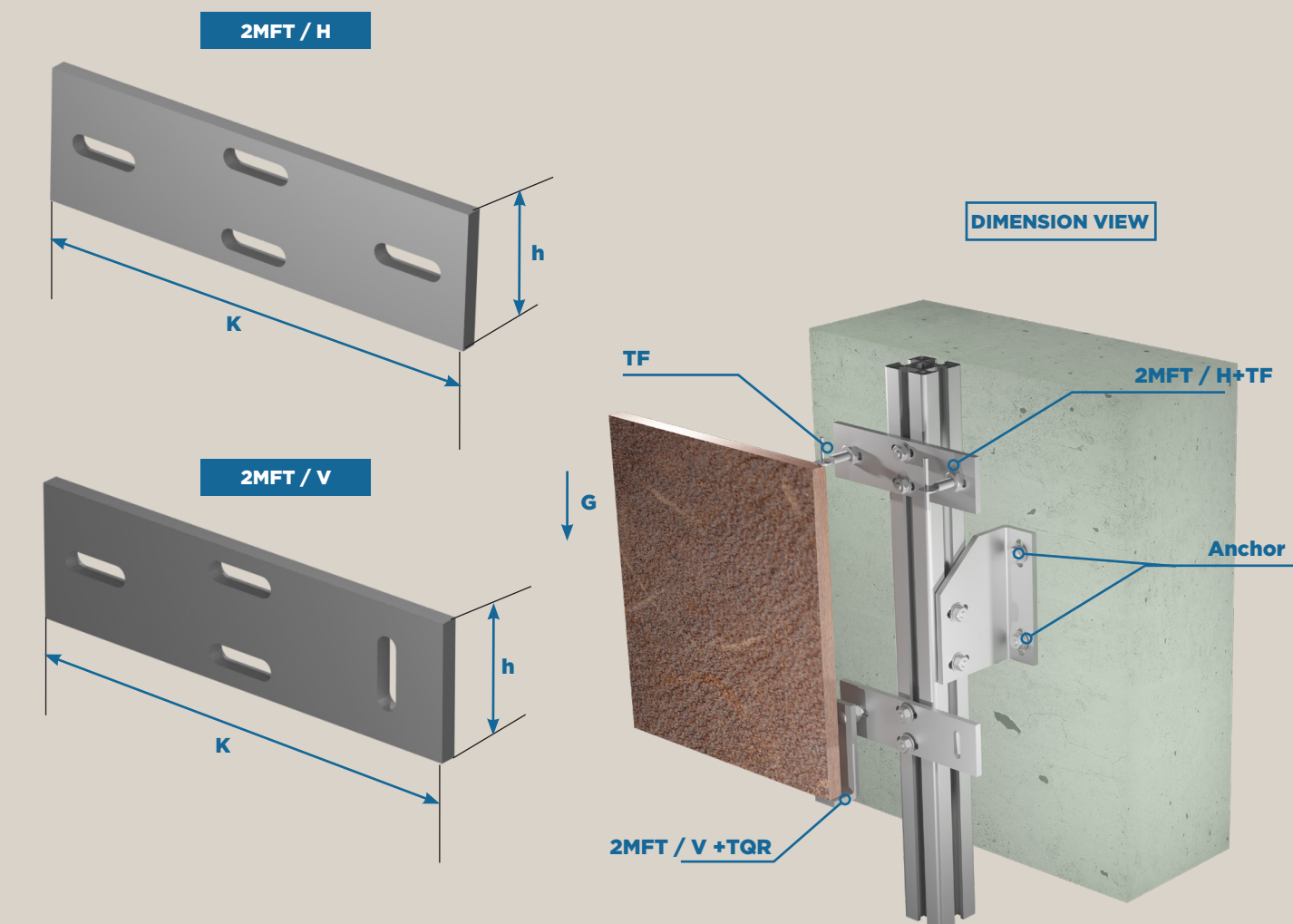
Complete fixing element: 1 pc MFT support plate + HI f M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: MFT K/h support-plate protrusion (K) / support width (h)

Example: MFT 80/50x3

PFK 45/45 ALUMINUM PROFILE, 2MFT / V-H DOUBLE-HEAD SUPPORT PLATE – FOR STONE PANEL



Type	Protrusion K (mm)	Width h (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
2MFT/H 2MFT/V	120	50	2	Hlf M10x25 M12x25	0,3-0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc 2MFT support plate + Hlf M screw + HI PM flanged nut

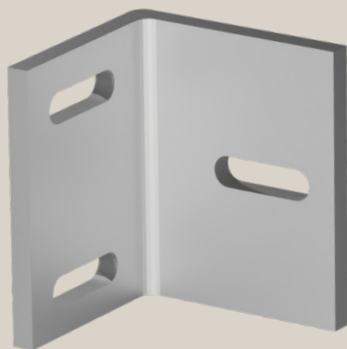
Fixing: The used anchors are according to the producer's technical datas

Marking: 2MFT K/h protrusion (K) / support width (h)

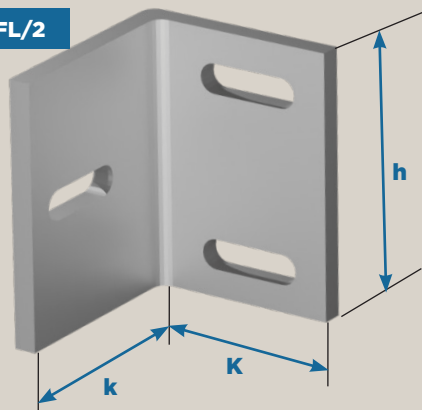
Example: 2MFT 120/50x4

PFK 45/45 ALUMINUM PROFILE, MFL 1- OR 2-HEAD CORNER SUPPORT PLATE – FOR STONE PANEL

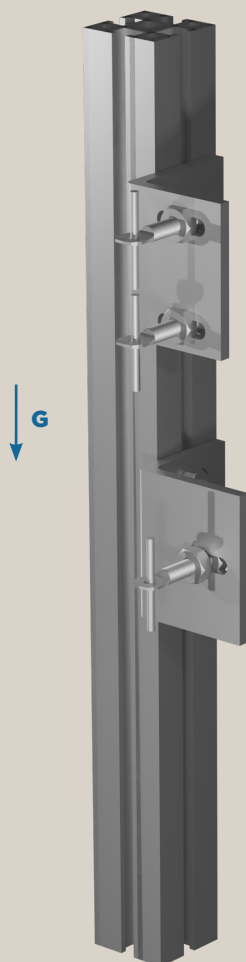
MFL/1



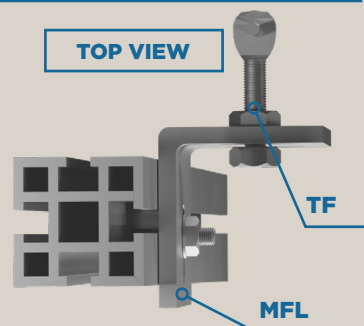
MFL/2



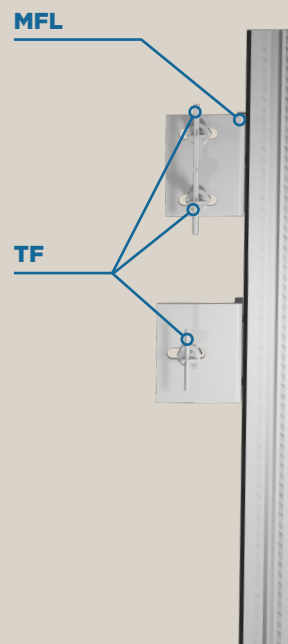
DIMENSION VIEW



TOP VIEW



SIDE VIEW



Type	Protrusion K (mm)	Support k (mm)	Width h (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
MFL	50-100	50	50-150	2	HI f M10x25 M12x25	0,3-0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

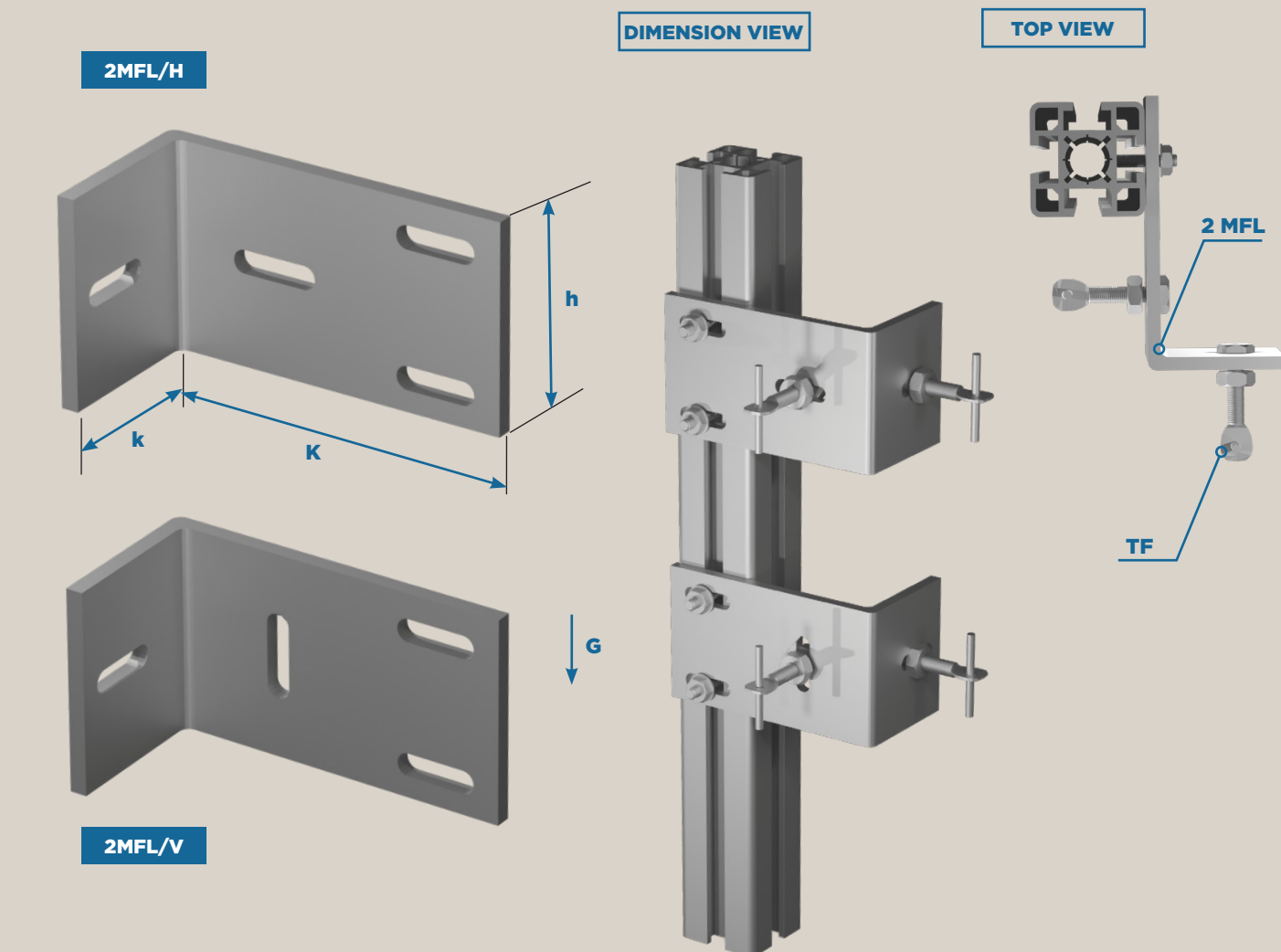
Complete fixing element: 1 pc MFL support plate + HI f M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: MFL/1 support-plate protrusion (K) / support (k) - width (h)

Example: MFL/1 50/50-50x4

PFK 45/45 ALUMINUM PROFILE, 2MFL DOUBLE-HEAD CORNER SUPPORT PLATE - FOR STONE PANEL



Type	Protrusion K (mm)	Support k (mm)	Width h (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
2MFL	50-150	50	50-150	2	Mif M10x25 M12x25	0,3-0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc 2MFL support plate + Hlf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

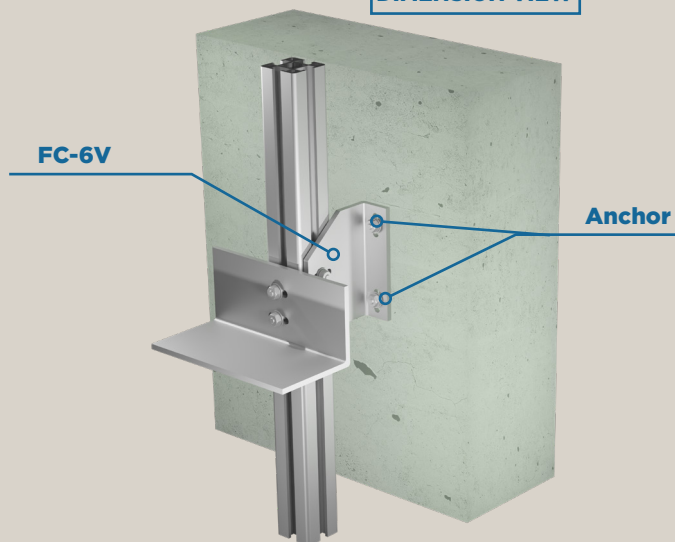
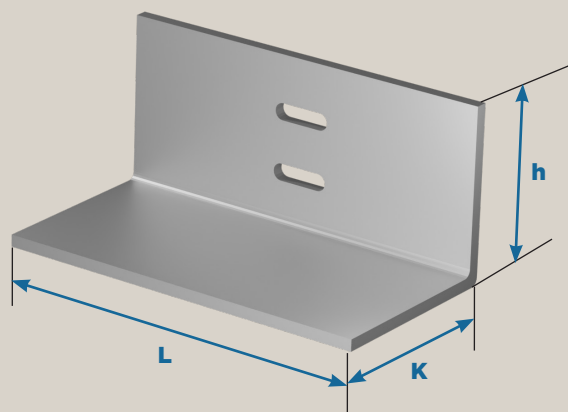
Marking: 2MFL/H support-plate protrusion (K) / support (k) - width (h)

