

Screen Saver

Technical data sheet

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Issues and additions's from
Issue J to Issue k

New Pg-86 - Standard Diagonal
Brace added.

Added throughout - SKK Anchor
updated data and notes.

Added Pg-90-104 - Additional
tables for Screen loadings and
information added to suit.

Added Pg-105-108 - Additional
information / tables added.

Technical Data Sheet Introduction

Introduction

The Screen system is designed as an 11.9m or 14.4m high truss unit that is supported on 2 levels of needle beams. The main vertical chord is fabricated from twin channel sections with holes at 100mm centres. These allow for many optional loading points.

One needle beam uses the guide rails only to resist only horizontal loads. The other needle beam engages the main support pin into the latch of the needle beam and takes both vertical and horizontal loads.

The main screen panels are of aluminium construction with a perforated aluminium sheet as the covering layer. The perforations are sized to make the panel 40% open, 60% solid. The frame of the aluminium panels span vertically for the central panels and cantilever horizontally for the sliding edge panels.

The structural frame is made from steel sections with twin PFC as the internal main soldier and RHS as the external chord member. The frame is braced with tension tie cross bracing in the lower bay of the truss. These are connected via large swivel brackets ensuring only tension forces into the tie bars. Additional stiffness is given to the truss via the Platform Brace Frames. These are fabricated from solid plate with welded brackets and bolted connections into the Soldiers and Dropper Beams.

The Screen Saver system and components have been designed to comply with all relevant parts of the following codes:

BS EN 12811 (all parts), *Temporary works equipment*

BS EN 12812, *Falsework - Performance requirements and general design*

BS EN 13374, *Temporary edge protection systems - Product specification - Test methods*

BS EN 1991 (all parts), *Actions on structures*

BS EN 1993 (all parts), *Design of steel structures*

BS EN 1999 (all parts), *Design of aluminium structures*

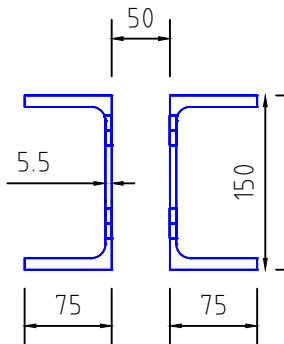
BS 5975, *Code of practice for temporary works procedures and the permissible stress design of falsework*

Technical Data Sheet

Screen Soldier Twin Channel

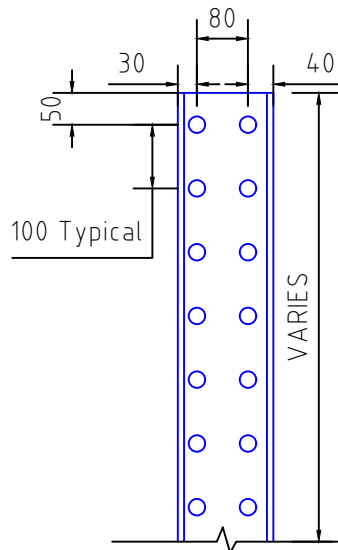
Screen Soldier Twin Channel

PLAN VIEW

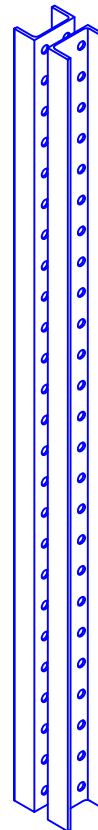


Twin 150x75x18 PFC

SIDE VIEW



ISOMETRIC VIEW



Properties

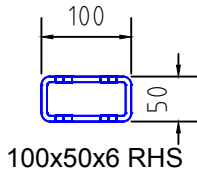
Ixx	1722 cm ⁴
Zxx	230 cm ³
Area	45.6 cm ²
r _y	5.62 cm
Weight/ m	35.85 kg/m
E	210x10 ⁸ kN/m ²
Safe working loads (SWL's)	
Axial	301 kN (for le=3.1m)
BM	49.5 kNm
Shear	213 kN

Description	Code	Material	Finish	Weight
11.9m Screen Soldier Twin Channel	400690	Steel S355	Galvanized	426.6kg
2.5m Screen Soldier Twin Channel	400691	Steel S355	Galvanized	86.6kg

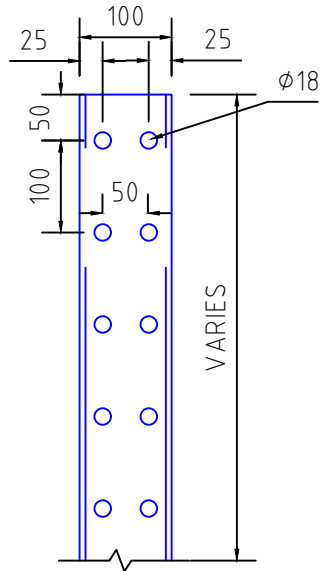
Technical Data Sheet | Screen Dropper

Screen Dropper

PLAN VIEW



SIDE VIEW



ISOMETRIC VIEW

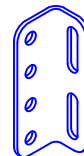
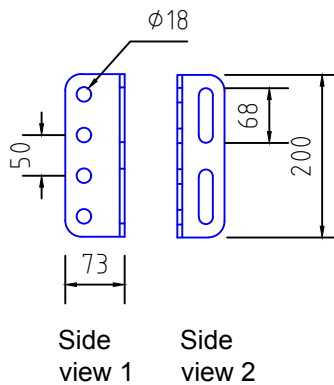
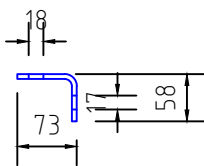


Properties

I _{xx}	195 cm ⁴
Z _{xx}	35.8 cm ³
Area	15.6 cm ²
r _y	1.94 cm
Weight/ m	7.7 kg/m
E	210x10 ⁸ kN/m ²
Safe working loads (SWL's)	
Axial	202 kN (for l _e =2.4m)
BM	7.7 kNm
Shear	134.3 kN

Description	Code	Material	Finish	Weight
11.9m Screen Dropper	400680	Steel S355	Galvanized	153.7kg(12.9kg/m)
2.5m Screen Dropper	400681	Steel S355	Galvanized	32.3kg (12.9kg/m)

Dropper Bracket - slotted



Description	Code	Material	Finish	Weight
Dropper Bracket -slotted	400670	Steel S355	Galvanized	0.962kg

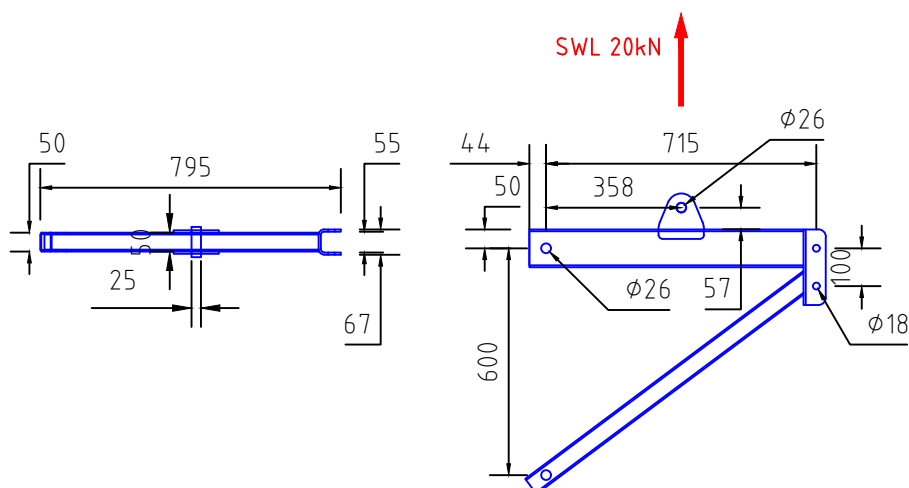
Technical Data Sheet Lifting Beams

Lifting Beam Assembly

PLAN VIEW

SIDE VIEW

ISOMETRIC VIEW

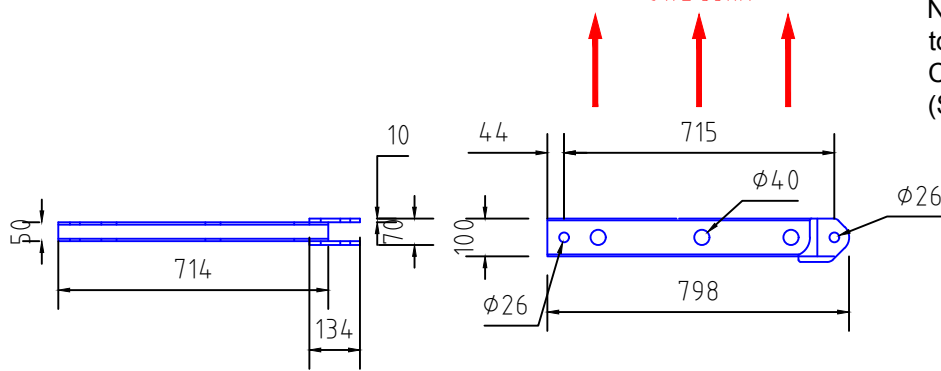


Safe working loads (SWL's)

SWL	20 kN
-----	-------

Clavical Lifting Beam - used with offset lifting beam instead of above - See page 66-68

SWL 35kN



Note: Dropper Ø18 hole to be redrilled to Ø26 to fit M24 Bolt used with the Clavical Lifting Beam.
(See page 66-68 Lifting Frame & Pg 30)

Safe working loads (SWL's)

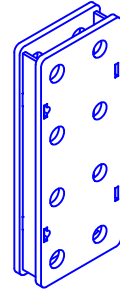
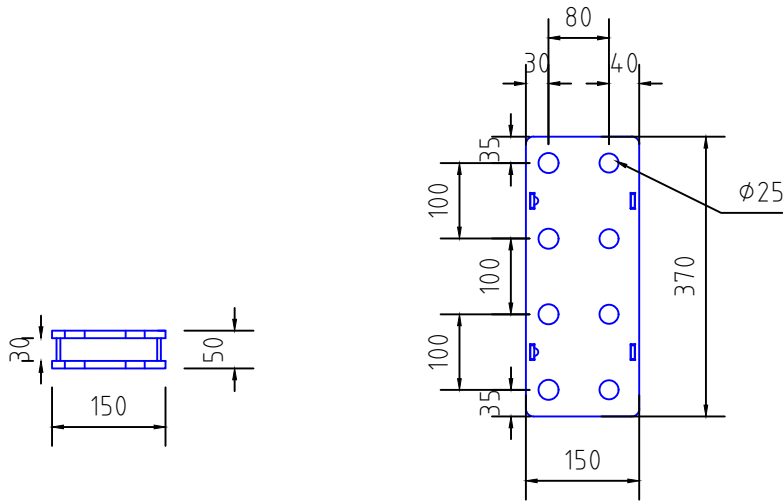
SWL	35 kN
-----	-------

Description	Code	Material	Finish	Weight
Lifting Beam Assembly	400930	Steel S275	Galvanized	15.5kg
Clavical Lifting Beam	407120	Steel S275	Galvanized	10.5kg

Technical Data Sheet

Splice Plates (for 14.4m)

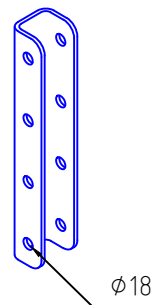
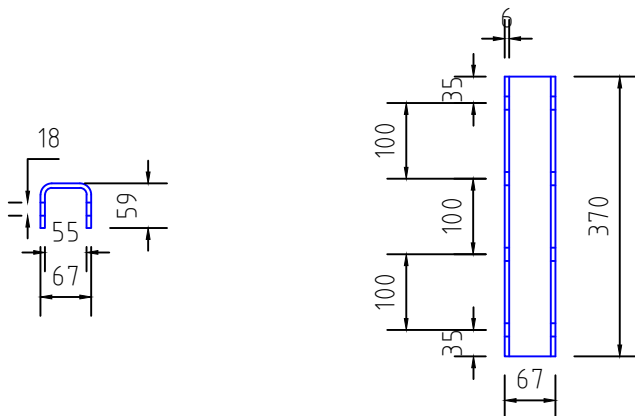
Soldier Splice



Safe working loads (SWL's)

BM	11.4 kNm
----	----------

Dropper Splice

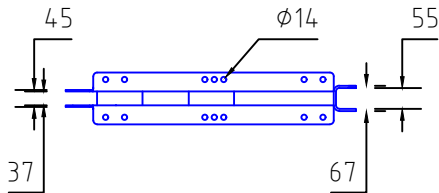


Description	Code	Material	Finish	Weight
Soldier Splice	401460	Steel S275	Galvanized	8.813kg
Dropper Splice	401490	Steel S275	Galvanized	2.729kg

Technical Data Sheet Platform Frames

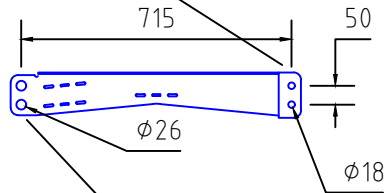
Single Platform Assembly

PLAN VIEW

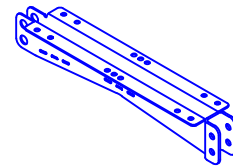


SIDE VIEW

Safe working loads (SWL's)	
Single Platform/ Dropper Connection	
Bolt combined Load	53.5kN



ISOMETRIC VIEW



Safe working loads (SWL's)

BM	1.8 kNm
Axial	157 kNm

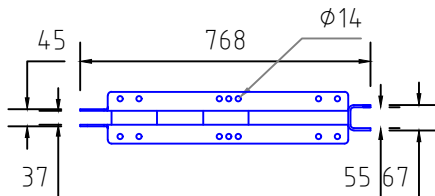
Safe working loads (SWL's)

Single Platform/ Soldier Connection	
Bolt Combined Load	66.7kN

Safe working loads (SWL's)

Platform Frame/ Soldier Connection	
Bolt Combined Load	87.9kN

Platform Frame twin braced

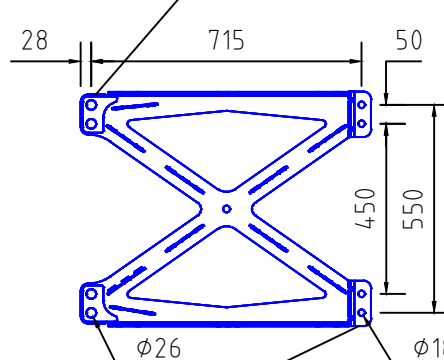


Safe working loads (SWL's)

Top + Bottom Chord	
BM	1.8 kNm
Axial	157 kN

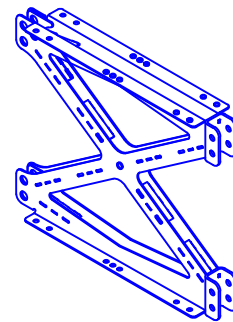
Safe working loads (SWL's)

Cross Brace	
BM	1 kNm
Axial	98 kN
Shear	50 kN



Safe working loads (SWL's)

Platform Frame/ Dropper Connection	
Bolt Combined Load	53.5kN

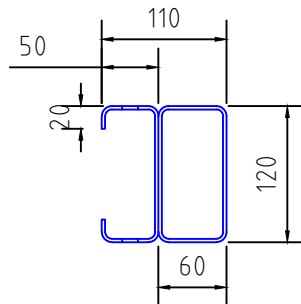


Description	Code	Material	Finish	Weight
Single Platform Assembly	400860	Steel S275	Galvanized	7.2kg
Platform Frame twin braced	400700	Steel S275	Galvanized	18.5kg

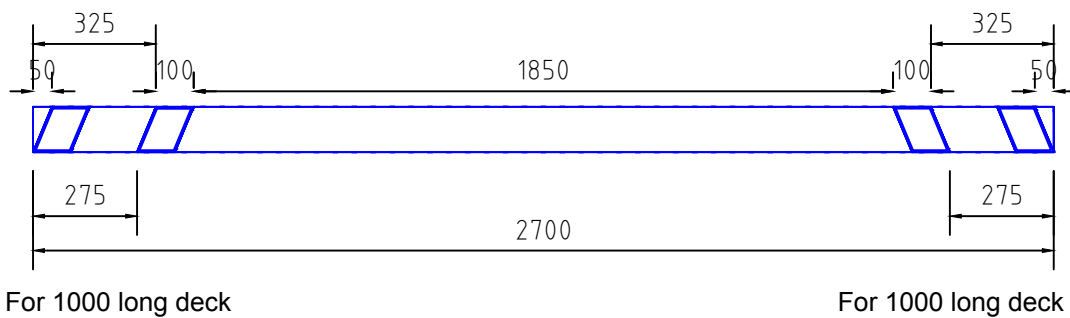
Technical Data Sheet Platform support channel 2.7m

Platform Support Channel (for standard size 1.0m decks).

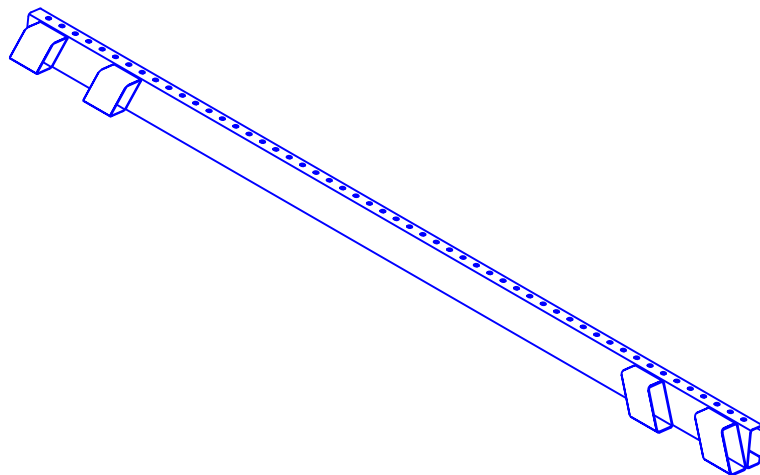
END VIEW



SIDE VIEW



ISOMETRIC VIEW



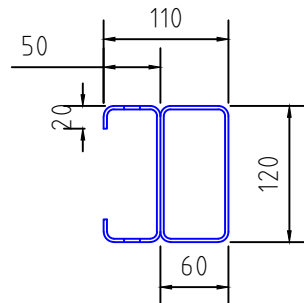
Properties	
Ixx	191 cm ⁴
Zxx	31.8 cm ³
Area	9.2 cm ²
Safe working loads (SWL's)	
Mc	5.3 kNm
Pv	24.9 kN

Description	Code	Material	Finish	Weight
Platform Support Channel	400980	Steel S275	Galvanized	18kg

Technical Data Sheet Platform support channel 2.7m

Platform Support Channel (for 1.5m Deck and 1.0m deck).

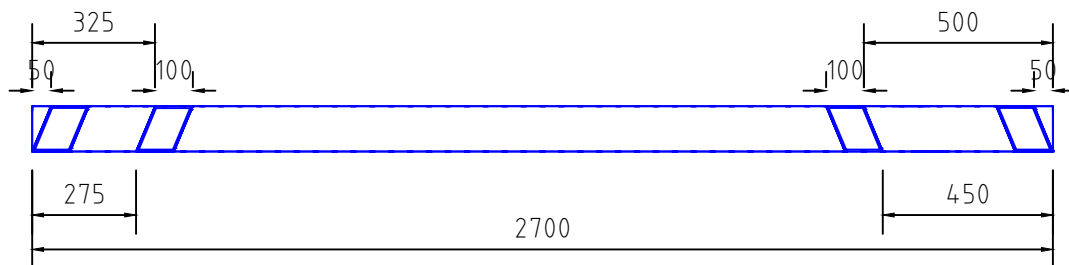
END VIEW



SIDE VIEW

Only for use with 1000 deck at one end and 1500 at the other.

Note: Required quantity would require half as shown and half opposite hand.



For 1000 long deck

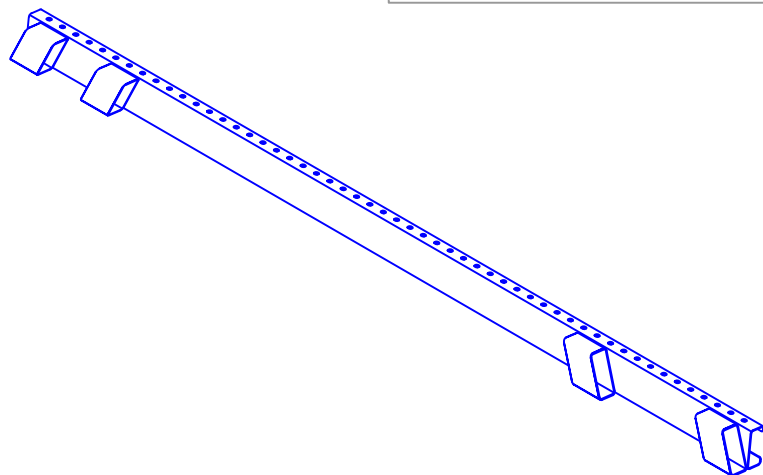
For 1500 long deck

NOTE

1500 decks need to be fitted on site due to transport width.



ISOMETRIC VIEW



Properties

Ixx	191 cm ⁴
Zxx	31.8 cm ³
Area	9.2 cm ²

Safe working loads (SWL's)

Mc	5.3 kNm
Pv	24.9 kN

Description	Code	Material	Finish	Weight
Platform Support Channel (for 1.5m Deck and 1.0m Deck)		Steel S275	Galvanized	18kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

23/01/
2018

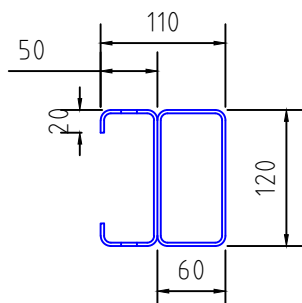
K

9

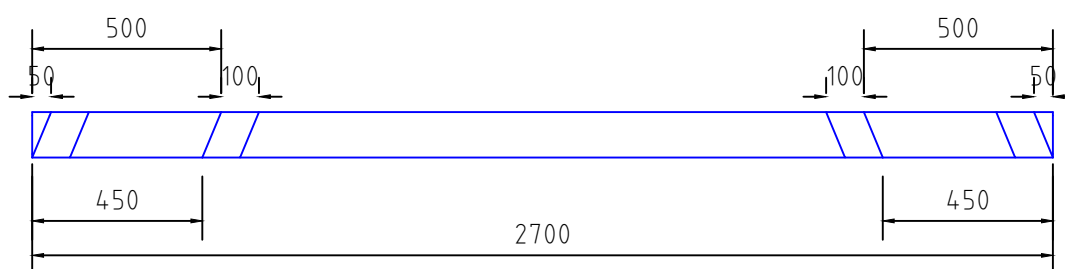
Technical Data Sheet Platform support channel 2.7m

Platform Support Channel (for 1.5m decks).

END VIEW



SIDE VIEW



For 1500 long deck

NOTE

1500 decks need to be fitted on site due to transport width.



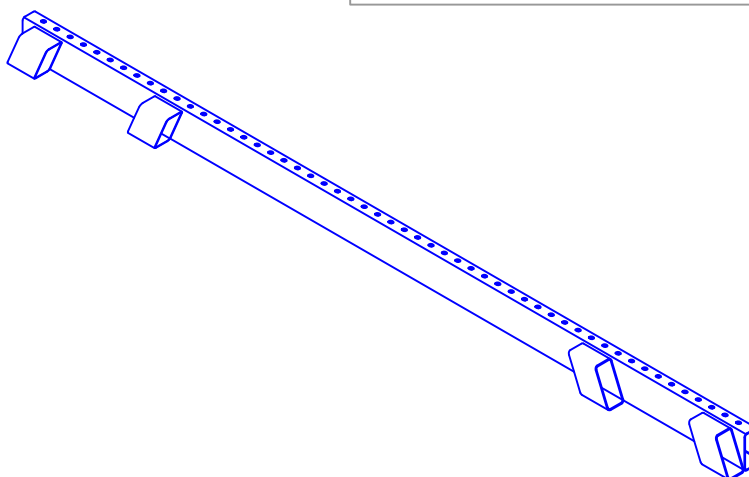
For 1500 long deck

NOTE

1500 decks need to be fitted on site due to transport width.



