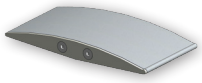
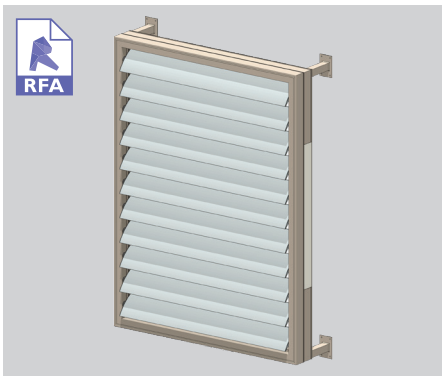


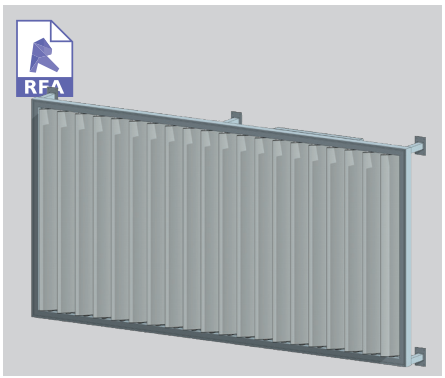
180MM AIRFOIL LOUVRE

solution for wider openings

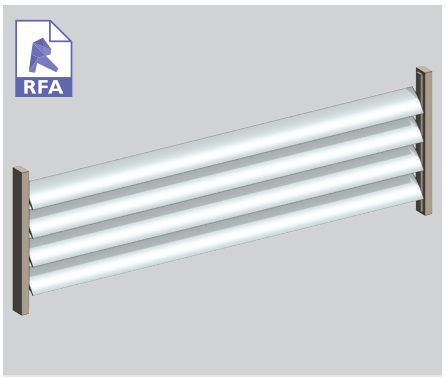
This blade is a scaled up version of the 120mm Airfoil. The 180mm Airfoil features the same clean aerodynamic lines as the 120mm Airfoil with the added value of increased spans for wider openings.
Available as either motorised or hand operable Spiral Pivot, the 180mm Airfoil is well suited to a wide range of external sun louvre applications.
Also available as end fixed or bracket fixed horizontal or overhead panels.



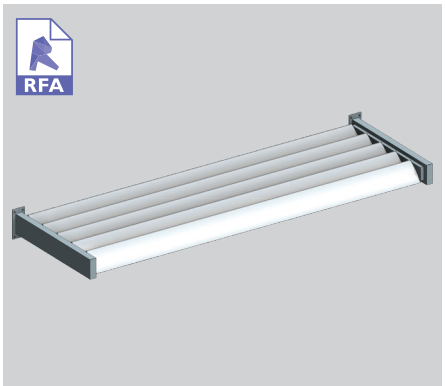
SUPER ELAM STREET STRUCTURAL FRAME WITH SUB-FRAME



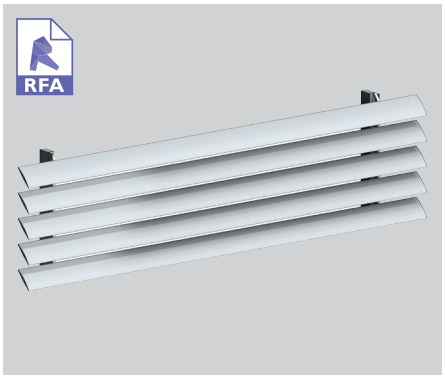
ELAM STREET STRUCTURAL FRAME - VERTICAL LOUVRES



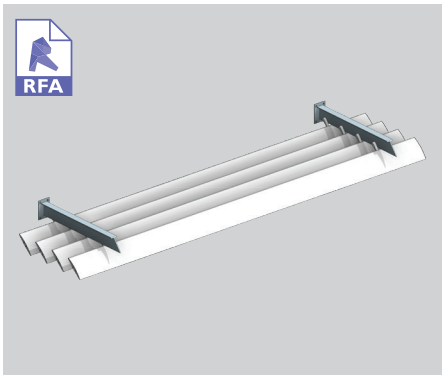
END FIXED - VERTICAL PANEL



END FIXED - OVERHEAD PANEL



BRACKET FIXED - VERTICAL PANEL



BRACKET FIXED - OVERHEAD PANEL

SURFACE COATINGS

A wide range of options are available.

ANODISED

WOOD FINISH

POWDERCOATED

OPERATING THIS SUN LOUVRE SYSTEM - THE CHOICE IS YOURS

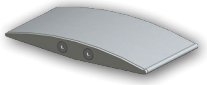
Fixed options

Operable systems

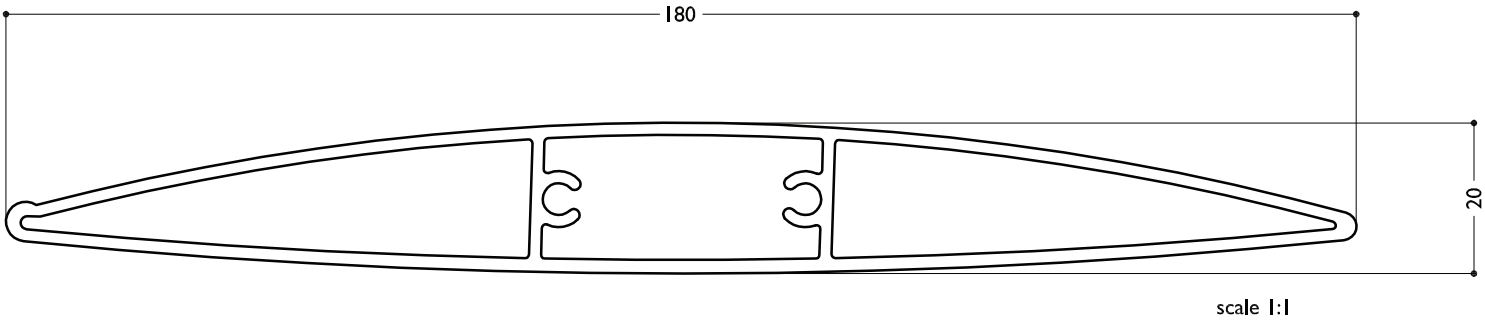
LOUVRETEC GEARBOX

HOME MOTION by somfy

MOTORS AND SENSORS



TECHNICAL DETAILS 180MM AIRFOIL LOUVRE



scale 1:1

BLADE SPECIFICATIONS			
Blade cover - opening system	169 mm	Weight per lineal metre	1.85 kgm
Weight per square metre - opening system	11 kg/sqm	Actual blade width	180 mm
Blade centres - opening system	169 mm		

SPANS AT A GLANCE NB Refer Engineering Section. Climate, terrain, shielding, location, type of structure contribute to determine spans.