Example: 2MFL/H 80/50-50x4

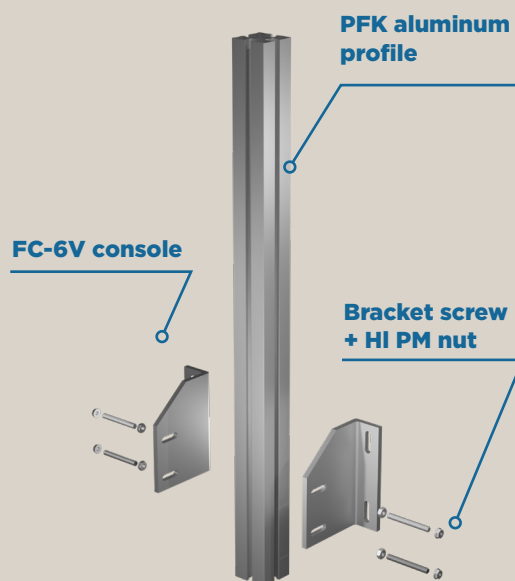
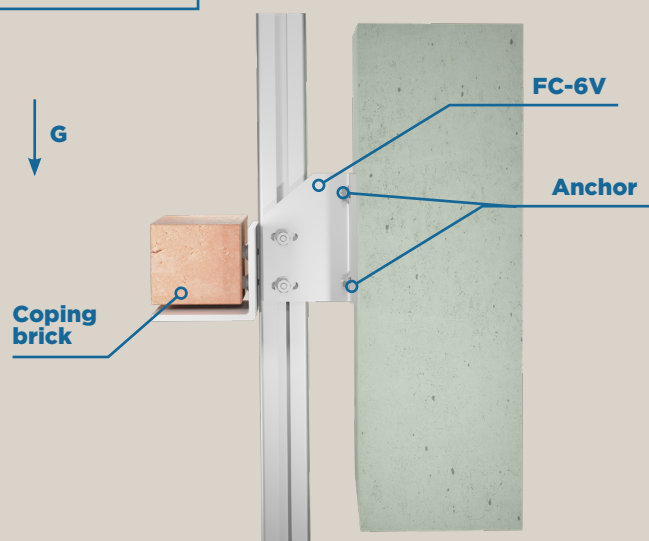
PFK 45/45 ALUMINUM PROFILE, LK-2 SINGLE-SUPPORT L PROFILE CONSOLE - FOR COPING-BRICK CLADDING

LK-2

DIMENSION VIEW



SIDE VIEW



Type	Protrusion K (mm)	Support h (mm)	Length L (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
LK-2	40-60	50 -60	100 - 300	2	HI f M10x25 M12x25	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc LK-2 profile console + HI f M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

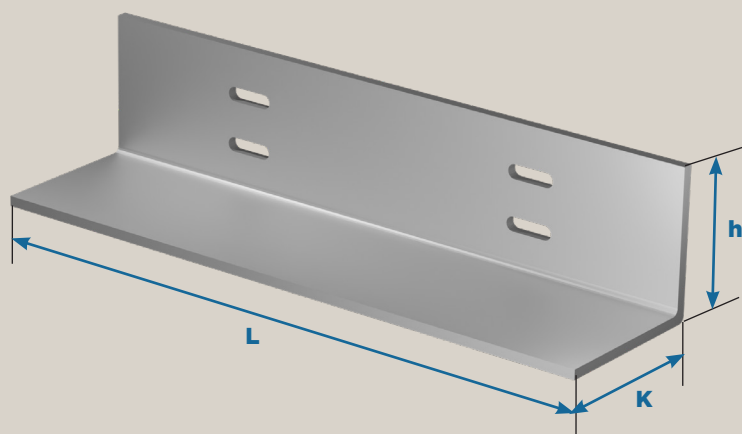
Marking: LK-2 protrusion (K)/ support (h) - length (L)

Example: LK-2 40/50-250

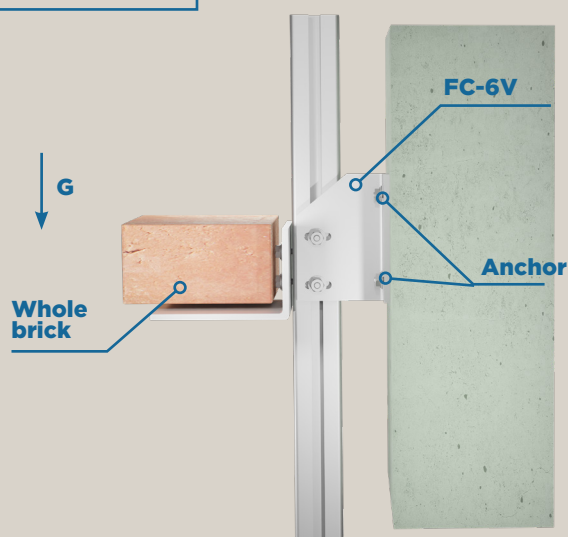
Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 45/45 ALUMINUM PROFILE, LK-4 DOUBLE-SUPPORT L PROFILE CONSOLE - FOR BRICK CLADDING

LK-4



SIDE VIEW



PFK 45/45

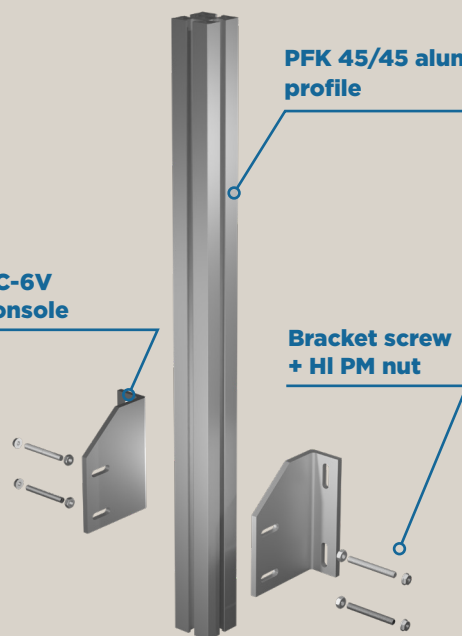
DIMENSION VIEW



PFK 45/45 aluminum profile

FC-6V console

Bracket screw + HI PM nut



Type	Protrusion K (mm)	Support h (mm)	Length L (mm)	No. of fixing points	Console screw size	Load capacity per fixing point G (kN)
LK-4	70-120	50 -100	500-600	4	Hlf M10x25 M12x25	0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc LK-4 profile console + Hlf M screw + HI PM flanged nut

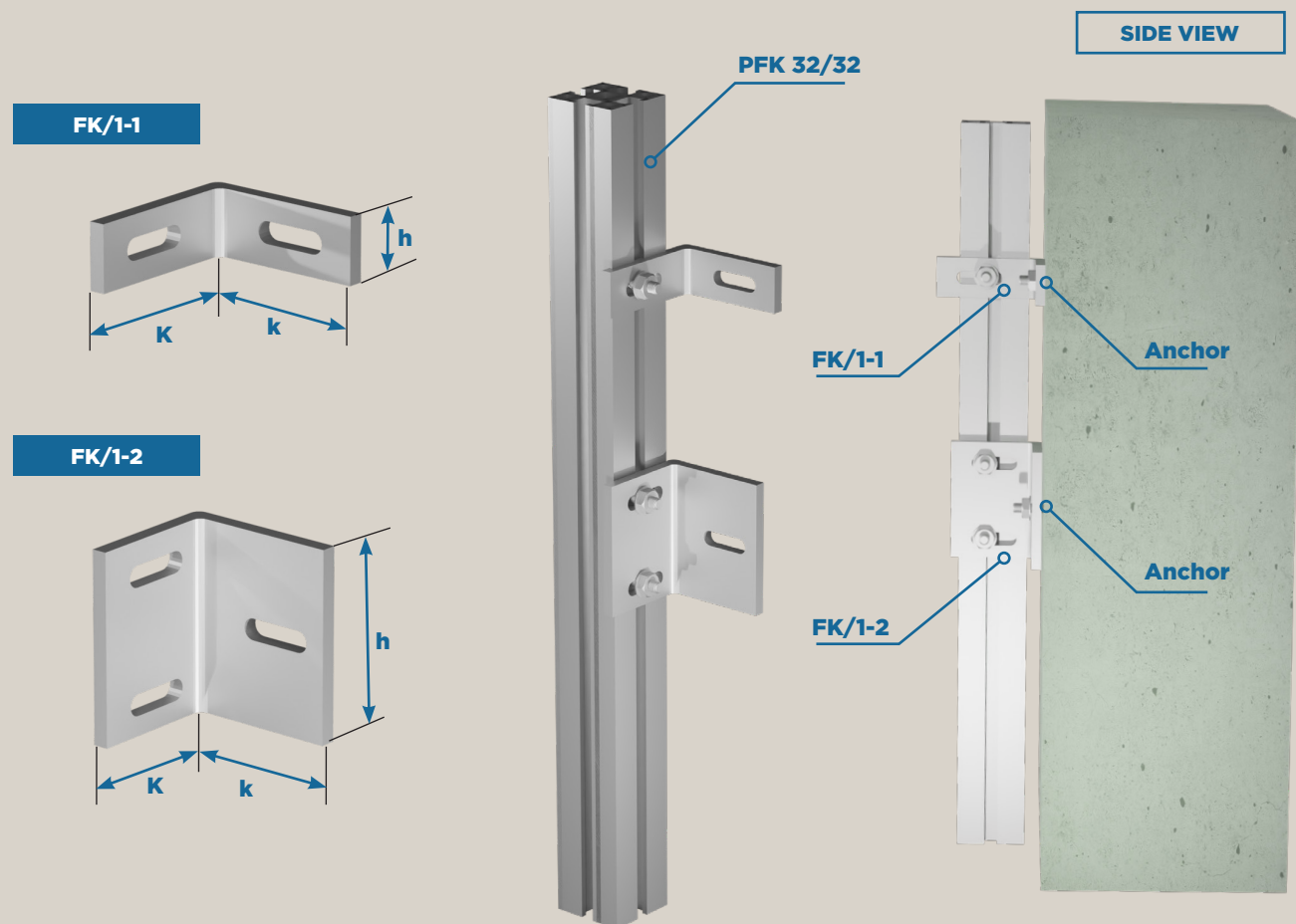
Fixing: The used anchors are according to the producer's technical datas

Marking: LK-4 orotrusion (K)/ support (h) - length (L)

Example: LK-4 100/100-500

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 32/32 ALUMINUM PROFILE, FK/1-1 SINGLE-DOWEL, ONE/TWO-SCREW WALL CONSOLE - FOR THIN PANEL CLADDING



Type	Protru- sion K (mm)	Sup- port k (mm)	Width h (mm)	No. of fix- ing points	Console screw size	Anchor		Load capacity per fixing point G (kN)
						reinf. concrete	hollow brick	
FK/1-1	40-200	50	30	1	Hlf M6x20 M8x20	M8x65-75	D-10x80-160	0,3
FK/1-2			100	2				

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc FK/1-1 or 1 pc FK/1-2 wall bracket + Hlf M screw + HI PM flanged nut