ISOMETRIC VIEW



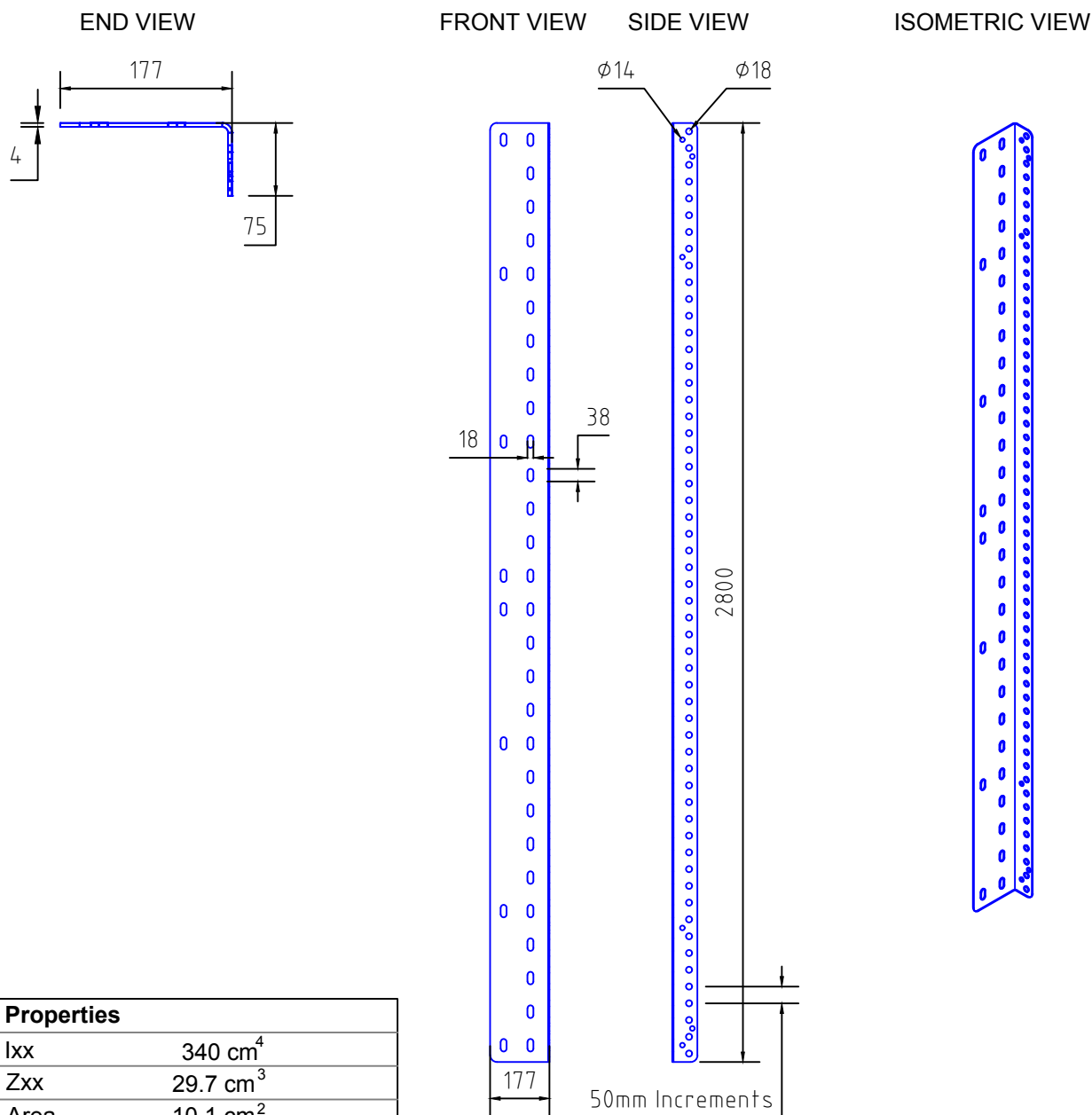
Properties	
Ixx	191 cm ⁴
Zxx	31.8 cm ³
Area	9.2 cm ²
Safe working loads (SWL's)	
Mc	5.3 kNm
Pv	24.9 kN

Description	Code	Material	Finish	Weight
Platform Support Channel (for 1.5m decks).		Steel S275	Galvanized	18kg

Technical Data Sheet

Screen angle support plate 2.8m

Screen angle support plate 2.8m



Properties

Ixx 340 cm⁴

Zxx 29.7 cm³

Area 10.1 cm²

Safe working loads (SWL's)

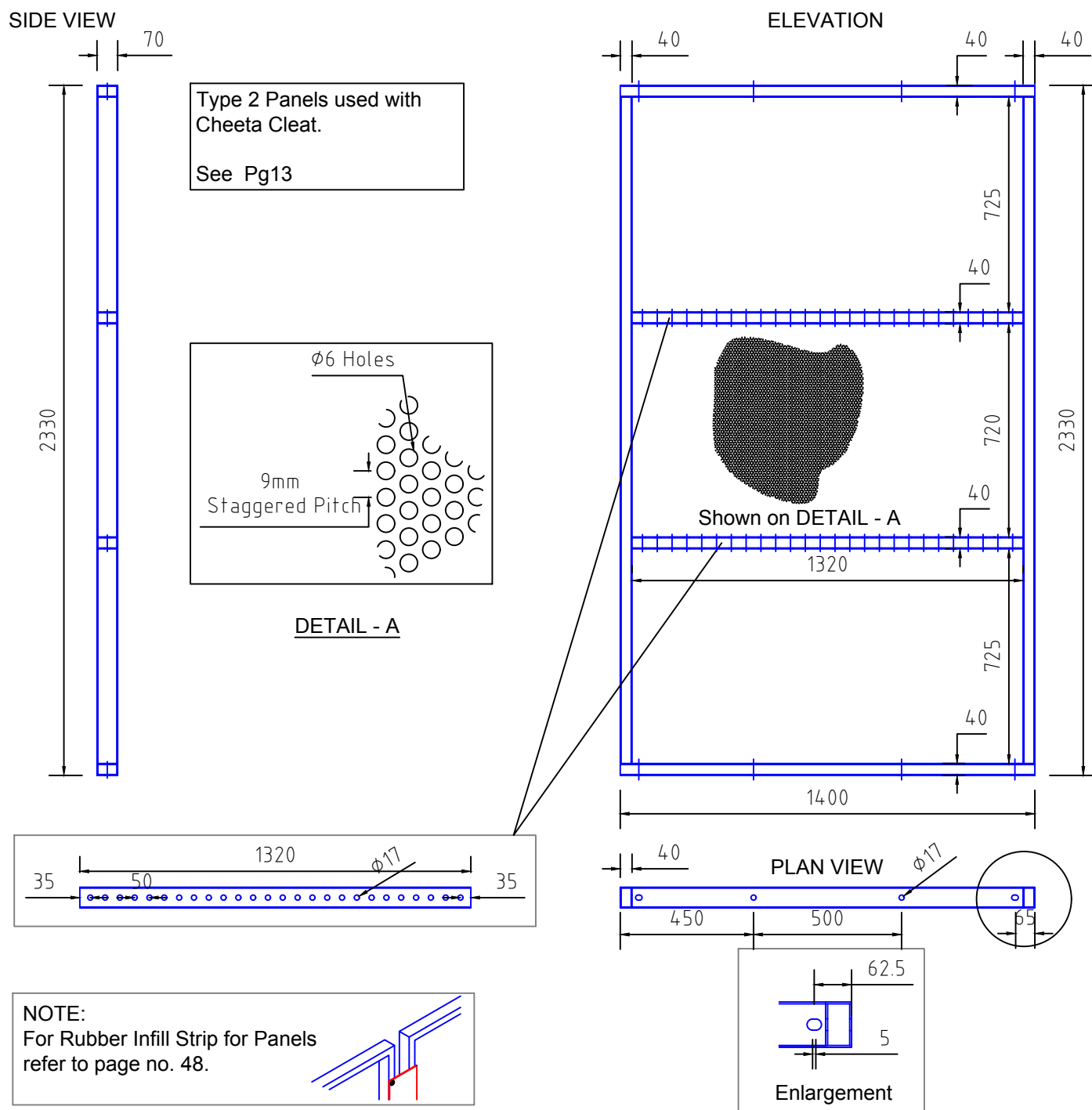
Mc 5.0 kNm

Description	Code	Material	Finish	Weight
Screen angle support plate 2.8m	401530	Steel S275	Galvanized	20.4kg

Technical Data Sheet

Screen Panels

Fixed 1400 x 2330 Panel Type 2



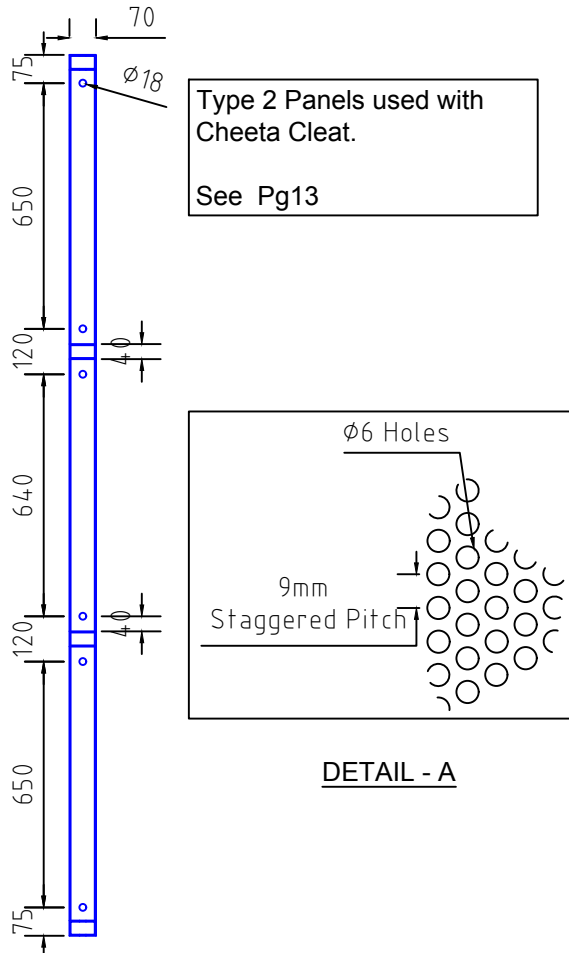
Description	Code	Material	Finish	Weight
Fixed 1400 x 2330 Panel Type 2	406980	Aluminum 6082T6	None	27kg

Technical Data Sheet

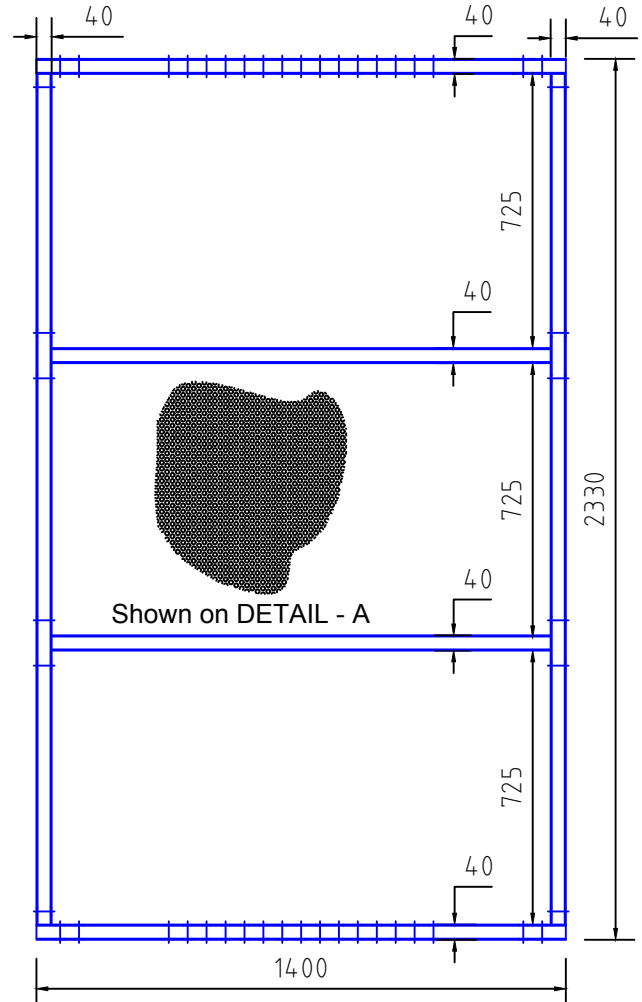
Screen Panels

Opening 1400 x 2330 Panel Type 2

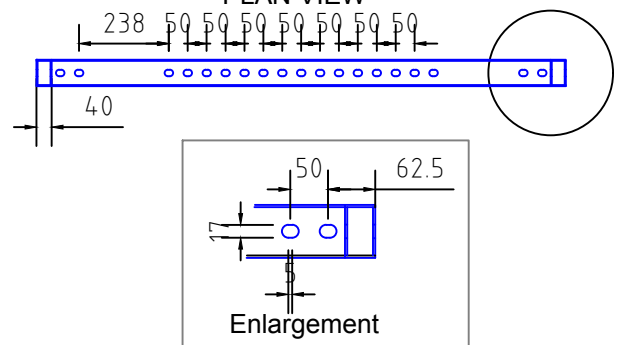
SIDE VIEW



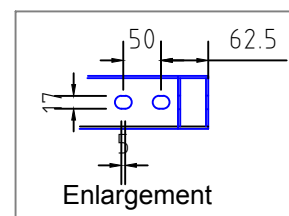
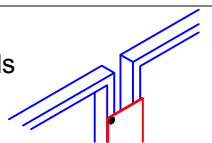
ELEVATION



PLAN VIEW



NOTE:
For Rubber Infill Strip for Panels refer to page no. 48.

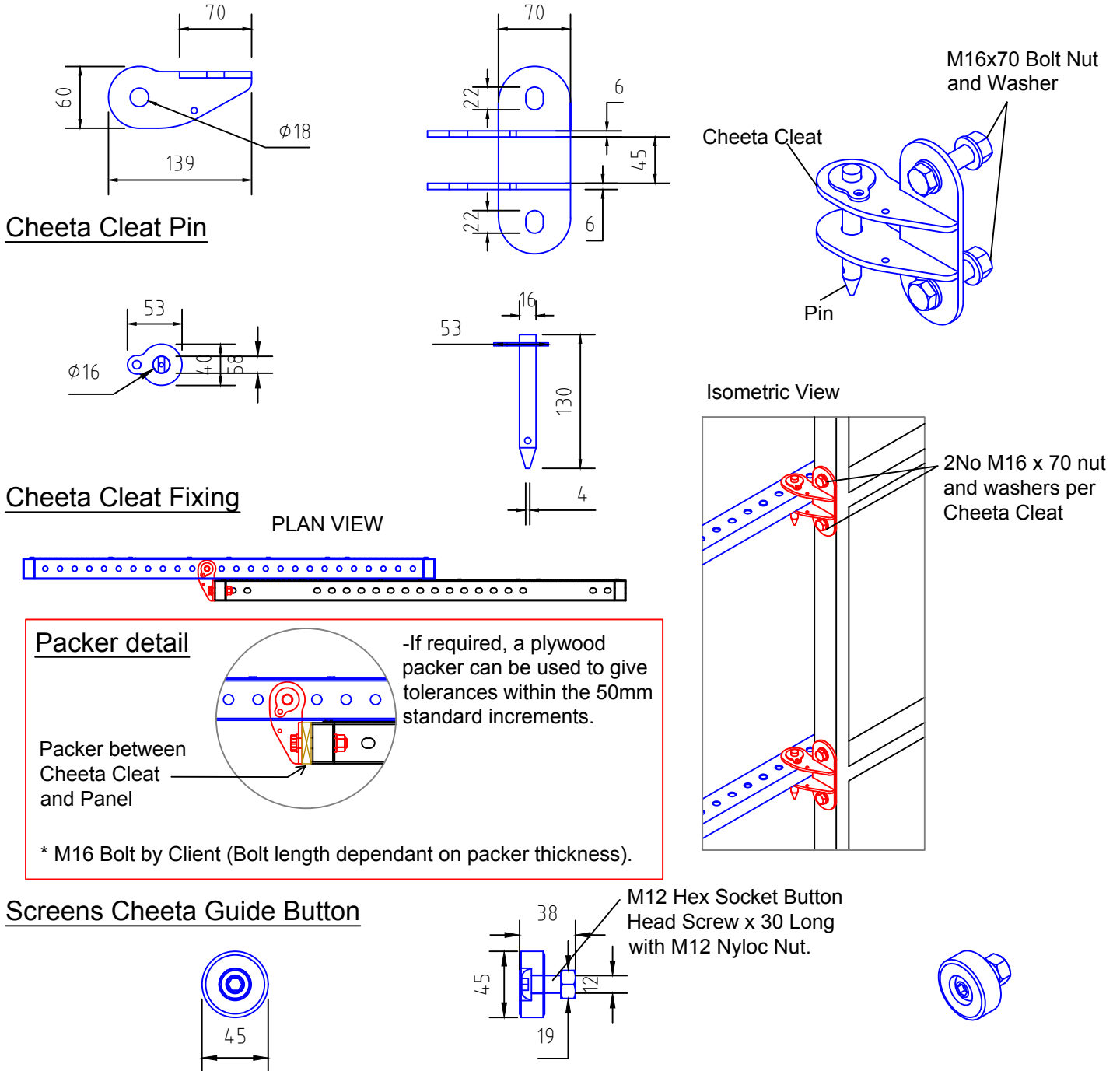


Description	Code	Material	Finish	Weight
Opening 1400x2330 Panel Type 2	407000	Aluminum 6082T6	None	27kg

Technical Data Sheet Cheeta Cleat

Cheeta Cleat

The Cheeta Cleat fits onto type 2 Panels and allows adjustable movement and fixing.

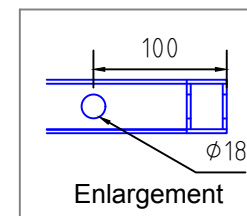
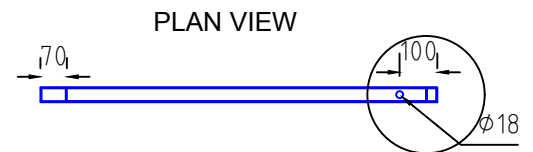
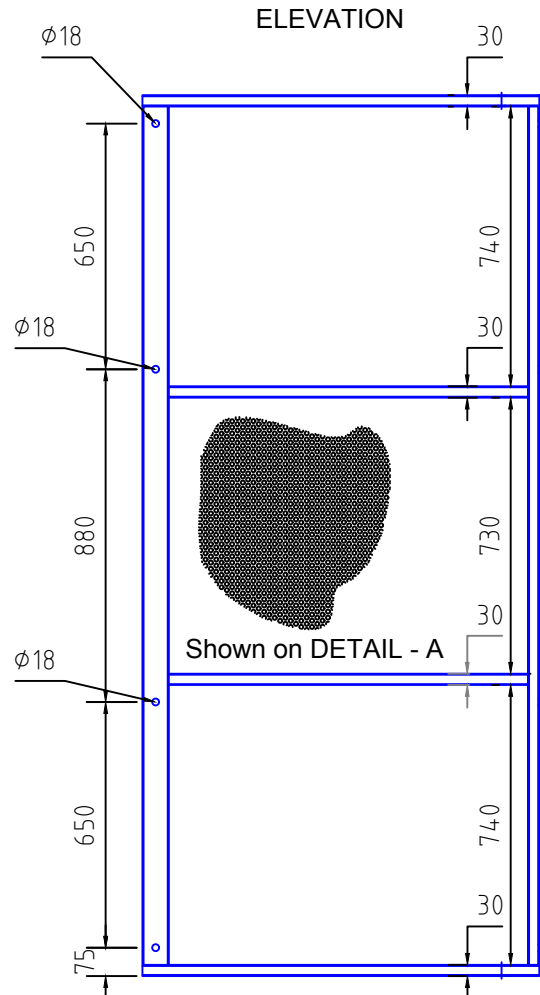
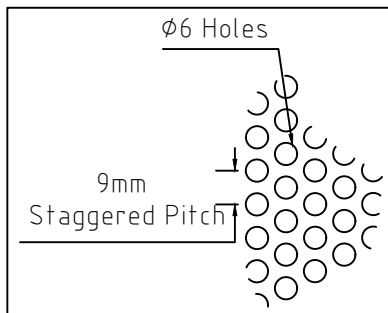
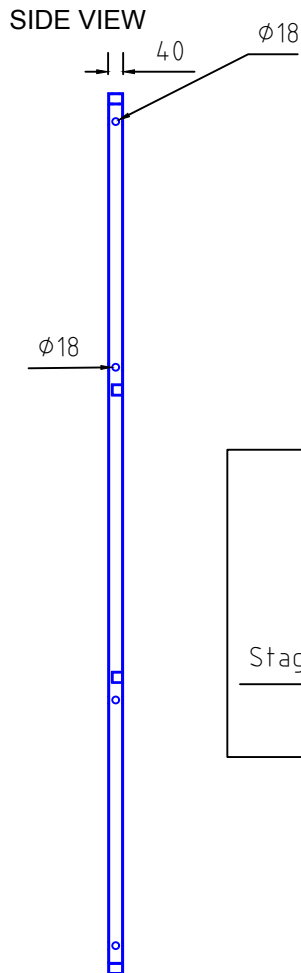


Description	Code	Material	Finish	Weight
Cheeta Cleat (with Pin)	407202	Steel	Galvanized	1.63kg
Screens Cheeta Guide Button	407290			0.083kg

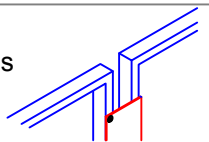
Technical Data Sheet

Screen Panel

Return 1050x2330 Aluminum Panel



NOTE:
For Rubber Infill Strip for Panels refer to page no. 48.

