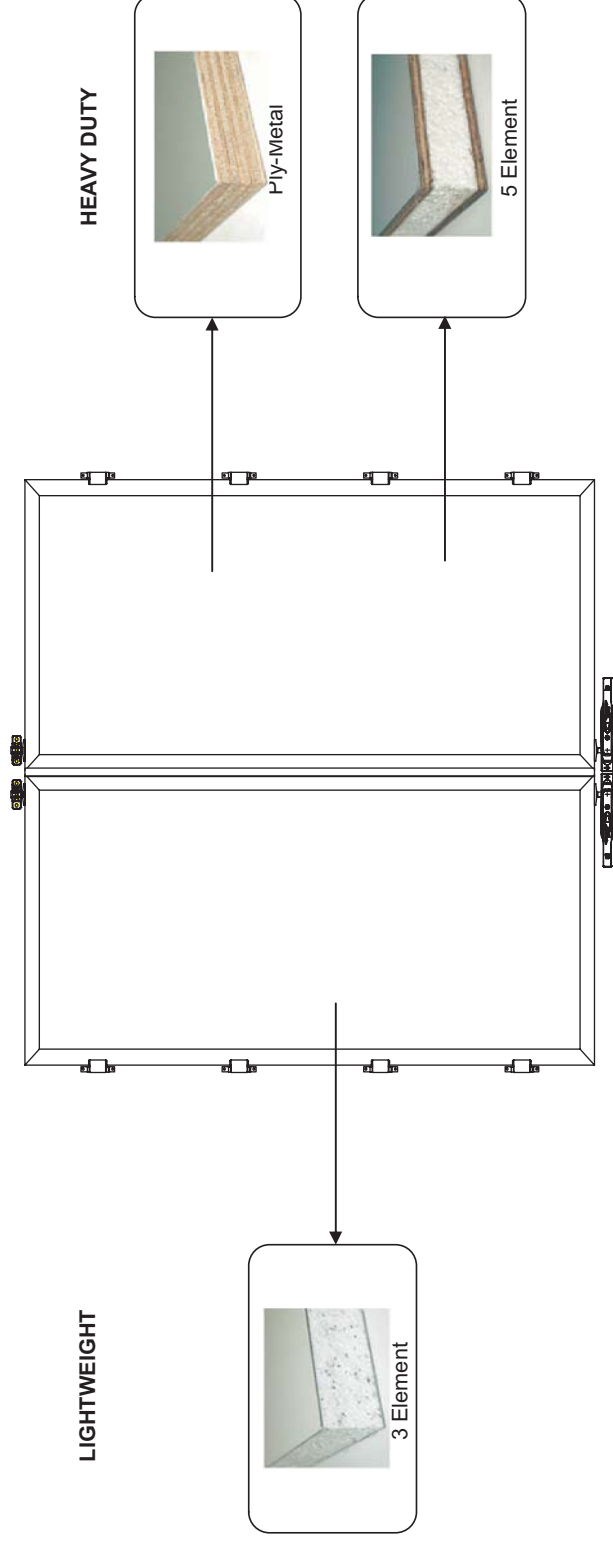


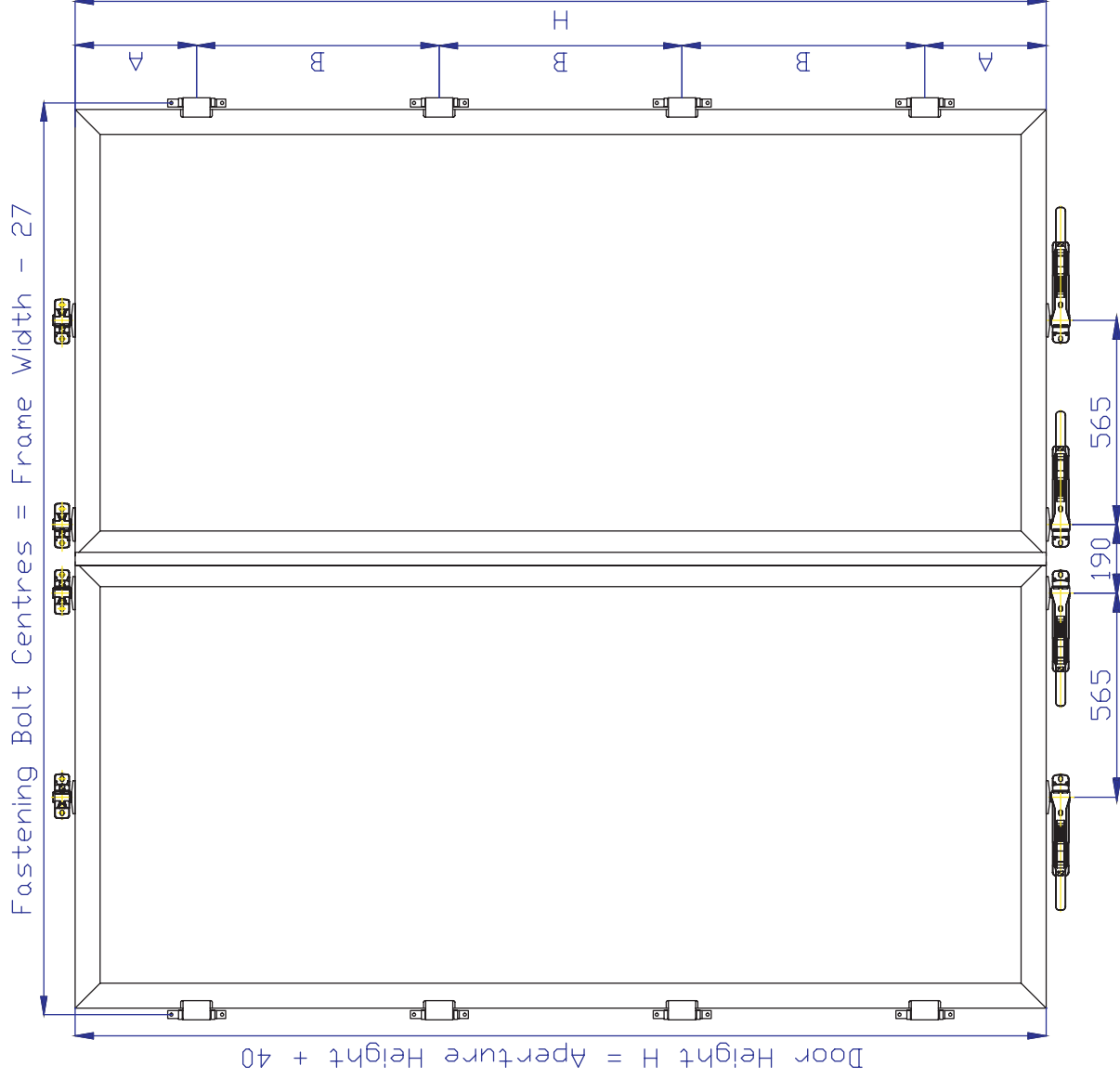
FLUSH DOOR PANEL OPTIONS



Description	Substrate	Exterior	Interior	Overall Thickness	Weight/m ²	Part Number
3 Element	24.5mm High Strength Rigid Polystyrene Foam	0.5mm White Steel 0.7mm White Steel 0.7mm White Steel	0.5mm White Steel 0.5mm Galvanised Steel 0.7mm White Steel	25.5 25.7 25.9	9.1 Kg 10.7Kg 12.2 Kg	F311 F315 F377
5 Element	17mm High Strength Rigid Foam Core Between 2 3.6mm WBP Far Eastern Plywood Panels	0.7mm White Steel 0.9mm Primer Aluminium 0.9mm White Aluminium	0.5mm Galvanised or White Steel 0.5mm Galvanised or White Steel 0.5mm Galvanised or White Steel	25.2 25.2 25.2	14.8 Kg 11.5 Kg 11.5 Kg	F575 / 1 F585 / 1 F5W5 / 1
Ply - Metal	Two 12mm WBP Far Eastern Plywood Panels	0.5mm White Steel 0.9mm Primer Aluminium 0.9mm White Aluminium	0.5mm Galvanised or White Steel 0.5mm Galvanised or White Steel 0.5mm Galvanised or White Steel	25.0 25.4 25.4	22.6 Kg 20.9 Kg 20.9 Kg	FP15 / 1 FP85 / 1 FPW5 / 1

Typical Dimensions: To Suit Up to 4460mm Internal/Aperture Height And 2550mm Overall Width
 Full Colour Match Powder Coat Service Available
 All Weights & Dimensions Are Approximate
 Normanton Laminating Services Ltd Issued Mar 2008

Smoothliner 3 Standard Configuration



Standard hinge configurations shown in table below.
(Non standard available by arrangement - please consult us.)