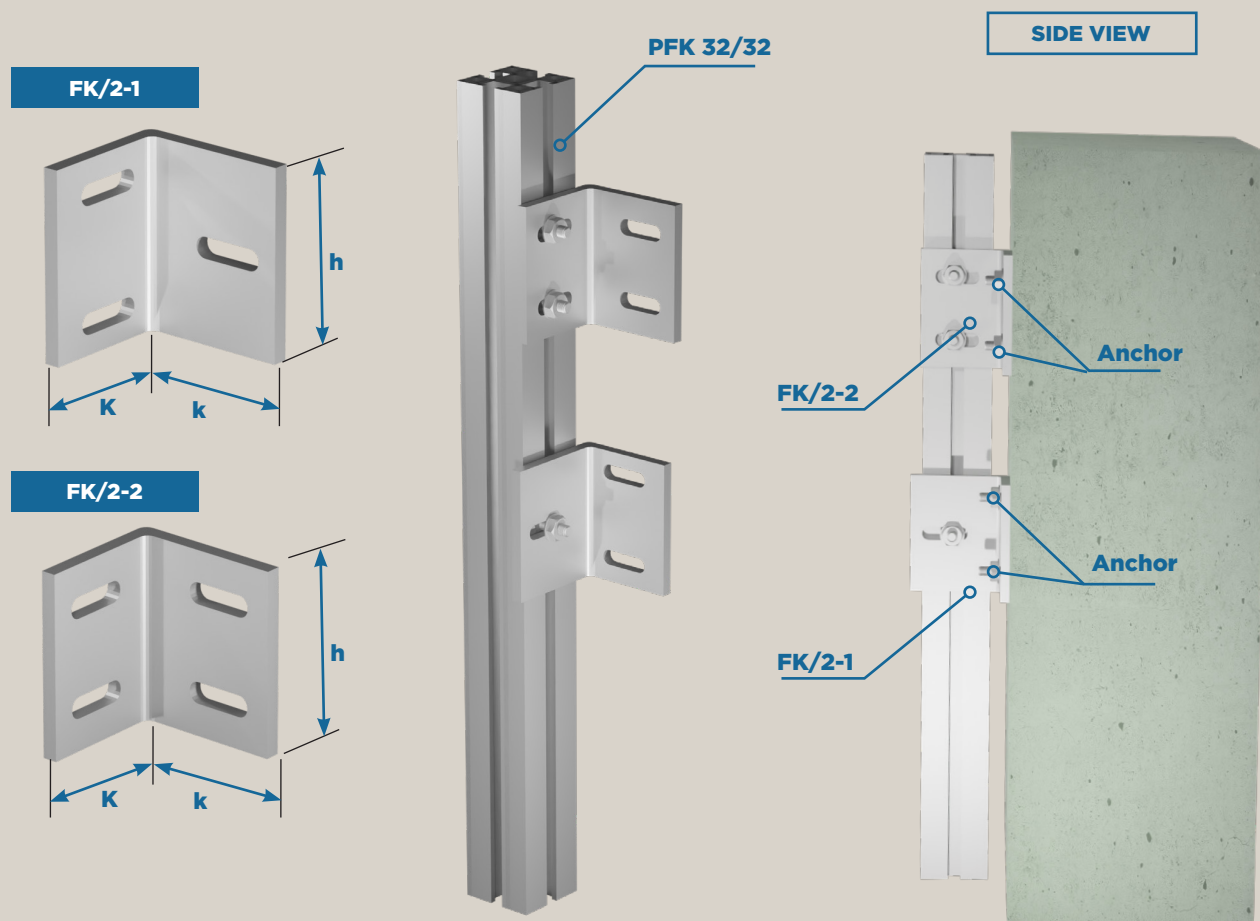
Fixing: The used anchors are according to the producer's technical datas

Marking: FK/1-1 or FK/1-2 protrusion (K) / support (k) - width (h)

Example: FK/1-1 100/50-30 or FK/1-2 100/50-100

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 32/32 ALUMINUM PROFILE, FK/2-1, FK/2-2 TWO-DOWEL, ONE+TWO-SCREW WALL BRACKET - FOR THIN PANEL CLADDING



Type	Protru- sion K (mm)	Sup- port k (mm)	Width h (mm)	No. of fix- ing points	Console screw size	Anchor		Load capacity per fixing point G (kN)
						reinf. concrete	hollow brick	
FK/2-1	40-200	50	30	1	Hlf M6x20 M8x20	M8x65-75	D-10x80-160	0,3
FK/2-2			100	2				

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc FK/2-1 or FK/2-2 wall console +Hlf screw+ HI PM nut

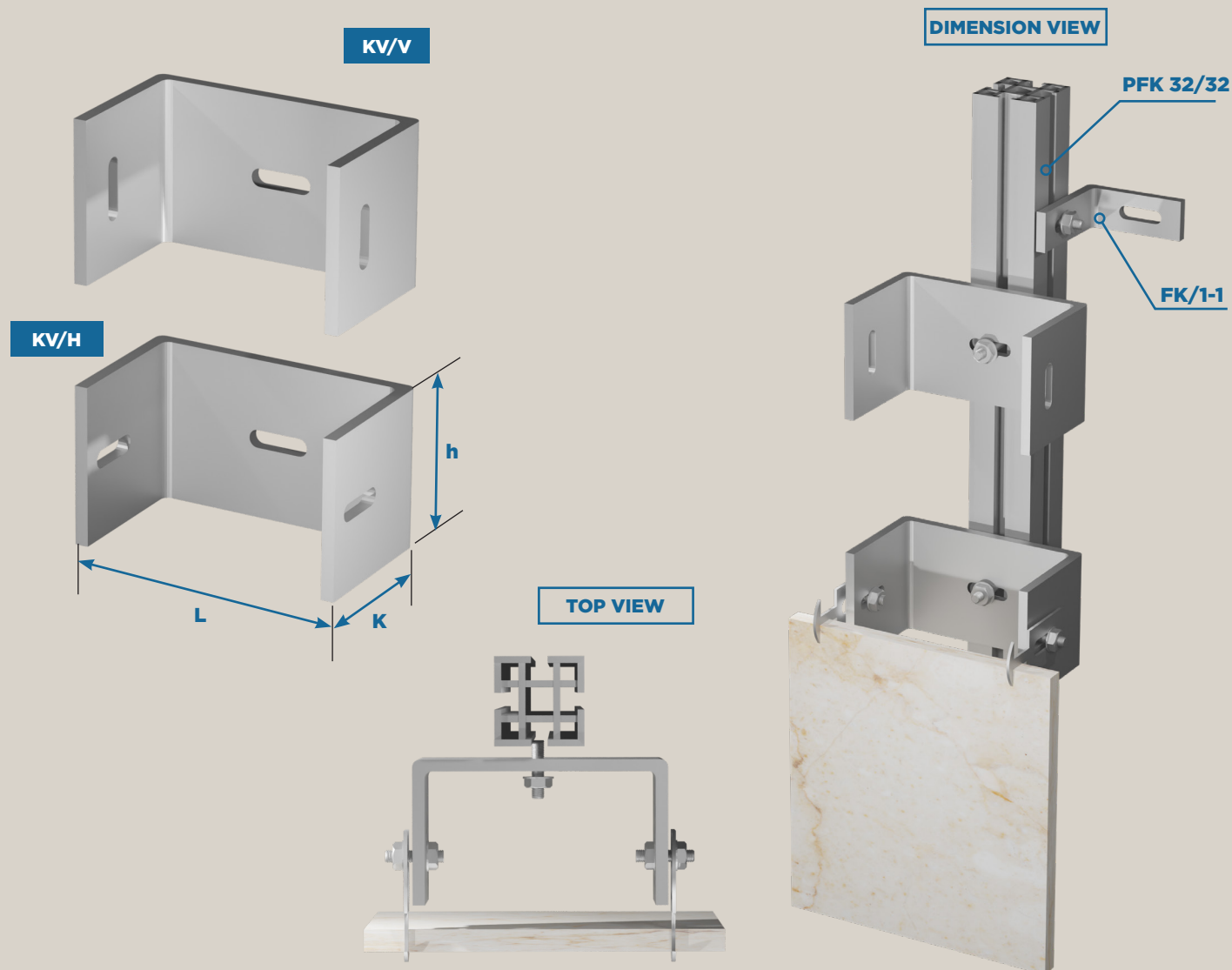
Fixing: The used anchors are according to the producer's technical datas

Marking: FK/2-1 or FK/2-2 console protrusion (K) + support (k) - width (h)

Example: FK/2-1 -150/50-30 or FK/2-2 -200/50-100

Sizing: Stratification= insulation+ blow-hole or difference of the wall + s = plate thickness

PFK 32/32 ALUMINUM PROFILE, KV/V VERTICAL, KV/H HORIZONTAL CENTRAL REVEAL - FOR THIN PANEL CLADDING



Type	Console protrusion K (mm)	Width h (mm)	Length L (mm)	Console screw size	Load capacity G (kN)
KV/V	50-150 mm	50-100 mm	100-200	Hlf M6x20	0,3 kN
KV/H	50-150 mm	50-100 mm	100-200	Hlf M8x20	0,3 kN

Further sizes according to claims, based on individual sizing.

Base material: Aluminium EN AW 5754

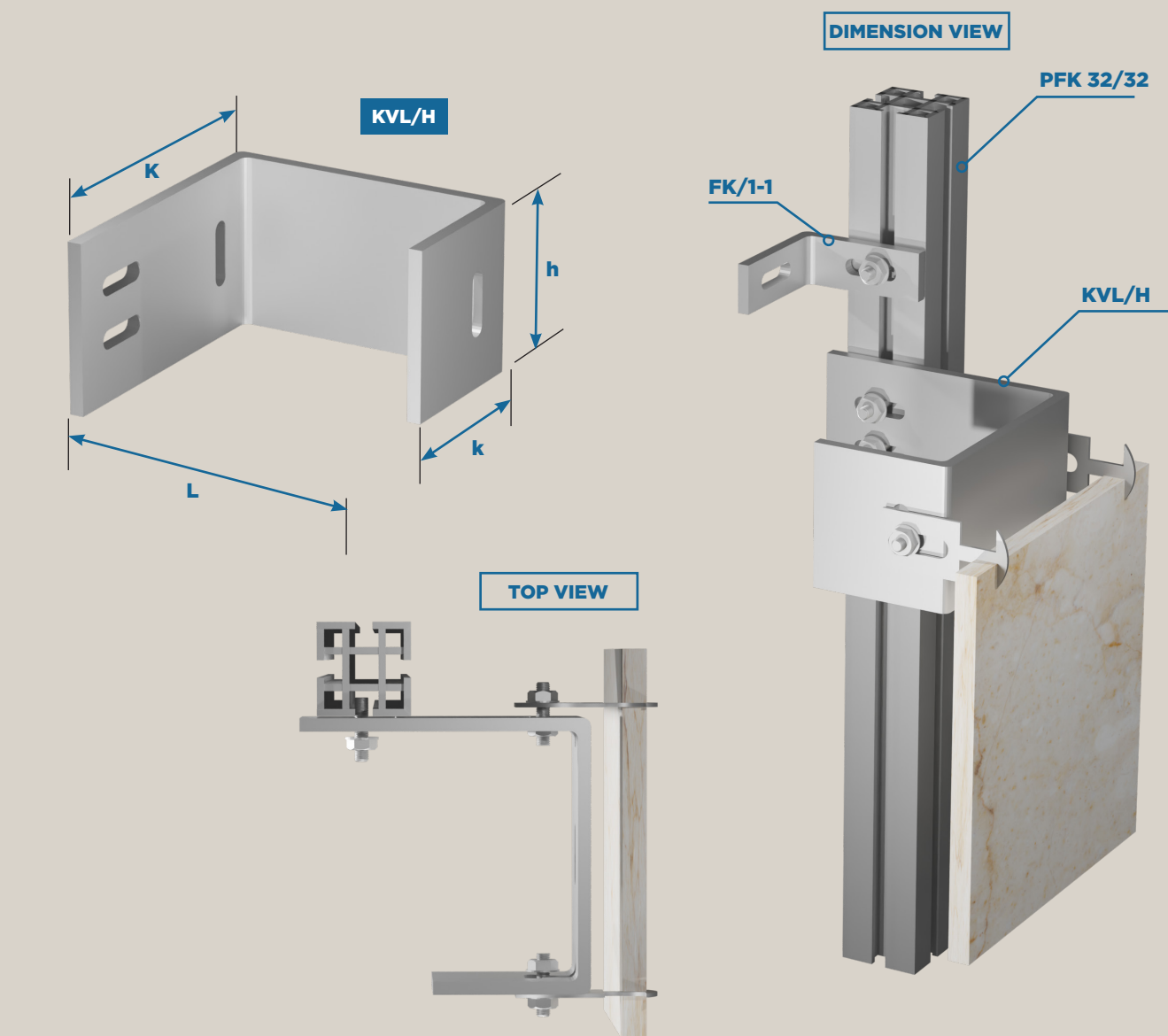
Complete fixing element: 1 pc KV/V central reveal or 1 pc KV/H central reveal + Hlf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: KV/V or KV/H protrusion (K) / width (h) - length (L)

Example: KV/V 100/50-100 or KV/H 100/50-100

KVL/H HORIZONTAL SIDE-REVEAL ALUMINUM CONSOLE - FOR THIN PANEL CLADDING



Type	Protrusion K (mm)	Support k (mm)	Width h (mm)	Length L (mm)	Console screw size	Load capacity per fixing point G (kN)
KVL/H	100-200	50-100	50-100	100 - 300	Hif M10x25 M12x25	0,3

Further sizes according to claims, based on individual sizing.