WIND ZONE	INSIDE	LOW	MEDIUM	HIGH	VERY HIGH	EXTRA HIGH
Factored wind speed at building	Self wt	32 m/s 115 km/hr	37 m/s 133 km/hr	44 m/s 158 km/hr	50 m/s 179 km/hr	55 m/s 198 km/hr
Ultimate limit state loads (kPa)		+0.92 & -1.15	+1.23 & -1.53	+1.74 & -2.17	+2.24 & -2.80	+2.71 & -3.39
Adjustable and fixed - horizontal & vertical	3100	2950	2700	2400	2200	2050

INSTALLATION OPTIONS

SPIRAL PIVOT SYSTEM: CALCULATE OPTIMUM FRAME OPENING SIZES

Width: Check engineering limits

Height: Calculation example showing 17 blades

STEP 1

16 blades x 169	2704
1 blade at 180	180
17 blades	=2884

STEP 2

Blade cover	2884
+ top and bottom closing angles allow for	
5mm + 5mm	10
Total exact opening height	=2894*

*This is inside measure - not outer frame size

END FIXED

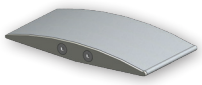
Louvres at any pitch

Louvres at any centre

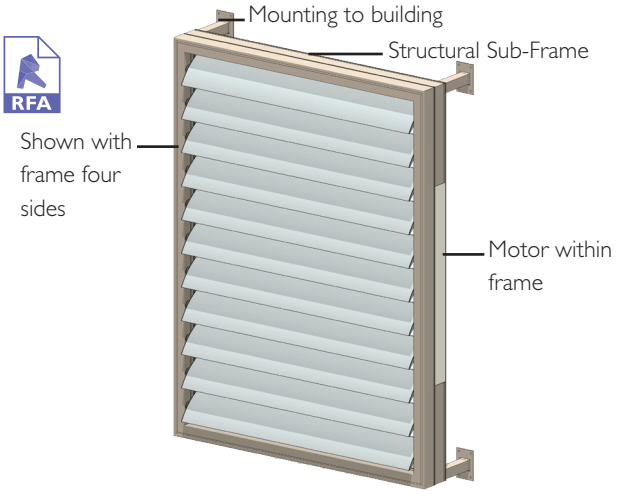
BRACKET FIXED

Louvres at any pitch

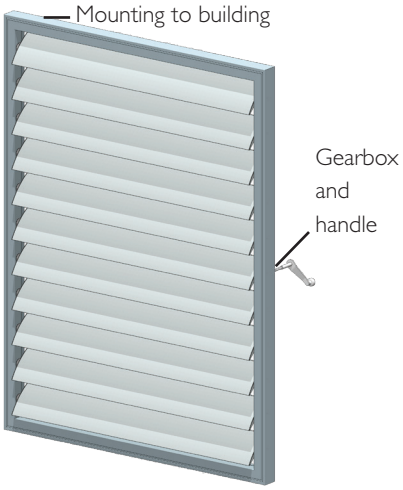
Louvres at any centre



TYPICAL DETAIL 3D MODELS **180MM AIRFOIL SPIRAL PIVOT MOTORISED & HAND OPERABLE LOUVRES**

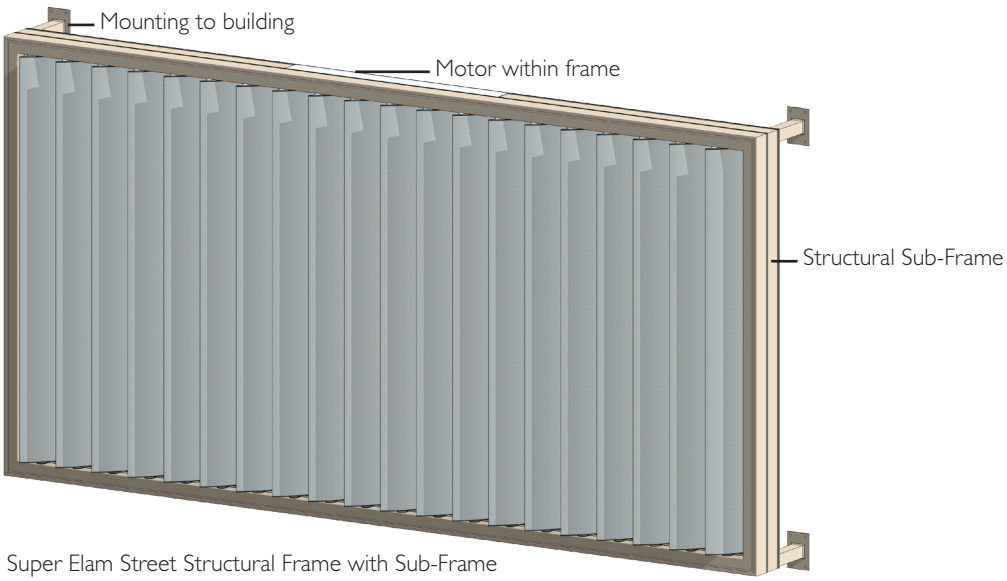


Super Elam Street Structural Frame with Sub-Frame
Vertical panel - Motorised horizontal blades