End hinges equidistant from door top and bottom (A)

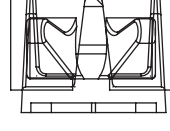
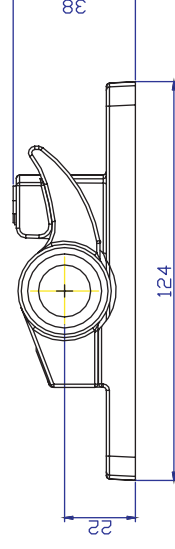
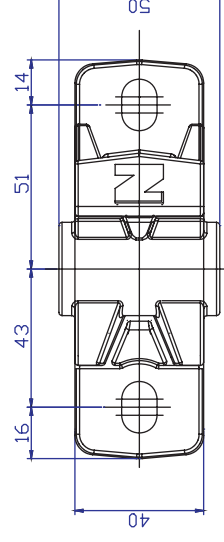
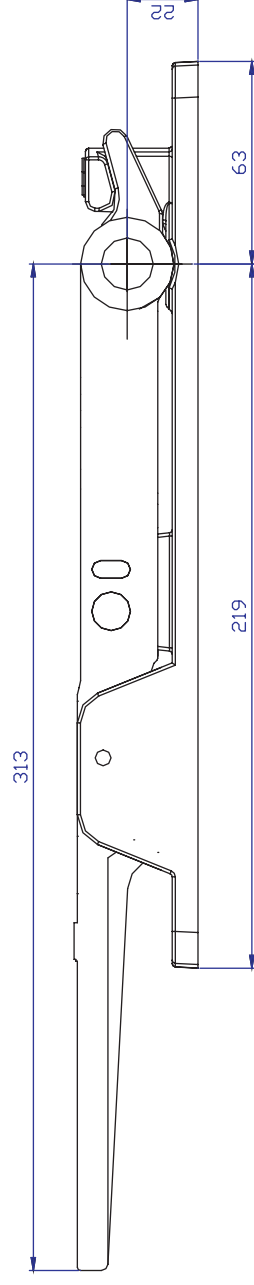
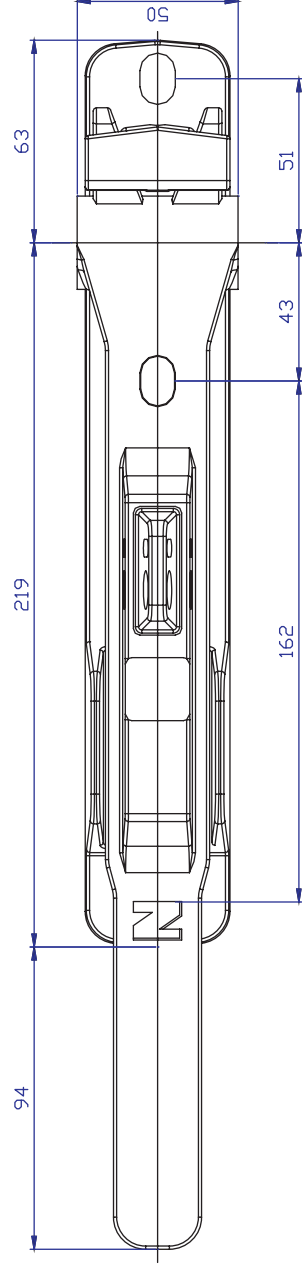
$$A = 0.5(H-B(n-1))$$

Door Height (H)	Number Hinges (n)	Hinge Spacing (B)
1040 - 1589	2	770
1590 - 1789	3	670
1790 - 2249	3	770
2250 - 2700	4	670
2701 - 3000	4	770
3001 - 3350	5	670
3351 - 3649	5	770
3650 - 4100	6	670
4101 - 4300	6	770
4301 - 4500	7	670

Note 2nd Lockrod on each door optional



Normanton Flush Door Locking Mechanisms



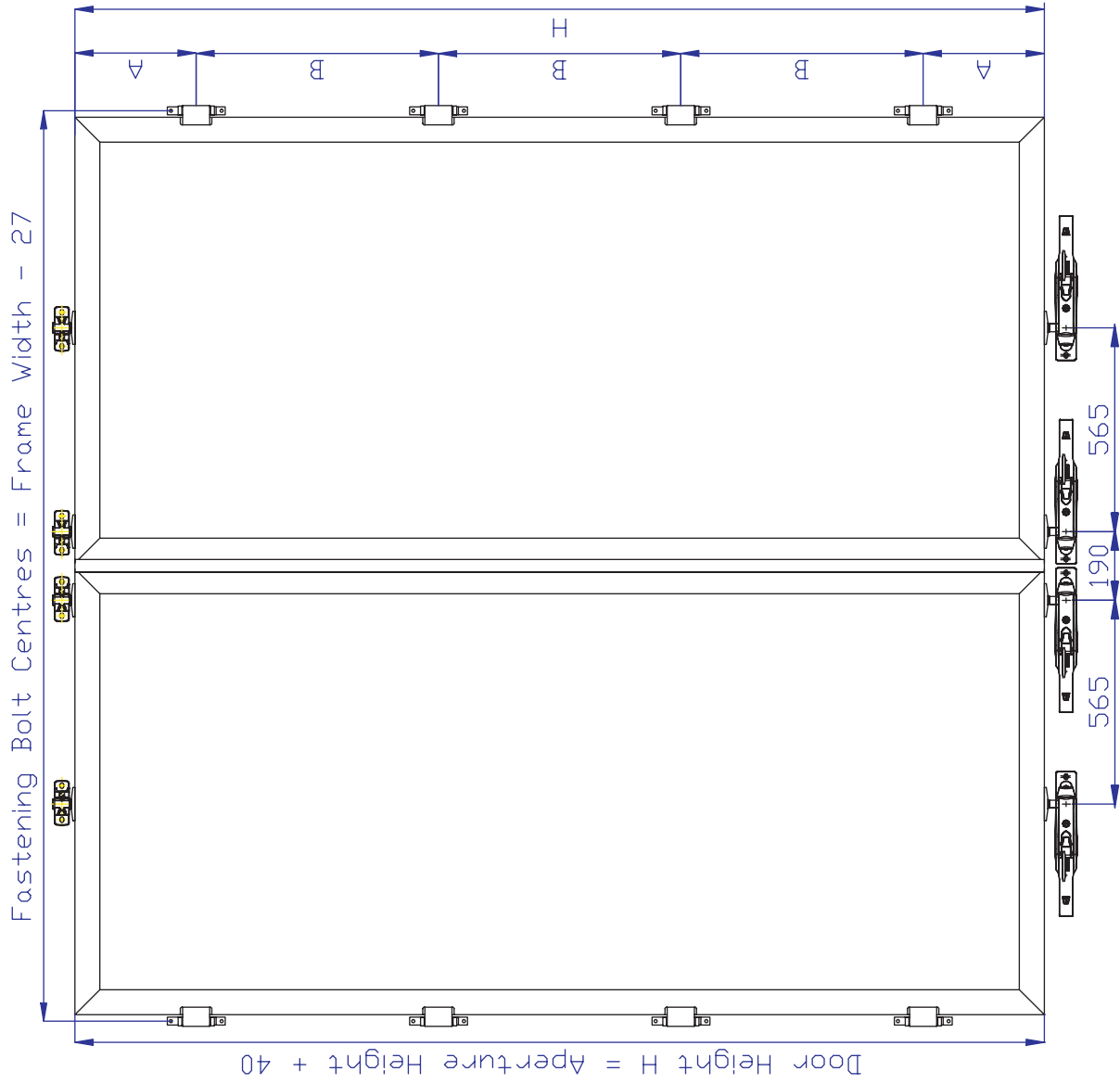
Normanton standard below-door mounted Handle/Retainer assembly and top Cam/Keeper assembly.

Top Cam interlocks with Normanton heavy duty anti-racking plate to greatly reduce risk of water ingress.

Hot dipped galvanised anti corrosion finish as standard.

Standard option on *Smoothliner 3* Flush Doors.

Smoothliner 3 Standard Configuration – Optional Thiriet Handles



Standard hinge configurations shown in table below.
(Non standard available by arrangement - please consult us.)