Base material: Aluminium EN AW 5754

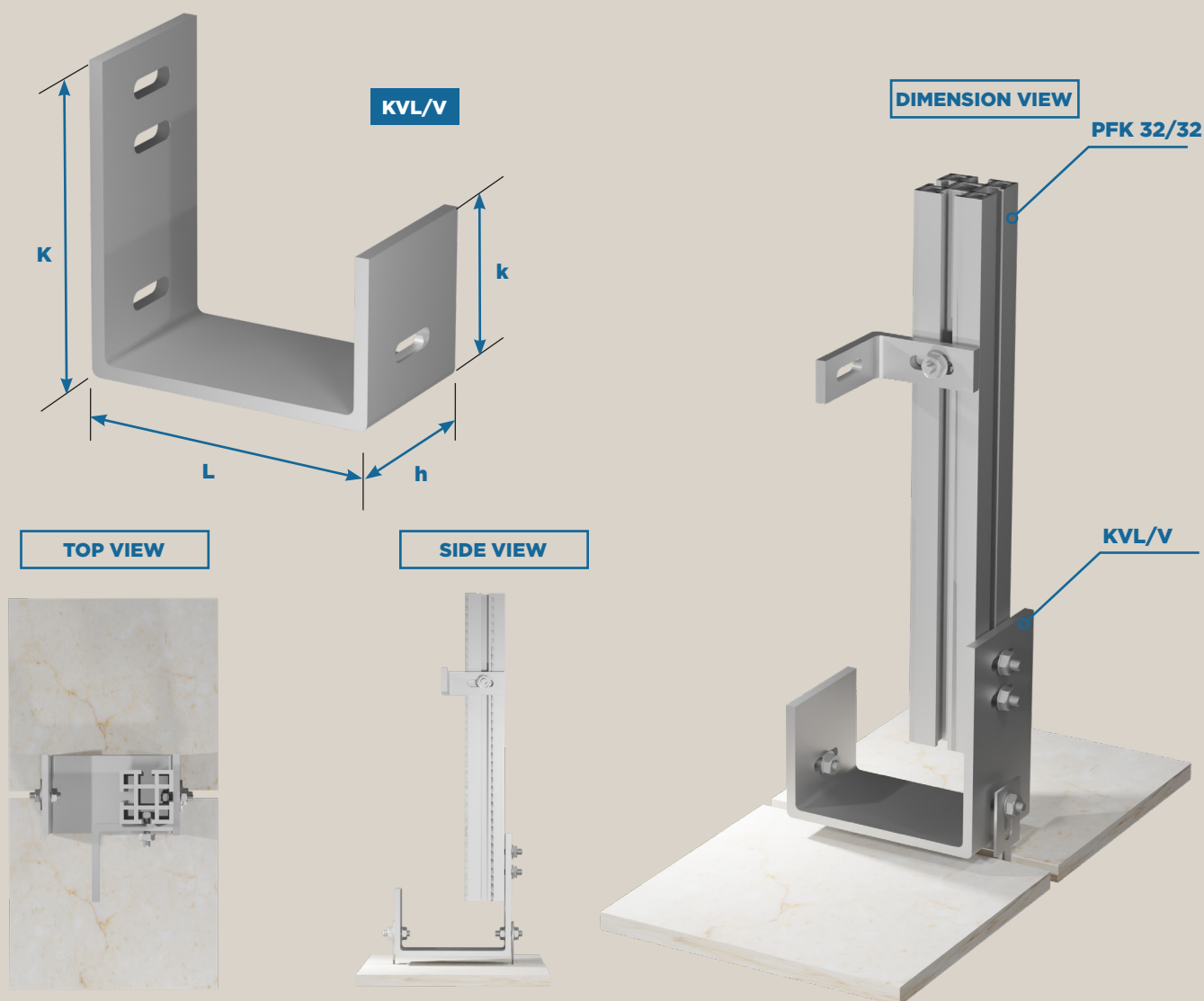
Complete fixing element: 1 pc KVL/H side reveal + Hif M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: KVL/H protrusion (K) / width (h) - length (L)

Example: KVL/H 100/50/100-100

KVL/V VERTICAL CLOSING REVEAL - FOR THIN PANEL CLADDING



Type	Protrusion K (mm)	Support k (mm)	Width h (mm)	Length L (mm)	Console screw size	Load capacity per fixing point G (kN)
KVL/V	100-300	50-100	50-100	100 - 300	Hlf M6x20 M8x20	0,3

Further sizes according to claims, based on individual sizing.

Base material: Aluminium EN AW 5754

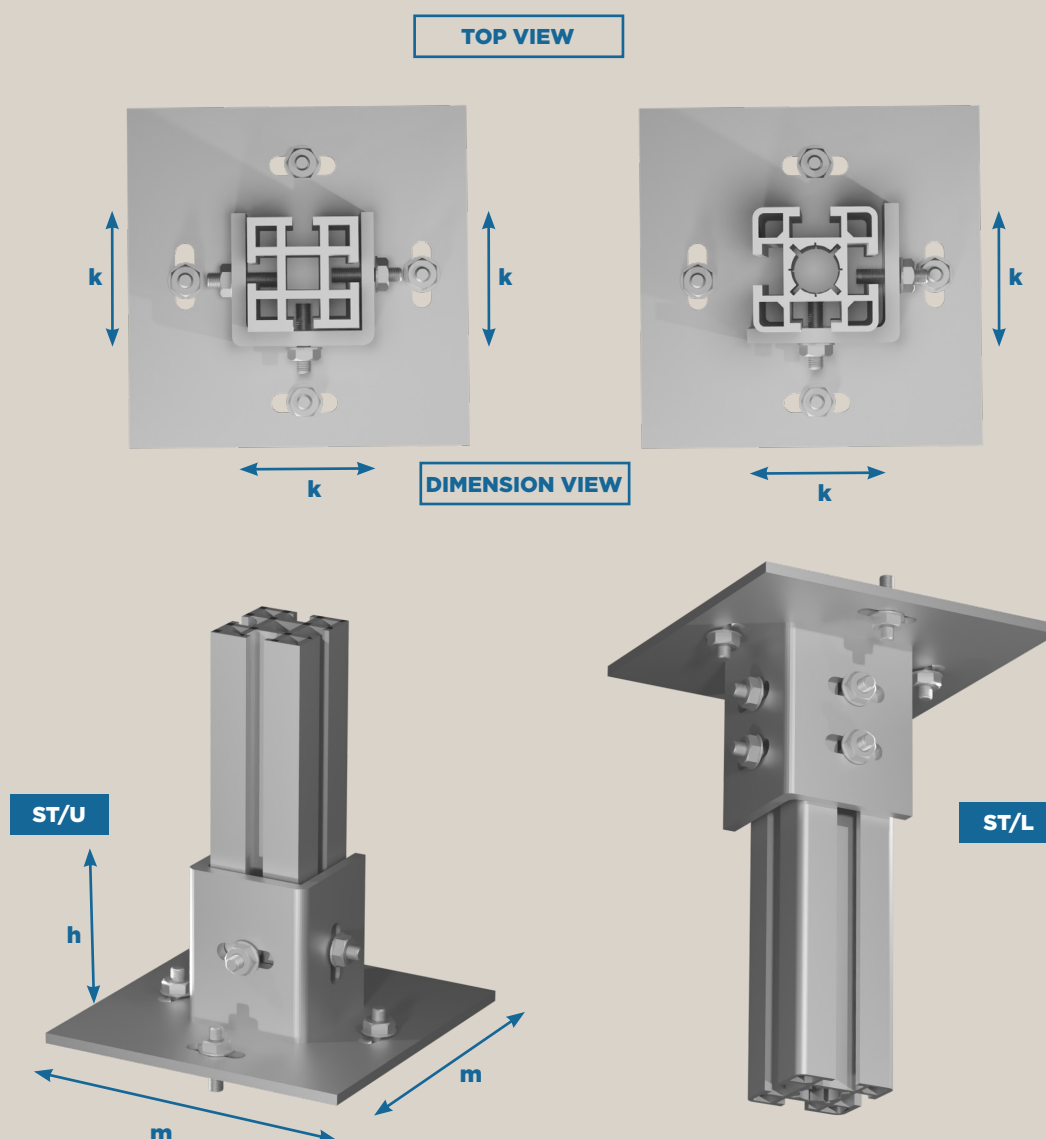
Complete fixing element: 1 pc KVL/V closing reveal + Hlf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: KVL/V protrusion (K) / support (k) / width (h) - length (L)

Example: KVL/V 130/50/100-300

ST/U - ST/L BASE CONNECTOR, U- AND L-STRAP - FOR PROFILE



Type	Base size (m x m)	Strap height h (mm)	Support (k x k)	Screw size	Dowel - reinf. concrete	Dowel - hollow brick
ST/U	100-200	100-200	30-50	HIIf M6-8x20	M8x70	M10x100
ST/L	100-200	100-200	30-50	HIIf M10-12x20		

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

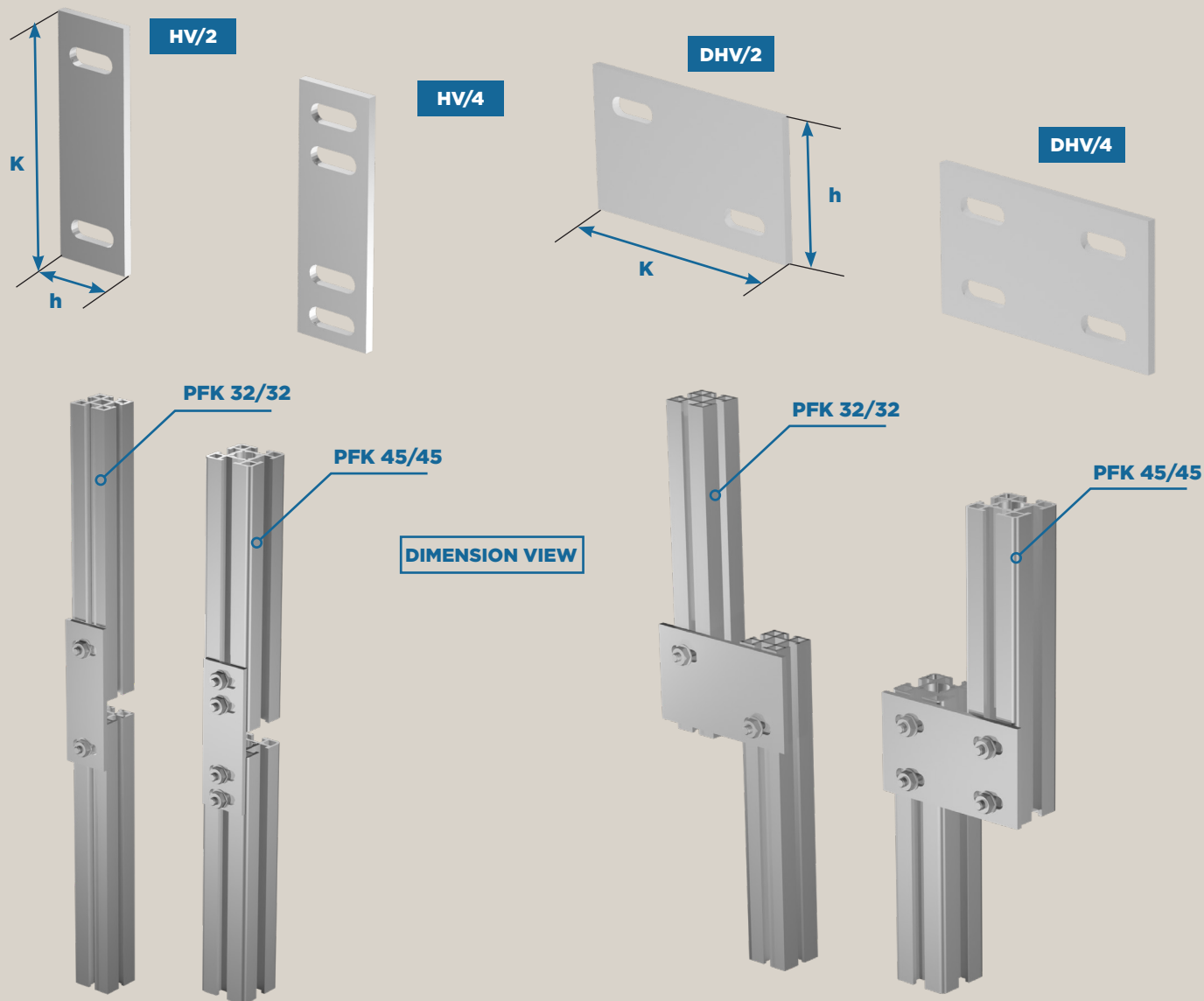
Complete fixing element: 1 pc ST/L or ST/U connector + HIIf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: ST/L or ST/U - base size (m) / height (h) - support (k)

Example: ST/L-100/100-30 or ST/U-100/200-50

HV PROFILE LENGTH SPLICE PLATE AND DHV DOUBLE CROSS SPLICE PLATE - FOR PROFILE



Type	Base size K (mm)	Width h (mm)	Console screw size	Load capacity G (kN)
HV	100-200 mm	30-45	Hlf M6-8x20	0,3 kN
DHV	100-200 mm	80-100	Hlf M10-12x25	0,6 kN

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element: 1 pc HV profile or 1 pc DHV + Hlf M screw + HI PM flanged nut

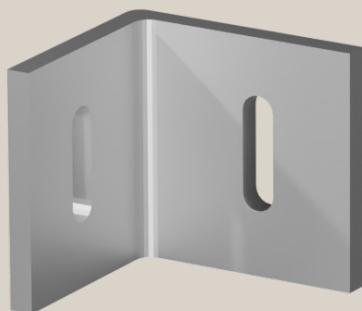
Fixing: The used anchors are according to the producer's technical datas

Marking: HV or DHV - base size (K) / width (h)