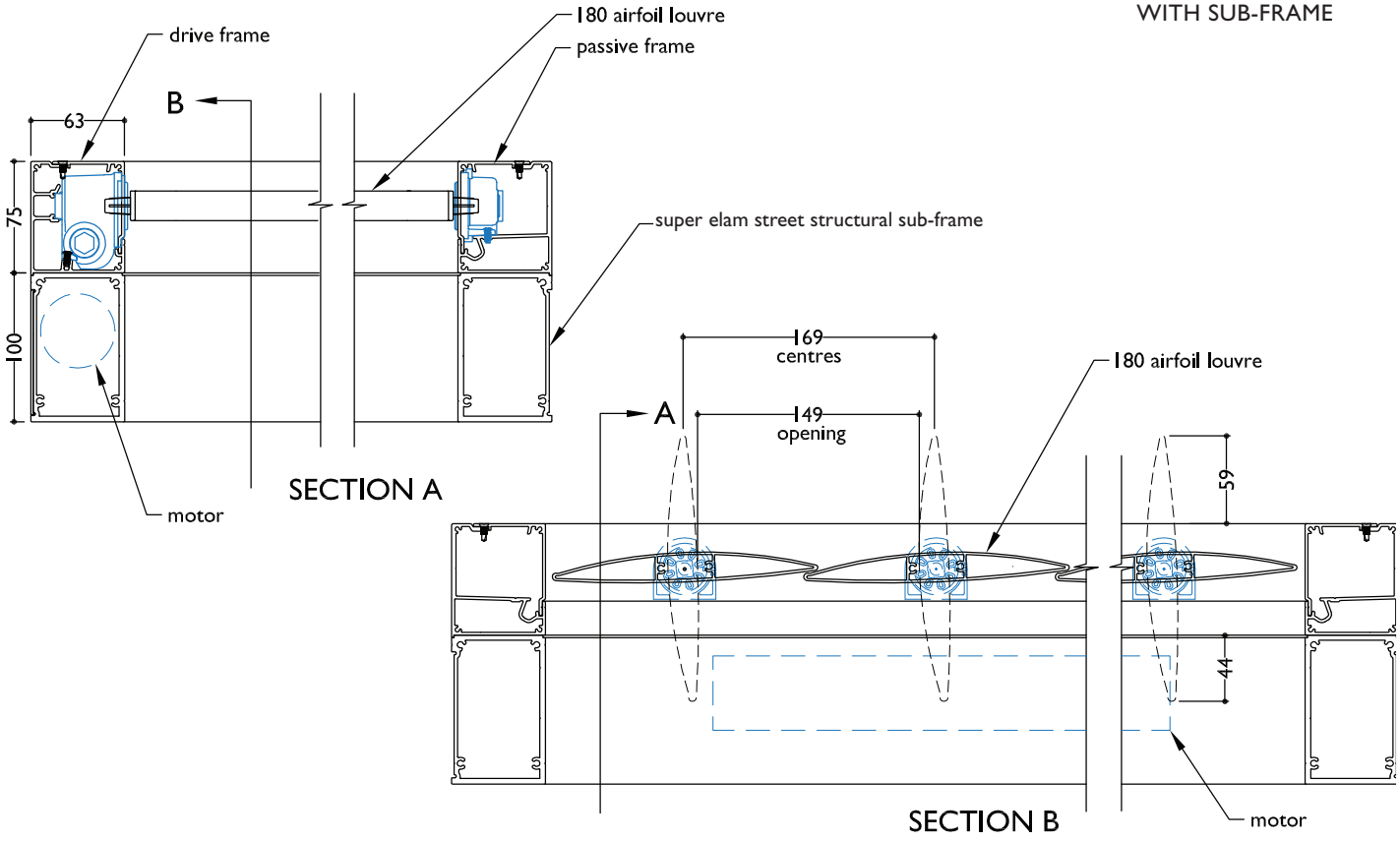
Elam Street Structural Frame
Vertical panel - Hand operable horizontal blades

TYPICAL DETAIL 3D MODEL **180MM AIRFOIL SPIRAL PIVOT MOTORISED LOUVRES**

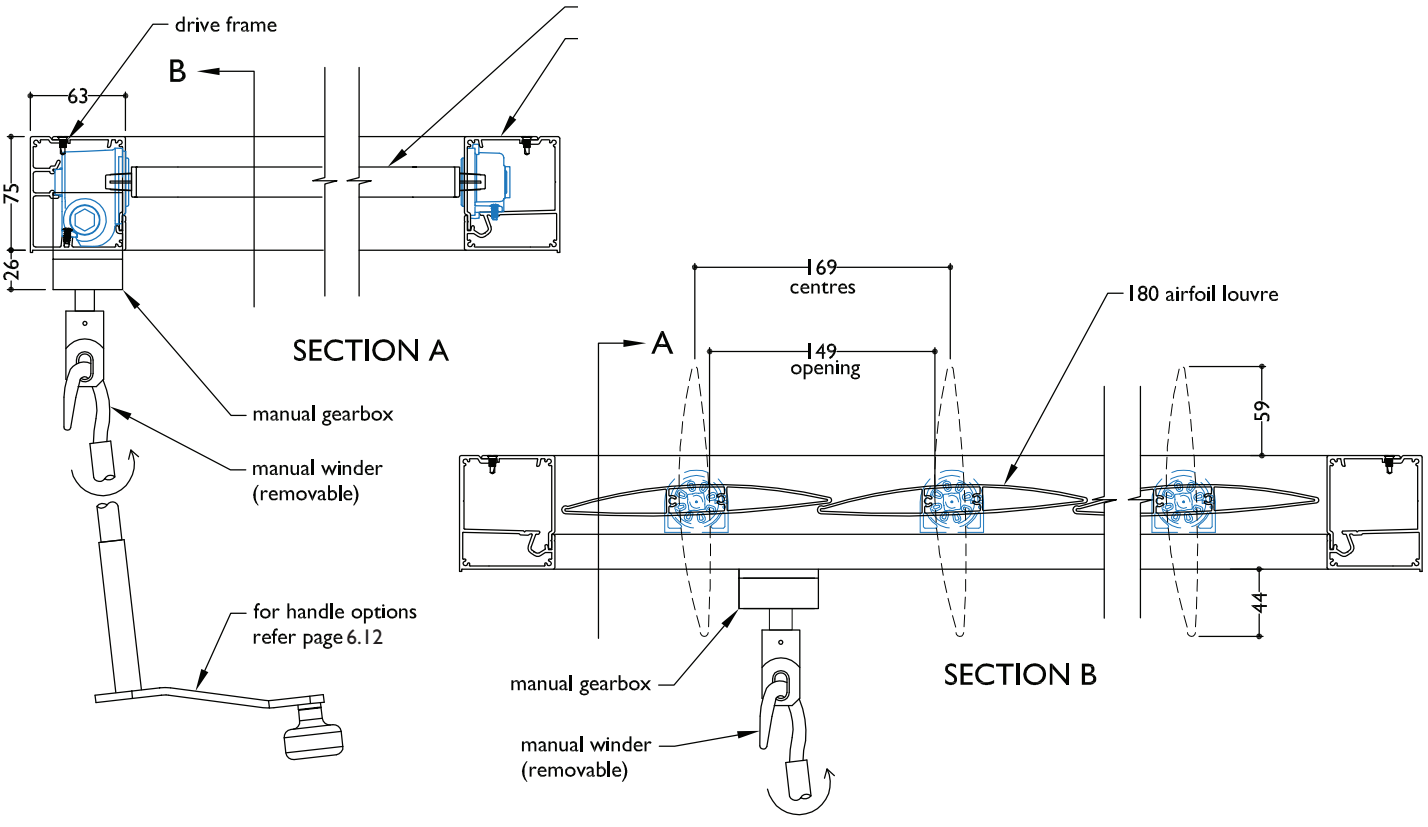


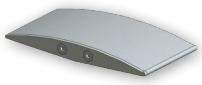
180mm Airfoil Spiral Pivot in Super Elam Street Structural Frame with Sub-Frame
Vertical panel - Motorised vertical blades