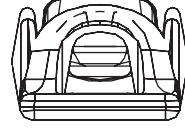
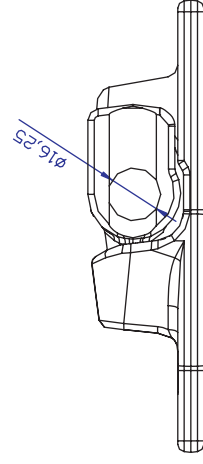
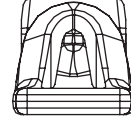
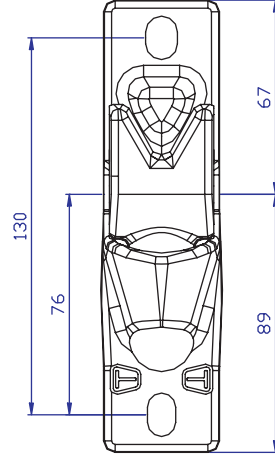
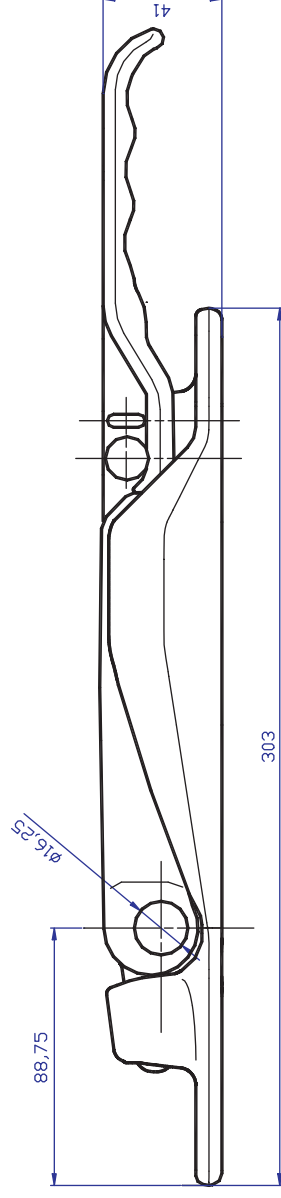
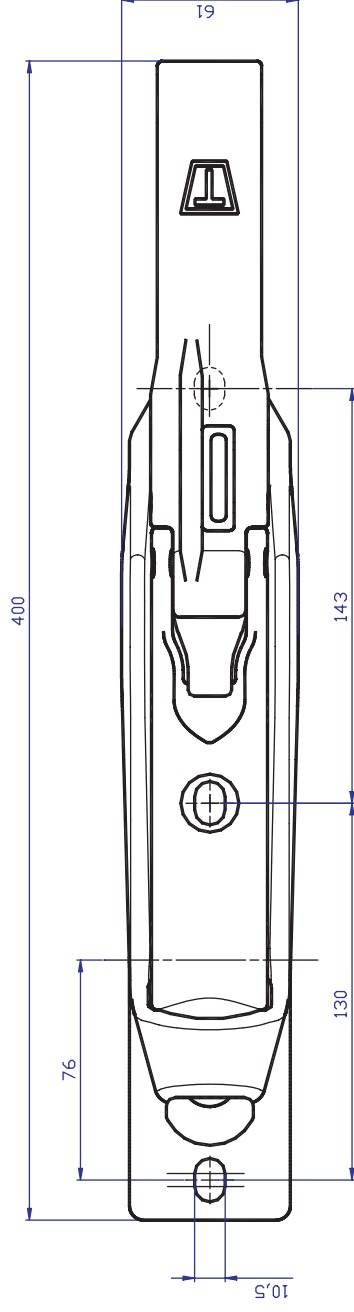
End hinges equidistant from door top and bottom (A)

$A = 0.5(H-B(n-1))$

Door Height (H)	Number Hinges (n)	Hinge Spacing (B)
1040 - 1589	2	770
1590 - 1789	3	670
1790 - 2249	3	770
2250 - 2700	4	670
2701 - 3000	4	770
3001 - 3350	5	670
3351 - 3649	5	770
3650 - 4100	6	670
4101 - 4300	6	770
4301 - 4500	7	670

Note 2nd Lockrod on each door optional

Thiriet Flush Door Locking Mechanisms



Thiriet Handle/Retainer
and Top Cam/Keeper
Assemblies.

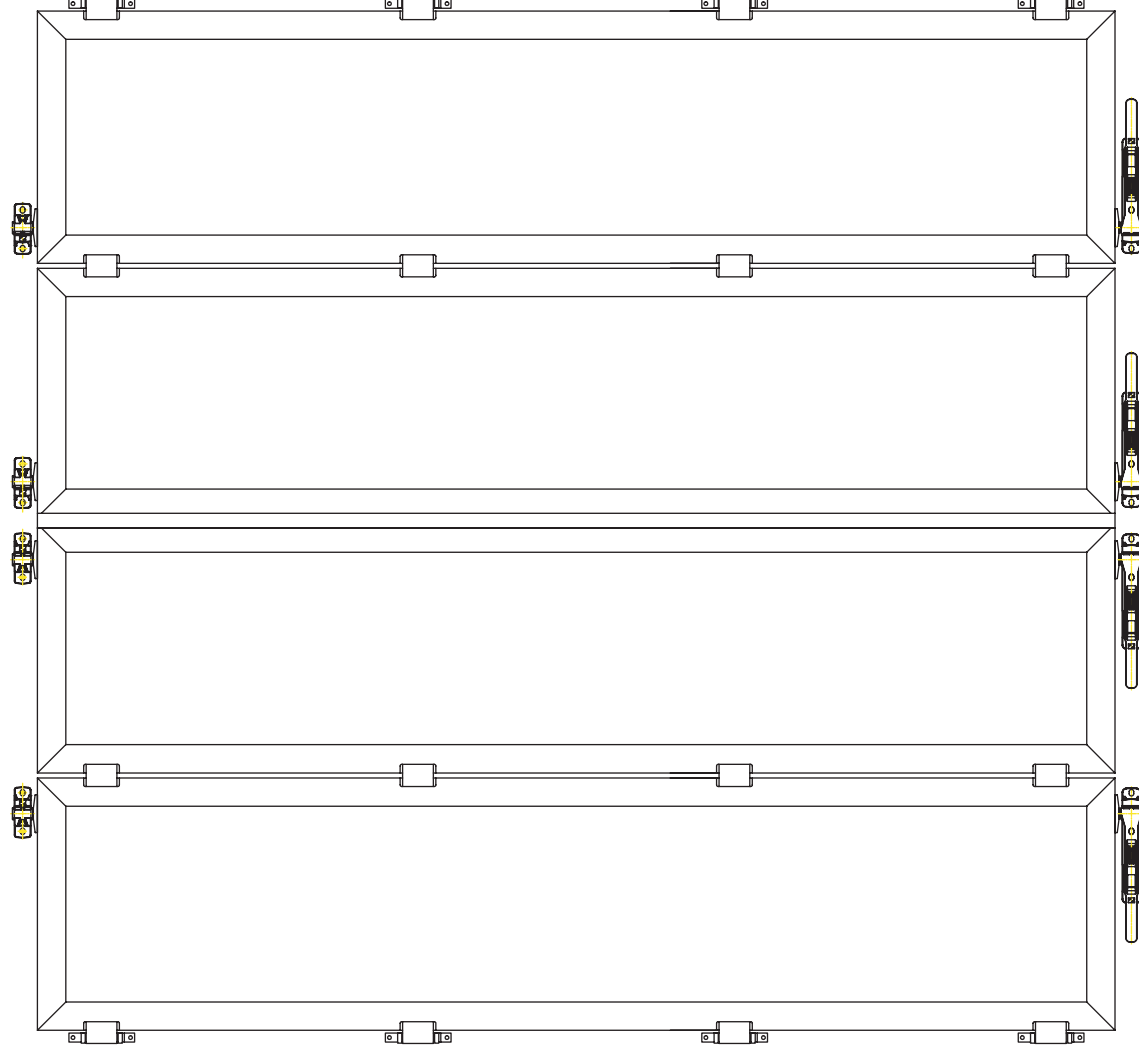
Dacromet or Zinc/Nickel
plated anti corrosion
finish.