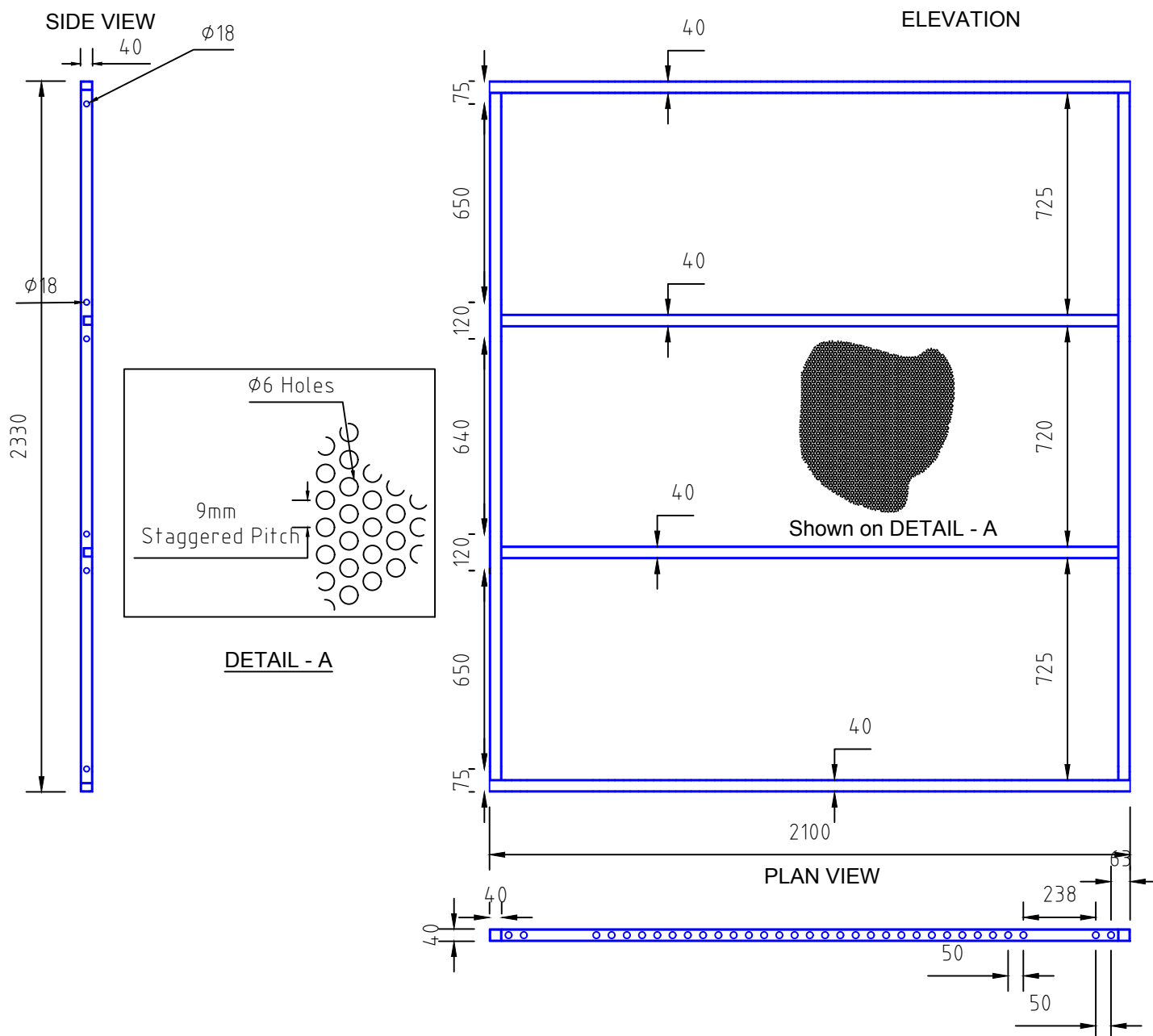


Description	Code	Material	Finish	Weight
Return 1050x2330 Alu Panel	401200	Aluminum 6082T6	None	19kg

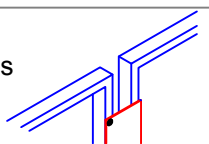
Technical Data Sheet

Screen Panel

Special Opening 2100x2330 Aluminum Panel



NOTE:
For Rubber Infill Strip for Panels
refer to page no. 48.



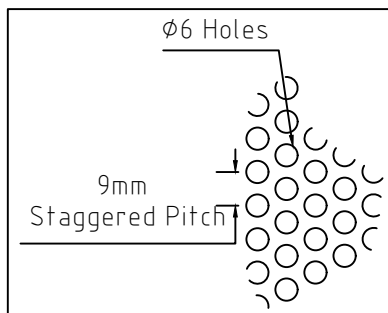
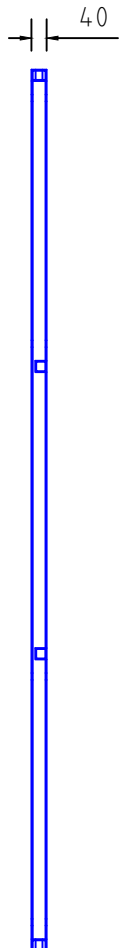
Description	Code	Material	Finish	Weight
Special Opening 2100x2330 Alu Panel	40715	Aluminum 6082T6	None	40kg

Technical Data Sheet

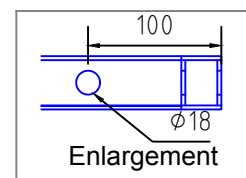
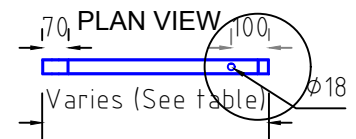
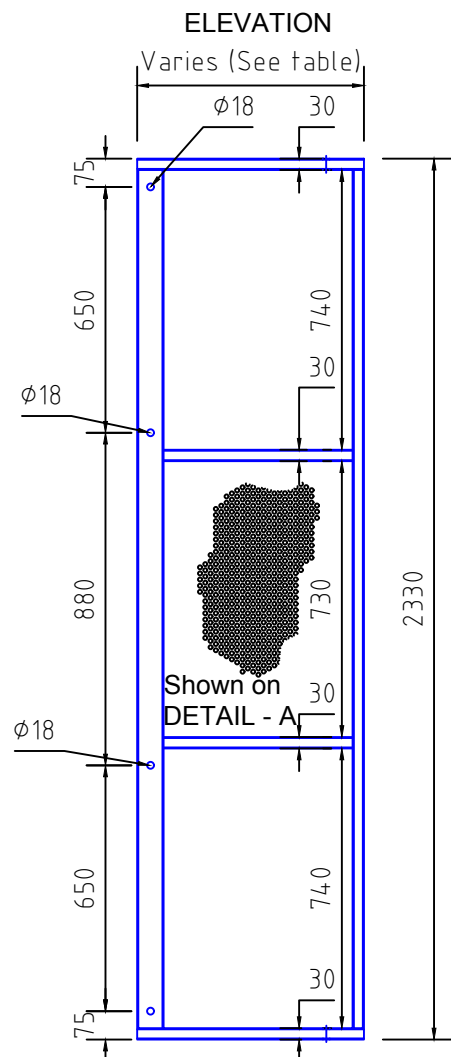
Screen Panel

Special Return 2330 Aluminum Panel

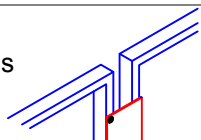
SIDE VIEW



DETAIL - A



NOTE:
For Rubber Infill Strip for Panels refer to page no. 48.

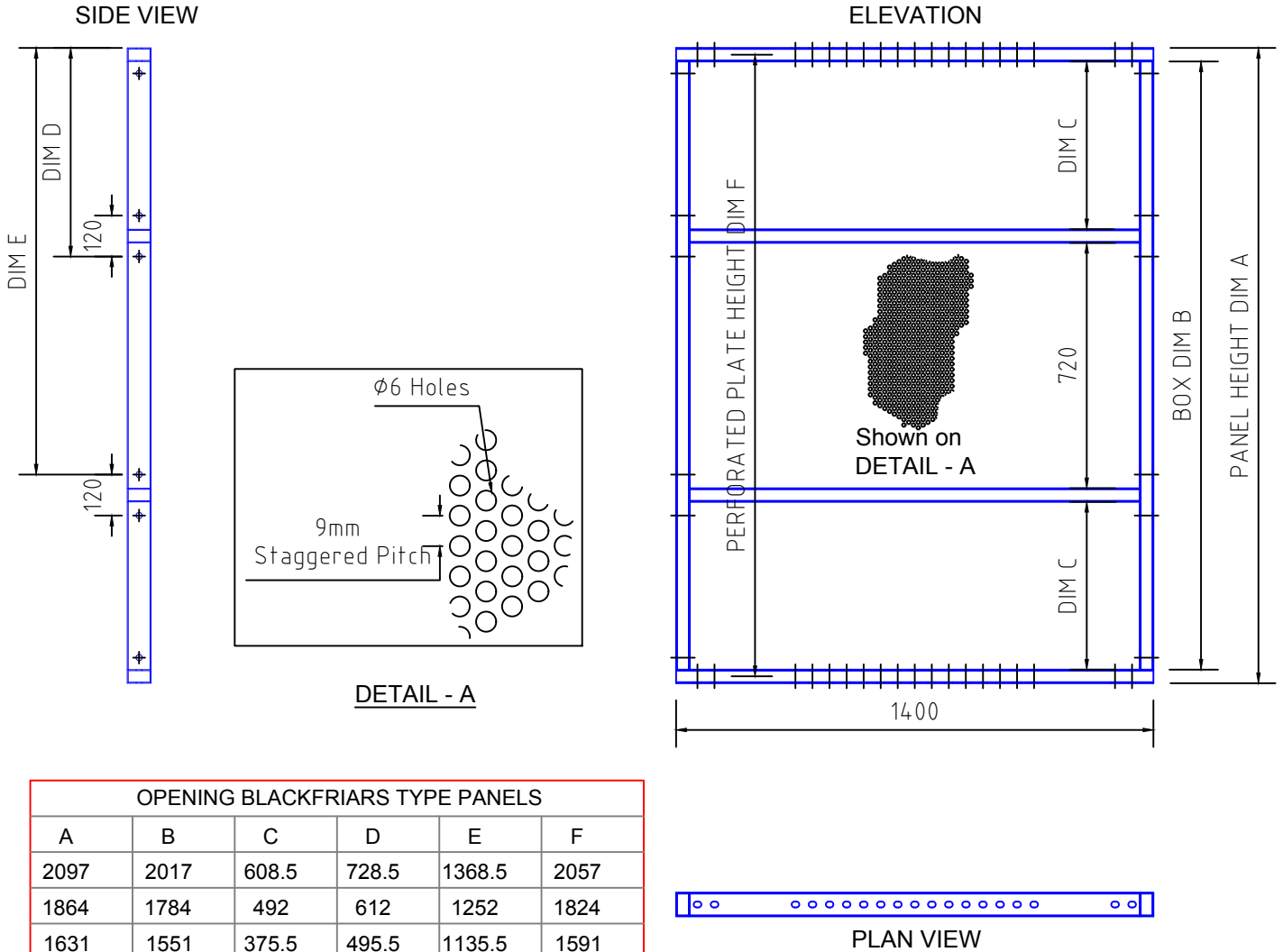


Description	Code	Material	Finish	Weight
Special Return Aluminum Panel 2.33 x 0.325	401231	Aluminum 6082T6	None	6.6kg
Special Return Aluminum Panel 2.33 x 0.600	401232	Aluminum 6082T6	None	12.8kg

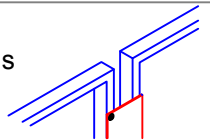
Technical Data Sheet

Screen Panel - Loading Bay

Opening - Special Screen Panel for Loading Bay



NOTE:
For Rubber Infill Strip for Panels
refer to page no. 48.



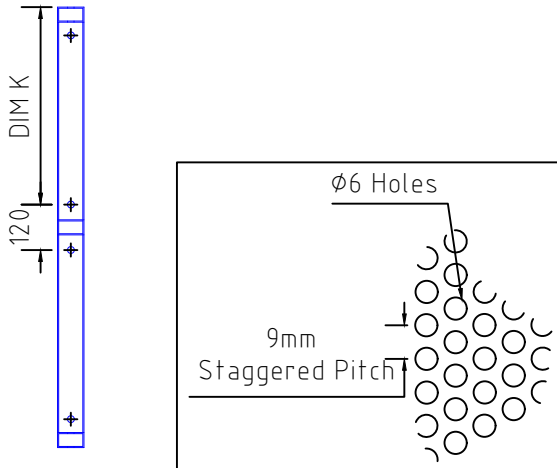
Description	Code	Material	Finish	Weight
Loading Bay - Opening Panel 1631x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 1864x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 2097x1400		Aluminum 6082T6	None	

Technical Data Sheet

Screen Panel - Loading Bay

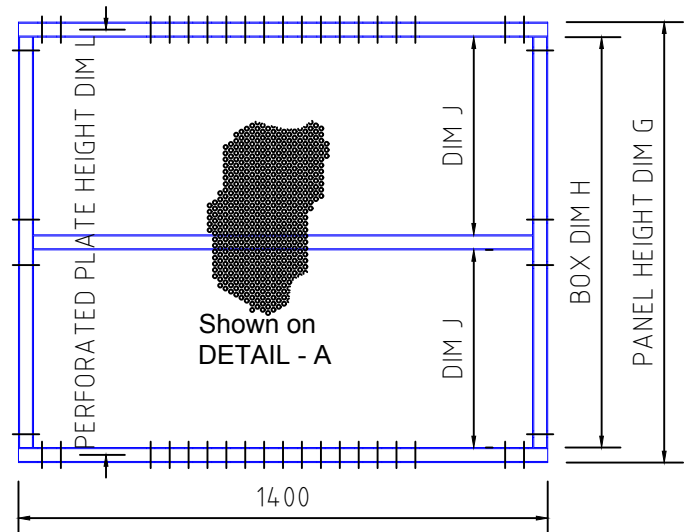
Opening - Special Screen Panel for Loading Bay

SIDE VIEW



DETAIL - A

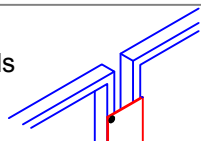
ELEVATION



OPENING BLACKFRIARS TYPE PANELS

G	H	J	K	L
1398	1318	639	639	1358
1165	1085	522.5	522.5	1125
932	852	406	406	892
699	619	289.5	289.5	659
466	386	173	173	426

NOTE:
For Rubber Infill Strip for Panels
refer to page no. 48.



PLAN VIEW

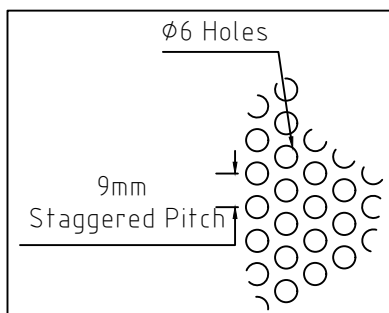
Description	Code	Material	Finish	Weight
Loading Bay - Opening Panel 466x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 699x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 932x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 1165x1400		Aluminum 6082T6	None	
Loading Bay - Opening Panel 1398x1400		Aluminum 6082T6	None	

Technical Data Sheet

Screen Panel - Loading Bay

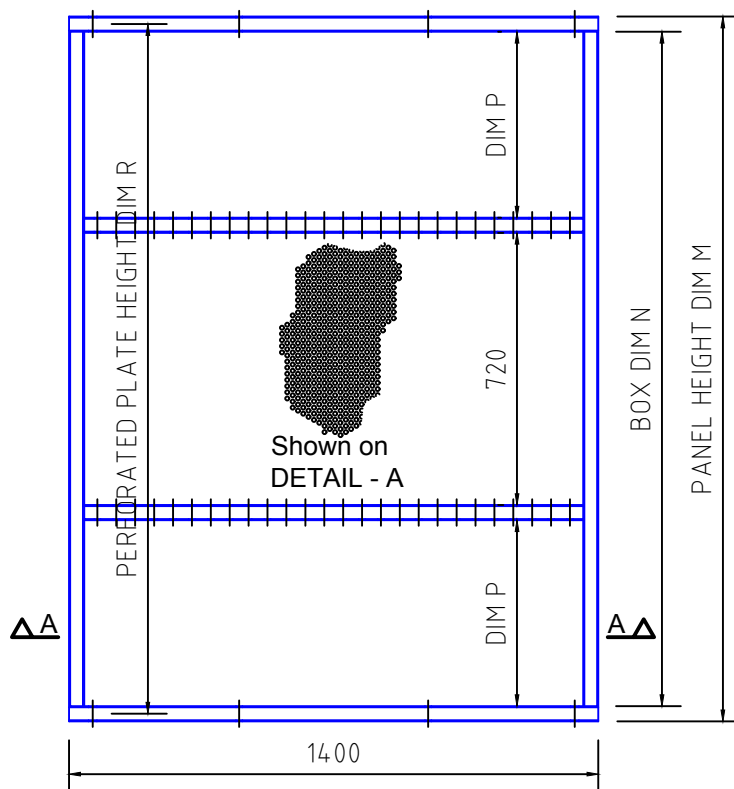
Fixed - Special Screen Panel for Loading Bay

SIDE VIEW



DETAIL - A

ELEVATION



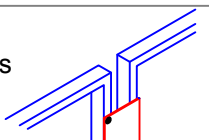
FIXED BLACKFRIARS TYPE PANELS

M	N	P	R
2097	2017	208.5	2057
1864	1784	492	1824
1631	1551	375.5	1591



PLAN VIEW

NOTE:
For Rubber Infill Strip for Panels refer to page no. 48.



Section A-A

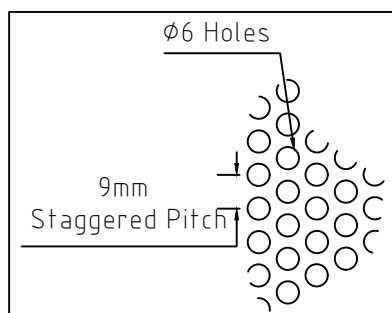
Description	Code	Material	Finish	Weight
Loading Bay - Fixed Panel 1631x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 1864x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 2097x1400		Aluminum 6082T6	None	

Technical Data Sheet

Screen Panel - Loading Bay

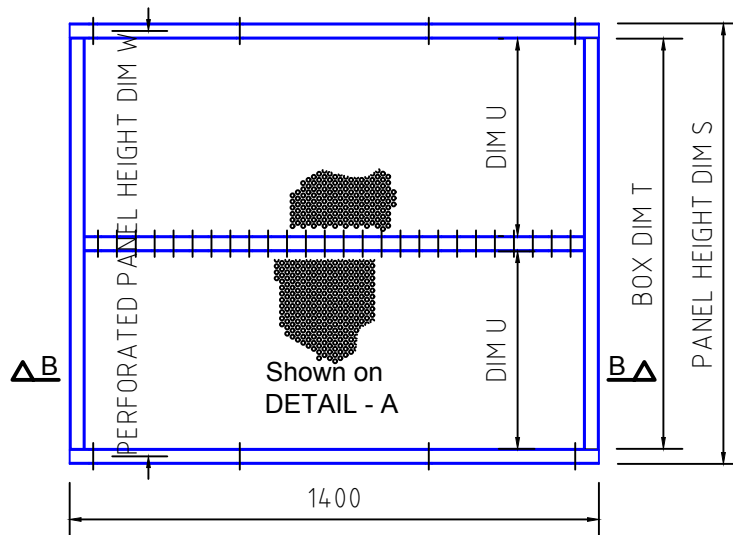
Fixed - Special Screen Panel for Loading Bay

SIDE VIEW



DETAIL - A

ELEVATION



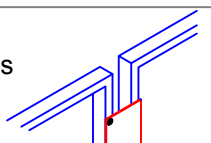
FIXED BLACKFRIARS TYPE PANELS

S	T	U	W
1398	1318	639	1358
1165	1085	522.5	1125
932	852	406	892
699	619	289.5	659
466	386	173	426

PLAN VIEW



NOTE:
For Rubber Infill Strip for Panels refer to page no. 48.



Section B-B

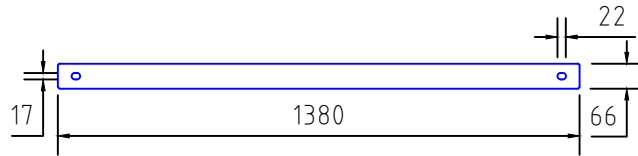


Description	Code	Material	Finish	Weight
Loading Bay - Fixed Panel 466x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 699x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 932x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 1165x1400		Aluminum 6082T6	None	
Loading Bay - Fixed Panel 1398x1400		Aluminum 6082T6	None	

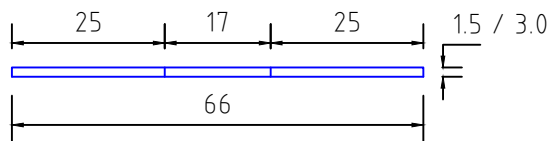
Technical Data Sheet Shim Plates

Shim Plates - 1.5/ 3.0mm

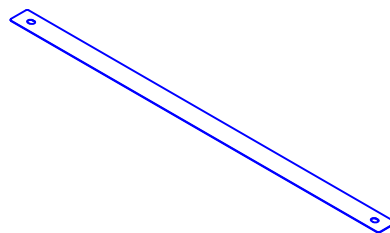
Plan view



Side view



Isometric View

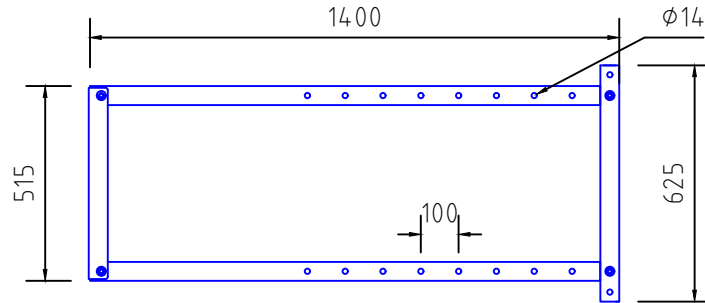


Description	Code	Material	Finish	Weight
Shim Plate 1.5mm	401520	Steel S275	Galvanized	1.05kg
Shim Plate 3mm	401521	Steel S275	Galvanized	2.1kg

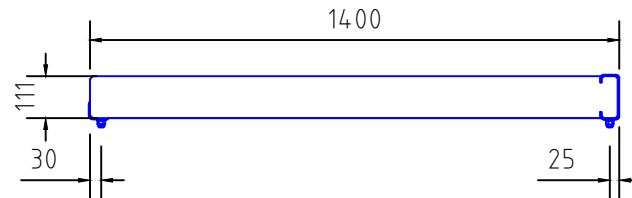
Technical Data Sheet Pull out deck

Pull Out Deck

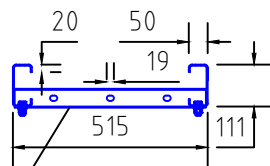
PLAN VIEW



SIDE VIEW

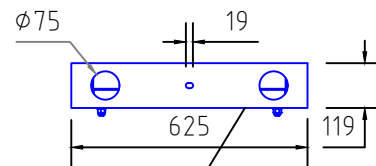


BACK VIEW



Internal Deck Beam

FRONT VIEW



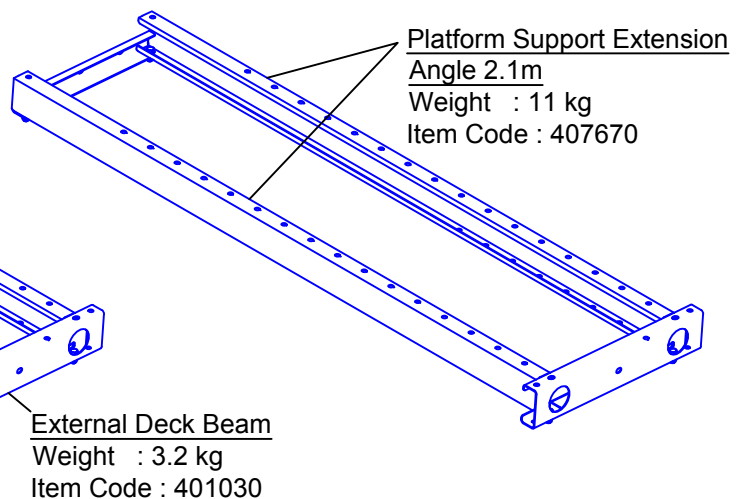
External Deck Beam

ISOMETRIC VIEW

Internal Deck Beam
Weight : 1.37 kg
Item Code : 401040

Platform Support Extension
Angle 1.4m
Weight : 7.3 kg
Item Code : 401020

Note:
Internal deck beam fitted after
pull out deck slid into position.