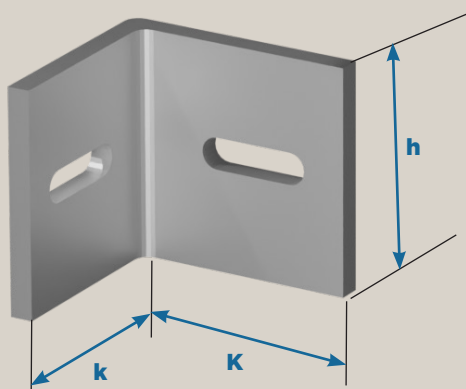
Example: HV 100/40, or DHV 100/100

SL/V-H VERTICAL - HORIZONTAL CORNER CONNECTOR - FOR PROFILE

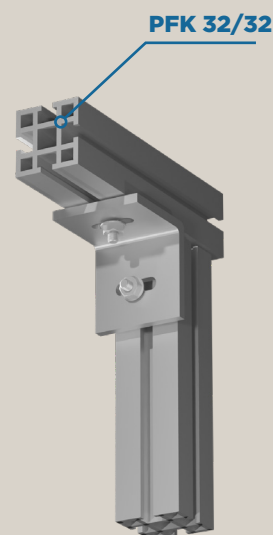
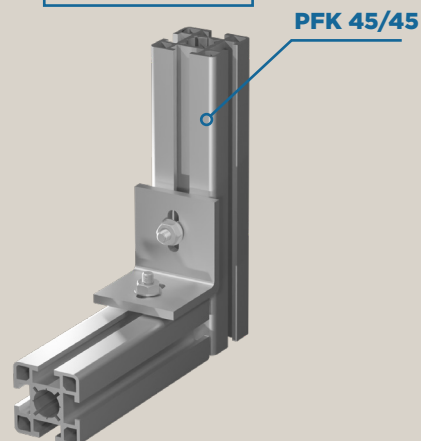
SL/V



SL/H



DIMENSION VIEW



Type	Protrusion K (mm)	Support k (mm)	Width h (mm)	Console screw size	Load capacity per fixing point G (kN)
SL/V-H	40-60	50	30-50	Hlf M6-8x20 M10-12x25	0,3-0,6

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

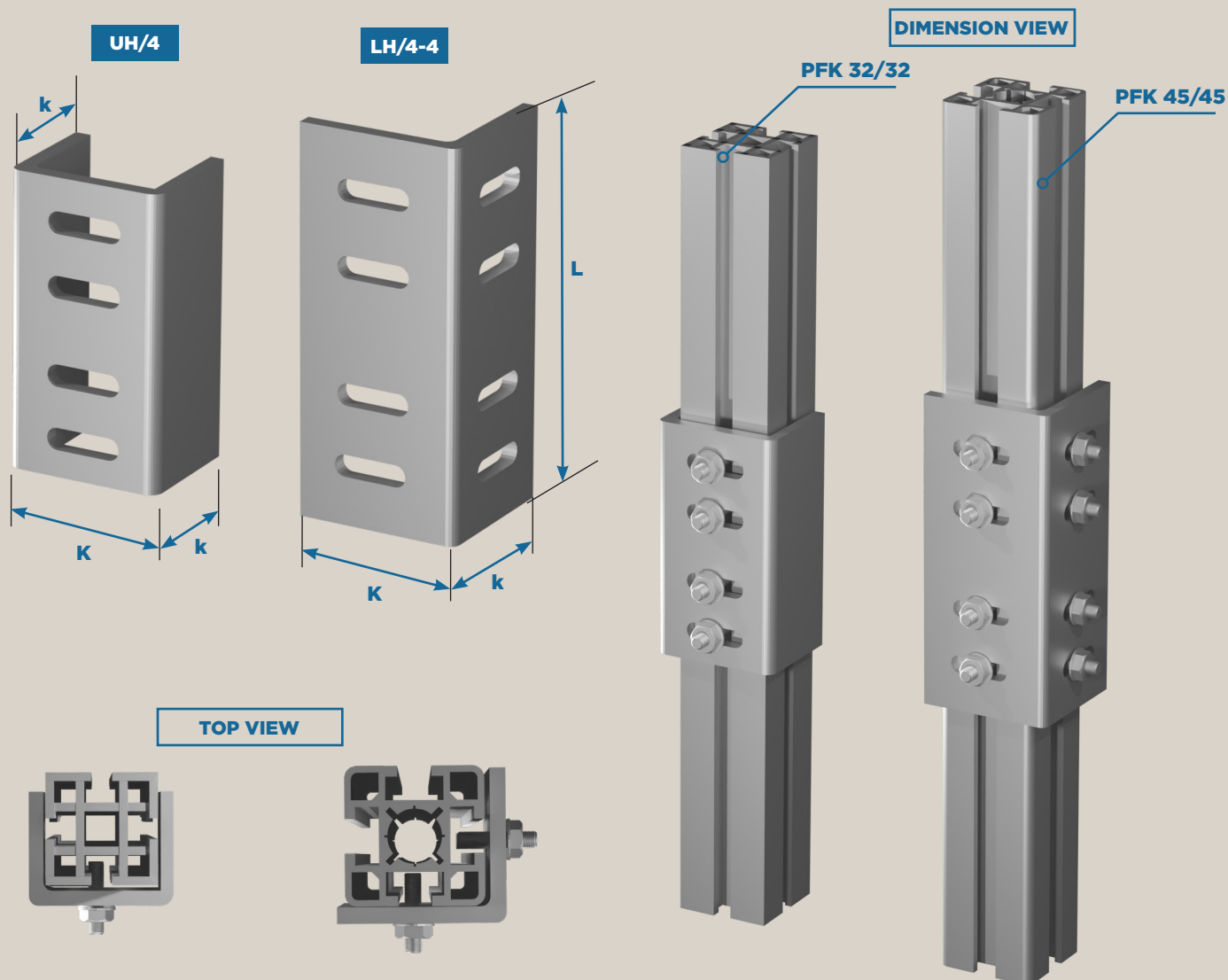
Complete fixing element: 1 pc SL corner bracket + 2 pcs Hlf M screw + 2 pcs HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: SL/V or SL/H - protrusion (K) / support (k) - width (h)

Example: SL/V 40/50-30 or SL/H 40/50-50

UH/4 AND LH/4-4 CONNECTING U- AND L-STRAP - FOR PROFILE



Type	Strap size K (mm)	Width k (mm)	Length L (mm)	Console screw size	Load capacity G (kN)
UH/4	40-50 mm	30-50	100-200	Hlf M6-8x20	0,3 kN
LH/4	40-50 mm	30-50	100-200	Hlf M10-12x25	0,6 kN

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

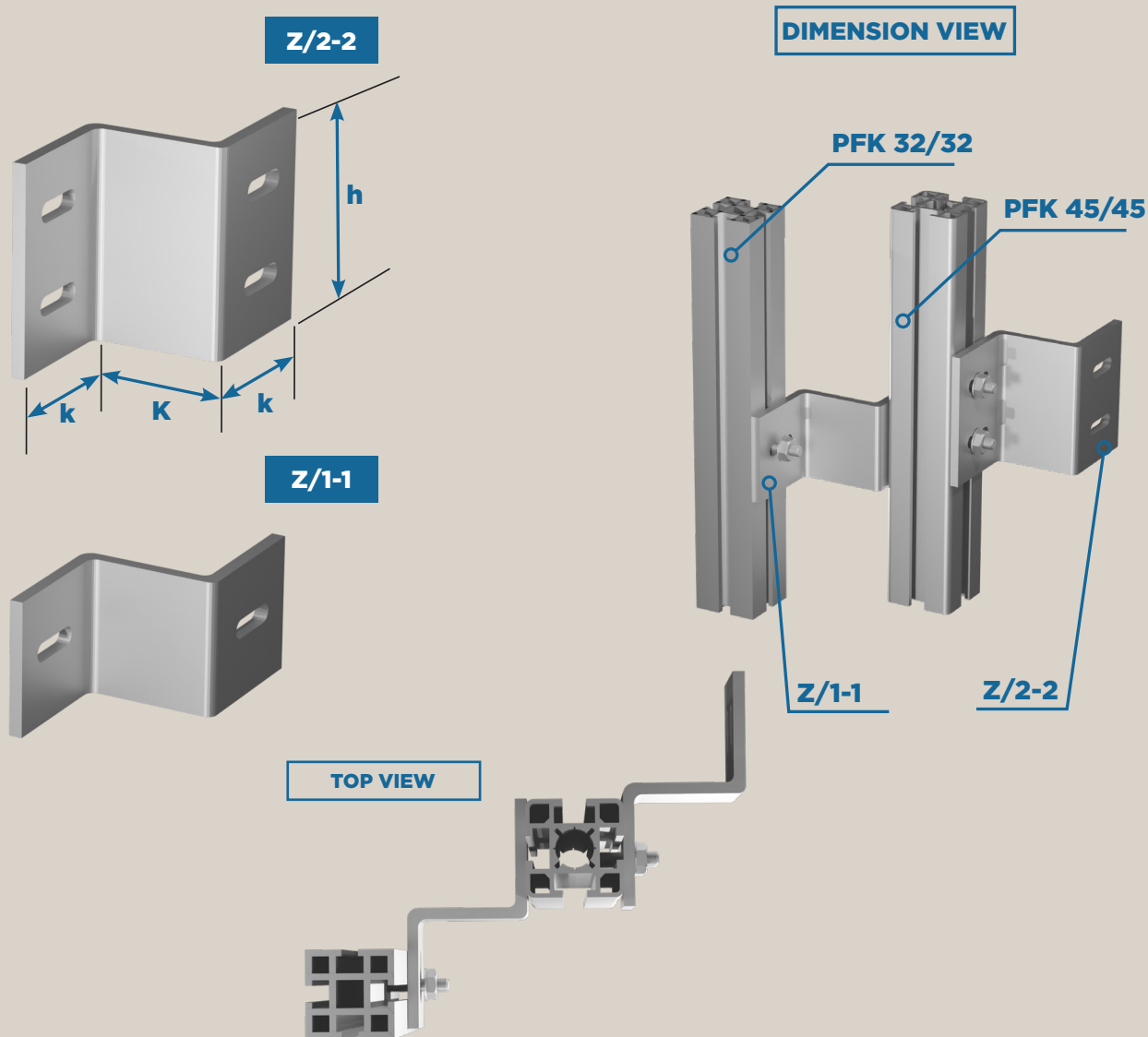
Complete fixing element: 1 pc UH or LH connector + Hlf screw + HI flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: UH or LH - size (K) / width (k) - support (L)

Example: LH/4 - 40/30-100 or UH/4 -50/50 - 200

Z/1-1 AND Z/2-2 Z-CONNECTOR - FOR PROFILE



Type	Console size K (mm)	Support k (mm)	Width h (mm)	Console screw size	Load capacity G (kN)
Z/1-1	60-100	50	30	Hlf M6-8x20	0,3 kN
Z/2-2	60-100	50	100	Hlf M10-12x25	0,6 kN

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

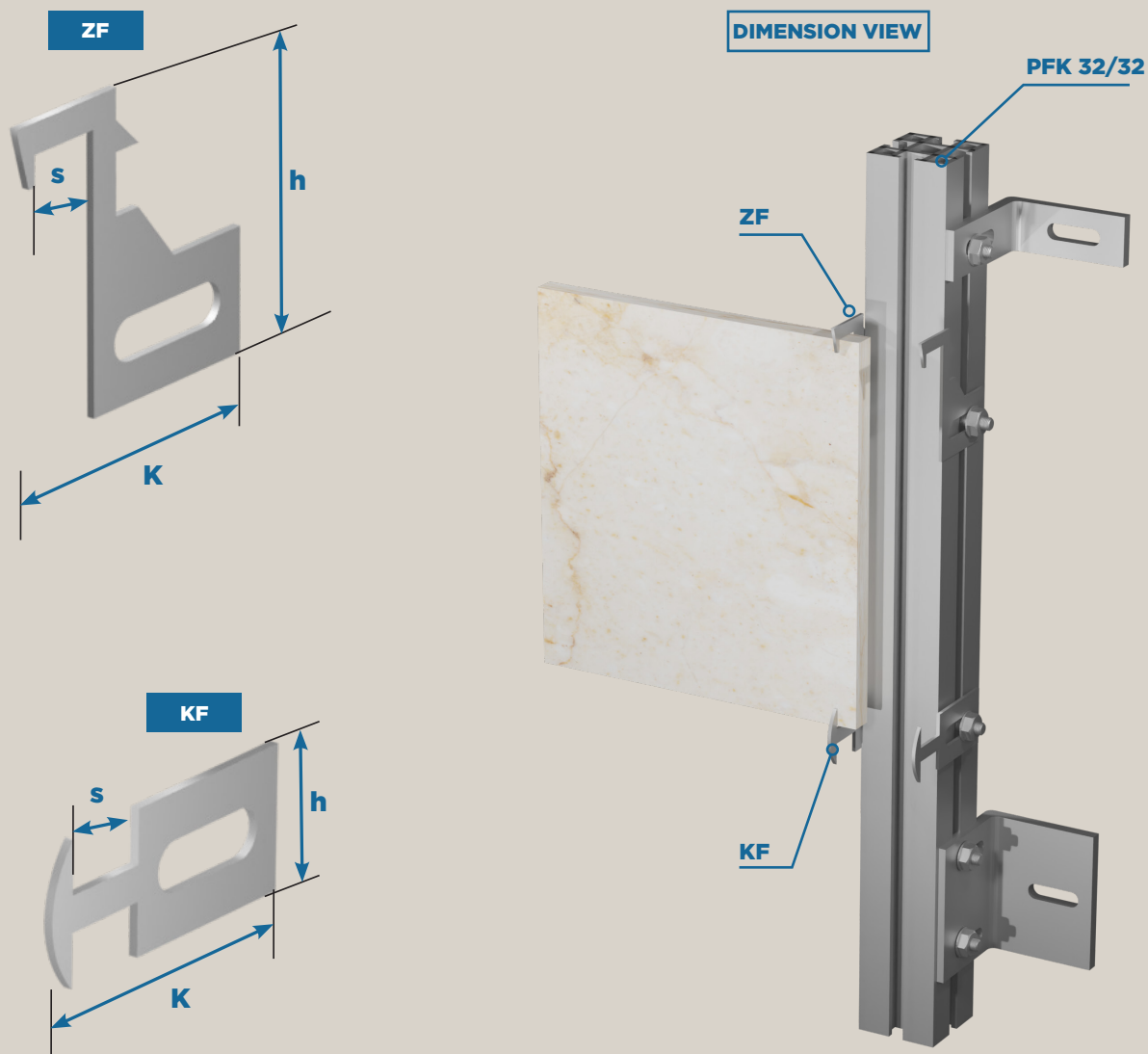
Complete fixing element: 1 pc Z connector + Hlf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: Z/1-1 or Z/2-2 - console size (K) / support (k) - width (h)