Available as an option on
Smoothliner Flush Doors



NORMANTON

Smoothliner 3 Bi-Folding Quarter Doors



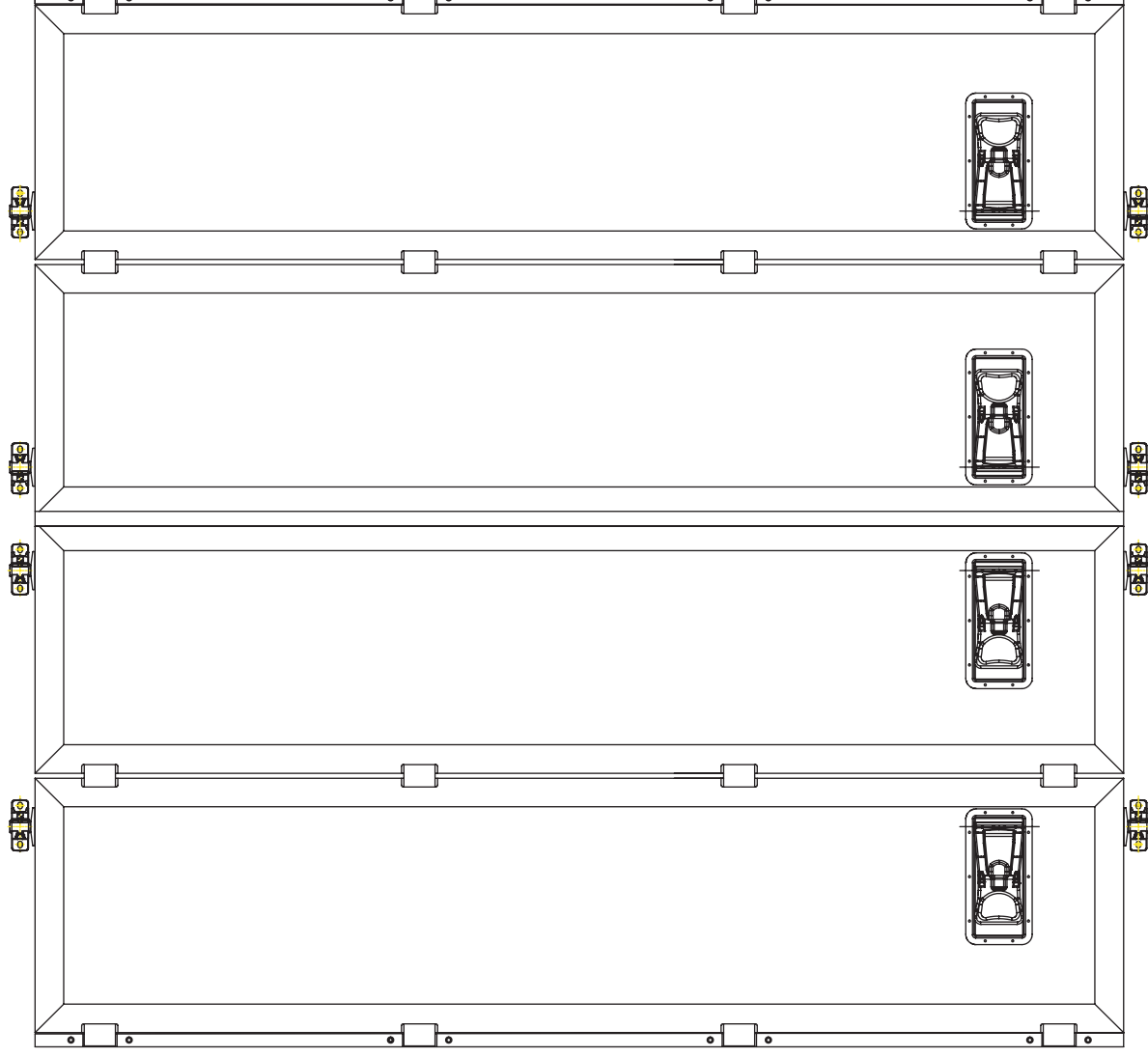
Front or rear doors for rigid/drawbar trailer combinations, or for other limited space applications.

Available with equal or unequal width leaves.

Configuration shown with Normanton under door locks and mounted on bolt-on hinge brackets.

Available with full range of panel options.

Smoothliner 3 Bi-Folding Quarter Doors



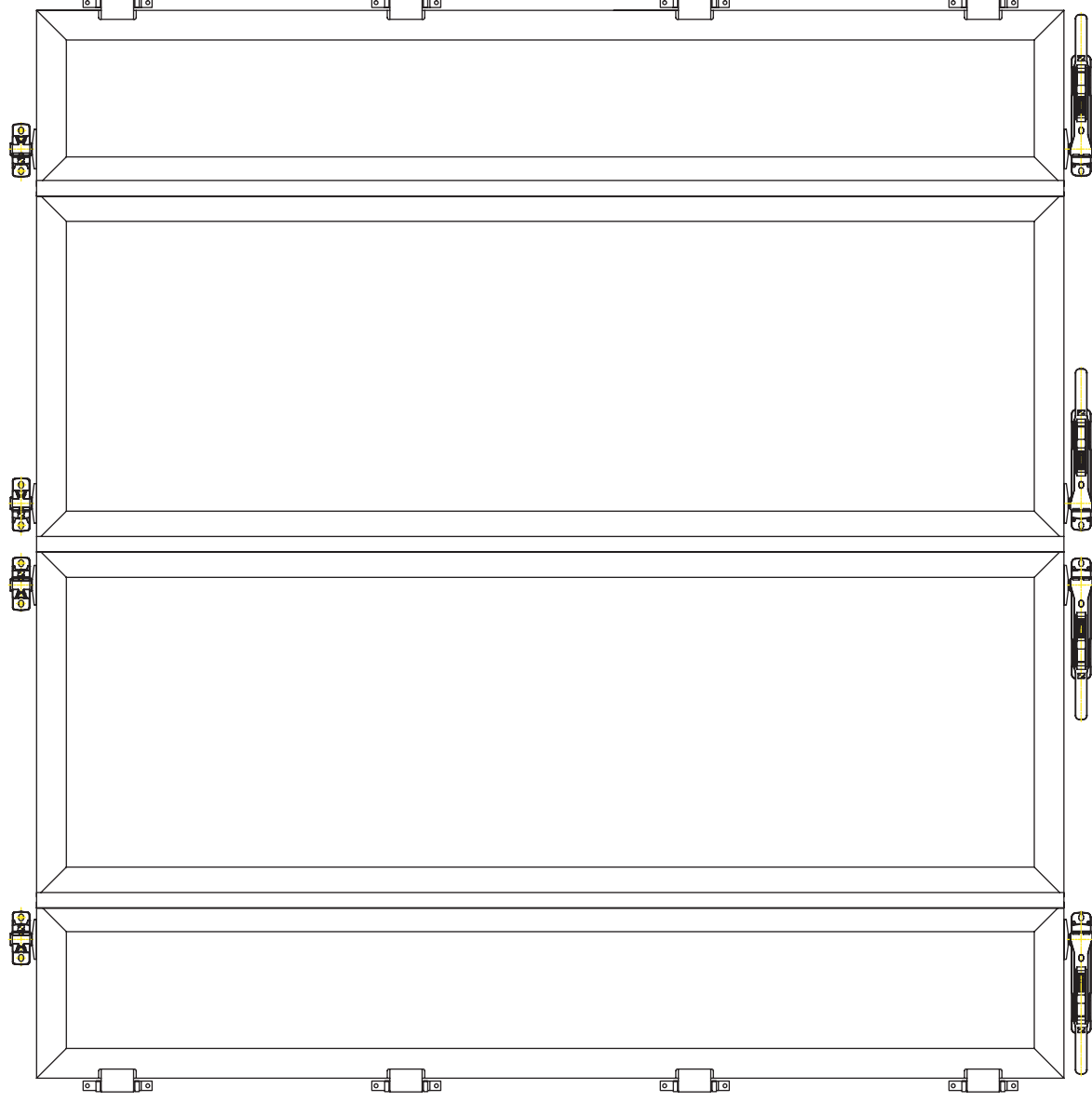
Front or rear doors for rigid/drawbar trailer combinations, or for other limited space applications.

Available with equal or unequal width leaves.

Configuration shown with stainless steel Thiriet recessed articulating handle locks and mounted on continuous aluminium hinge support. Normanton galvanised cams & keepers top and bottom.

Available with full range of panel options.