SECTION - MOTORISED 180MM AIRFOIL LOUVRE SPIRAL PIVOT ON SUPER ELAM STREET STRUCTURAL FRAME WITH SUB-FRAME

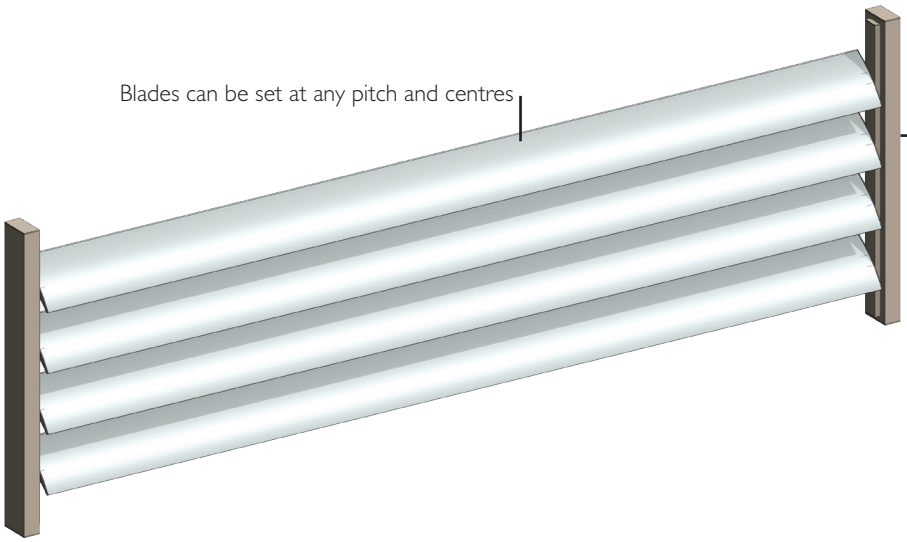


SECTION - MANUALLY OPERABLE 180 AIRFOIL LOUVRE SPIRAL PIVOT



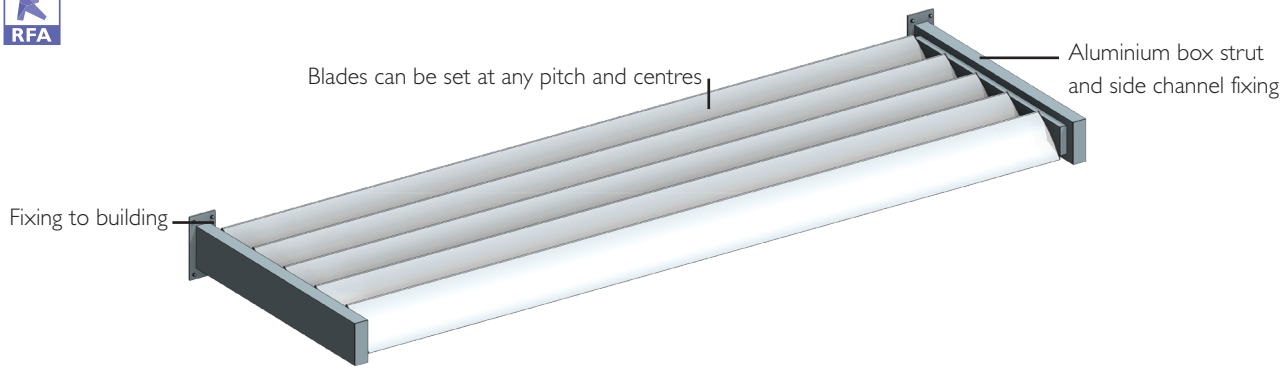


TYPICAL DETAIL 3D MODEL **180MM AIRFOIL LOUVRES END FIXED VERTICAL PANEL**



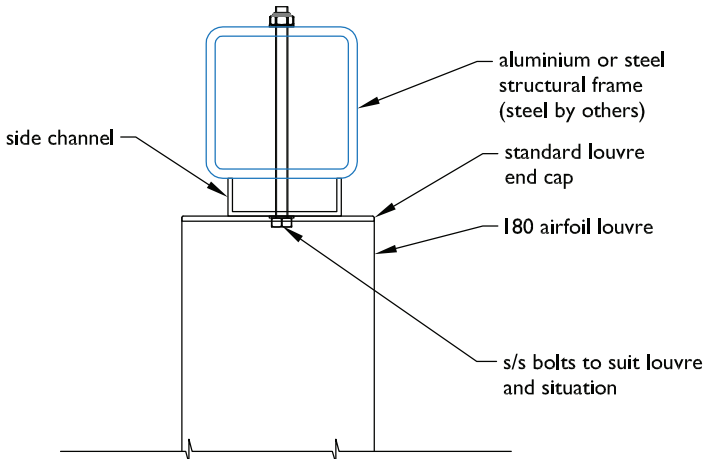
End fixed vertical panel

TYPICAL DETAIL 3D MODEL **180MM AIRFOIL LOUVRES END FIXED OVERHEAD PANEL**

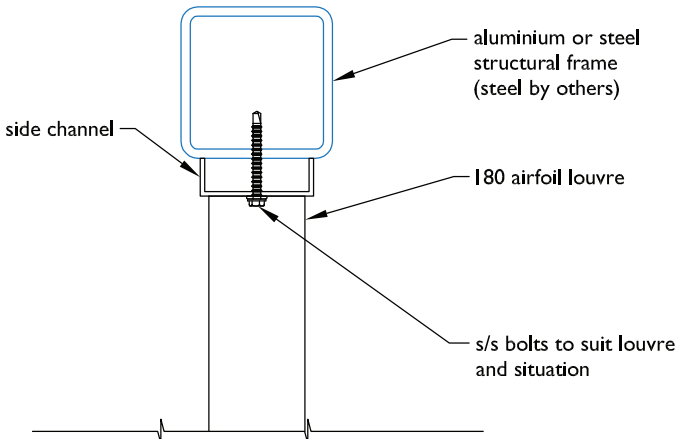


End fixed overhead panel

PLAN - END FIXED 180MM AIRFOIL LOUVRE

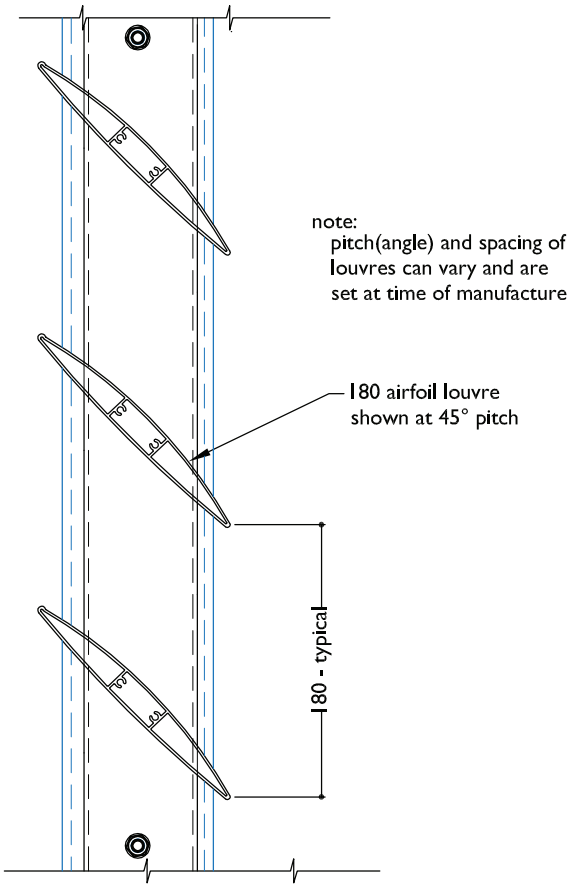


Louvres outside side channel
end caps required

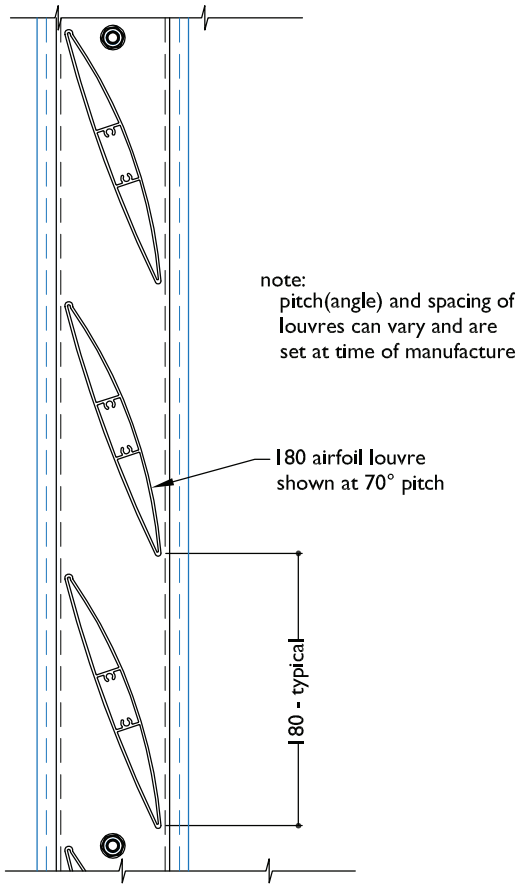


Within side channel
no end caps required

SECTION - END FIXED 180MM AIRFOIL LOUVRE