Example: Z/1-1-60/50-30, or Z/2-2-60/50-100

KF INTERMEDIATE AND ZF CLOSING EDGE LUG - FOR THIN PANEL CLADDING



Type	Panel thickness s (mm)	Protrusion K (mm)	Height h (mm)	Console screw size	Load capacity G (kN)
KF	13 mm	45 mm	20 mm	HI f M6x16	0,3 kN
ZF	13 mm	45 mm	50 mm	HI f M6x16	0,3 kN

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

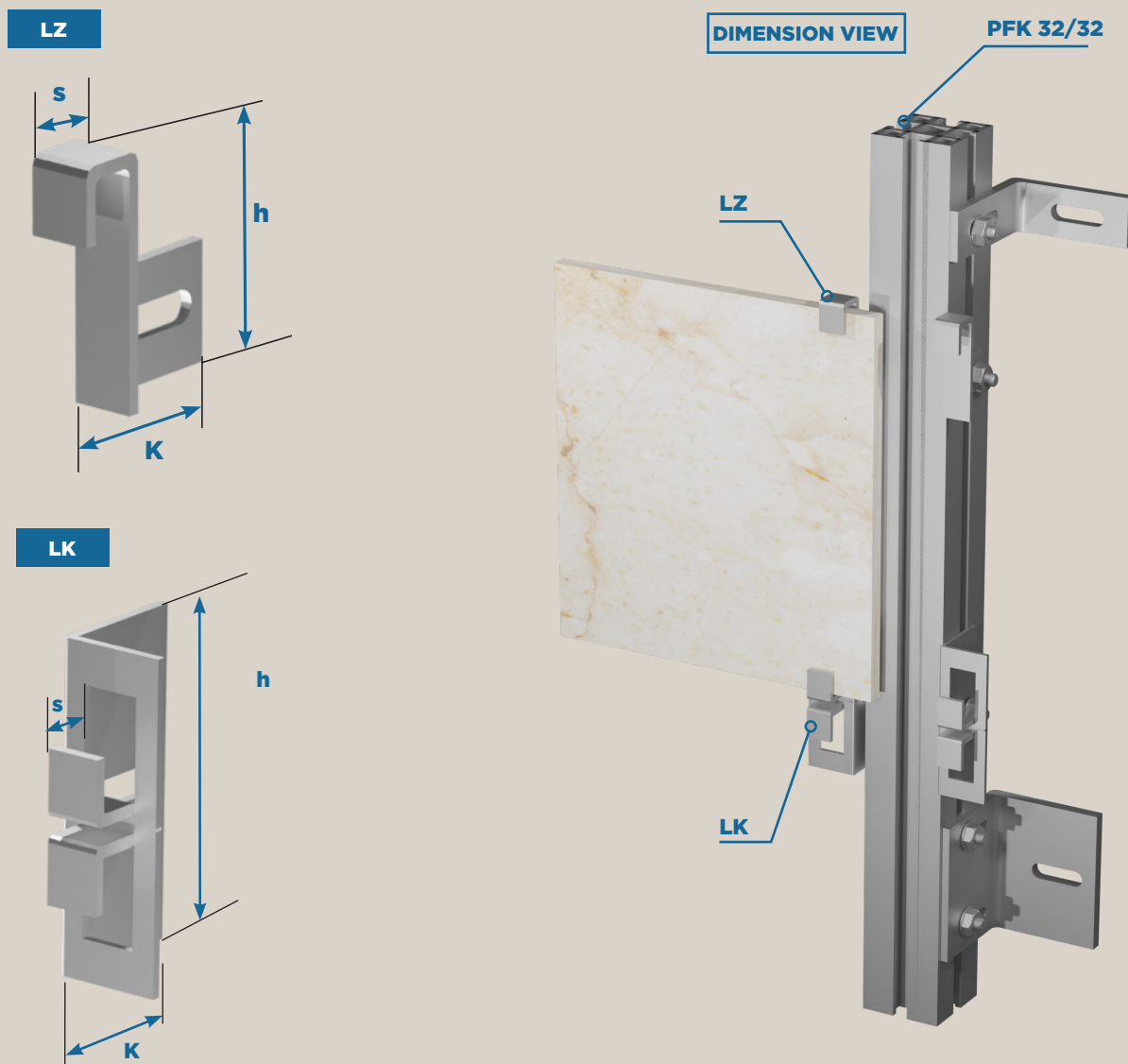
Complete fixing element: 1 pc edge lug + HI f M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: KF or ZF - panel thickness (s)

Example: KF-13 or ZF-13

LK INTERMEDIATE AND LZ CLOSING GROOVE-AND-PANEL LUG - FOR THIN PANEL CLADDING



Type	Panel thickness s (mm)	Protrusion K (mm)	Height h (mm)	Console screw size	Load capacity G (kN)
LK	9-15 mm	25 mm	55 mm	Hlf M6x16	0,3 kN
LZ	9-15 mm	25 mm	40 mm	Hlf M6x16	0,3 kN

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

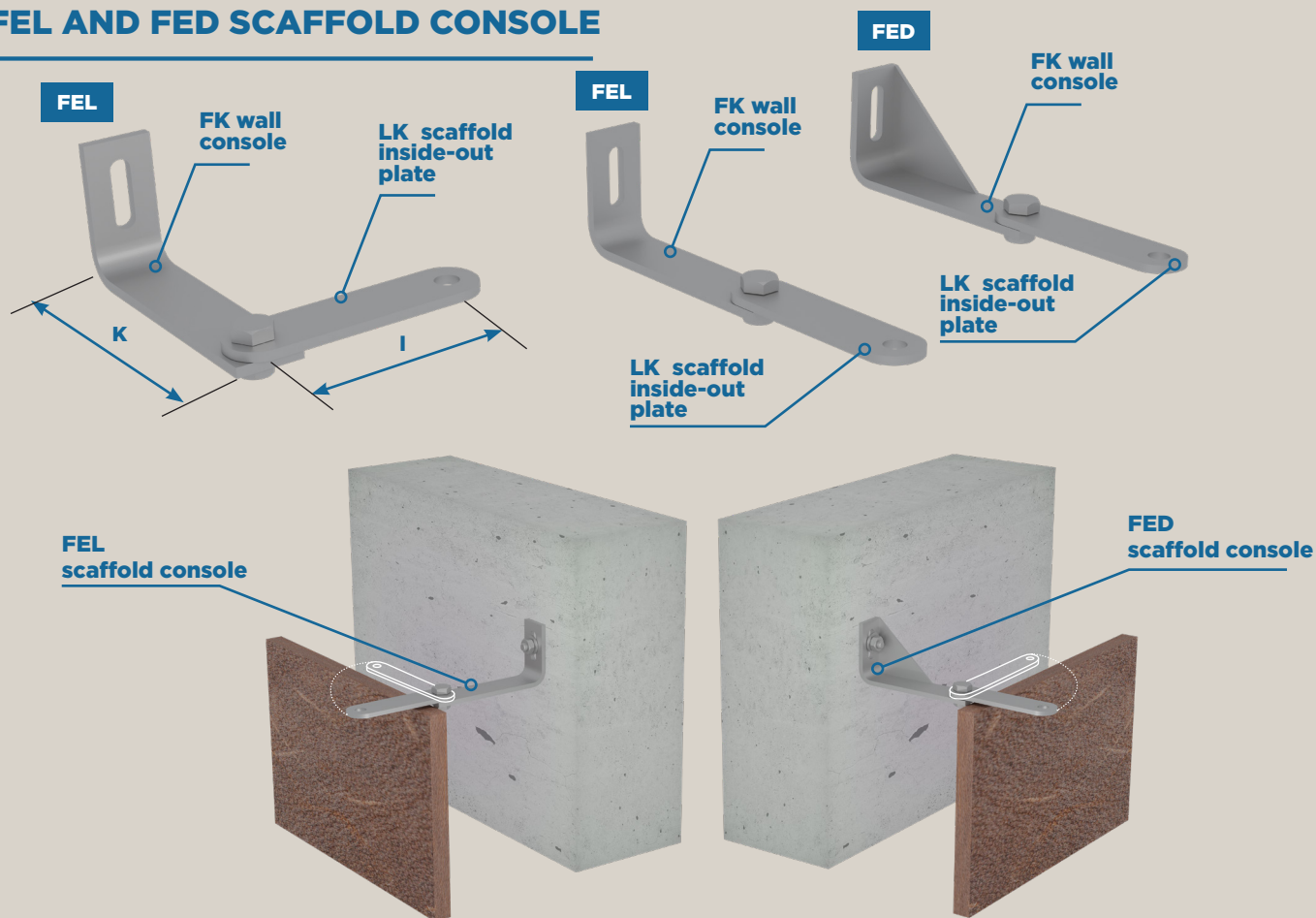
Complete fixing element: 1 pc panel lug + Hlf M screw + HI PM flanged nut

Fixing: The used anchors are according to the producer's technical datas

Marking: LK or LZ - panel thickness (s)

Example: LK-13 or LZ-13

FEL AND FED SCAFFOLD CONSOLE



FEL scaffold inside-out console

Type	FK- wall console (K) mm	LK -scaffold inside-out plate (L) mm	Loading G (kN)	Anchor (MxL)
FEL	180	140-250	2,0	M8x75
	200			
	220			
	240			
	260			

FED reinforced scaffold inside-out console

Type	FK- wall console (K) mm	LK -scaffold inside-out plate (L) mm	Loading G (kN)	Anchor (MxL)
FED	180	140-250	3,0	M8x75
	200			
	220			
	240			
	260			

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

Complete fixing element consists: 1 pc FEL and FED complete element, 1 pc anchor, 1 pc Hlf M thread, 1 pc self-locking nut

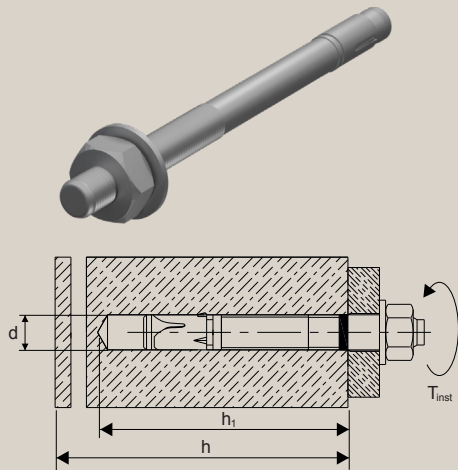
Marking: FEL size = FK (K) / LK (L) - Loading (kN)

Example: FEL 240/160 -2,0

Sizing: Stratification = isolation + blow-hole or difference of the wall + s = thickness of the flagstone

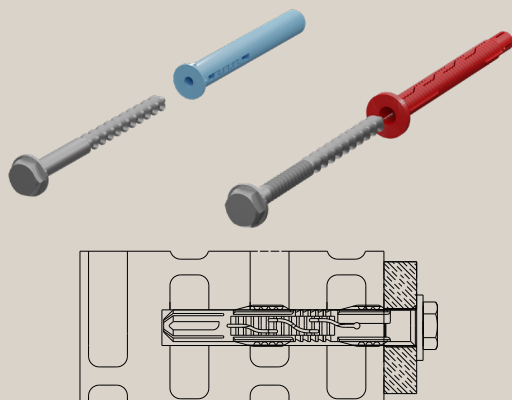
ANCHOR FIXING

EXPANSION ANCHOR

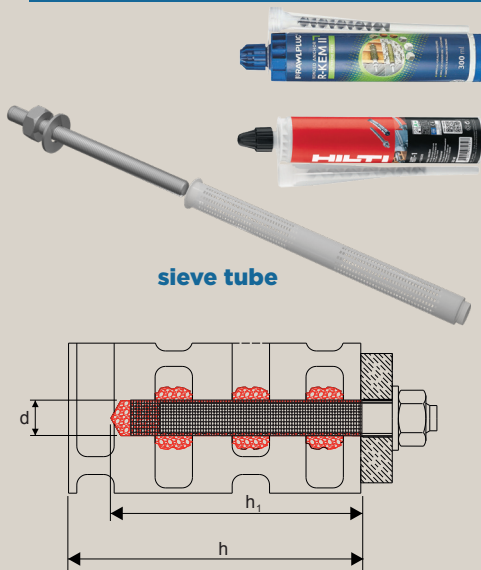


RAWL R-FF1

HILTI HRD-HR2



I/M DOWEL ROD + NUT + SIEVE TUBE



EXPANSION ANCHOR Solid masonry

Hilti-ETA 11/0374 + RAWL-ETA 17/0782

Type: Hilti + RAWL	HSA-R2	R-XPT	HSA-R2	R-XPT	HSA-R2	R-XPT
Anchor size	M8x70	M8x75	M10x83	M10x95	M12x115	M12x120
Tensile kN	5,9	7,5	8,3	12	12,3	25
Shearing kN	7,0	6,7	12,9	5,8	16,7	14,1
Drill bit d (mm)	8	8	10	10	12	12
Base material min. thickness h (mm)	40	47	50	59	65	68
Drill hole depthness h_1 (mm)	100	100	120	120	140	140
Minimum spacing S_{min} (mm)	35	65	50	80	70	85
Minimum edge distance C_{min} (mm)	35	50	40	80	65	100
Torque moment T_{inst} (Nm)	21	22	48,6	45	76	72