Smoothliner 3 Inward Bi-Folding Quarter Doors



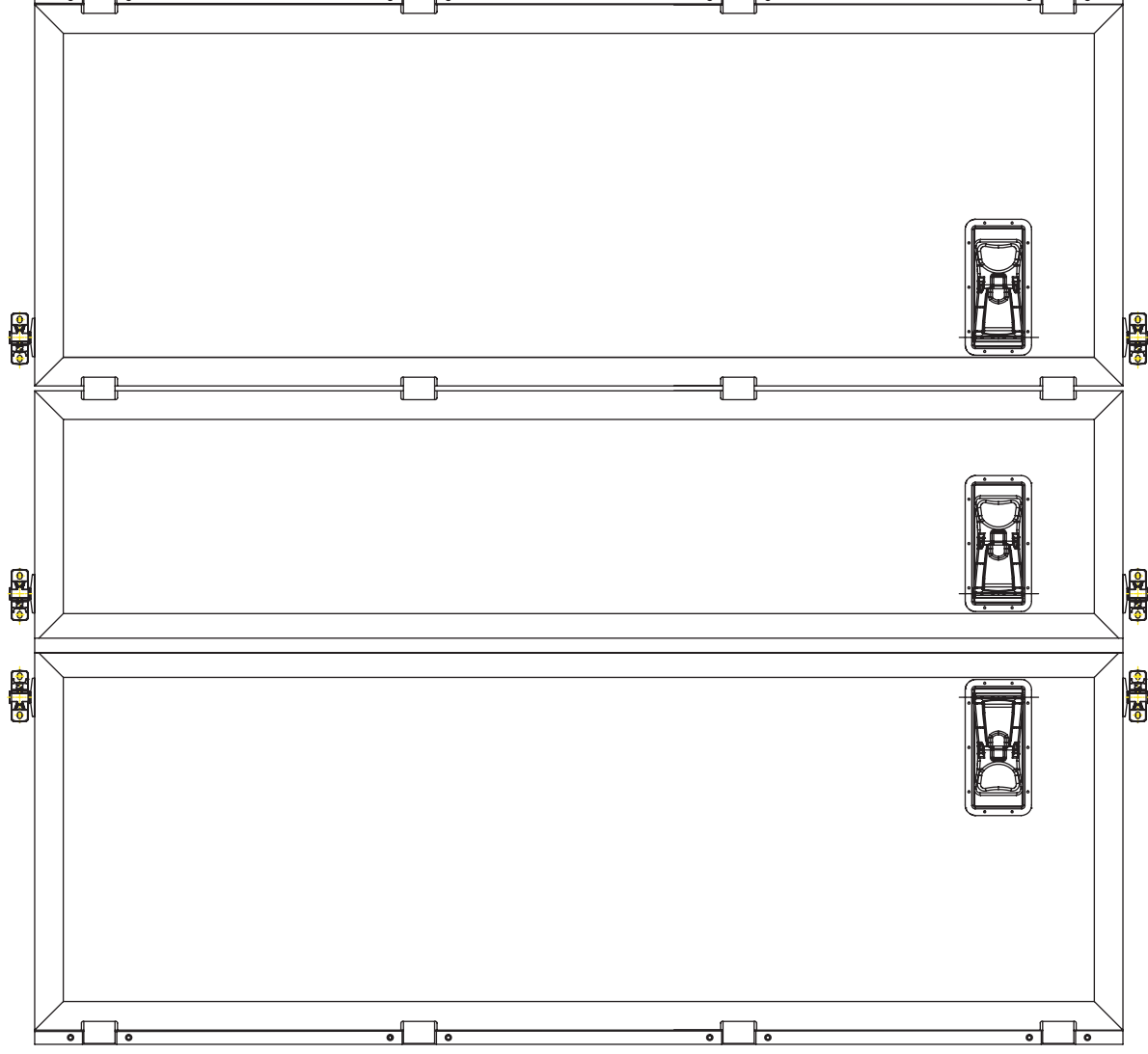
Front or rear doors for rigid/drawbar trailer combinations, or for other limited space applications.

Available with equal or unequal width leaves.

Configuration shown with Normanton under door locks and mounted on bolt-on hinge brackets.

Available with full range of panel options.

Smoothliner 3 Bi-Folding Triple Doors



Front or rear doors for rigid/drawbar trailer combinations, or for other limited space applications.

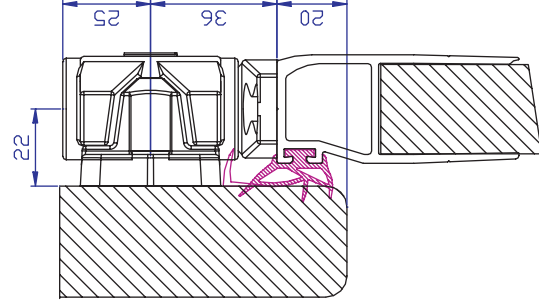
Available with equal or unequal width leaves.

Configuration shown with stainless steel Thiriet recessed articulating handle locks and mounted on continuous aluminium hinge supports. Normanton galvanised cams & keepers top and bottom.

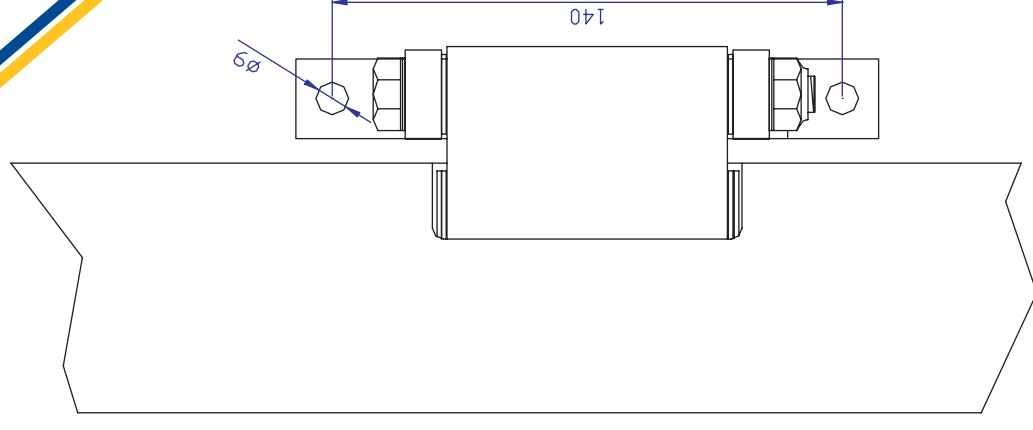
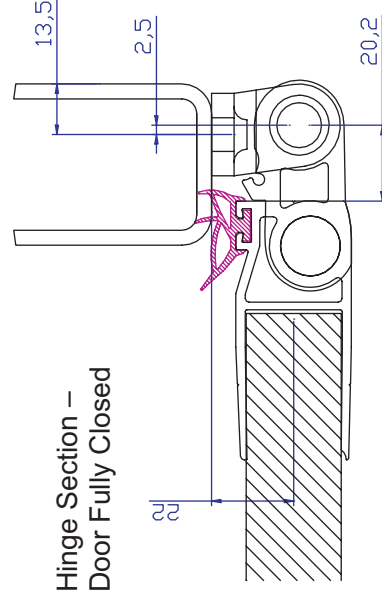
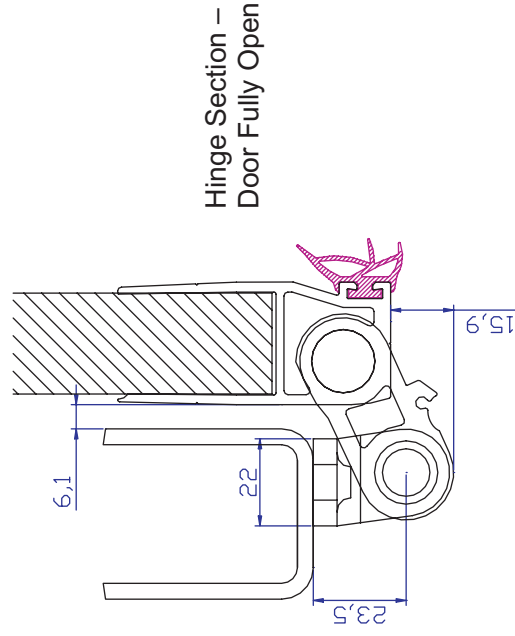
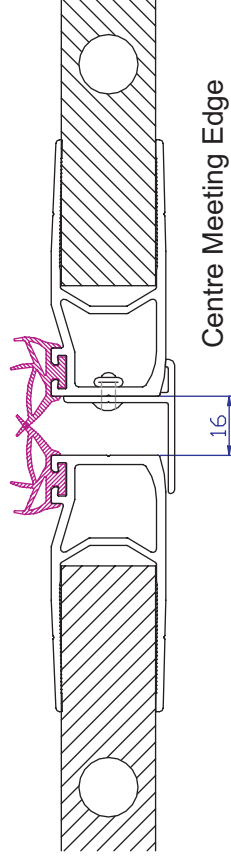
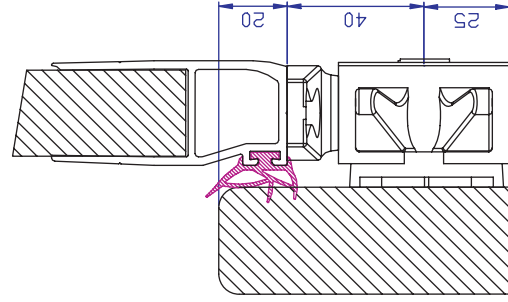
Available with full range of panel options.