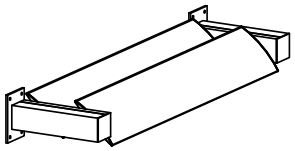


Louvres outside side channel
end caps required



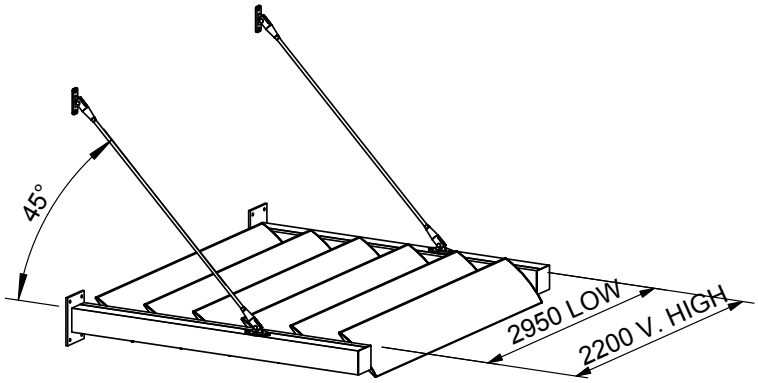
Within side channel
no end caps required

OVERHEAD EYEBROW LOUVRES



Free Span Example

CALCULATIONS FOR BLADE SPANS SHOW RANGE FROM
Low Wind Zone 115km/h, 32m/s to
Extra High Wind Zone 198km/h, 55m/s
Refer Engineering Details, Section 11



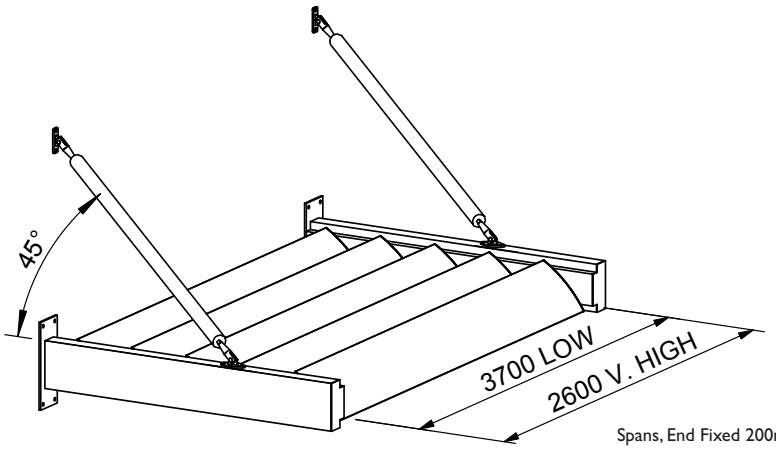
Ø20 SS Strut Support Example,
Strut at Optimum 45° angle.

Spans, End Fixed
180mm Airfoil Louvre.

KEY
LF = Free span
LS15 = Strut @ 15°
LS30 = Strut @ 30°
LS45 = Strut @ 45°

Plain Column:
Low - Med Wind Zone.
Up to 133Km/h - 37m/s

Shaded Column:
High - VHigh Wind Zone.
Up to 179Km/h - 50m/s



Spans, End Fixed 200mm Maxi Louvre.

Ø42 SS Strut Support Example,
Strut at Optimum 45° angle.