PLASTIC ANCHOR WITH WOOD-SCREW Into hollow-brick or aerated concrete masonry

Hilti HRD ETA 07/0219 +
RAWL R-FF1 ETA 12/0398

Type: Hilti HRD-HR2 + R-FF1	HRD-HR2	R-FF1
Anchor size	M10x80-140	M10x100-160
Tensile kN / aerated concrete masonry	0,5-1,5	0,5-1,5
Shearing kN / aerated concrete masonry	0,8-1,6	1,0-1,8
Drill bit d (mm)	10	10
Base material min. thickness h (mm)	50-90	70-130
Drill hole depthness h_1 (mm)	200	200
Minimum spacing S_{min} (mm)	100	100
Minimum edge distance C_{min} (mm)	100	100
Torque moment T_{inst} (Nm)	12	13,1

INJECTABLE USE Hollow or perforated masonry

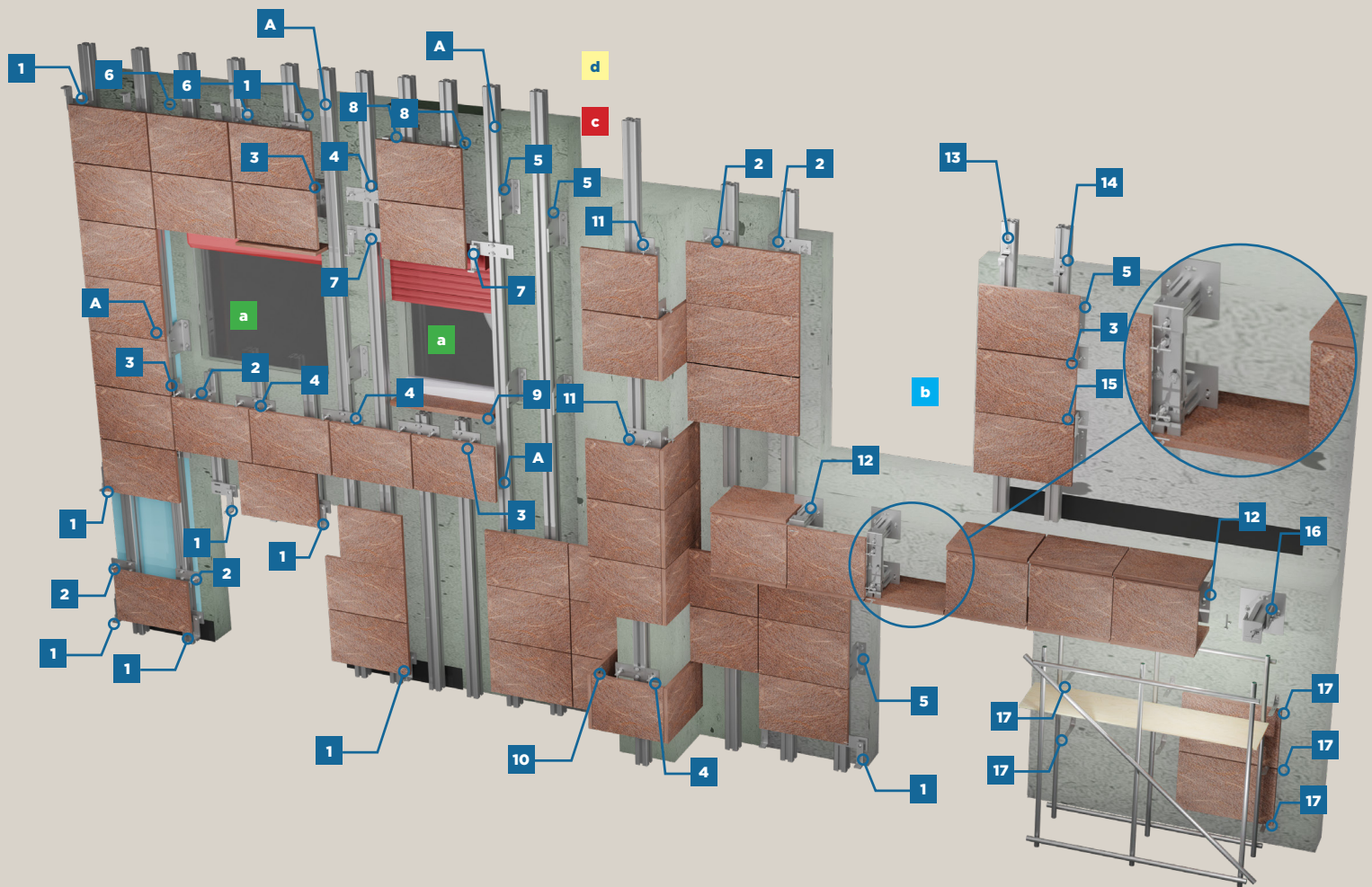
Hilti HIT-1 ETA 17/0005 +
R-KEM ETA 21/0243

Type: Hilti HIT/ RAWL R-KEM	Hilti HIT-1	R-KEM	Hilti HIT-1	R-KEM	Hilti HIT-1	R-KEM
Anchor size	M8x90	M8x90	M10x110	M10x110	M12x135	M12x135
Tensile kN	2,0	2,5	2,5	3,5	3,5	4,0
Shearing kN	2,0	2,5	2,5	3,5	2,5	2,5
Drill bit d (mm)	12	12	16	16	16	16
Base material min. thickness h (mm)	200	200	200	200	200	200
Drill hole depthness h_1 (mm)	80	80	135	135	135	135
Minimum spacing S_{min} (mm)	100	100	100	100	100	100
Minimum edge distance C_{min} (mm)	100	100	100	100	100	100
Torque moment T_{inst} (Nm)	4	4	4	4	4	4
Sieve tube size d x l (mm)	12x80	12x80	15x135	15x135	15x135	15x135

Further sizes according to claims, based on individual sizing.

Basic materials: According to claims 304 (1.4301) or 316 Ti (1.4571) quality stainless steel.

FACADE PATTERN - VERTICAL PROFILE LAYOUT



Positions

A. PFK

- 1. PFK + MFT + TQR/L
- 2. PFK + MFT + TF
- 3. PFK + MFL + TF
- 4. PFK + 2MFT + TF

5. FC 6V/2V

- 6. PFK + 2MFT + TQR/F
- 7. PFK + 2MFT + TQR/L
- 8. PFK + MFL + TQR/F

9. EQRH + GF

- 10. EQR + anchor screw
- 11. PFK + 2MFL + 2xTF

12. page
12. page
14. page
13. page

6. page
13. page
13. page
14. page

20. page
23. page
14. page

12. PFK + MFL + ST +SL

13. PFK + ZXL

14. PFK + CXL

15. PFK +MFL+ AVT

16. PFK + ST

14., 24., 25. page
14. page
14. page
14., 17. page
24. page

17. FED / FEL scaffold console

30. page

Building-element

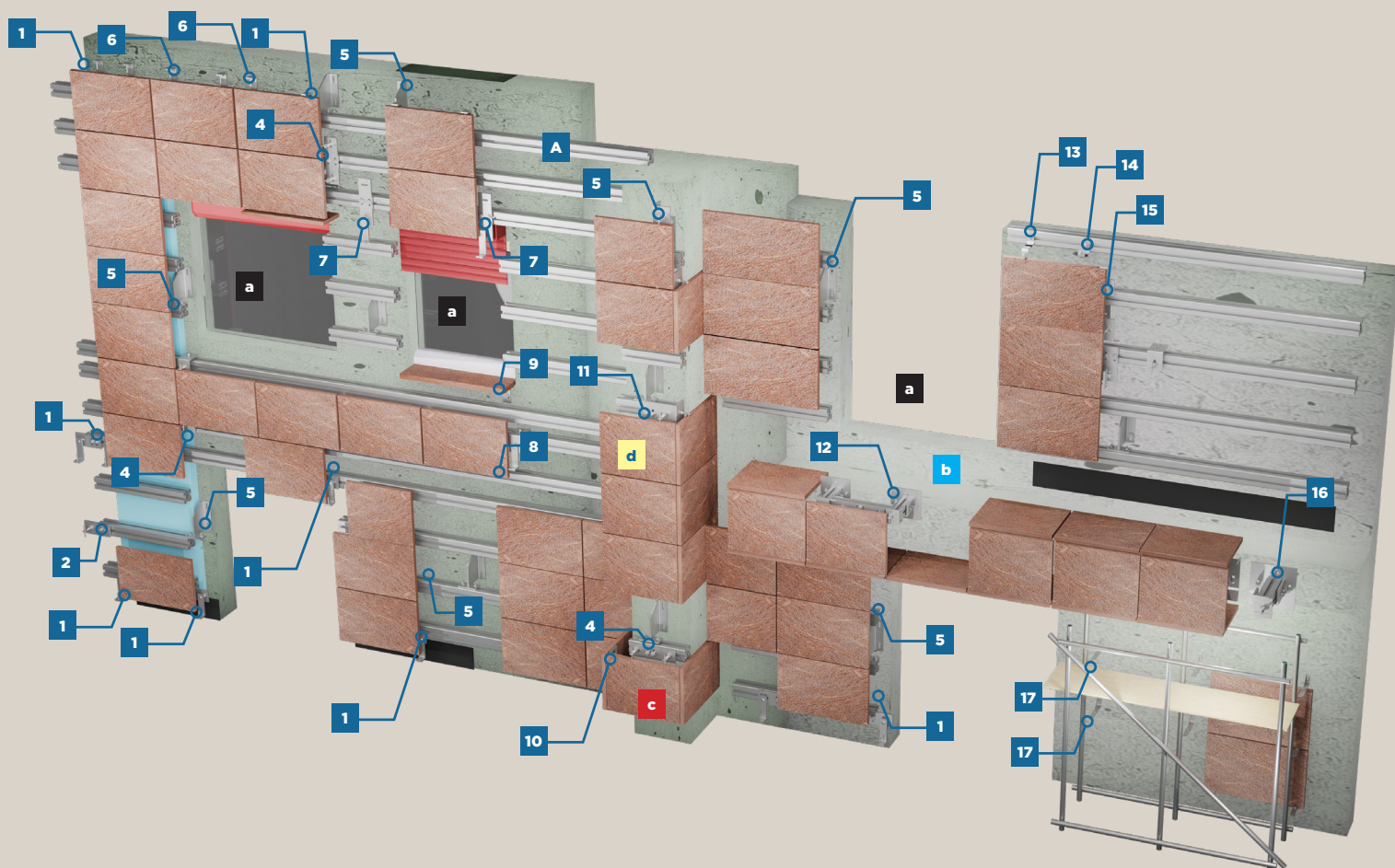
a. Openings

b. Floor slab

c. Corner

d. Pillar

FACADE PATTERN - HORIZONTAL PROFILE LAYOUT



Position

A. PFK

1. PFK + MFT/V + TQR/L	12. page
2. PFK + MFT/V + TF	12. page
3. PFK + MFL/V + TF	14. page
4. PFK + 2MFT/V + 2xTF	13. page
5. FC 6V/2H	7. page
6. PFK + 2MFT/V + TQR/F	13. page
7. PFK + 2MFT/V + TQR/L	13. page
8. PFK + MFL/V + TQR/F	14. page
9. EQRH + GF	20. page
10. EQR + anchor screw	23. page
11. PFK + 2MFL/V + 2xTF	14. page

12. PFK + MFL/V + ST + SL

14., 24, 25. page

13. PFK + ZXL

14. page

14. PFK + CXL

14. page

15. PFK + MFL/V + AVT

14., 17. page

16. PFK + ST

24. page

17. FED / scaffold console

30. page

Building-element

a. Openings

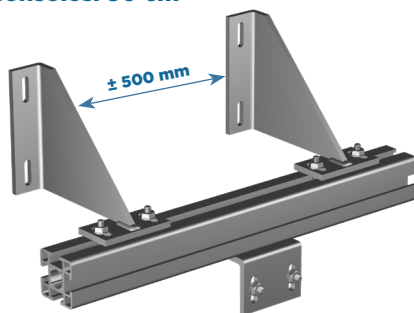
b. Floor slab

c. Corner

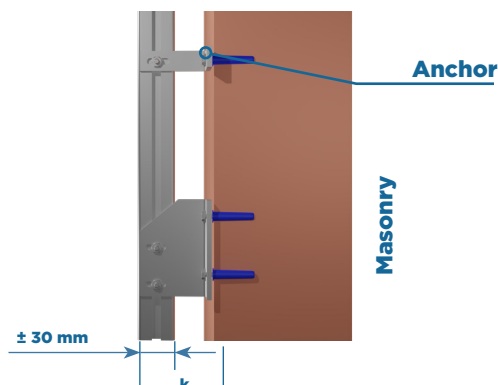
d. Pillar

36 HORIZONTAL APPLICATION

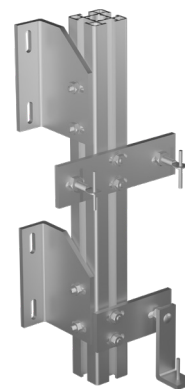
Minimal distance between consoles: 50 cm



ADJUSTMENT OF CONSOLE ON THE PROFILE: ± 30 MM



VERTICAL APPLICATION
Minimal distance between consoles: 75 cm



01. Line up the doors and windows and after verifying the building dimensions, measure and mark the precise position of the profile rails and brackets on the façade.