Smoothliner 3 Standard Detailing

Upper Header Section –
Normanton Cam/Keeper



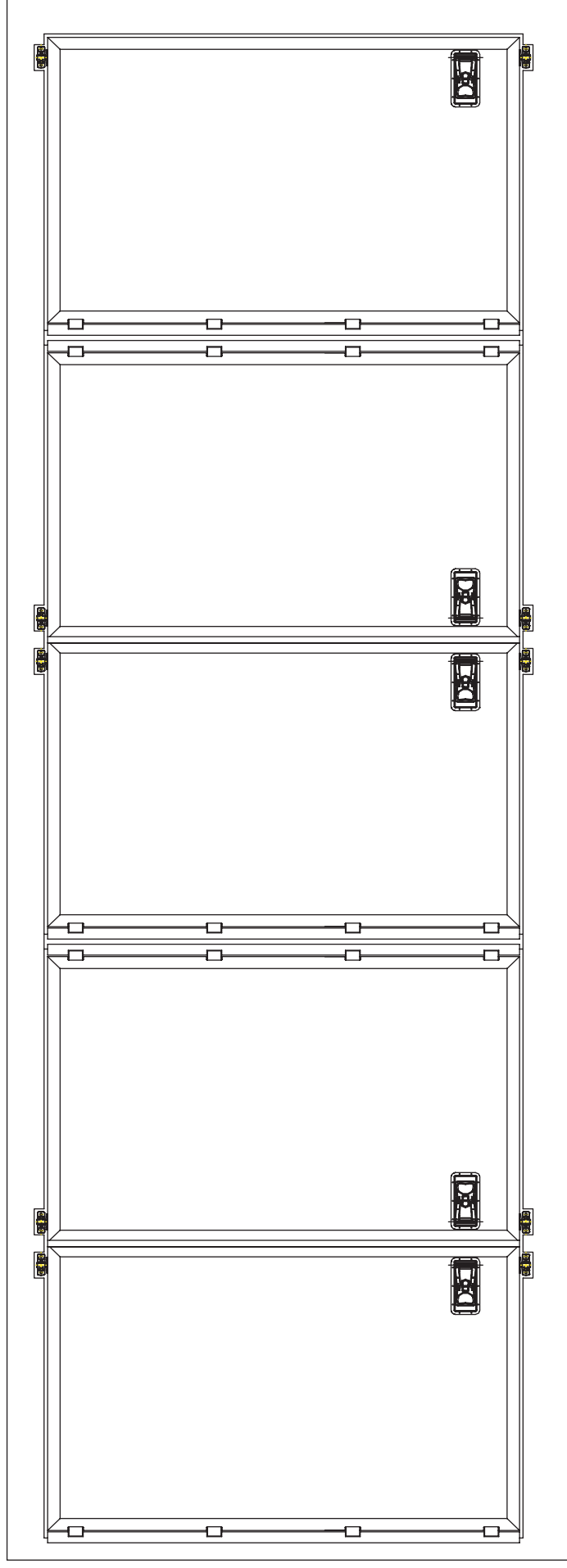
Lower Bearer Section –
Normanton Cam/Keeper



Standard Hinge/Bracket Assembly



Smoothliner 3 Wide Panel Body Side Doors



Extra wide panel side doors for use in removal van, exhibition, car transporter or other special body applications.

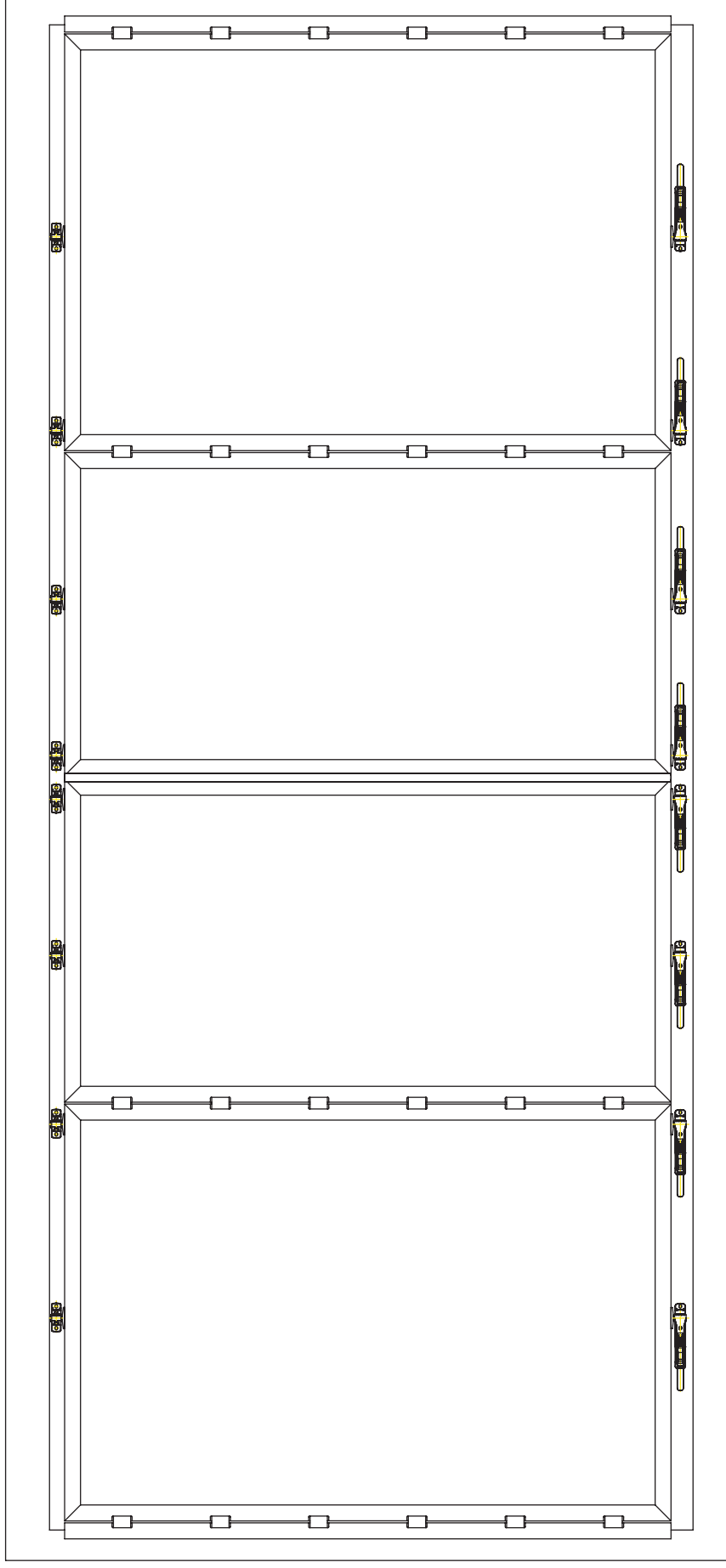
Recessed into frames to give flush overall body side and optimum aesthetic appearance.

Handed to specification for nearside or offside walls.

Configuration shown 5 door option with stainless steel recessed handles, Normanton cams and keepers and mounted on continuous aluminium hinge supports.

Standard panel option 5 element construction.

Smoothliner 3 Bi-folding Wide Panel Body Side Doors



Bi-folding wide panel doors for extra wide apertures in removal van, exhibition, car transporter or other special body applications.

Recessed into frames to give flush overall body side and optimum aesthetic appearance.

Configuration shown 4 leaf wide panel option with Normanton locks, cams and keepers and mounted on double hinge profiles for maximum strength fixing to supporting body frame.