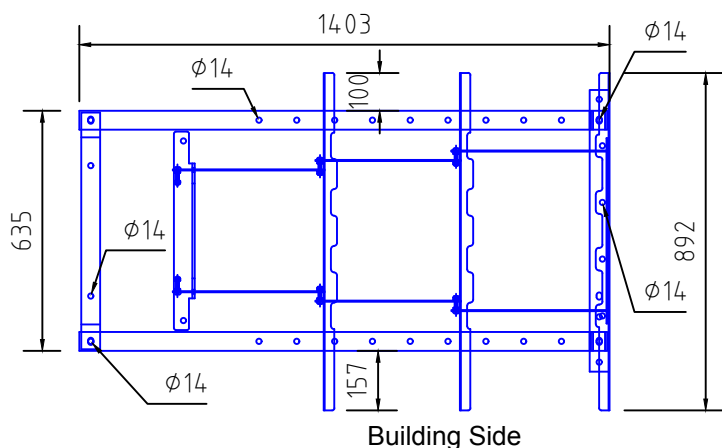


Description	Code	Material	Finish	Weight
Pull out Deck	401010	Steel S275	Galvanized	20kg

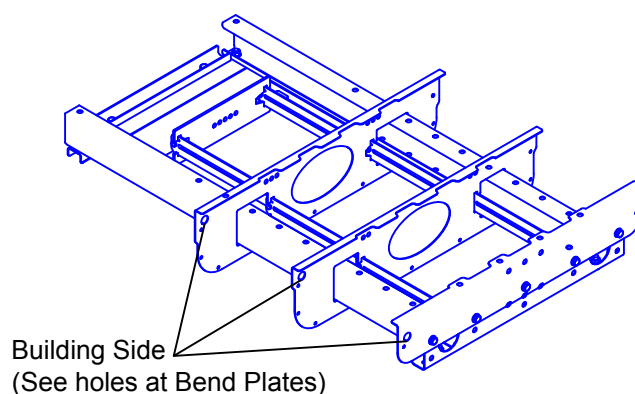
Technical Data Sheet Concertina Deck

Concertina Deck 1000

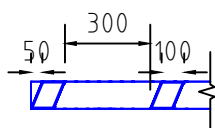
PLAN VIEW



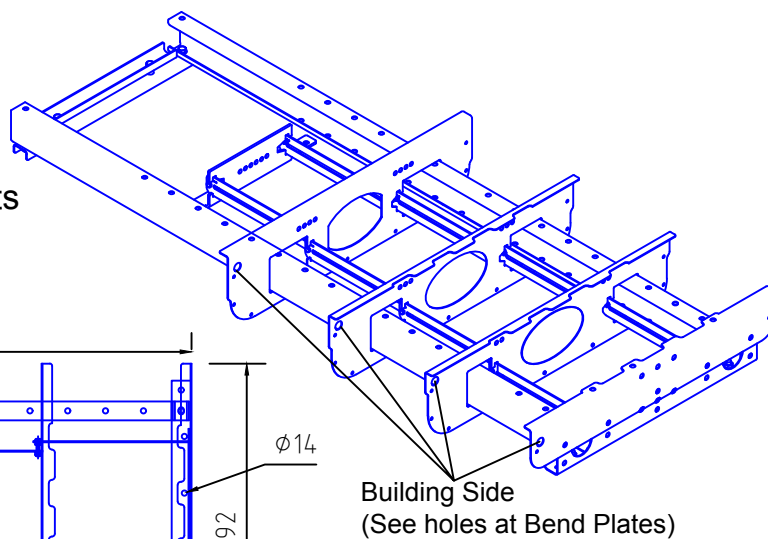
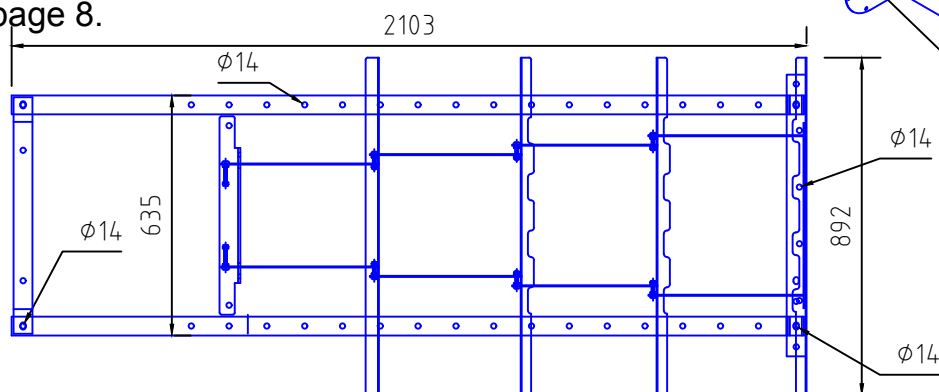
ISOMETRIC VIEW



Concertina Deck 1500



Note:
Platform Support Channels used with 1.5m Concertina deck has holding pockets away from each other at 300mm. Standard "125mm" distance is shown on page 8.



Description	Code	Material	Finish	Weight
Concertina 1000	407510	Steel	Galvanized	37kg
Concertina 1000 opposite	407511	Steel	Galvanized	37kg
Concertina 1500	407680	Steel	Galvanized	49.3kg
Concertina 1500 opposite	407681	Steel	Galvanized	49.3kg

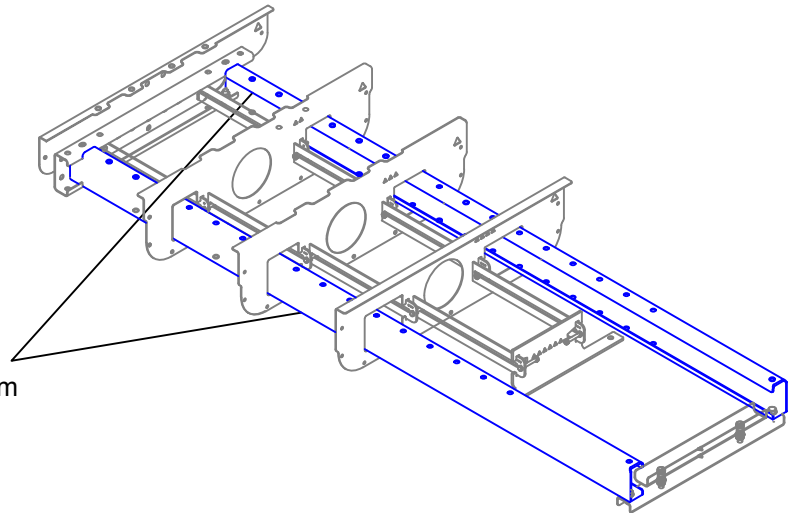
Technical Data Sheet Concertina Deck

Platform support extension angle

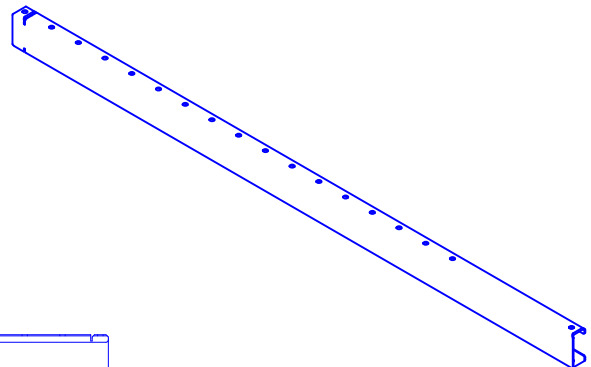
ISOMETRIC VIEW

The Platform support extension angle is part of the Concertina Deck assembly which is longer than the standard 1.4m size at 2.1m

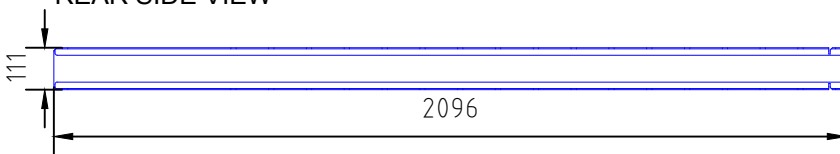
Platform Support extension angle 2.1m



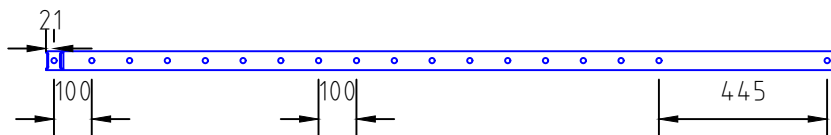
Safe working loads (SWL's)	
B.M	3.78kNm



REAR SIDE VIEW



PLAN VIEW



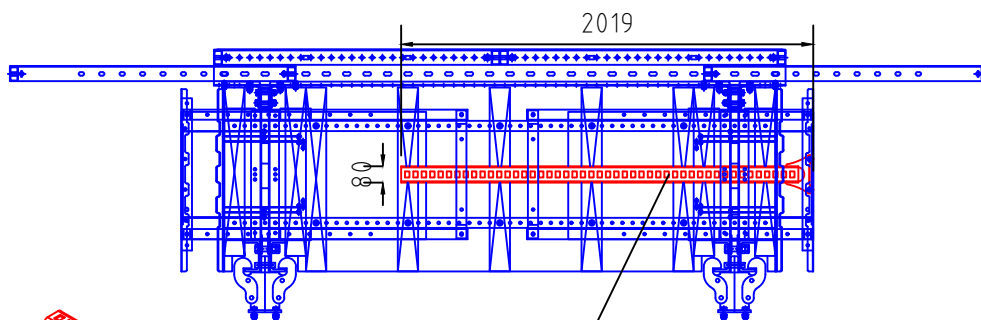
Note:
Used in conjunction with Special Platform Support Channel.

Description	Code	Material	Finish	Weight
Platform support extension angle	407670	Steel S275	Galvanized	10.984kg

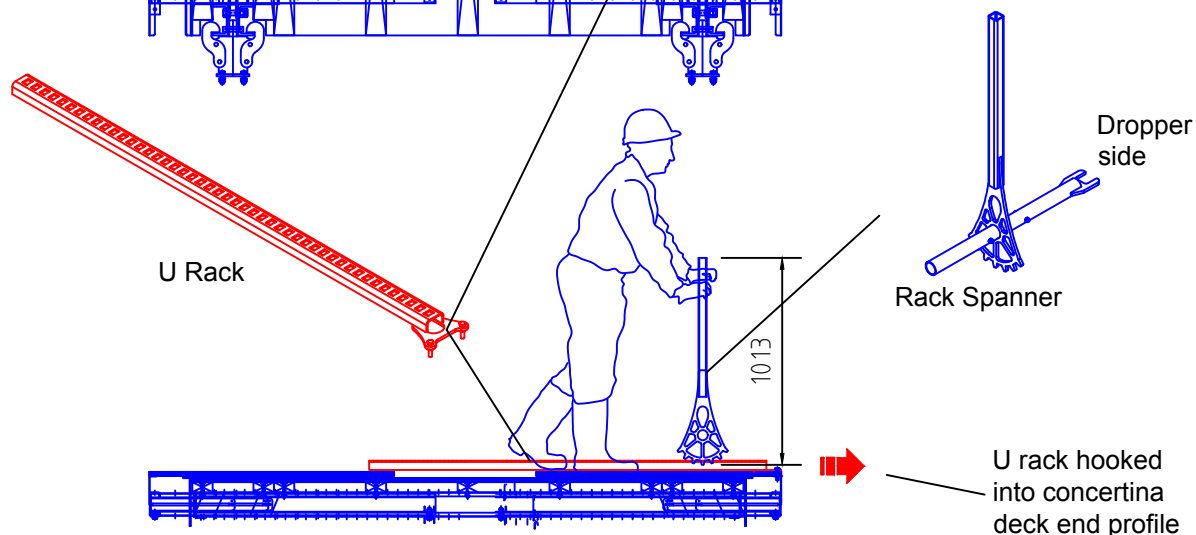
Technical Data Sheet Concertina Deck

U Rack / Gear Lever Assembly

PLAN VIEW

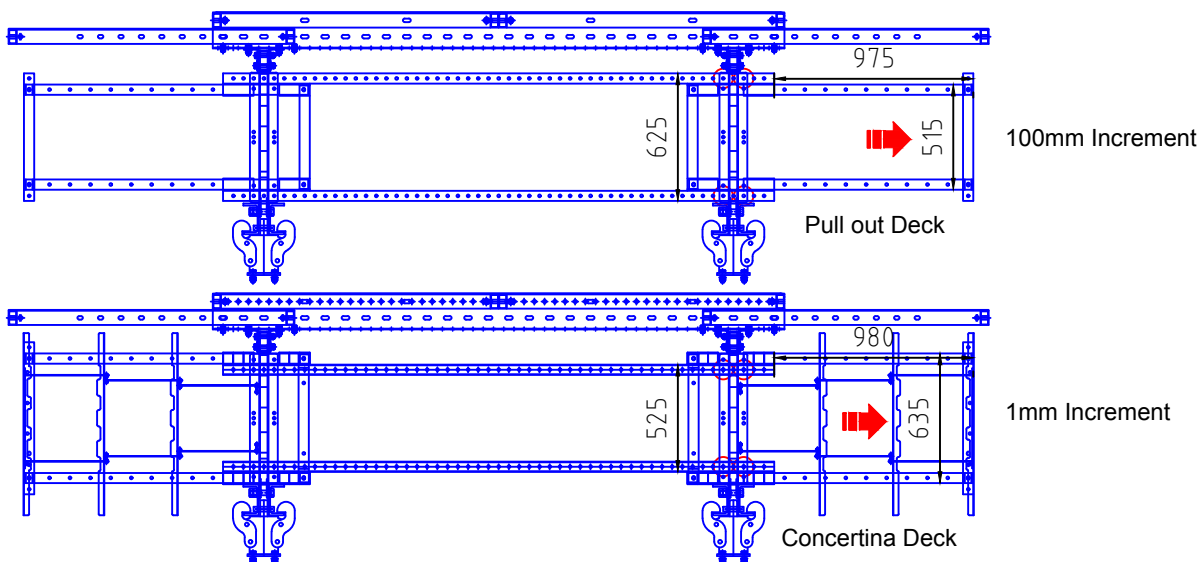


ELEVATION VIEW



Concertina Deck vs Pull out Deck comparison

PLAN VIEW

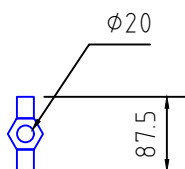


Description	Code	Material	Finish	Weight
U-Rack	409450	Steel	Galvanized	11.3kg
Rack Spanner	409450	Steel	Galvanized	8.16kg

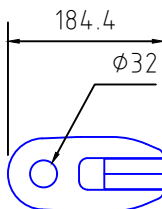
Technical Data Sheet Tie brace

Tie Brace Nut Clevis

END VIEW



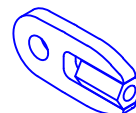
SIDE VIEW


NOTE

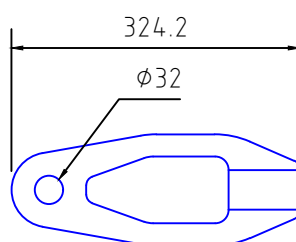
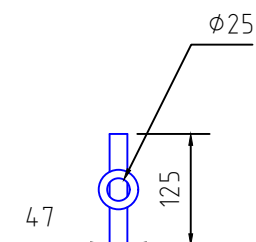
Do not confuse this item with the Cable Stayed Nut Clevis - 405740



ISOMETRIC VIEW



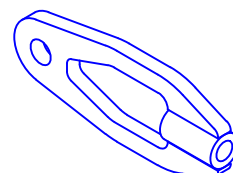
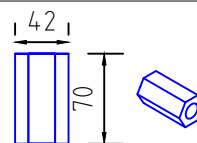
Tie Brace Tube Clevis


NOTE

Do not confuse this item with the Cable Stayed Tube Clevis - 405700



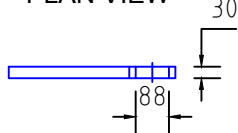
Tie Brace 20mm hexagon nut - 2 per Lower Clevis



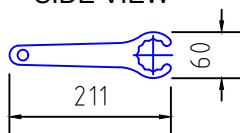
Tie Brace Operating Spanner

20mm Dia Tie Bar

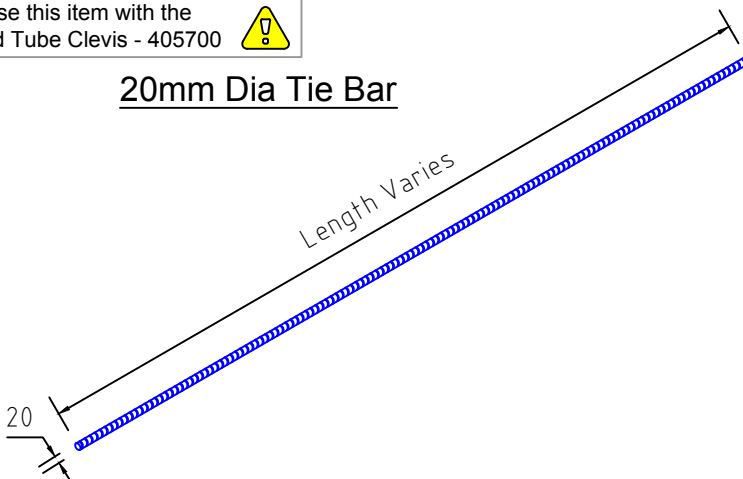
PLAN VIEW



SIDE VIEW


Safe working loads (SWL's)
20mm Dia Tie Bar

Axial 160 kN



Description	Code	Material	Finish	Weight
Tie Brace Tube Clevis	400830	Steel S235	Galvanized	4.2kg
Tie Brace Nut Clevis	400840	Steel S235	Galvanized	2.1kg
Tie Brace operating Spanner	400850	Steel S235	Galvanized	0.9kg
20 Dia Tie Bar	400710	High Tensile Steel	Galvanized	2.6kg/m
Tie Brace 20mm Hexagon Nut	400720	Steel	Galvanized	0.40kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

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2018

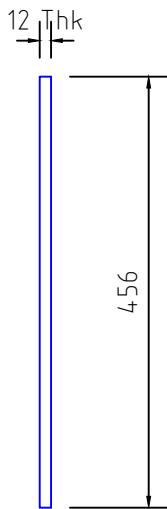
K

27

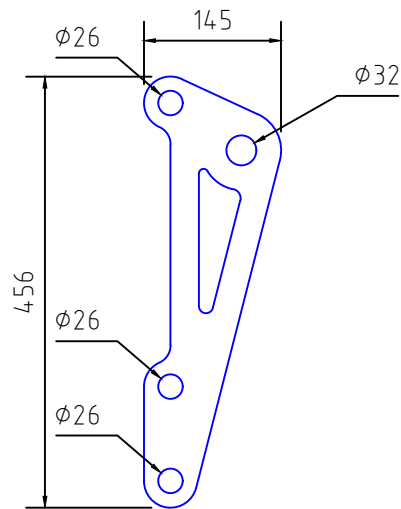
Technical Data Sheet Tie Brace

Tie Brace Main Channel Plate

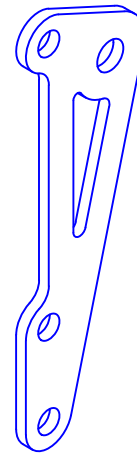
PLAN VIEW



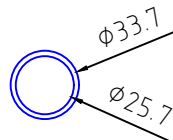
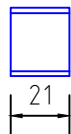
END VIEW



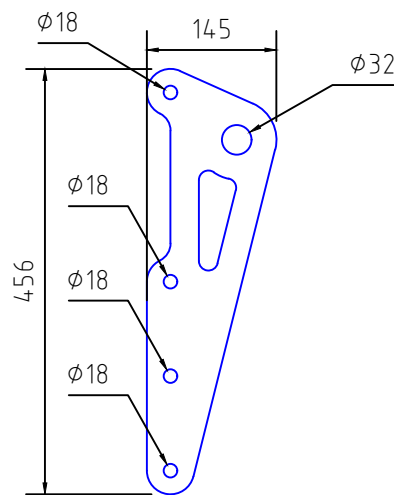
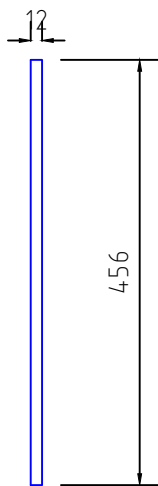
ISOMETRIC VIEW



Tube Spacer - for Tie Brace



Tie Brace Dropper Plate

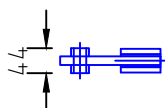


Description	Code	Material	Finish	Weight
Tie Brace Main Channel Plate	400810	Steel S275	Galvanized	3.03kg
Tube Spacer - for Tie Brace	401420	Steel S275	Galvanized	0.06kg
Tie Brace Dropper Plate	400820	Steel S275	Galvanized	3.17kg

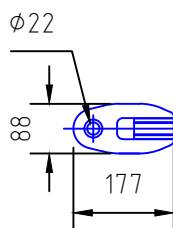
Technical Data Sheet Soffit Tie Components

Cable Stayed Nut Clevis

PLAN VIEW



SIDE VIEW



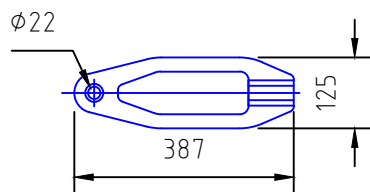
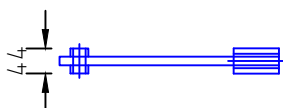
ISOMETRIC VIEW

NOTE

Do not confuse this item with the Tie Brace Nut Clevis - 400840



Cable Stayed Tube Clevis

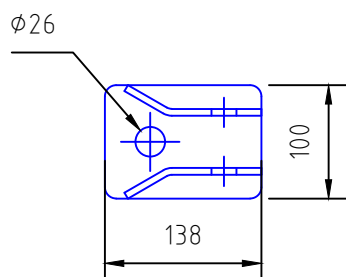

NOTE

Do not confuse this item with the Tie Brace Tube Clevis - 400830

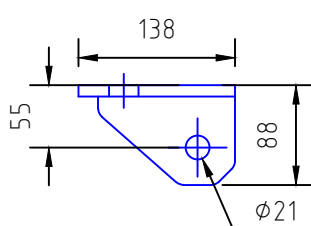


Cable Stayed Bracket

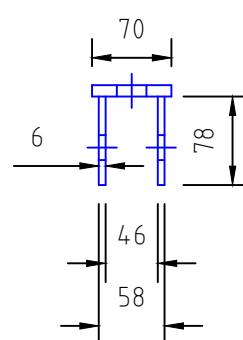
PLAN VIEW



SIDE VIEW



ELEVATION VIEW



Description	Code	Material	Finish	Weight
Cable Stayed Nut Clevis	405740	Steel S275	Galvanized	-kg
Cable Stayed Tube Clevis	405700	Steel S275	Galvanized	-kg
Cable Stayed Bracket	405670	Steel S275	Galvanized	-kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

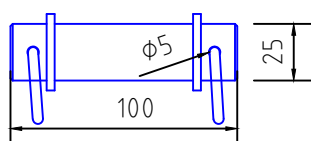
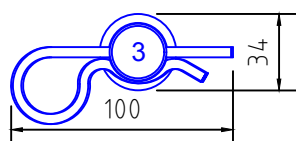
23/01/
2018

K

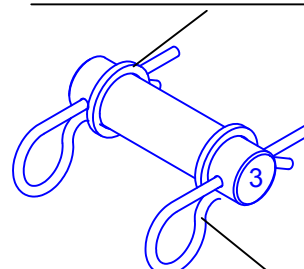
29

Technical Data Sheet Bolt positions

Main Support Pin



Washer Item Code = 401550



Safe working loads (SWL's)

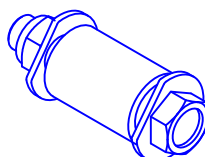
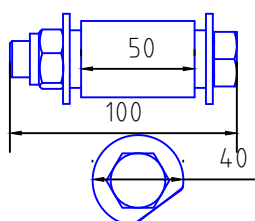
Main Support Pin

Max combined Latch Load 71 kN

Description	Code	Material	Finish	Weight
Main Support Pin	401500	Steel S355	Yellow Passivated	0.4kg

Rclips Item Codes
= 401510

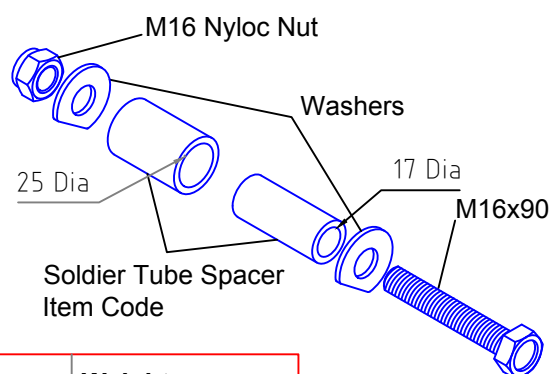
Tube Spacer Assembly



Safe working loads (SWL's)

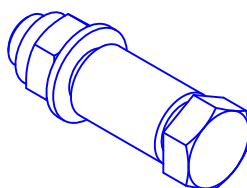
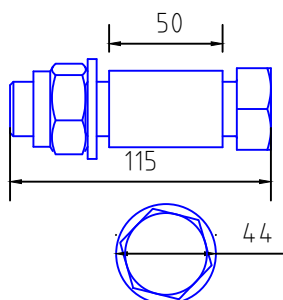
M16 Gr 8.8

Double Shear 71 kN



Description	Code	Material	Finish	Weight
M16x90 Bolt	413044	Steel Gr 8.8	Zinc Plated	0.163kg
M16 Washer	401580			0.021kg
M16 Nyloc Nut	413048	Steel Gr 8.8		0.037kg

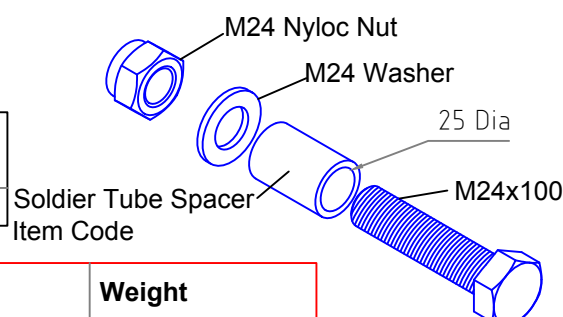
Tube Spacer



Safe working loads (SWL's)

M24 Gr 8.8

Double Shear 160 kN



Description	Code	Material	Finish	Weight
M24x100 Bolt	413050	Steel Gr 8.8		0.487kg
M24 Washer	413052			0.033kg
M24 Nyloc Nut	413051	Steel Gr 8.8		0.128kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

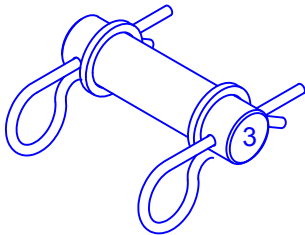
Date: Issue: Page:

23/01/
2018

K

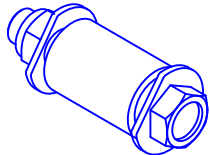
30

Technical Data Sheet Bolt positions

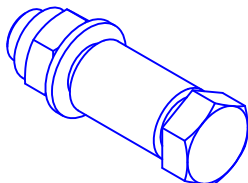


● A = Main support pin

Letter links to the position on the Screen.