02. Cut an opening corresponding to the size of the brackets in the insulation; these should be placed back after mounting.

03. Bore the hole for the bracket anchor according to the table below. Note that hammer drilling is not applicable for cavity brick walls.

04. Mount the brackets on the vertical profile, alternatively to the right and the left hand side; they should be mounted at maximum every 75 cm. It depends on the orientation, the quality of the masonry, and the weight of the panels whether further brackets should be necessary.

05. To eliminate thermal bridging, a Thermostop PE plate should be installed between the reinforced concrete wall and the ceramic wall brackets.

06. Mount the thin sheet brackets to the profile with M8 screws, pulling torque is 15 Nm. The screw can be inserted via a d13 mounting hole to the side groove on the profile.

07. The thin facade sheets can be mounted with side brackets or mounting brackets, while the grooved mounting brackets can be mounted on the mounting profile with a M6 screw, pulling torque is 6 Nm.

08. A rubber band should be glued between the profile and the ceramic sheet to press the brackets to the profile, thus ensuring heat expansion movements and protection against wind load.

09. The stone slab consoles should be mounted to the higher load mounting profile with M12 screw, pulling torque is 50 Nm.

10. In the case of horizontal mounting profiles, stone slab consoles are mounted on the lower screw line with an M12 screw on both sides.

11. The stone slabs on the facade should be mounted on the mounting profile with head consoles, and should be secured with threaded headed M10 screws, pulling torque is 30 Nm.

12. There should be at least a 2 cm wide gap between the horizontally installed aluminium profiles. Sliding brackets can be installed next to each other so that they should not interfere with the expansion movements.

13. The installation of scaffold anchoring to the background masonry replaces the ring bolts belonging to the scaffolding in the façade covering. Installation should be documented for later extension since the outer panels cannot bear load.

14. In the case of attic or expansion points, the entire length of the façade must be divided. The profile system is installed on both sides separately.

LOADS ACTING ON SUPPORTING STRUCTURES, SIZING

PANEL + STONE-PANEL SPECIFIC WEIGHT

SPECIFIC GRAVITY OF PANEL LOADINGS GIVING FROM THE SUCTION PRESSURE OF THE WIND

Type	γ kN/m ³
Composite	16,0
Ceramic	20,0
Glass	24,0
Cast stone	24,0
Limestone	26,0
Granite	28,0

Build height	0-8 (m)	8-20 (m)	20-50 (m)	50-80 (m)	80-100 (m)	100+ (m)
Wind-pressure on a plane Wny (kN/m ²)	0,60	0,80	1,00	1,10	1,20	1,30
Wind-pressure on a corner Wny (kN/m ²)	1,20	1,60	2,00	2,20	2,40	2,60
Wind-suction on a plane Wsn (kN/m ²)	0,42	0,56	0,70	0,77	0,84	0,91
Wind-suction on a corner Wsk (kN/m ²)	1,20	1,60	2,00	2,20	2,40	2,60

CALCULATION THE LOAD ON A CONSOLE

Facade plate thickness [m] v
Facade plate weight [kg] $x b \times c \times v \times \gamma = G$
Facade panel specific gravity [kN/m³] γ
Load bearing consoles number [pc] n
Console fixing height [m] r
Console protrusion [m] K
Building height [m] h
Height factor [m] f
Safety factor 3f overload
Earthquake EC-9 4f
Wind pressure [kN/m²]
 $f = Wny$ [kN/m²] / (s [m] $\times \gamma$ [kN/m³])
Flagstone facade
Weight of flagstone: $G = 0,9 \times 0,6 \times 0,03 \times 28 = 45,36$ kg = 0,4536 kN
Specific gravity of flagstone: $\gamma = 28,0$ kN/m³
Console fixing height: $r = 145$ mm
Console protrusion: $K = 200$ mm
Console number: $n = 2$ pcs
Building height: $h = 24$ m
Height factor: $f = 1,0$
Wind pressure: $f = 1,1$

Loading capacitys

Vertical loading, Fixing per anchor point 0,3 kN:

$$F = G \times f / n = 0,4536 \text{ (kN)} \times 1,00 \text{ (kN/m}^2\text{)} / 2 \text{ (db)} = 0,2268 \text{ kN} < 0,3 \text{ kN}$$

Horizontal tensile loading:

$$W = Wsn \times a \times b / n = 0,70 \text{ kN/m}^2 \times 0,9 \text{ m} \times 0,6 \text{ m} / 2 = 0,189 \text{ kN} < 0,3 \text{ kN}$$

Shearing loading:

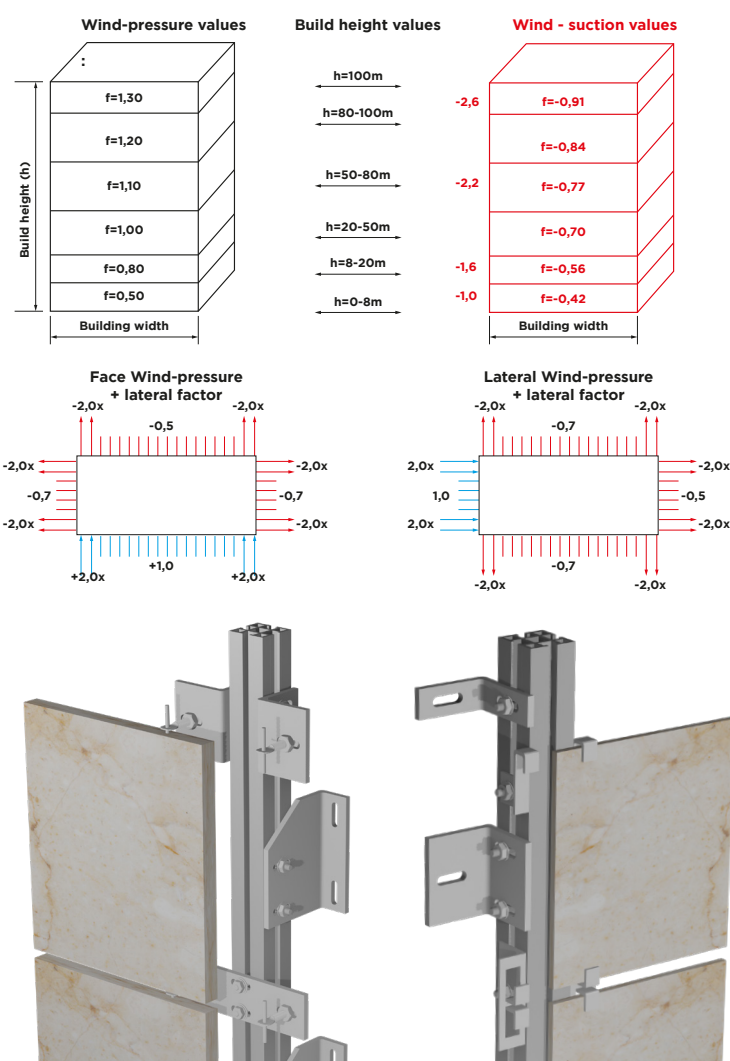
$$R = \sqrt{W^2 + G^2} = \sqrt{0,2268^2 \text{ kN} + 0,189^2 \text{ kN}} = \sqrt{0,051 \text{ kN} + 0,036 \text{ kN}} = \sqrt{0,087} = 0,294 \text{ kN} < 0,3 \text{ kN}$$

Load calculated per anchor C20/25 concrete masonry – shear strength 5,9 kN, tensile strength 7,5 kN

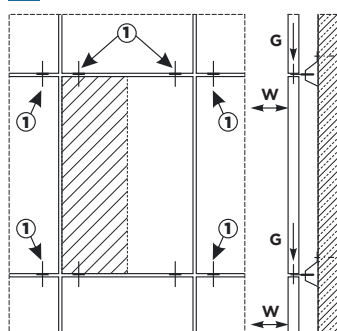
$$F/G = (K+v/2) \times (G/r-v) = (0,2+0,03/2) \times (0,4536/0,145-0,03) = 0,115 \times 3,09 = 3,5 \text{ kN} < 5,9 \text{ kN}$$

$$W = (K+v) \times (G/r) = 0,2+0,03 \times 0,4536/0,145 = 0,23 \times 3,12 = 7,176 \text{ kN} < 7,5 \text{ kN}$$

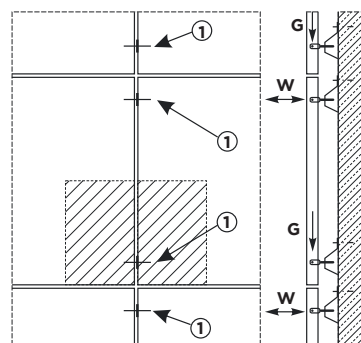
Safety factor: 3f (overload) + earthquake (EC-9): 4f



A HORIZONTAL GAP



B VERTICAL GAP



EU standards:

DIN EN 18515	Cladding for External walls
DNI EN 18516	Cladding for External walls - ventilated at rear
DIN 1053-1	Brickfacade specifications - former, withdrawn
DIN EN 1996-1-1 (EC-6)	Design of masonry structures - valid

EUROCODE	General standards	Standards	Stainless steel
EN 1990 EC	Basis of structural design	EN 10088	List of stainless steels
EN 1991 EC-1	Actions on structures	EN 1011	Recommendations for welding of stainless steel
EN 1993 EC-3	Design of steel structures	EN ISO 3506	Corrosion-resistant stainless steel fasteners
EN 1998 EC-8	Design of structures for earthquake resistance	EN 10163	Hot-rolled steel plates
EN 1999 EC-9	Design of aluminium structures		Aluminium structures
	Load bearing standards	EN 573	Aluminium and aluminium alloys
DIN EN 1045	Reinforced concrete structures	EN AW 6060	Mounting aluminium profiles
DIN EN 1055	Action on structures	EN AW 6060	Moulded aluminium profiles
EN 771	Hollow masonry units	EN AW 5754	Cold-rolled alloy sheets

- The ventilated flagstone facade is made with openly air vents.
- The thermal cross-section of the layered façade system satisfies the basic insulation and damp-proofing requirements, and creates an energy efficient, maintenance-free and aesthetic external look.
- The advantages of the ventilated facade cladding are its shading effect and its ventilation vents efficiency. The ability of the air vent to drain off moisture depends. On the height of the air column min. 30 mm. In order to equalize the vapour diffusion pressure, open horizontal and vertical joints are used.
- A basic principle of modern construction technology is to install the components so that each panel is free to expand and move independently.
- A nyitott hézagú homlokzatnál a csapóeső a belső légnyomás miatt nem jut át a légrétegen keresztül a hőszigetelésre, hanem a lap belső felületein a ventiláció hatására felszárad.
- The maximum length of the mounting profiles cannot be greater than 3 meters, because a gap of at least 20 mm is required between stacked profiles due to thermal expansion.
- For vertical profile mounting, the maximum spacing between brackets must not exceed 750 mm
- For horizontal profile mounting, the maximum spacing between brackets must not exceed 500 mm.
- The facade stone slabs are fixed on their sides using at least four pins, or board panels using four clips. They are load-bearing at the bottom two fixings, and anchored at the top two fixings, which simultaneously support the slab above them.
- Load capacities must be calculated based on the combined load of forces acting on the facade: driving rain, wind loads, height and safety factors, and expansion movements.
- The consoles, fasteners, and fittings are made of stainless steel or high-strength, cold-rolled aluminum alloy, in accordance with the required load capacity.
- The mounting profiles are high-strength primary load-bearing structures made of hot-extruded alloyed aluminum.
- The anchors to be installed must be applied in accordance with the manufacturer's instructions.
- The installation of scaffolding anchors into the load-bearing masonry can be carried out by continuously replacing the scaffolding's own anchoring elements, in accordance with the scaffolding type, and documented for subsequent scaffolding re-installation.
- The facade flagstone cannot be loaded, only the external assembly installed in front of the constructions can be attached to the rear background masonry.
- All fixing elements to be installed must have the required certificates.





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