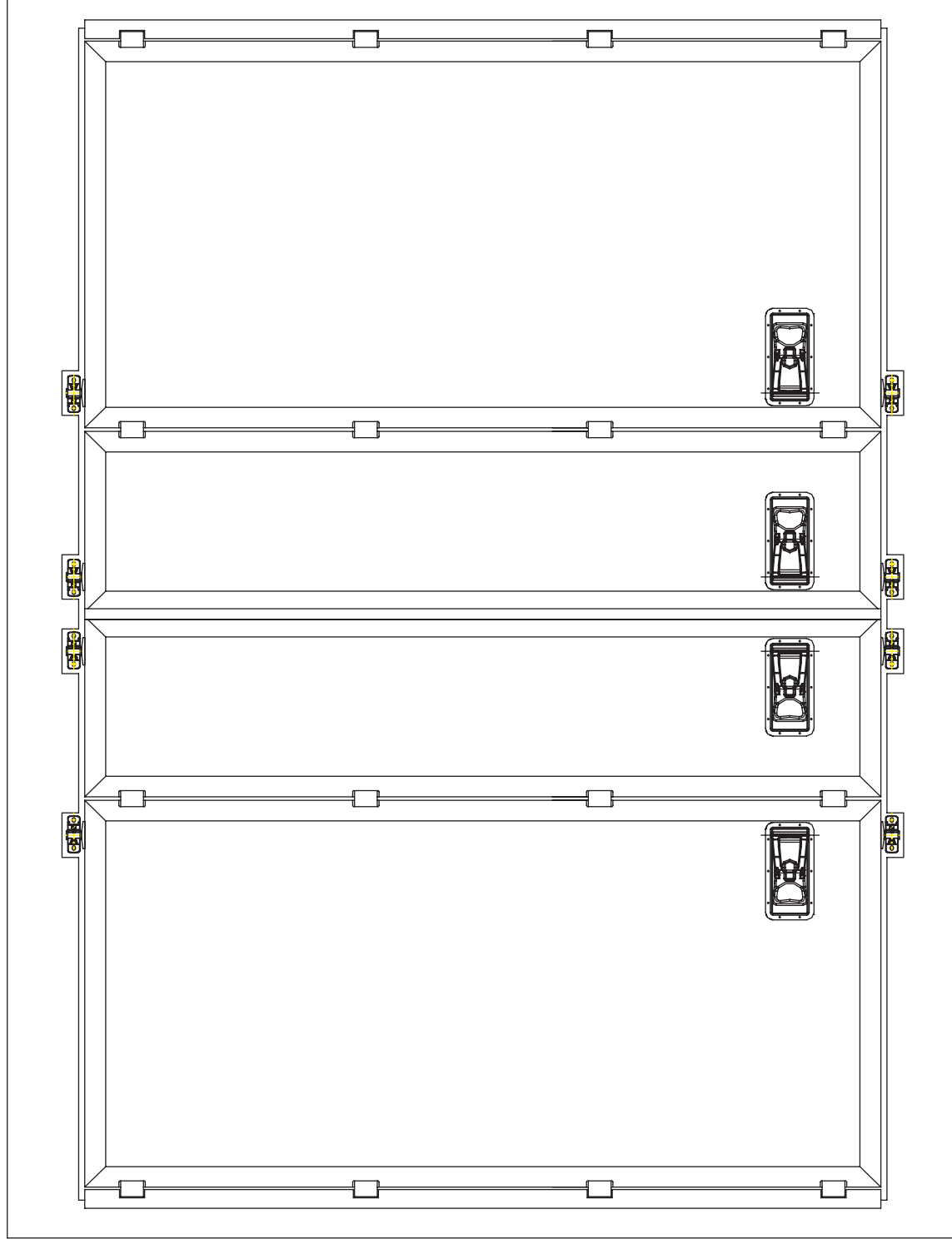
Standard panel option 5 element construction, others available on request. Please consult us.

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Smoothliner 3 Bi-folding Body Side Doors



Bi-folding side doors for use in removal van, exhibition, car transporter or other special body applications.

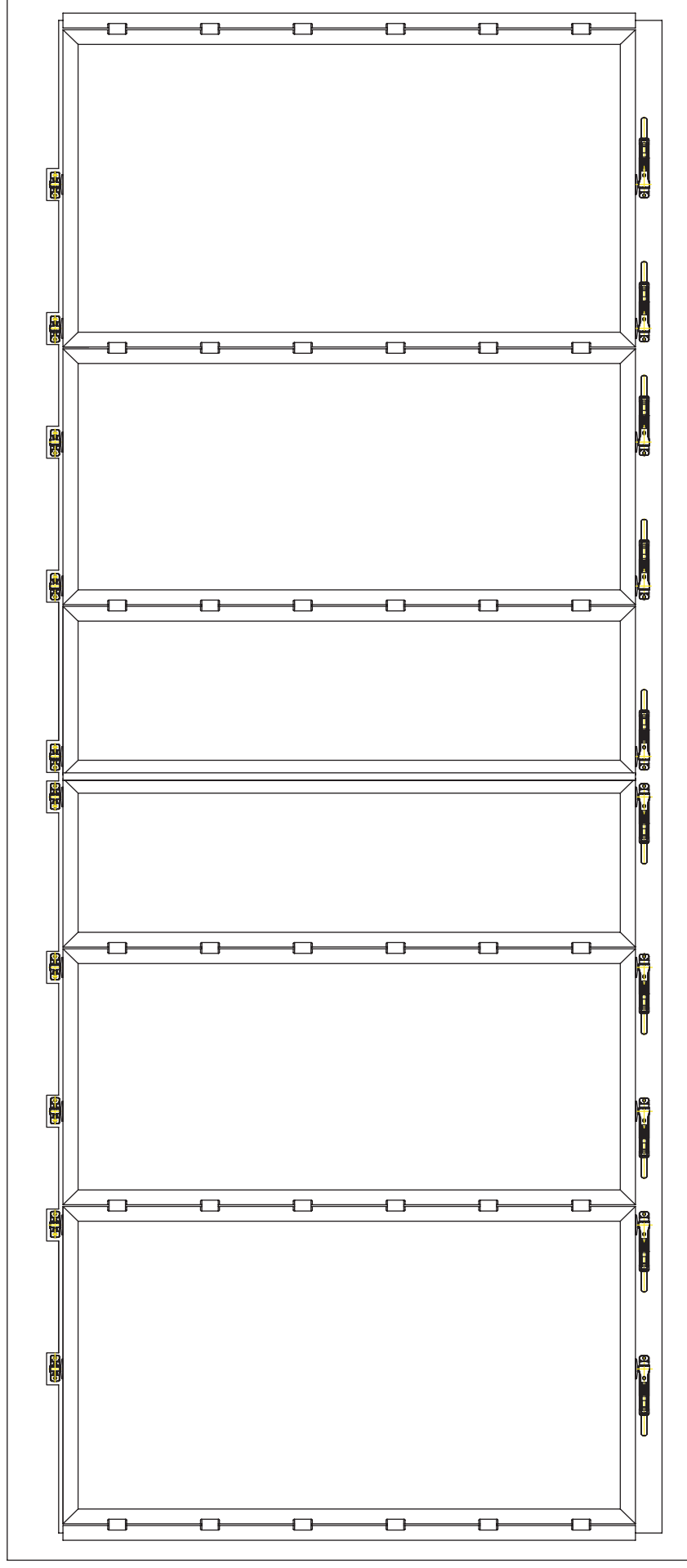
Recessed into frames to give flush overall body side and optimum aesthetic appearance.

Handed to specification for nearside or offside walls.

Configuration shown 4 leaf option with stainless steel recessed handles, Normanton cams and keepers and mounted on continuous aluminium hinge supports.

Standard panel option 5 element construction. Others available dependent on panel width. Please consult us.

Smoothliner 3 Bi-folding Wide Aperture Body Side Doors



Bi-folding doors for extra wide side apertures in removal van, exhibition, car transporter or other special body applications.

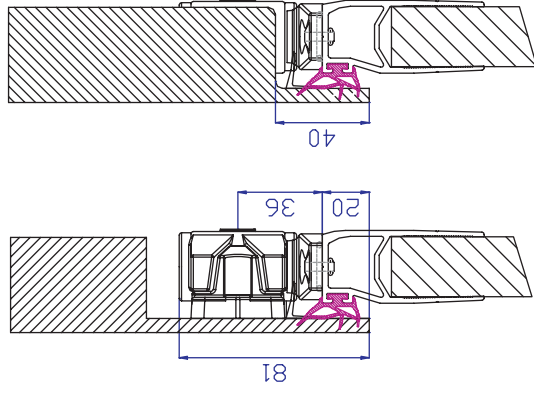
Recessed into frames to give flush overall body side and optimum aesthetic appearance.

Configuration shown 6 leaf option with Normanton locks, cams and keepers and mounted on double hinge profiles for maximum strength fixing to supporting body frame.