● B = Tube spacer assembly



● C = Tube Spacer

All details to the above components available on:
Pg. 28

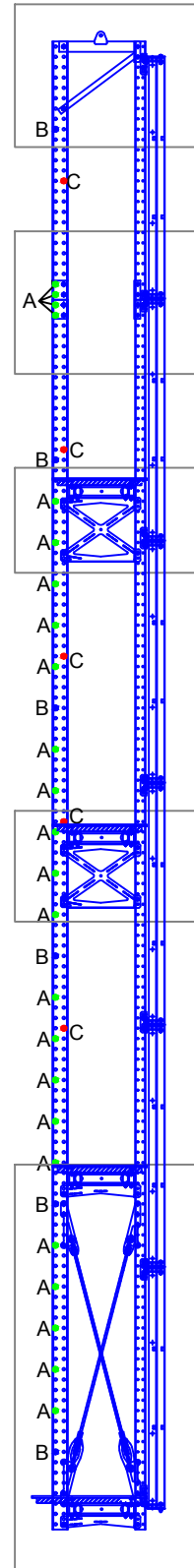
Detail I
Page No. 30

Detail II
Page No. 31

Detail III
Page No. 32

Detail IV
Page No. 33

Detail V
Page No. 34

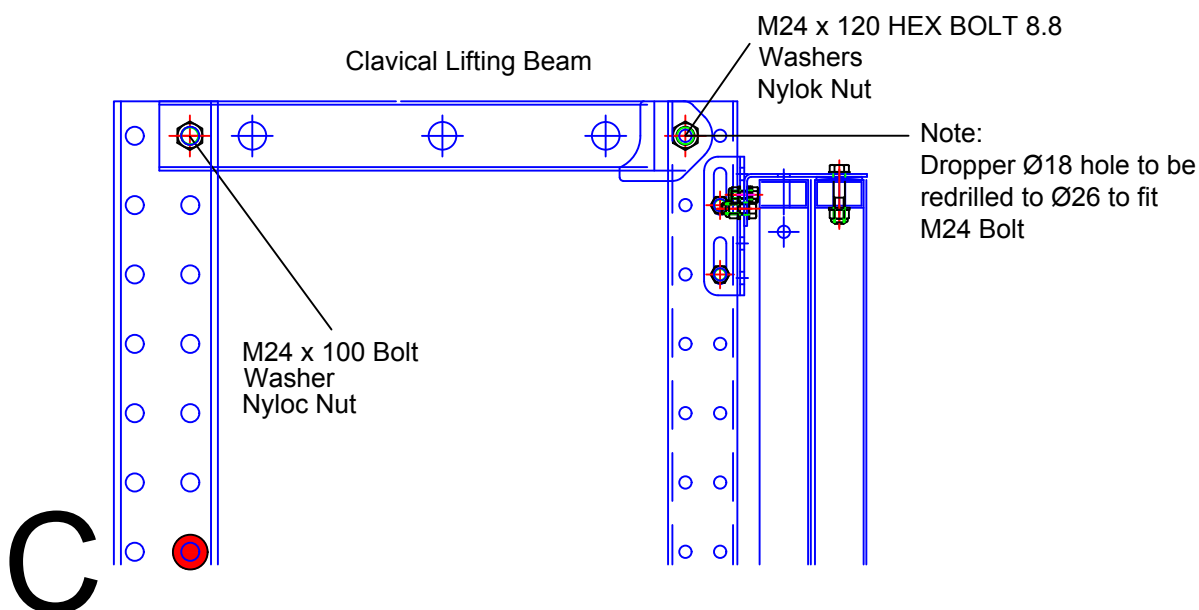
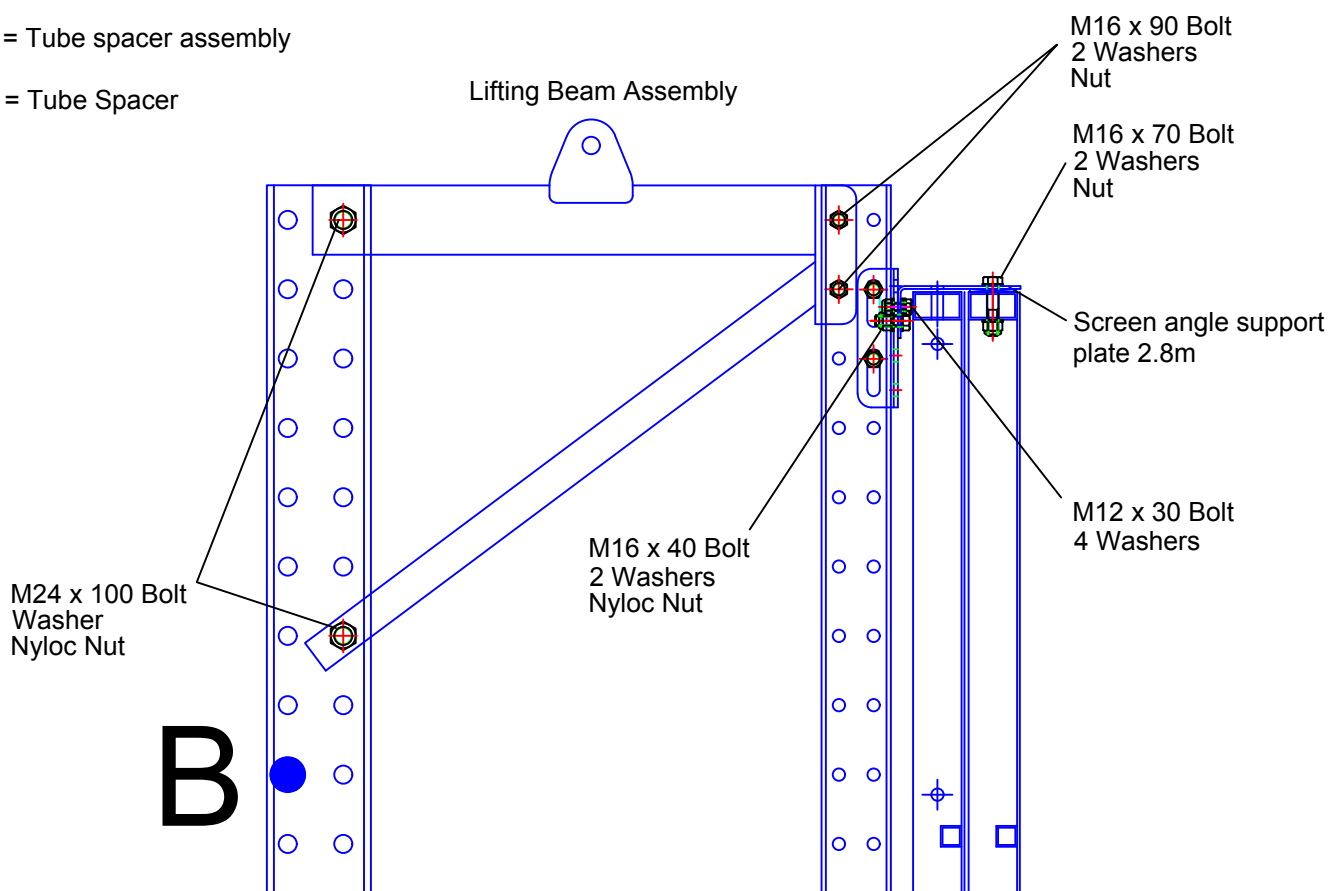