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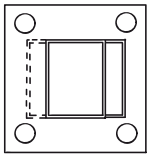
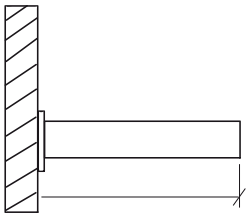
TYPICAL DETAIL : END FIXED OVERHEAD WALL STRUTS FOR 180MM AIRFOILS & 200MM MAXI LOUVRES SPANS AT A GLANCE

OVERHEAD EYEBROW DETAIL



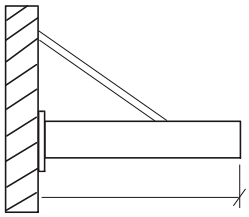
Base Plate: 100 x 150 x 6mm
Box Section: 75 x 50 x 2.5mm
Channel: 75 x 25 x 3mm

Free Span



LF	LF
500	500

Strut Support

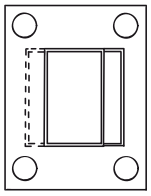


Strut Ø16mm
Stainless steel

LS15	LS15
800	600

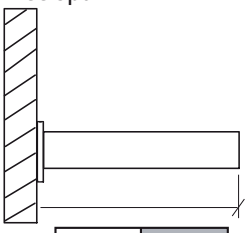
LS30	LS30
900	700

LS45	LS45
900	700



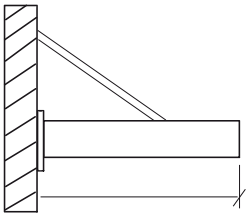
Base Plate: 100 x 225 x 6mm
Box Section: 100 x 50 x 3mm
Channel: 100 x 25 x 3mm

Free Span



LF	LF
700	600

Strut Support

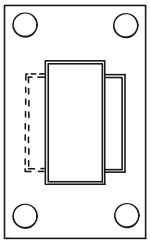


Strut Ø20mm
Stainless steel

LS15	LS15
1000	800

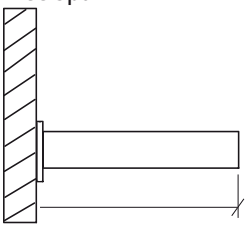
LS30	LS30
1200	1000

LS45	LS45
1200	1000



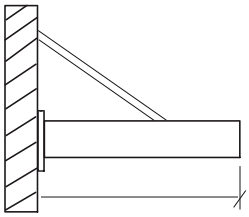
Base Plate: 100 x 275 x 6mm
Box Section: 150 x 50 x 3mm
Channel: 100 x 25 x 3mm