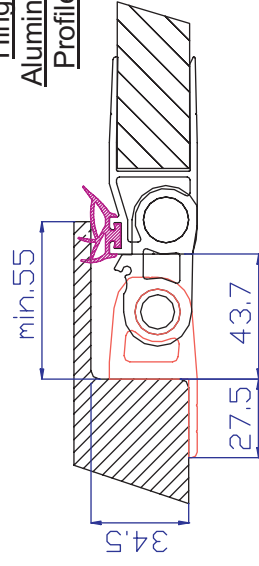
Standard panel option 5 element construction, others available on request. Please consult us.

Smoothliner 3 Standard Side Door Detailing

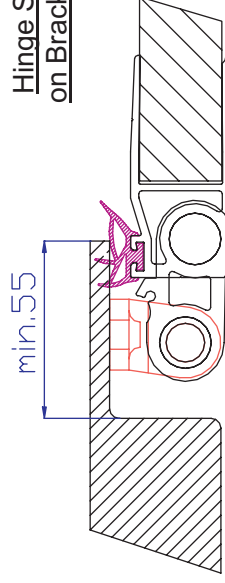
Header Sections,
Recessed Normanton
Cam/Keeper



Hinge Section,
Aluminium Support
Profile Mounting

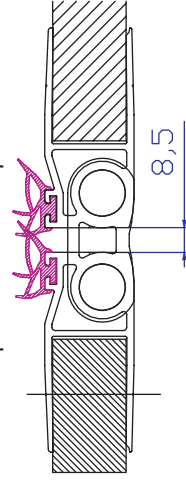


Hinge Section, Bolt
on Bracket Mounting



Hinge Section, Double
Hinge Profile Mounting

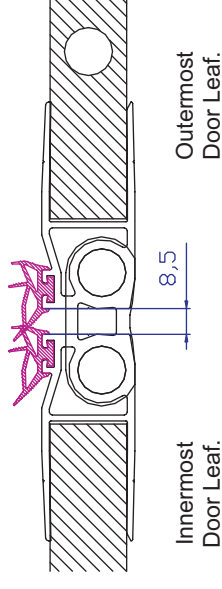
Note orientation of seals. All
fins point inwards to aperture



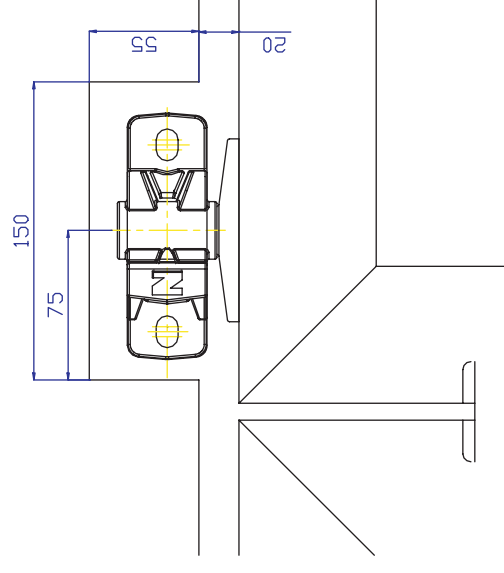
1" Box section or
similar frame pillar for
mounting doors.

Bi-folding Double Hinge Section

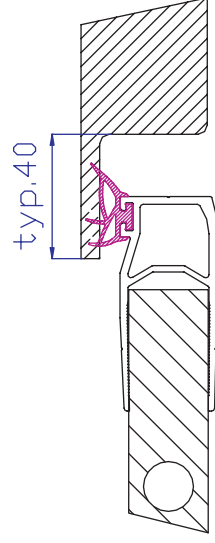
Note orientation of seals. All
fins point inwards to aperture



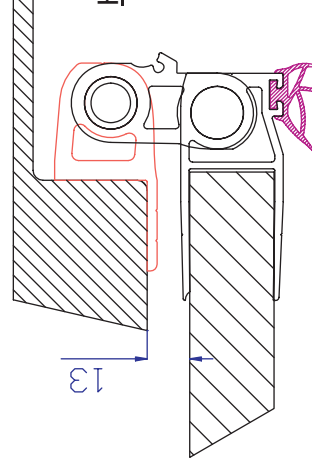
Typical Top Keeper Frame Notching



Closing Edge
Section

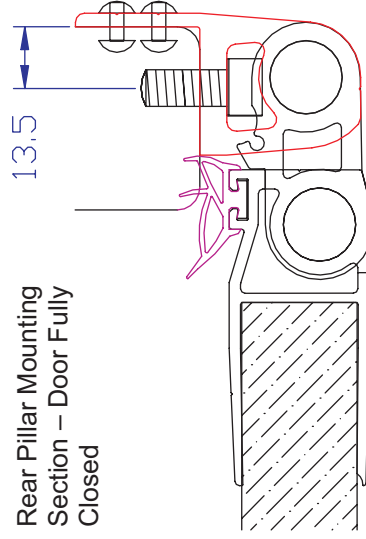


Hinge Section, Fully
Open, Aluminium
Support Profile

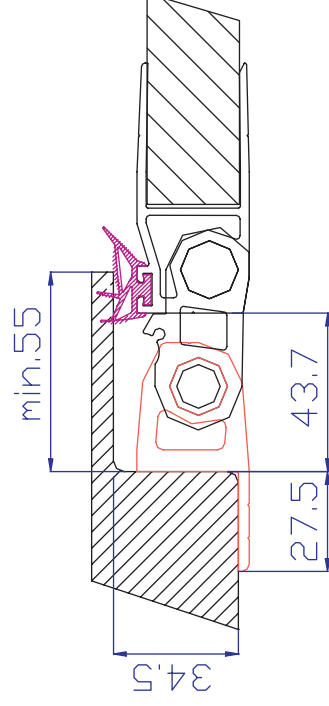


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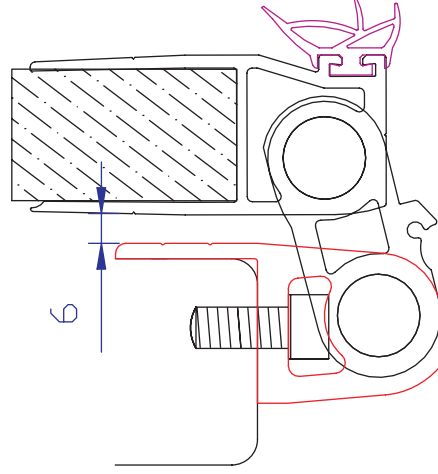
Smoothliner 3 Aluminium Support Profile – Standard Detailing



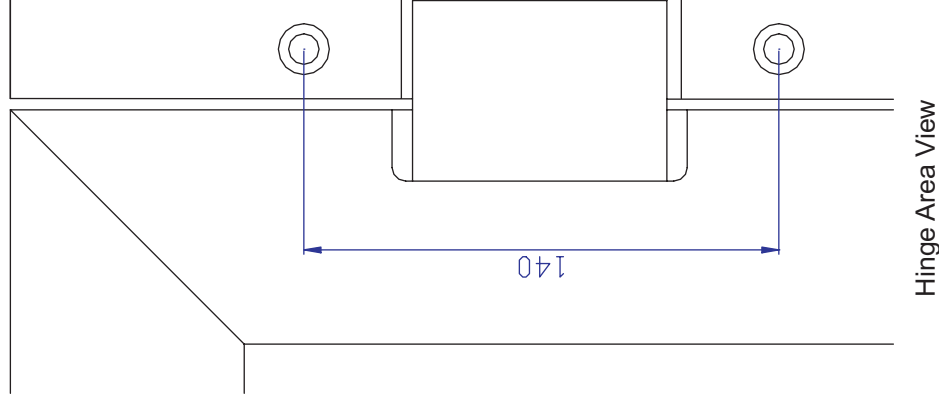
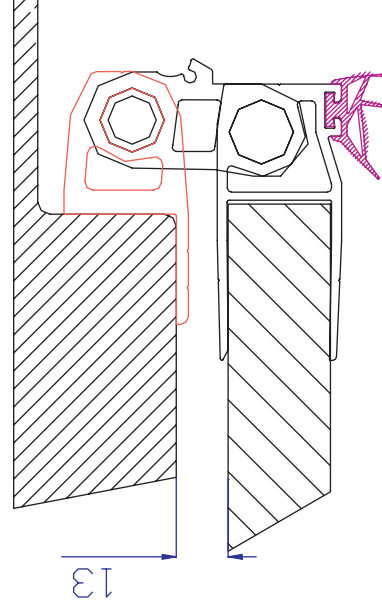
Rear Pillar Mounting
Section – Door Fully
Closed



Rear Pillar Mounting
Section – Door Fully Open



Recessed Side Mounting
Section – Door Fully Open



Hinge Area View