Technical Data Sheet

Bolt positions DETAIL I

● B = Tube spacer assembly

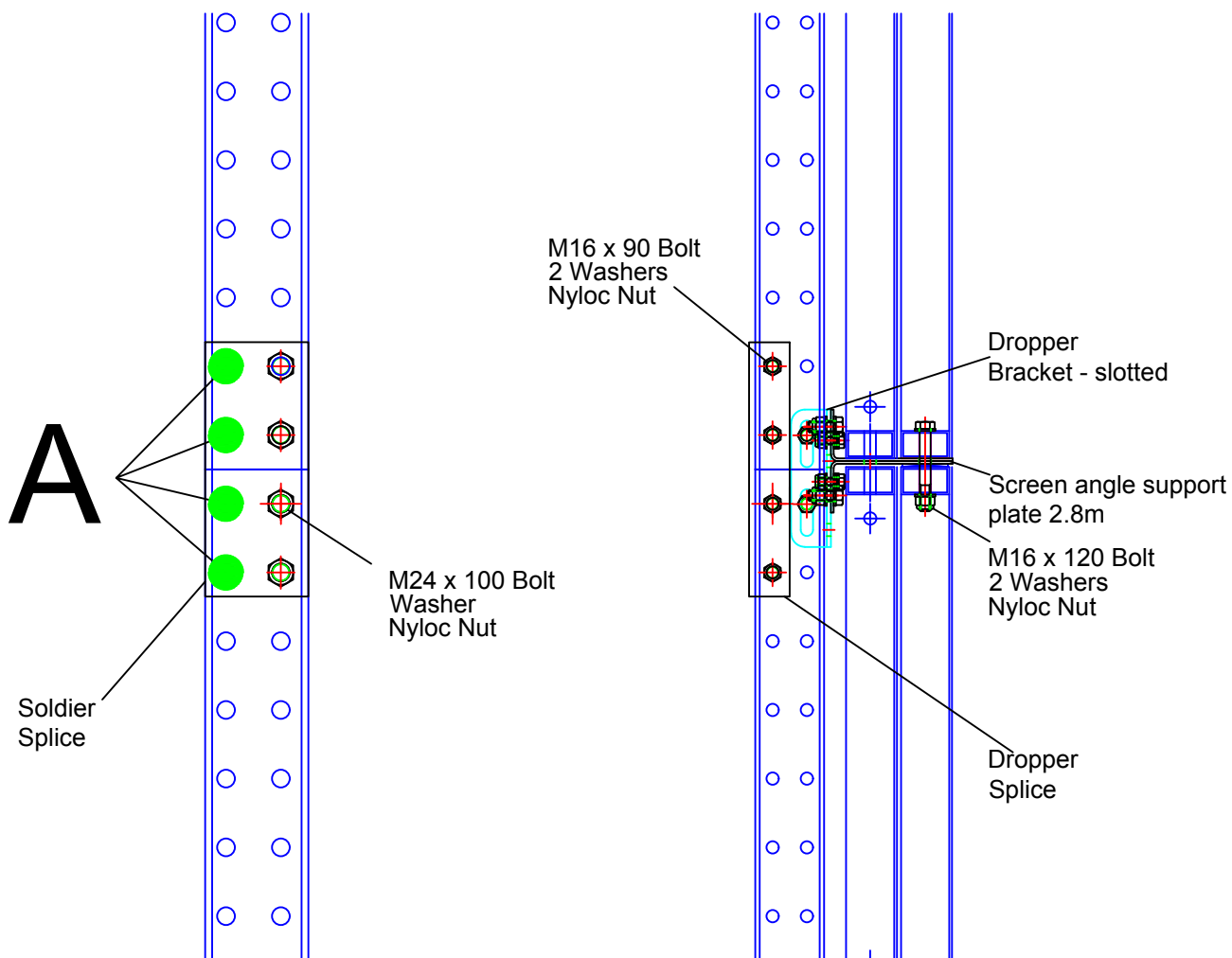
● C = Tube Spacer



Technical Data Sheet

Bolt positions DETAIL II

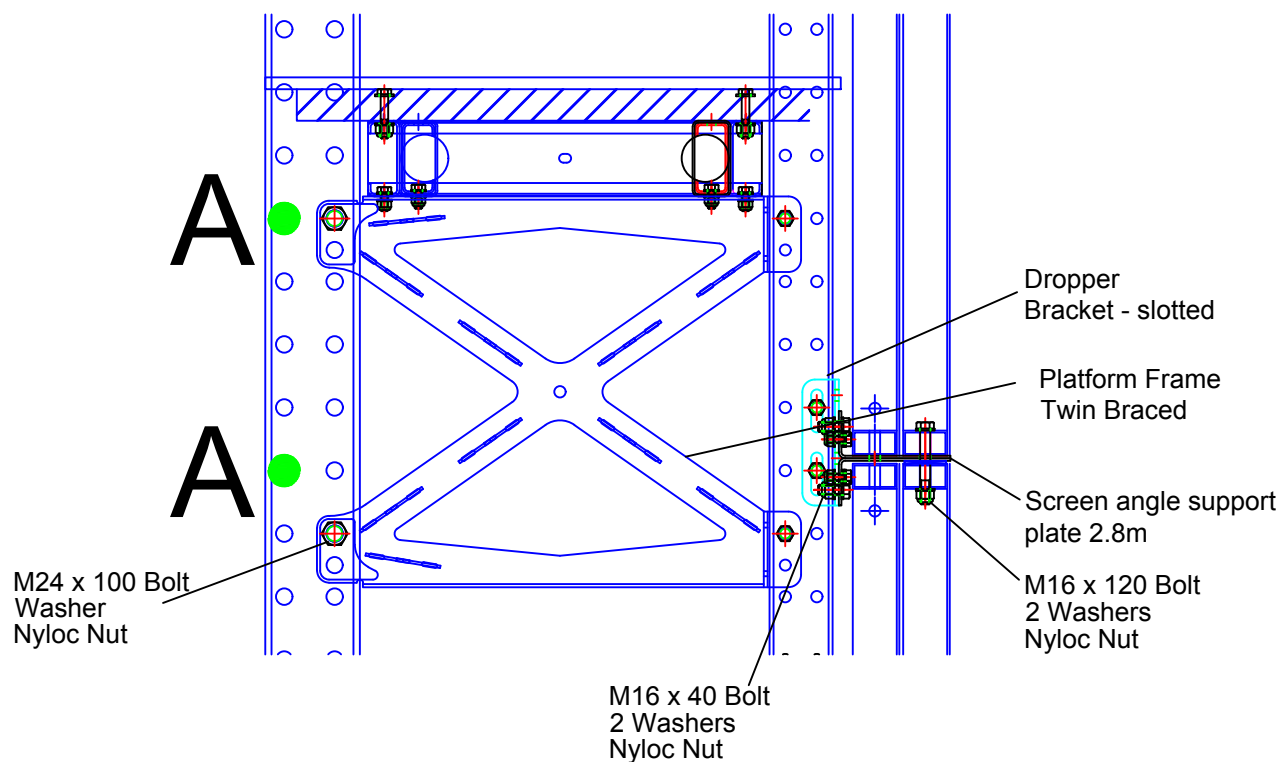
● A = Main support pin



Technical Data Sheet

Bolt positions DETAIL III

● A = Main support pin

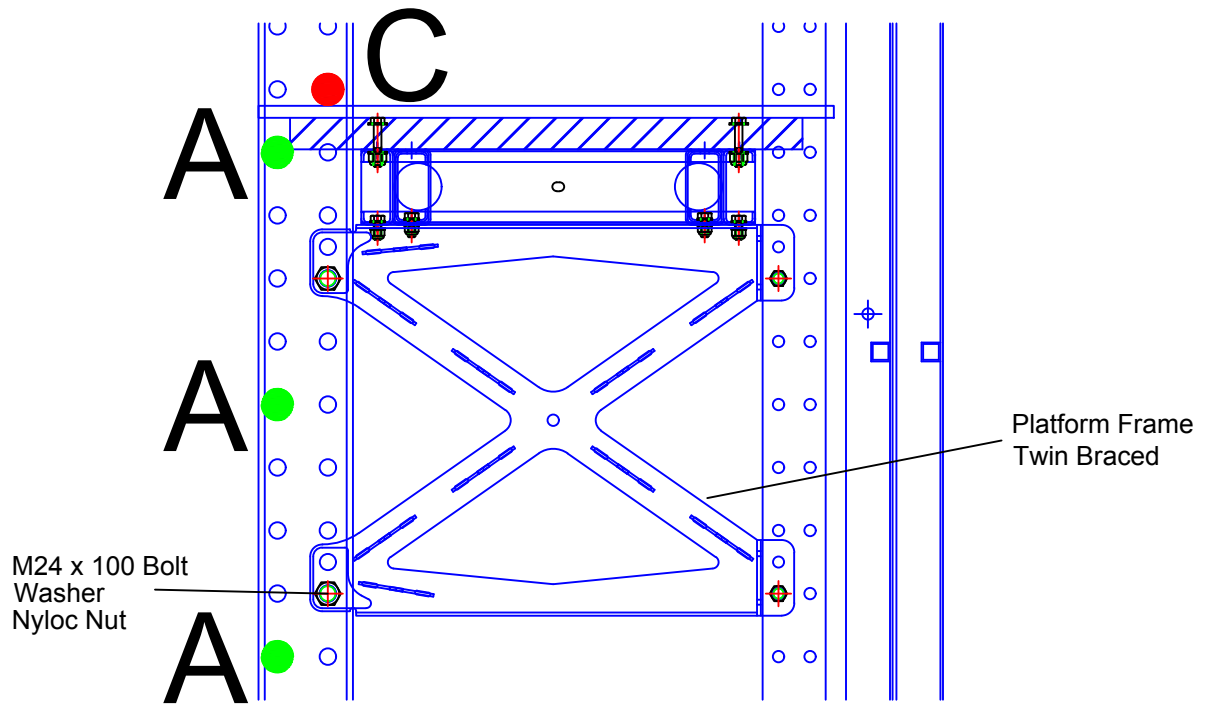


Technical Data Sheet

Bolt positions DETAIL IV

● A = Main support pin

● C = Tube Spacer

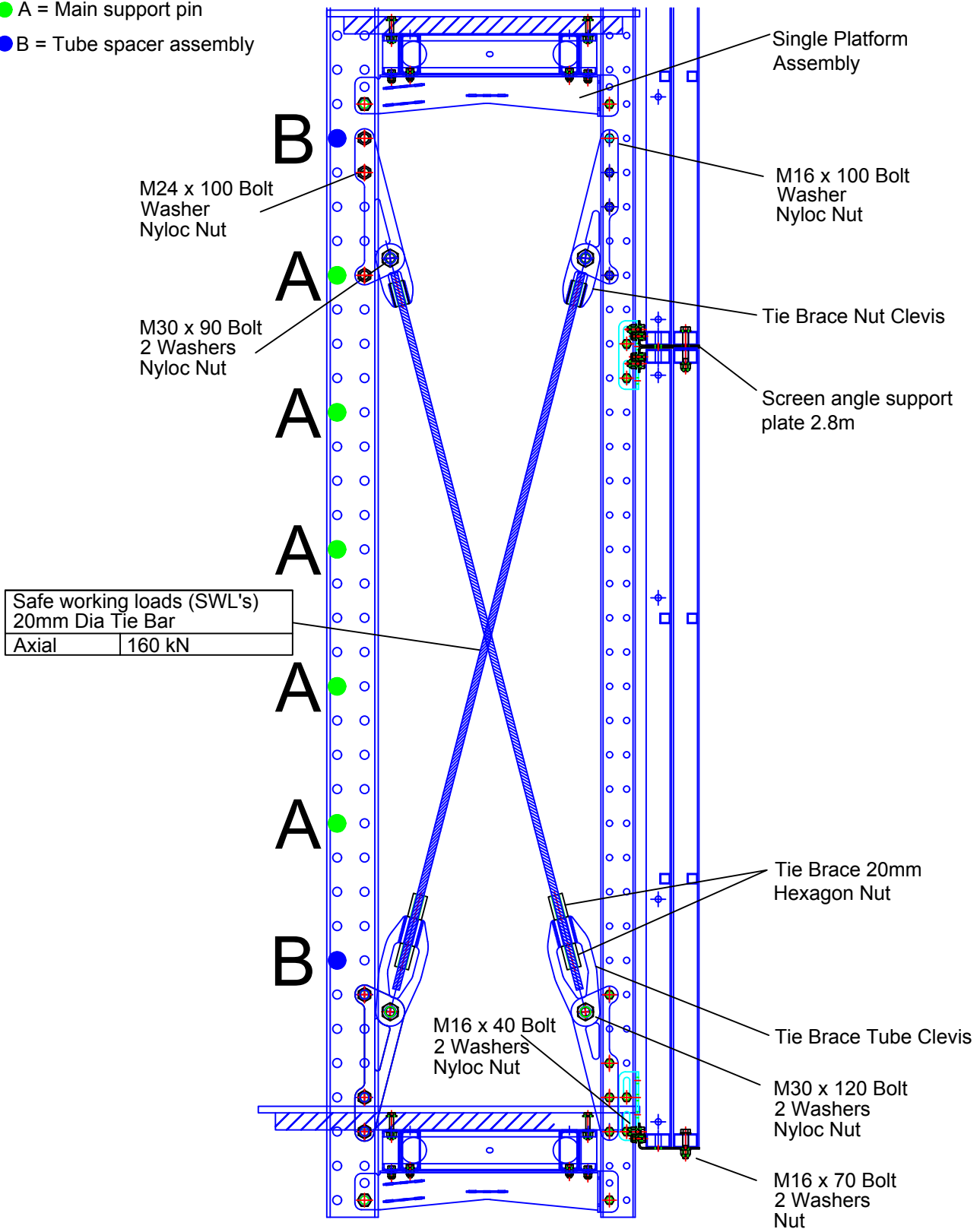


Technical Data Sheet

Bolt positions DETAIL V

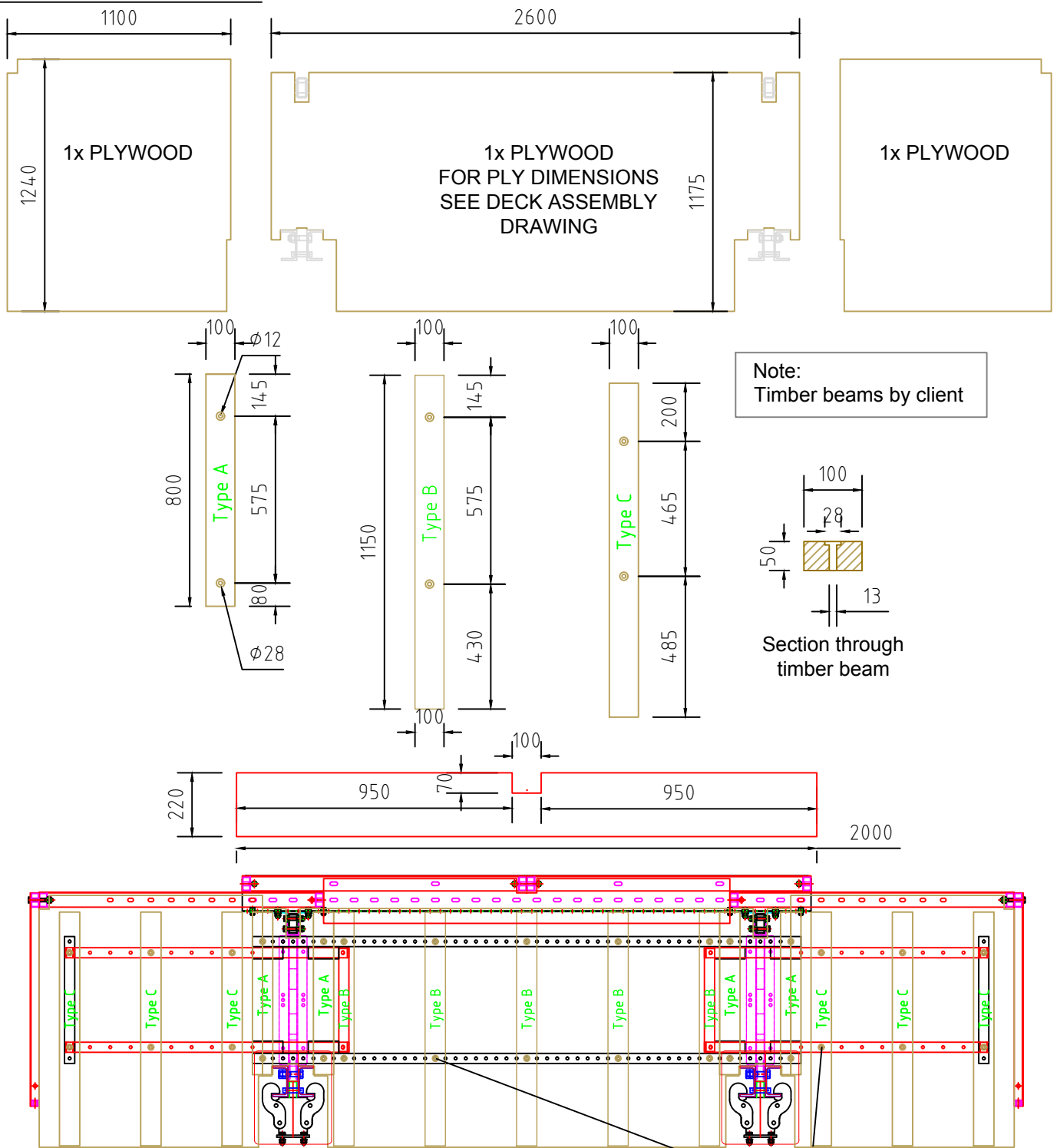
● A = Main support pin

● B = Tube spacer assembly

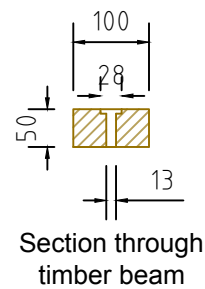


Technical Data Sheet Platform Deck-Standard

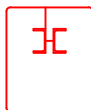
Lower Deck - Standard



Note:
Timber beams by client



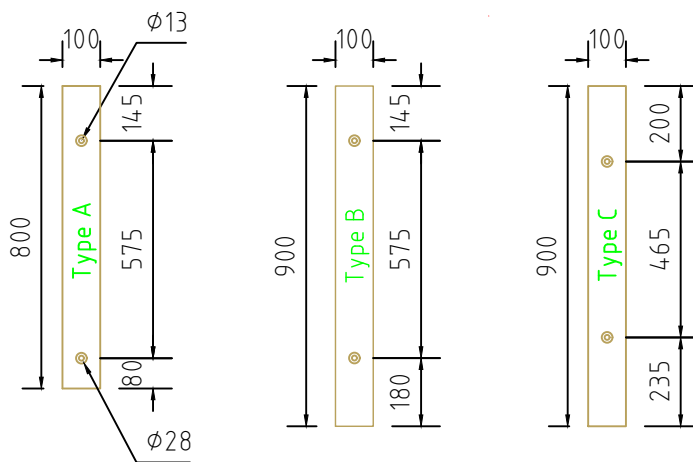
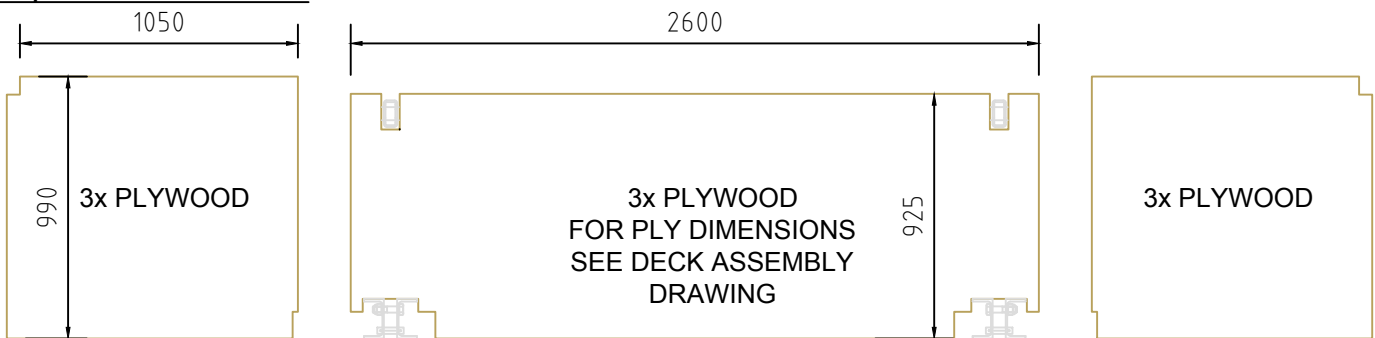
NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.



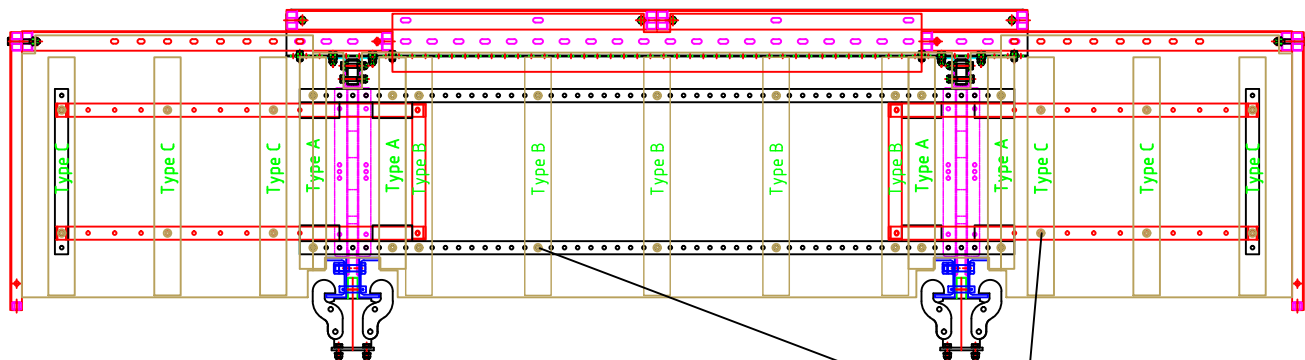
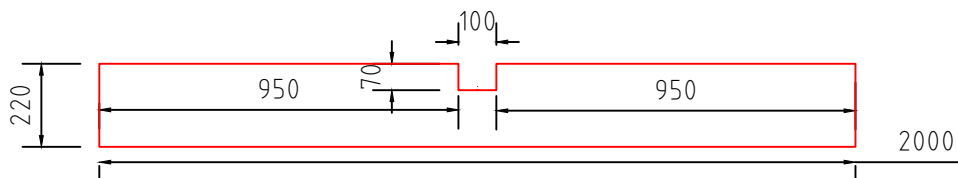
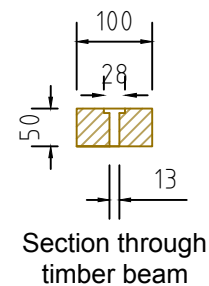
M12 x 70 HEX BOLTS 8.8
M12 Nylok Nuts
M12 Washers

Technical Data Sheet Platform Deck-Standard

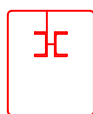
Top Deck - Standard



Note:
Timber beams by client



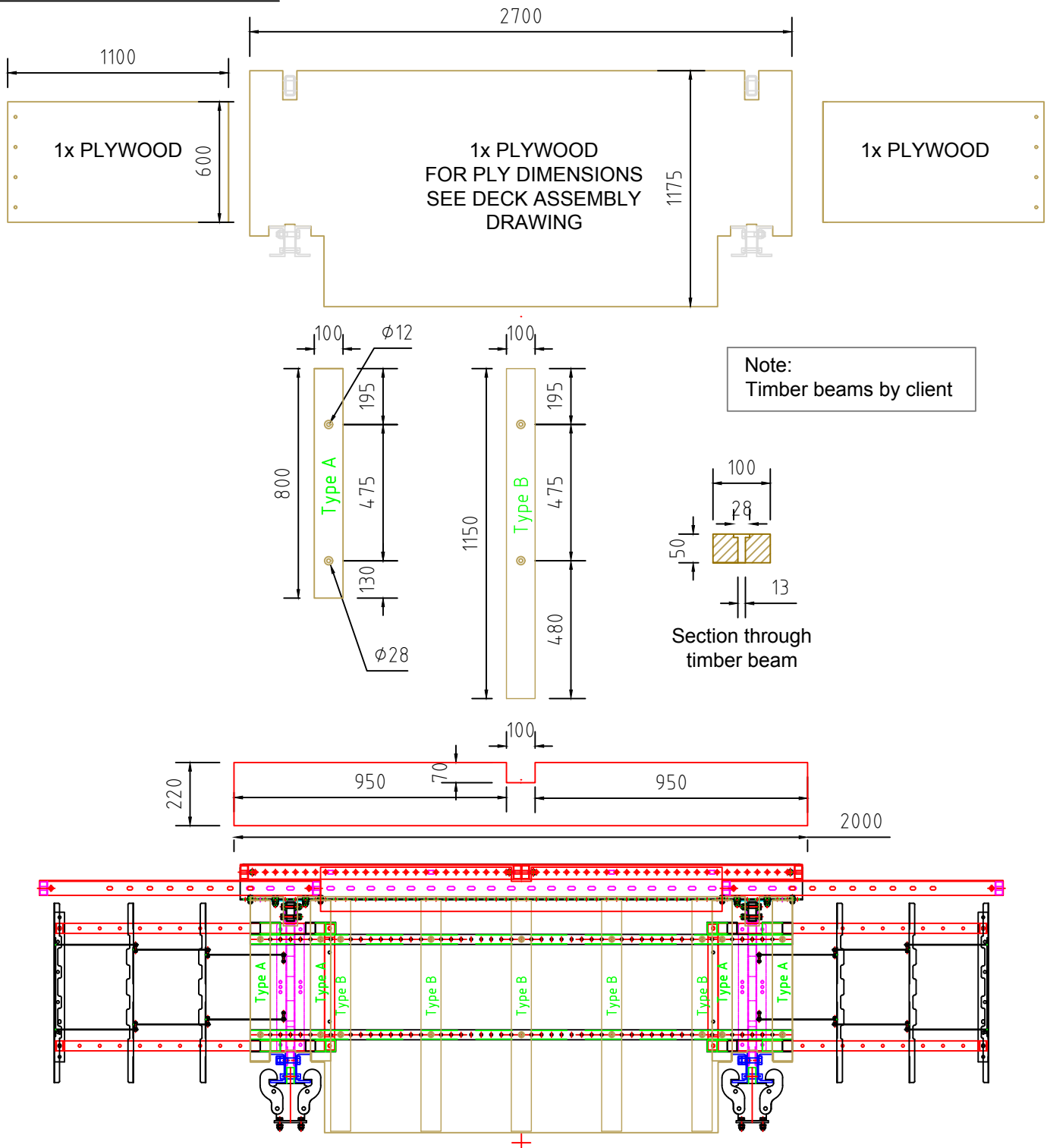
NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.



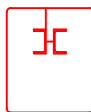
M12 x 70 HEX BOLTS 8.8
M12 Nylok Nuts
M12 Washers

Technical Data Sheet Platform Deck-Concertina

Lower Deck - Concertina

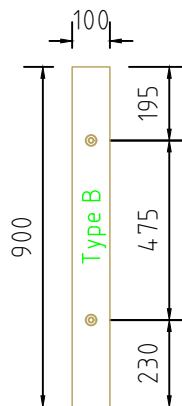
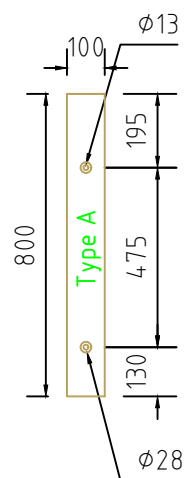
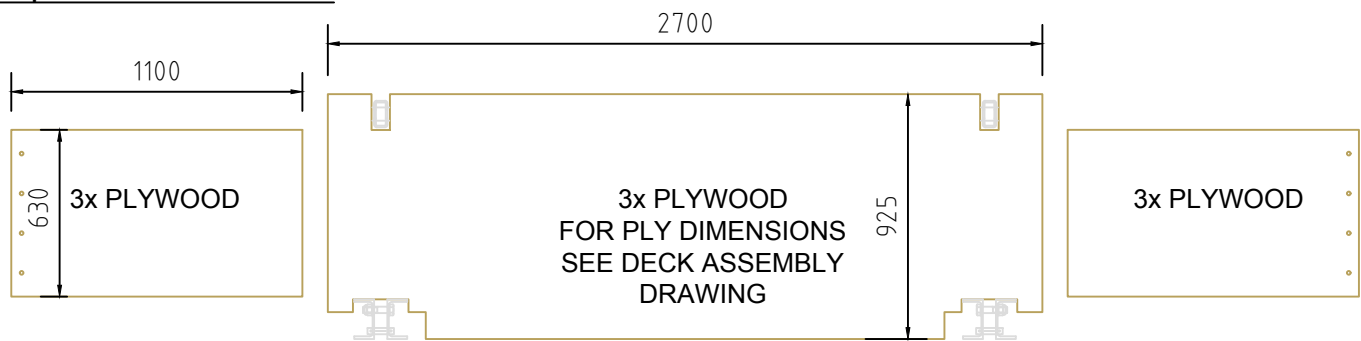


NOTE:
 Rubber seal for Screen Soldiers 8 per Screen.
 See page no. 48 for Rubber Seal details.

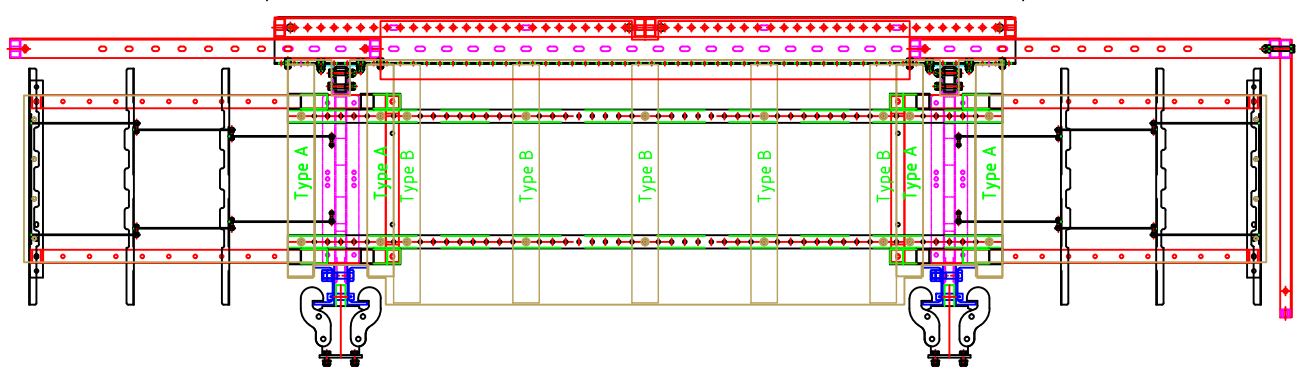
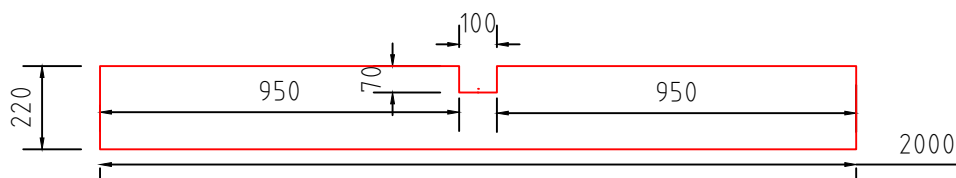
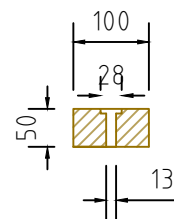


Technical Data Sheet Platform Deck-Concertina

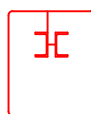
Top Deck - Concertina



Note:
Timber beams by client

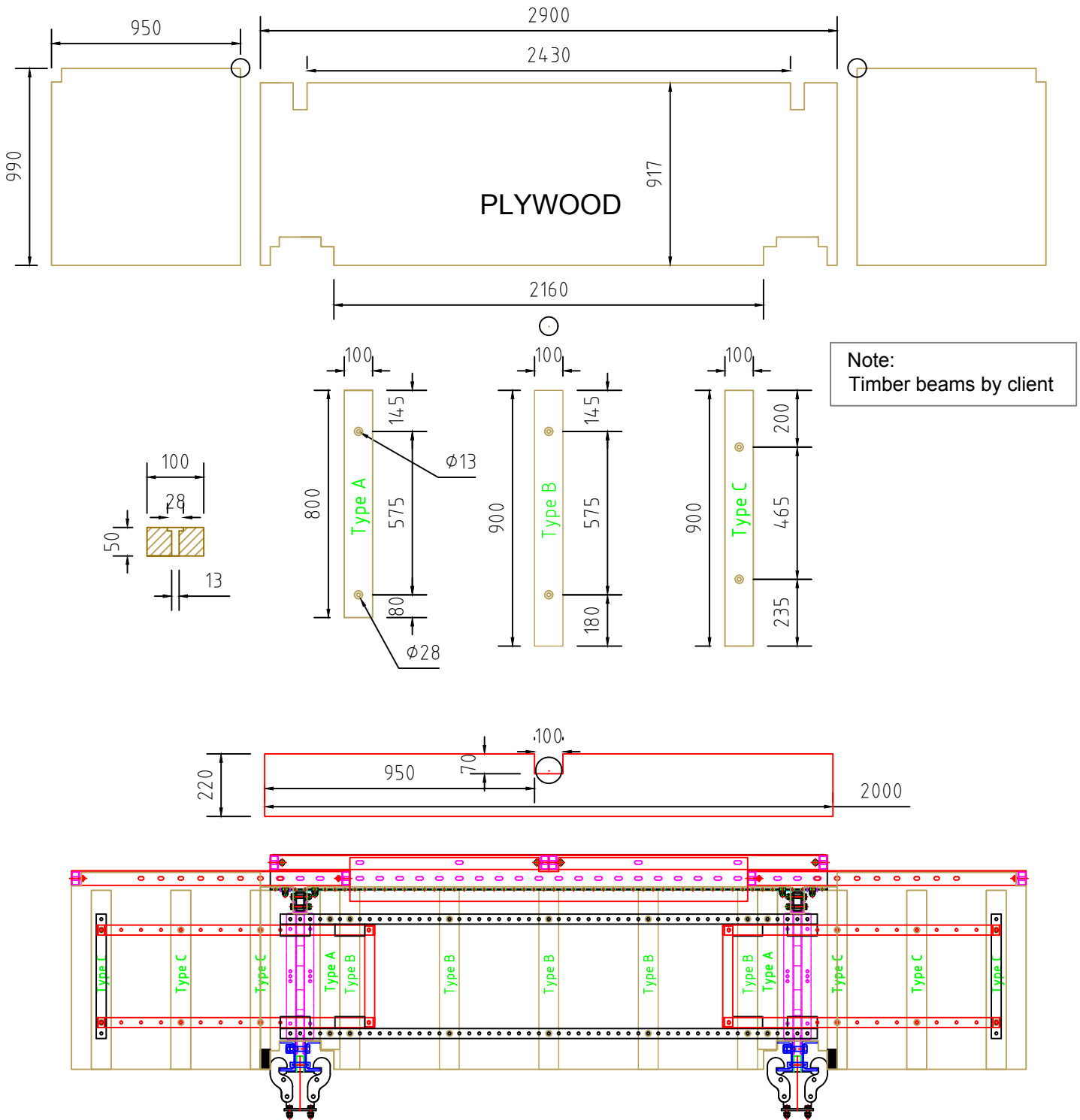


NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.