Free Span



LF	LF
1000	900

Strut Support

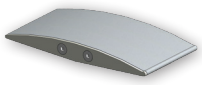


Strut Ø42mm
Stainless steel

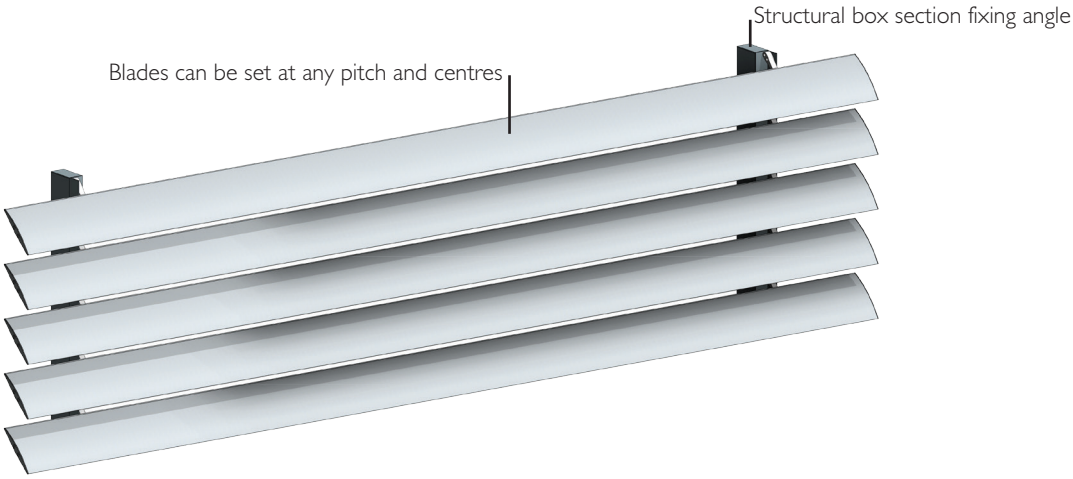
LS15	LS15
1300	1100

LS30	LS30
1600	1300

LS45	LS45
1600	1400

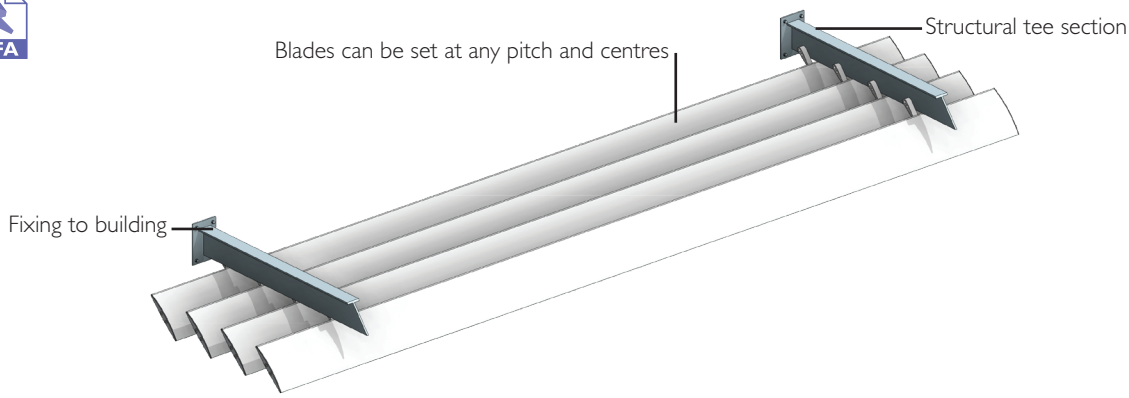


TYPICAL DETAIL 3D MODEL **180MM AIRFOIL LOUVRES BRACKET FIXED VERTICAL PANEL**



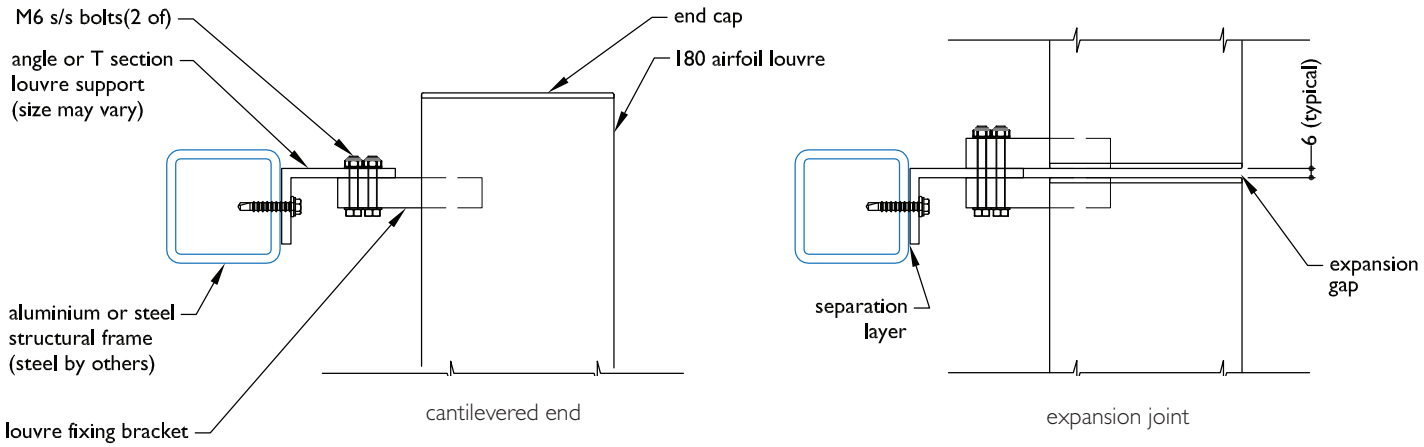
Bracket fixed vertical panel

TYPICAL DETAIL 3D MODEL **180MM AIRFOIL LOUVRES BRACKET FIXED OVERHEAD PANEL**

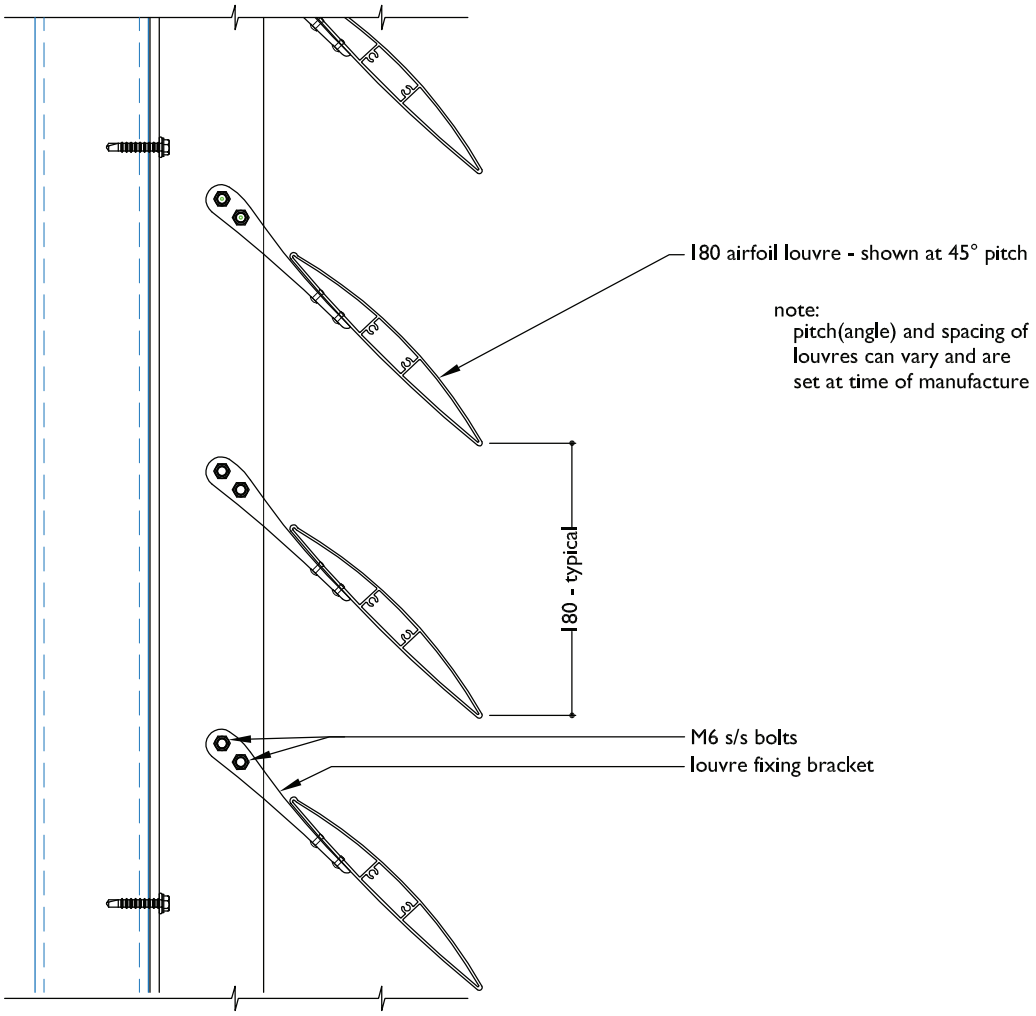


Bracket fixed overhead panel

PLAN - BRACKET FIXED 180 AIRFOIL LOUVRE

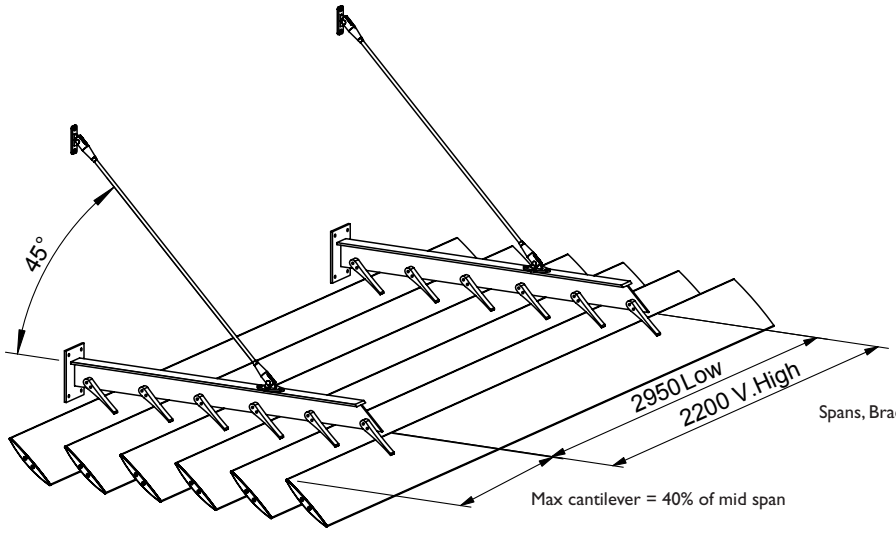


SECTION - BRACKET FIXED 180 AIRFOIL LOUVRE



OVERHEAD EYEBROW LOUVRES

CALCULATIONS FOR BLADE SPANS SHOW RANGE FROM
Low Wind Zone 115km/h, 32m/s to
Extra High Wind Zone 198km/h, 55m/s
Refer Engineering Details, Section 11