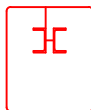


Technical Data Sheet Platform Deck-Loading Bay

Top Deck - Loading Bay

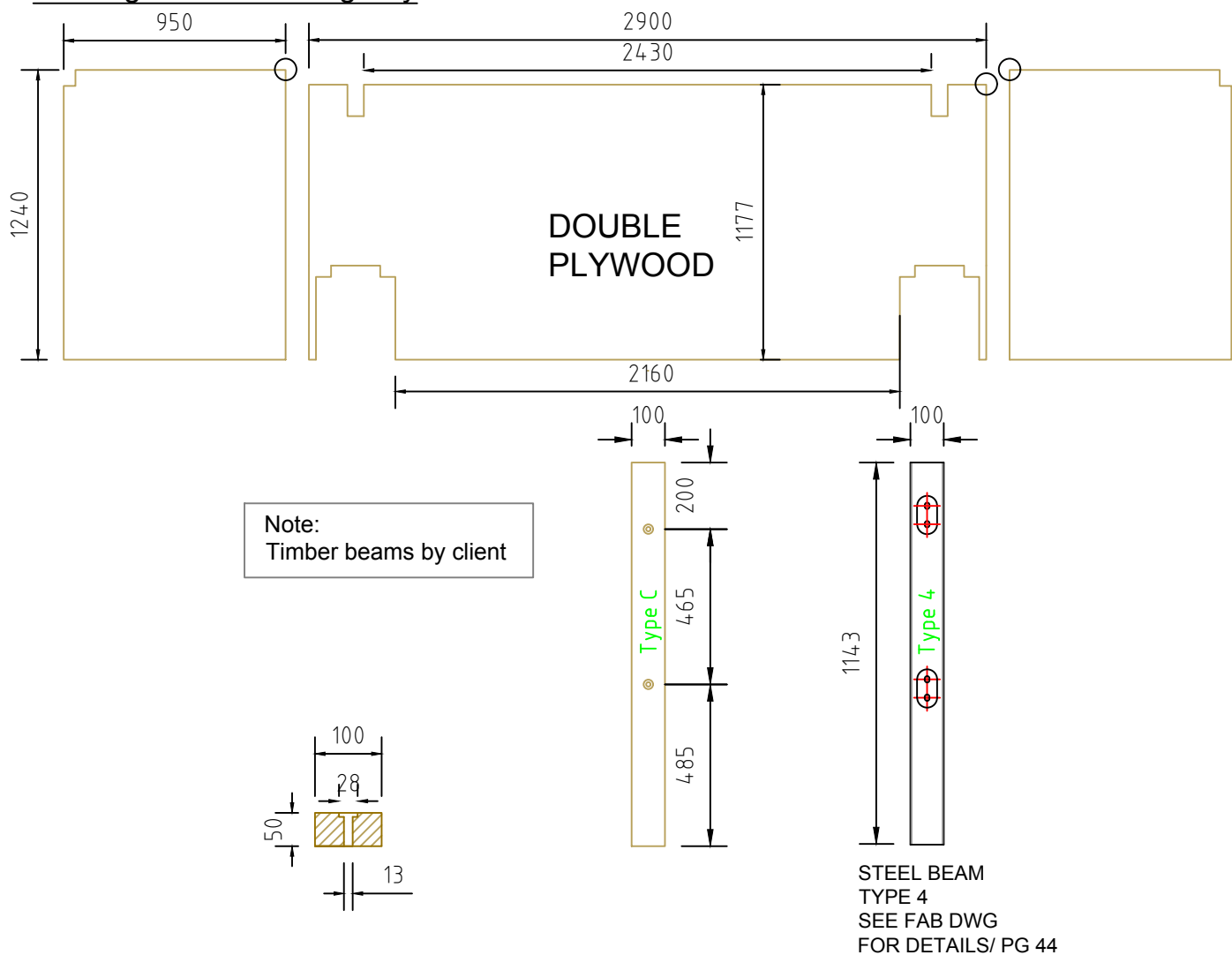


NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.

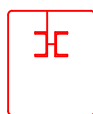


Technical Data Sheet | Platform Deck-Loading Bay

Loading Level - Loading Bay



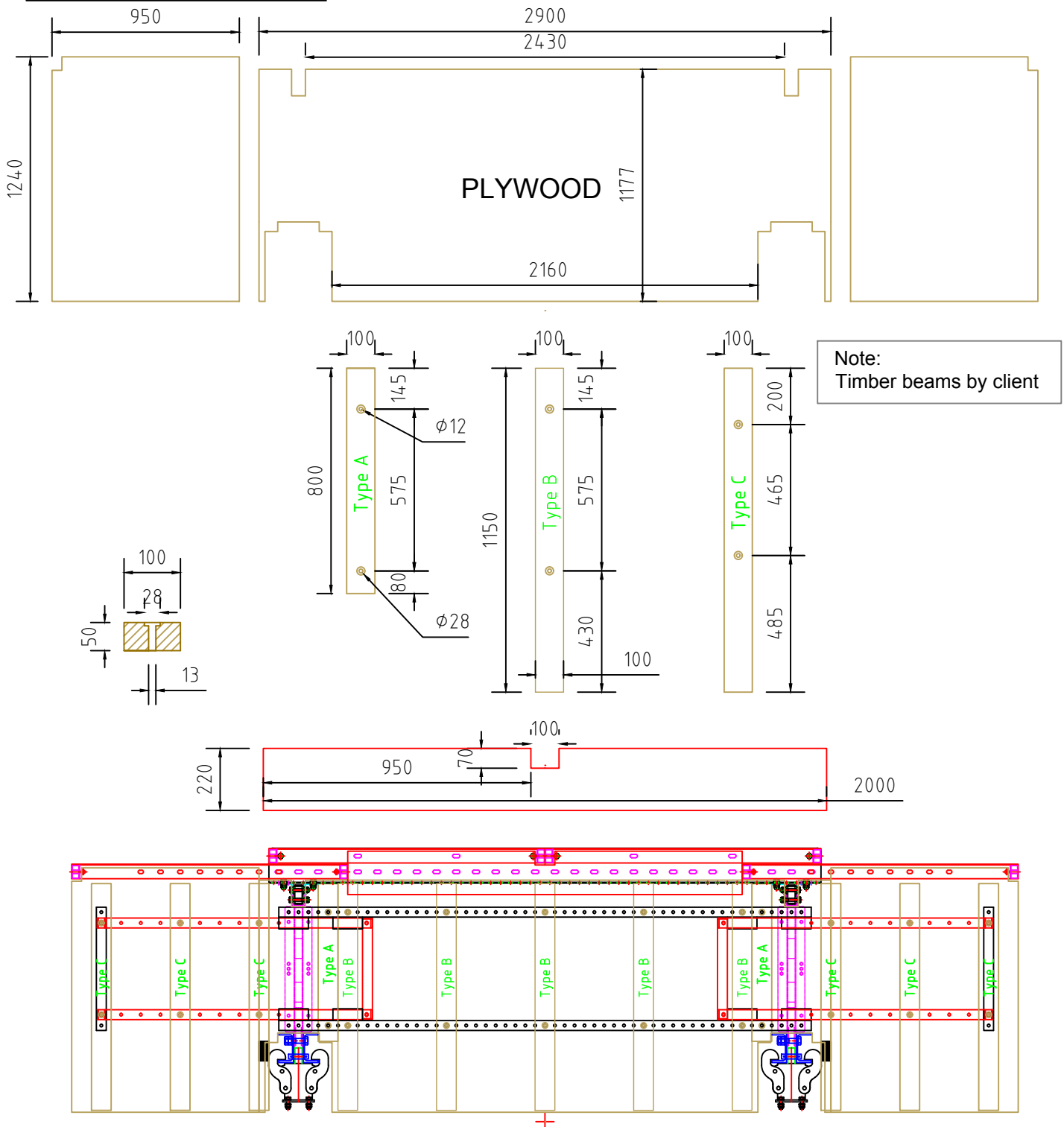
NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.



DOUBLE PLYWOOD 

Technical Data Sheet Platform Deck-Loading Bay

Lower Deck - Loading Bay



NOTE:
Rubber seal for Screen Soldiers 8 per Screen.
See page no. 48 for Rubber Seal details.

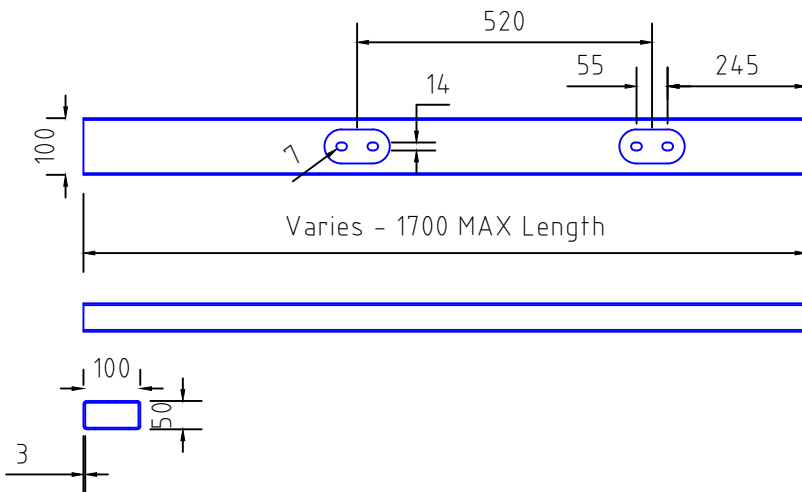


Technical Data Sheet

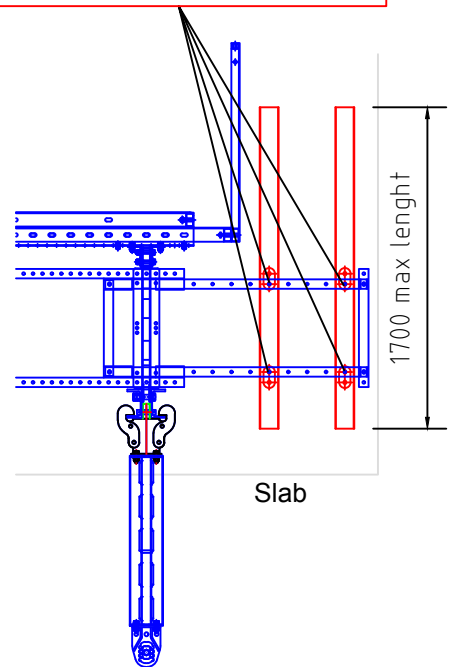
Screen Deck Cantilever Beam

Screen Deck Cantilever box beam types

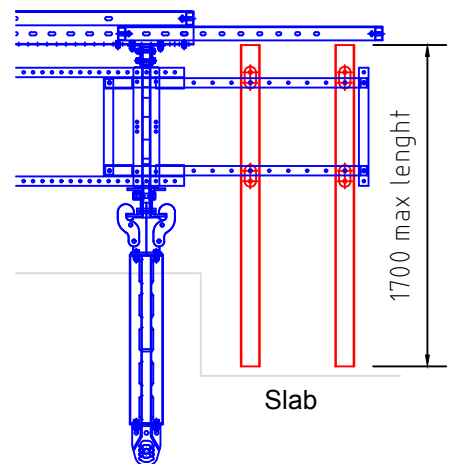
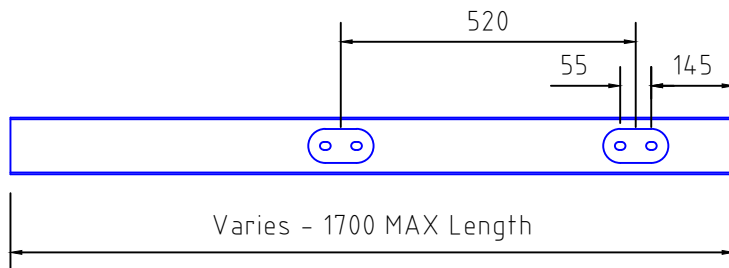
Screen Deck Cantilever Box Beam Type 1



2 x M12 x 30 Bolt with Nyloc Nut & Washer per Screen Deck Cantilever Box Beam to fix onto pull out deck.



Screen Deck Cantilever Box Beam Type 2



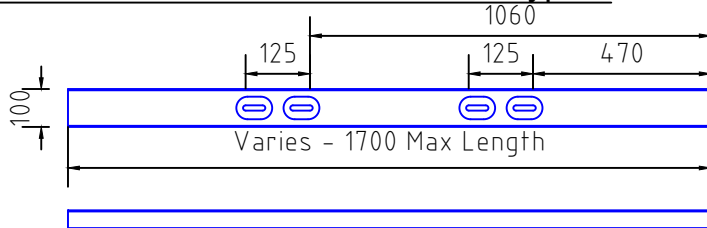
Properties	
Ixx	36.37 cm ⁴
Zxx	14.54 cm ³
Area	8.45 cm ²
Safe working loads (SWL's)	
Mc	2.4 kNm
Pv	24kN

Description	Code	Material	Finish	Weight/m
Screen Deck Cantilever Box Beam Type 1	405920	Steel S235	Galvanized	6.60kg/m
Screen Deck Cantilever Box Beam Type 2	405921/2/3	Steel S235	Galvanized	6.60kg/m

Technical Data Sheet Trapezoidal Deck

Trapezoidal Deck

Screen Deck Cantilever Box Beam Type 3



2 x M12 x 30 Bolt with Nyloc Nut & Washer per Screen Deck Cantilever Box Beam to fix onto pull out deck.

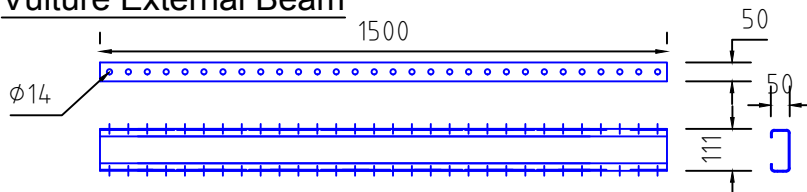
Screen Deck Cantilever Box Beam Type 3

Weight : 6.6kg/m

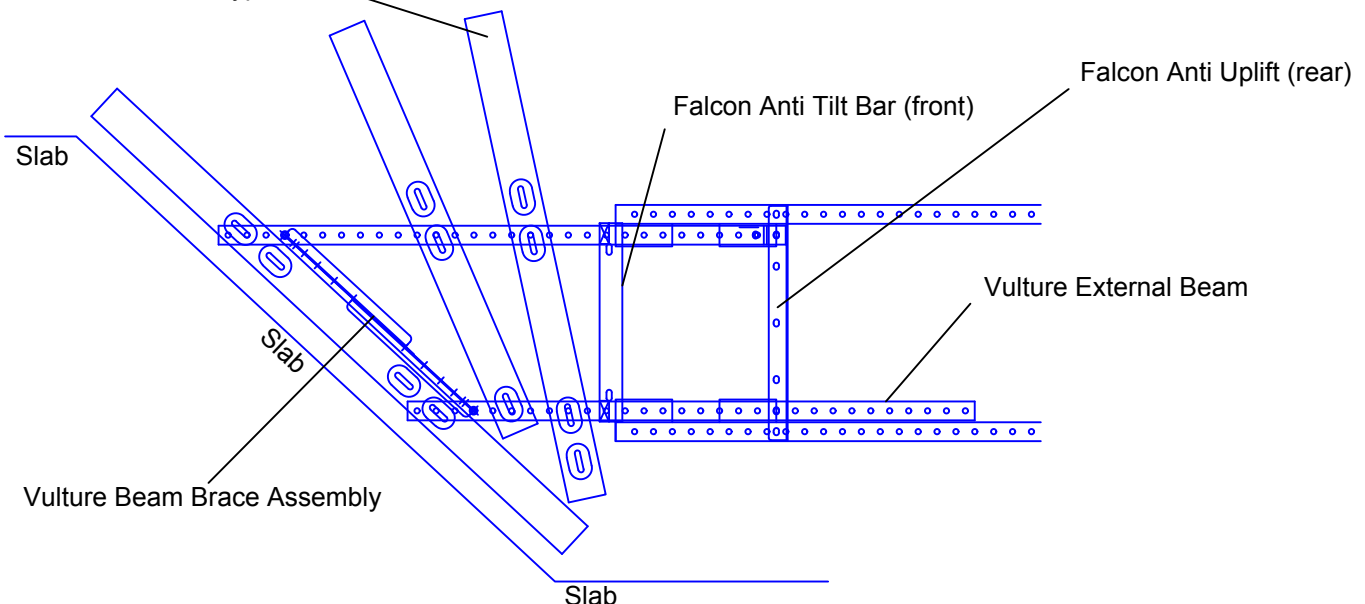
Item Code : 405924

Steel S235 - Galvanized

Vulture External Beam



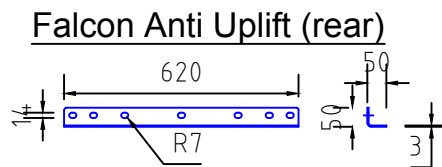
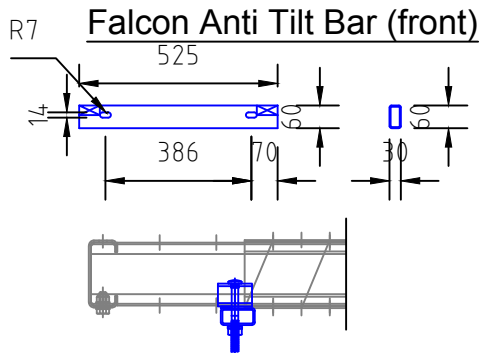
Screen Deck Cantilever Box Beam Type 3



Technical Data Sheet

Trapezoidal Deck

Trapezoidal Deck



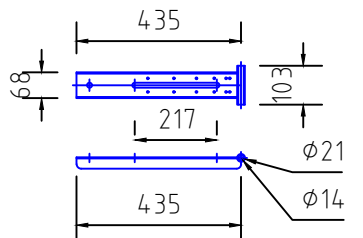
Falcon Anti Tilt Bar (front)
 Weight : 2.7kg
 Item Code : 40607A
 M12x120

Falcon Anti Uplift (rear)
 Weight : 1.3kg
 Item Code : 40606A
 M12x30 Bolts

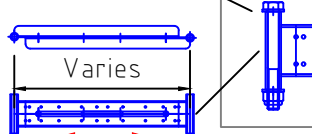
Vulture Beam Brace Assembly
 Weight : 1.3 - 3kg
 Item Code : 40613A
 M12x30 Bolts

Vulture External Beam
 Weight : 7.8kg
 Item Code : 40616A

Vulture Beam Brace Assembly



M12x130 Bolt



Beams bolted together

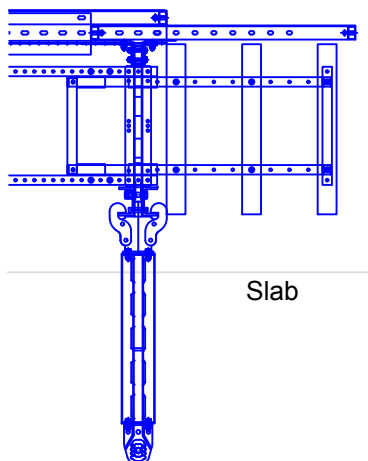
- Falcon Anti Tilt Bar can be removed if deck beams are within the standard platform width (1150mm)

Technical Data Sheet

Falcon Anti Tilt Bar

Falcon Anti Tilt Bar

Examples that do not require the Falcon Anti Tilt Bar.



Falcon Anti Tilt Bar (front)

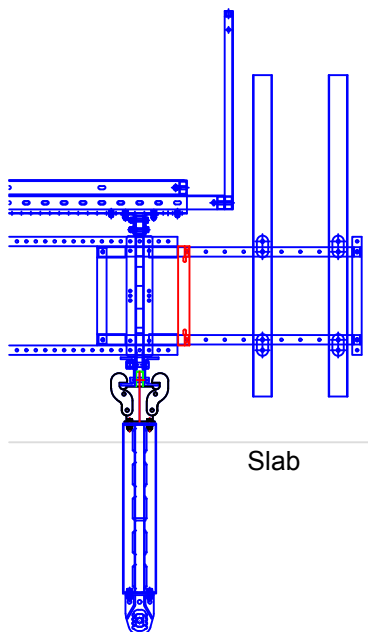
The Falcon Anti-Tilt bar must be used when the deck beams exceed the maximum standard length of 1150mm (width of the platform with beams).

Example displayed to the left is within the standard width at 900mm therefore does not need the Falcon Anti Tilt Bar.

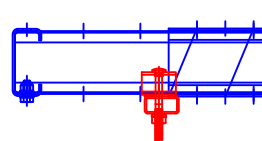
Examples displayed below do need the Falcon Anti Tilt Bar as they exceed the 1150mm standard deck width.

Note, Falcon Anti Tilt Bar is compatible with all decks (Concertina, Standard and Trapezoidal etc.) and only needs to be used if deck is wider than standard.

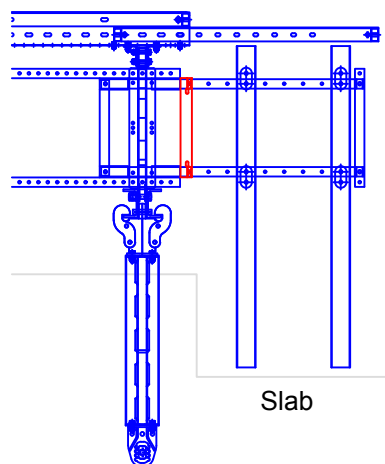
Examples that require the Falcon Anti Tilt Bar.



Falcon Anti Tilt Bar.



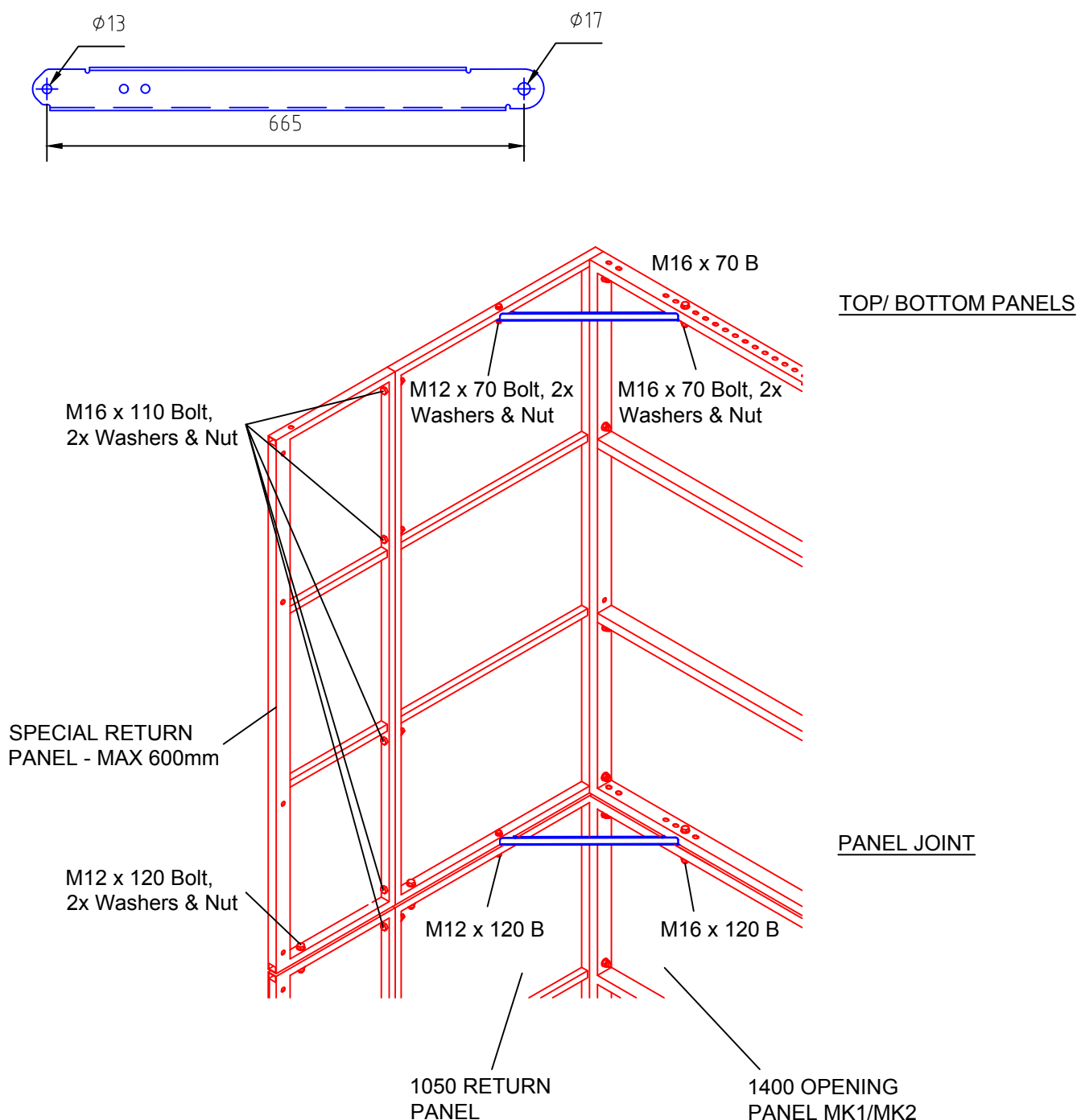
See page 43 for component details.