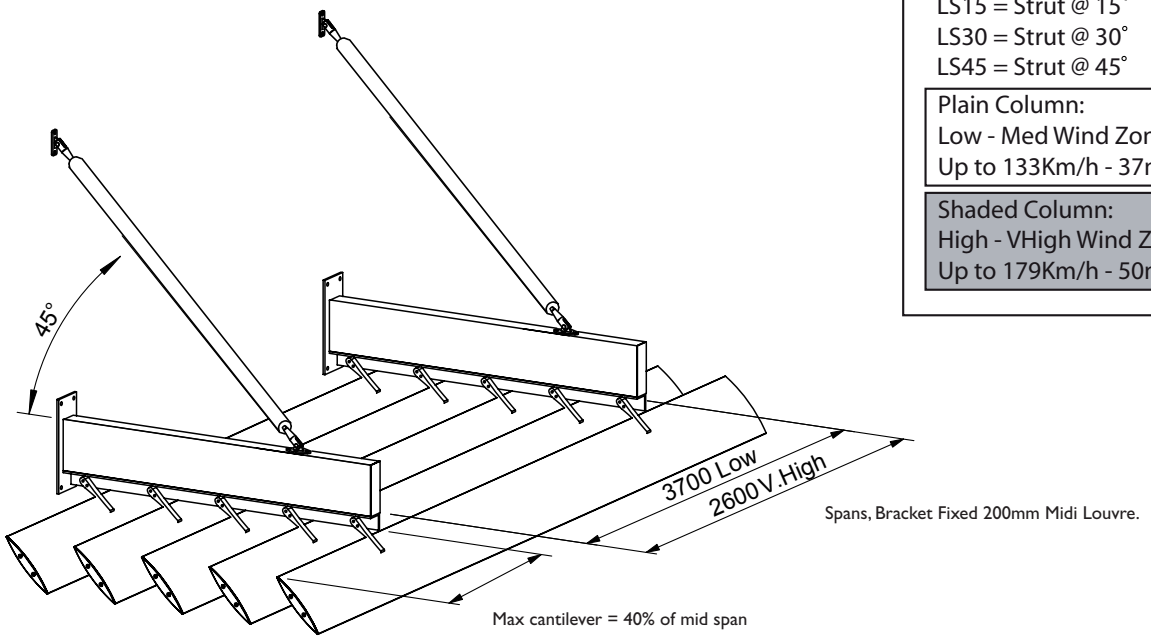


Ø20 SS Strut Support Example,
Strut at Optimum 45° angle.

KEY
LF = Free span
LS15 = Strut @ 15˚
LS30 = Strut @ 30˚
LS45 = Strut @ 45˚

Plain Column:
Low - Med Wind Zone.
Up to 133Km/h - 37m/s

Shaded Column:
High - VHigh Wind Zone.
Up to 179Km/h - 50m/s



Ø42 SS Strut Support Example,
Strut at Optimum 45° angle.

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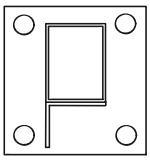
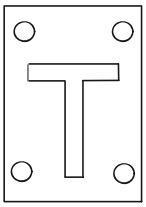
TYPICAL DETAIL : BRACKET FIXED OVERHEAD WALL STRUTS FOR 180MM AIRFOILS & 200MM MAXI LOUVRES SPANS AT A GLANCE

OVERHEAD EYEBROW DETAIL

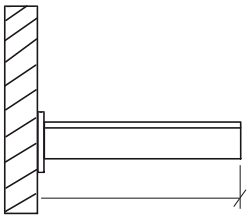


Base Plate:
150 x 100 x 6mm
Box Section:
75 x 50 x 2.5mm
Angle:
50 x 50 x 3mm



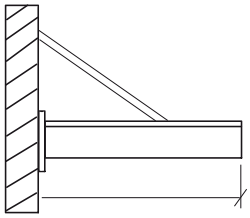
Base Plate: 120 x 100 x 6mm
'T' Section: 75 x 50 x 6mm

Free Span



LF	LF
500	500

Strut Support

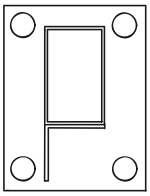


Strut Ø16mm
Stainless steel

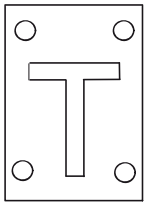
LS15	LS15
800	600

LS30	LS30
900	700

LS45	LS45
900	700

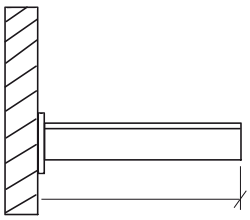


Base Plate:
225 x 100 x 6mm
Box Section:
100 x 50 x 3mm
Angle:
50 x 50 x 6mm



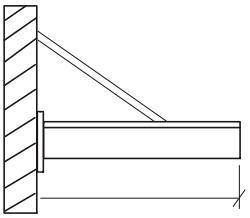
Base Plate: 170 x 100 x 6mm
'T' Section: 100 x 50 x 6mm

Free Span



LF	LF
700	600

Strut Support

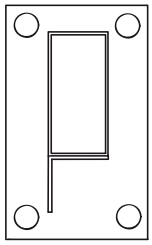


Strut Ø20mm
Stainless steel

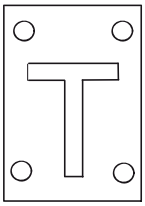
LS15	LS15
1100	900

LS30	LS30
1200	1000

LS45	LS45
1300	1000

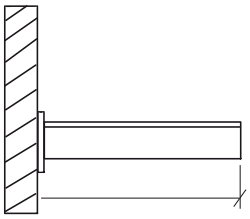


Base Plate:
275 x 100 x 6mm
Box Section:
150 x 50 x 3mm
Angle:
50 x 50 x 6mm



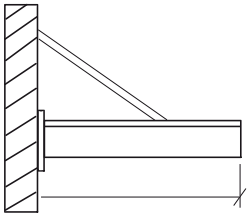
Base Plate: 170 x 100 x 6mm
'T' Section: 100 x 50 x 6mm

Free Span



LF	LF
1000	900

Strut Support



Strut Ø42mm
Stainless steel

LS15	LS15
1400	1100

LS30	LS30
1600	1300

LS45	LS45
1700	1400