Technical Data Sheet

Corner Brace

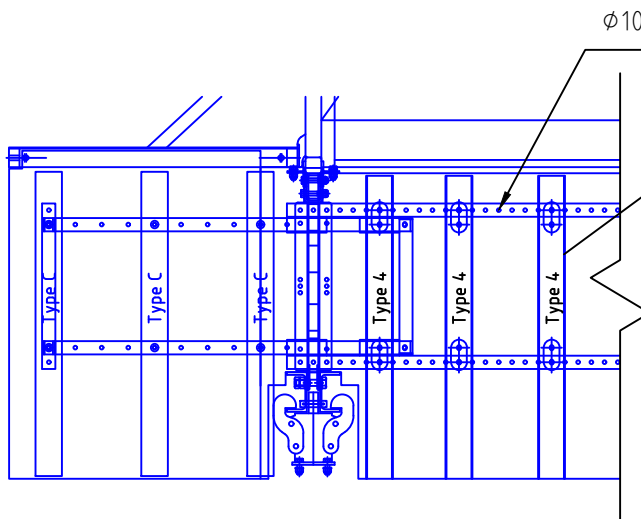
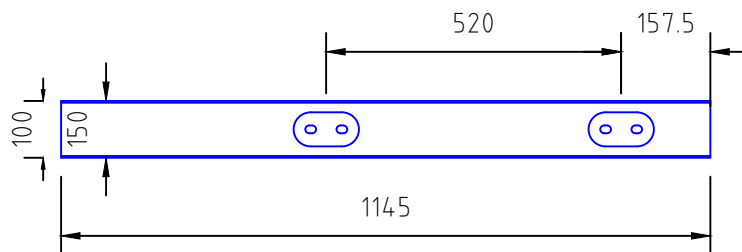
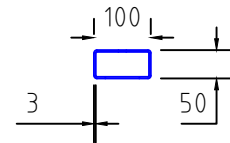
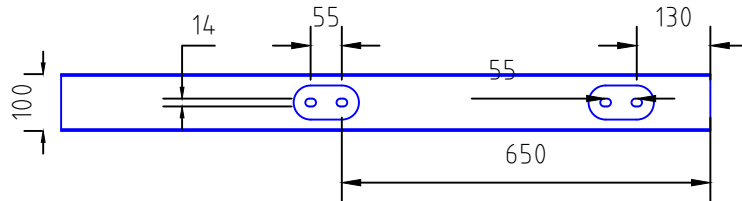
Screen Saver Corner Brace for Return Panels



Description	Code	Material	Finish	Weight
Corner Brace		Steel S275	Galvanized	2.3kg

Technical Data Sheet Loading Level Type 4 Beams

Screen Deck Cantilever Box Beam Type 4



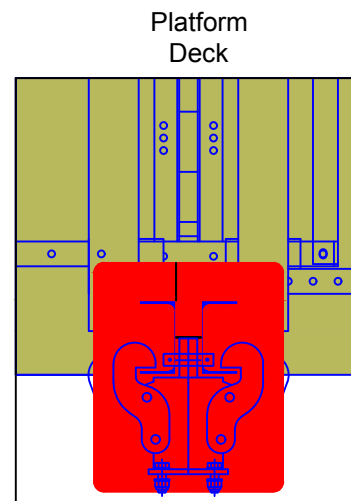
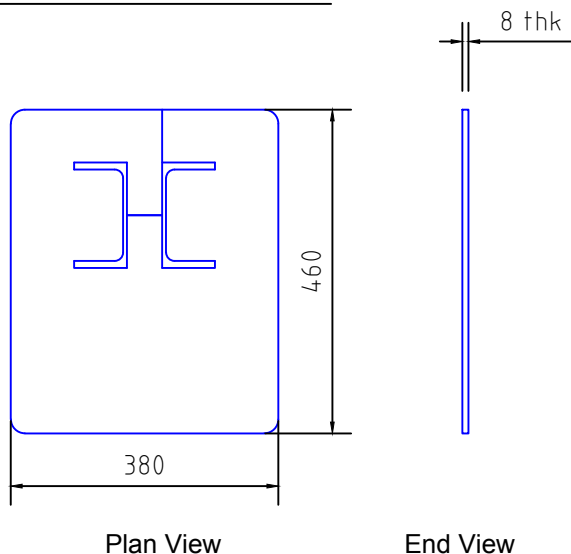
Type 4 Steel Box Beam used on Loading Levels with Loading Bay.

2 x M12 x 30 Bolt with Nyloc Nut & Washer per Type 4 Steel Box Beam

Description	Code	Material	Finish	Weight/m
Screen Deck Cantilever Box Beam Type 4	??	Steel S235	Galvanized	??kg/m

Technical Data Sheet Rubber seal

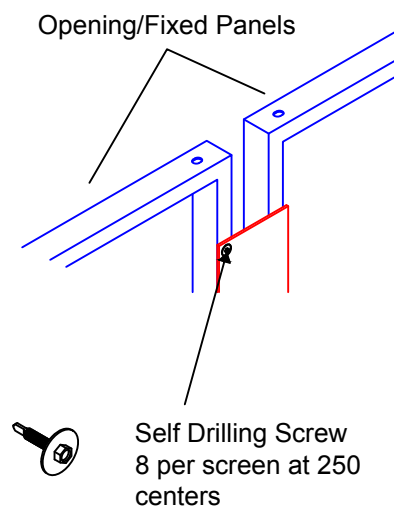
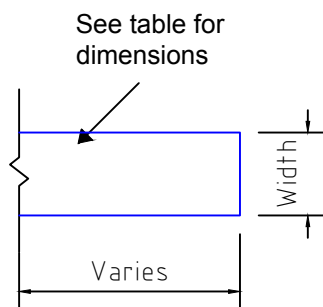
Rubber Seal for Screen Soldier



Soldier Rubber Seal on platform
(8 No per screen unit)

Rubber Strip 150mm x 5mm (90m roll)

Rubber Width Options		
Width	Max Screen Gap	Thickness
150	100	5
170	120	5
195	140	6
225	140	6
225	170	8
270	170	8



Description	Code	Material	Finish	Weight
Rubber Seal for Screen Soldier	409970	Black Natural Rubber		1.3kg
Rubber Strip 150mm x 5mm	410080	Black Solid Rubber		N/A

Technical Data Sheet

Panel & Deck movement

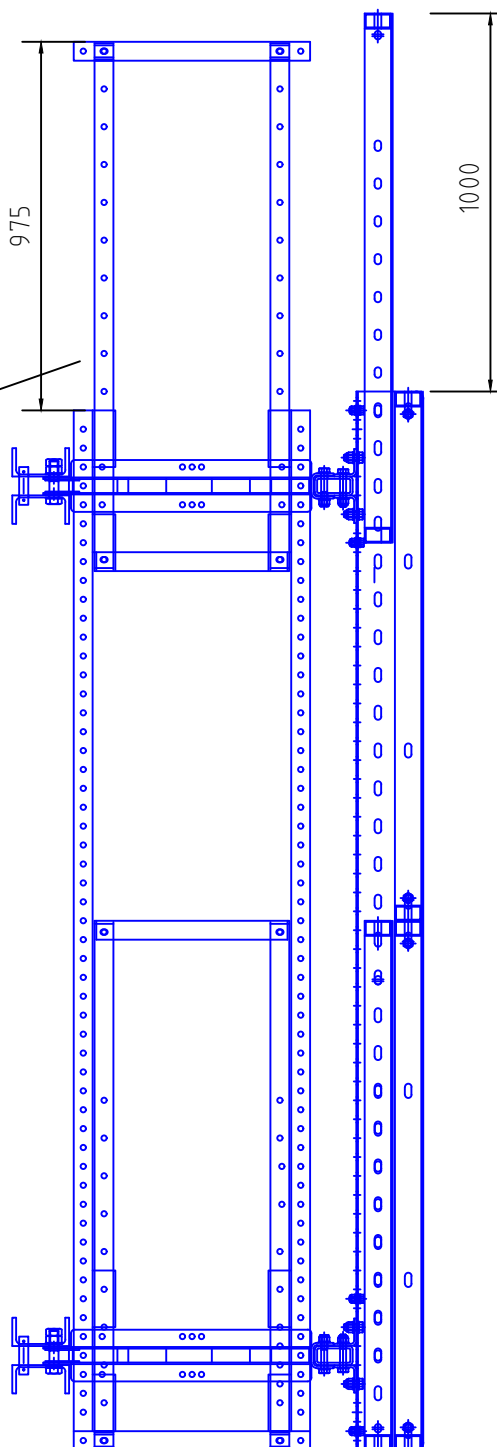
Increment of panel movement

The panels/ platforms extend in 100mm increments.

- Panel maximum extension = 1000mm
- Platform maximum extension = 975mm
- Panel/ Platform minimum extension = 0mm

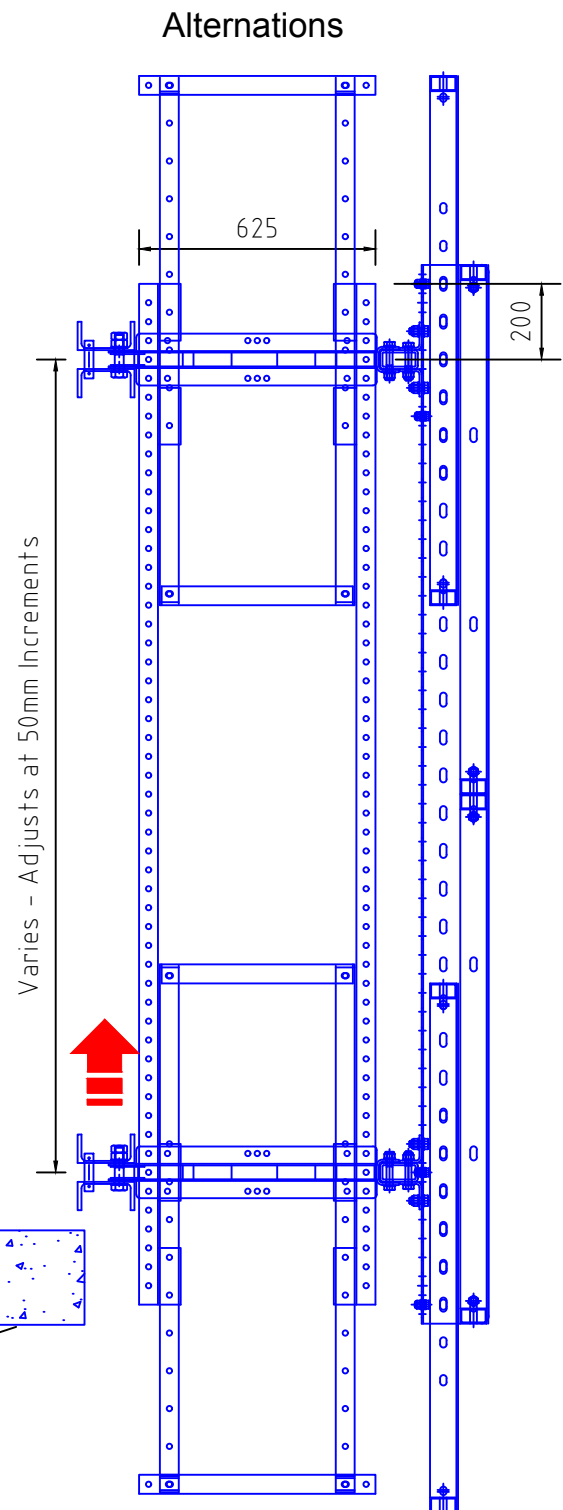
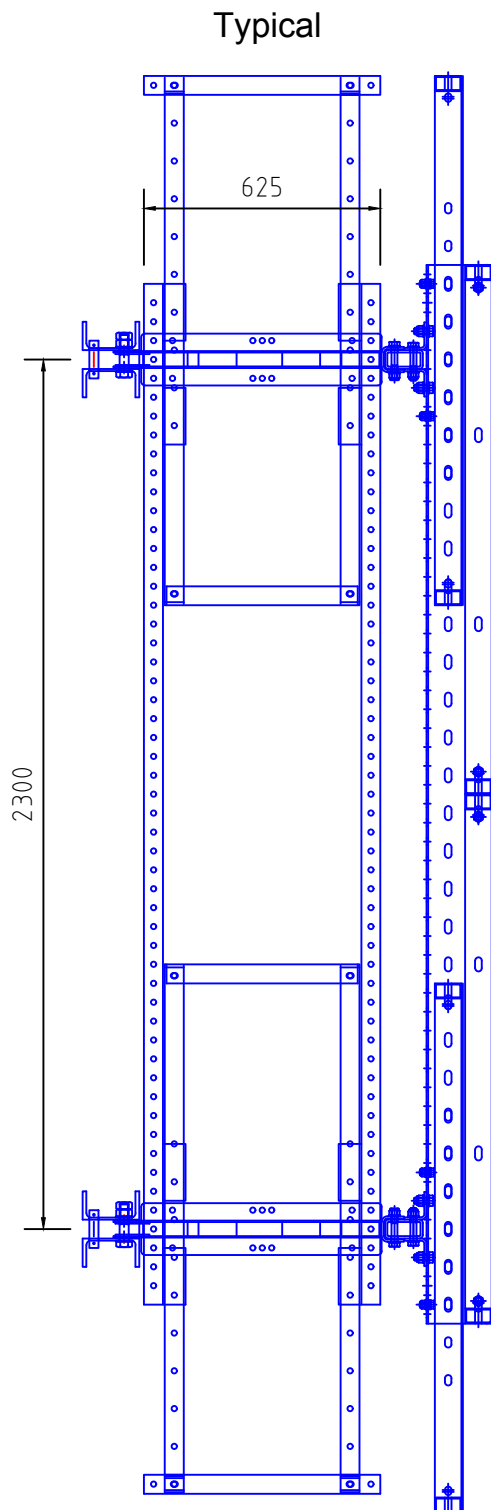
Panel/ Platform open to maximum extent.

Panel/ Platform Closed



Technical Data Sheet Soldier positions

Typical Soldier positions

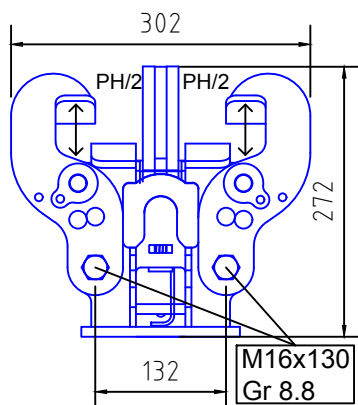


Example obstacle
(Column)

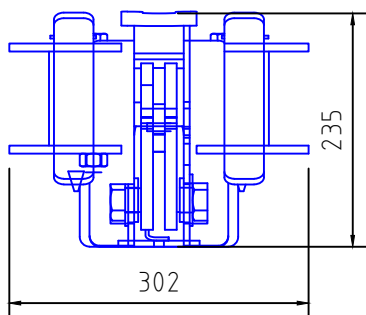
Technical Data Sheet Needle system

Needle Latch Box

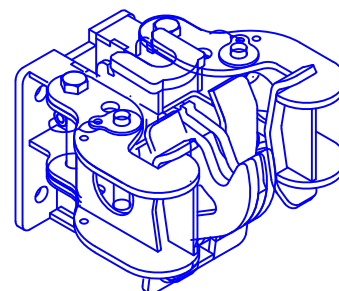
PLAN VIEW



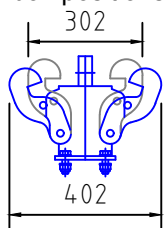
SIDE VIEW



ISOMETRIC VIEW



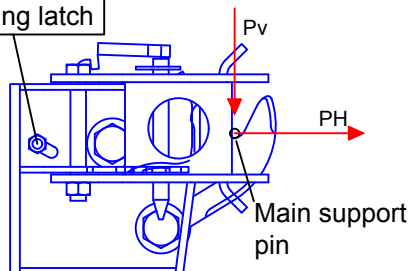
Detail: Open/
Closed needle
box positions.



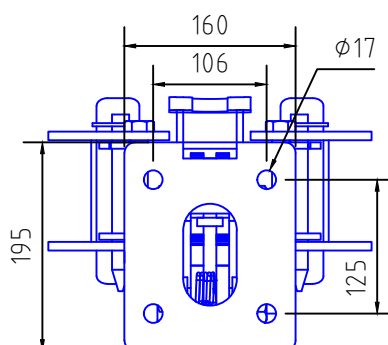
PH Safe working loads (SWL's)

PH	71 kN
----	-------

Lock/ Release
of spring latch



REAR VIEW

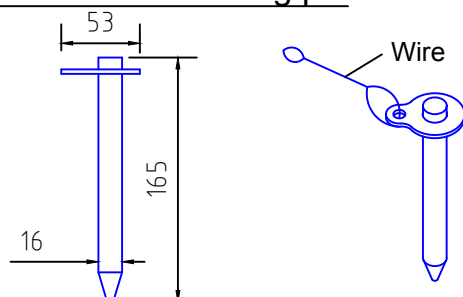


Safe working loads (SWL's)

PH + PV combined SWL's

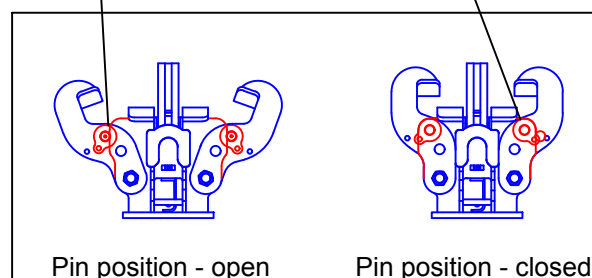
$\sqrt{(PH)^2 + (PV)^2}$ 71 kN

Needle Latch Box locking pin



Locking pin locking the
Guides open.

Locking pin locking the
Guides closed.



Description	Code	Material	Finish	Weight
Needle Latch Box	401690	Steel S275	Galvanized	20.320kg
Needle Latch Box Locking Pin	405040	Steel S355	Galvanized	0.3kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

23/01/
2018

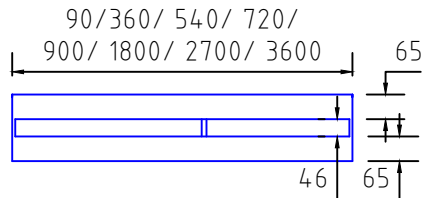
K

53

Technical Data Sheet Needle system

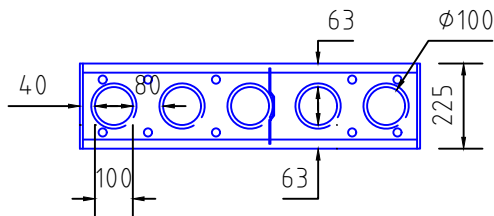
Needle Soldier

PLAN VIEW

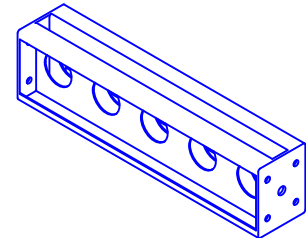


Note: 90mm Packers to be used where applicable.

SIDE VIEW



ISOMETRIC VIEW



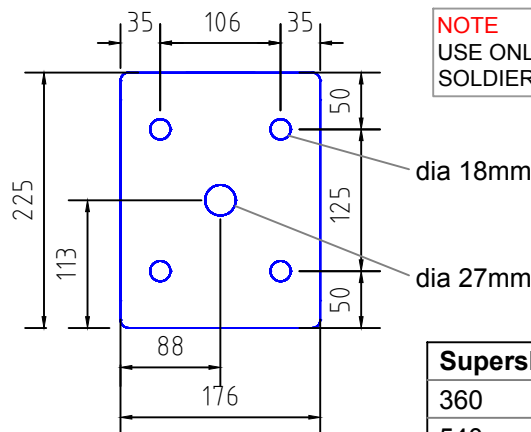
Safe working loads (SWL's)

Superslim soldier joint

4 M16 Bolts	Max 12kNm
6 M16 Bolts	Max 18kNm
8 M16 Bolts	Max 20kNm
Joint Tension	100kN SWL
Super Slim Soldier	40kNm SWL

Properties

Ixx	1916 cm ⁴
Iyy	658 cm ³
Area (Nett)	19.64 cm ²
BM	40 kNm



NOTE
USE ONLY THE SUPERSLIM TYPE SOLDIER WITH M20 BOLT !

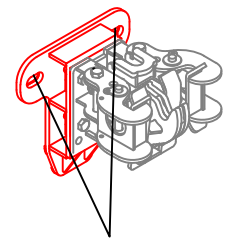
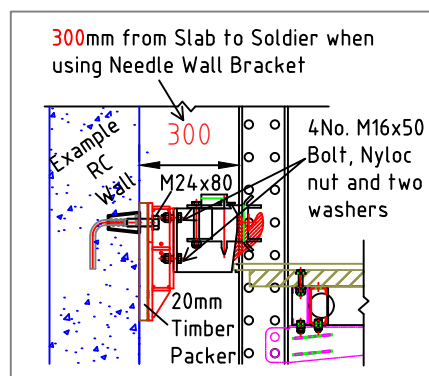
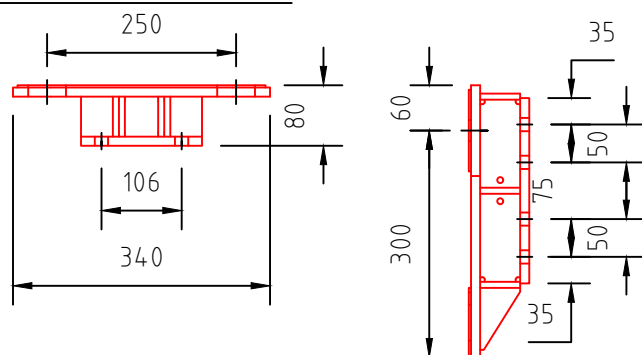


Design risk note:
Max BM in Soldier reduces depending on length of "Free" cantilever.
Refer to Design Office for further technical data.

Superslim Soldier Weights

360	11.98 kg
540	15.24 kg
720	18.74 kg
900	22.00 kg
1800	38.80 kg
2700	55.38 kg
3600	72.18 kg

Needle Wall Bracket

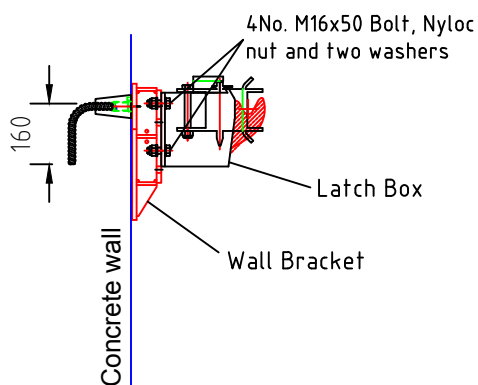


2 Anchor Cones required for fixing to concrete wall.

Description	Code	Material	Finish	Weight
Needle Wall Bracket	40988	Steel		

Technical Data Sheet Wall Bracket Arrangements

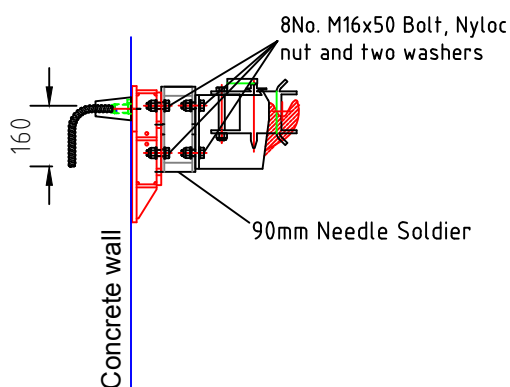
Wall Bracket fixed directly to Latch Box.



NOTE
Orientation of Anchor



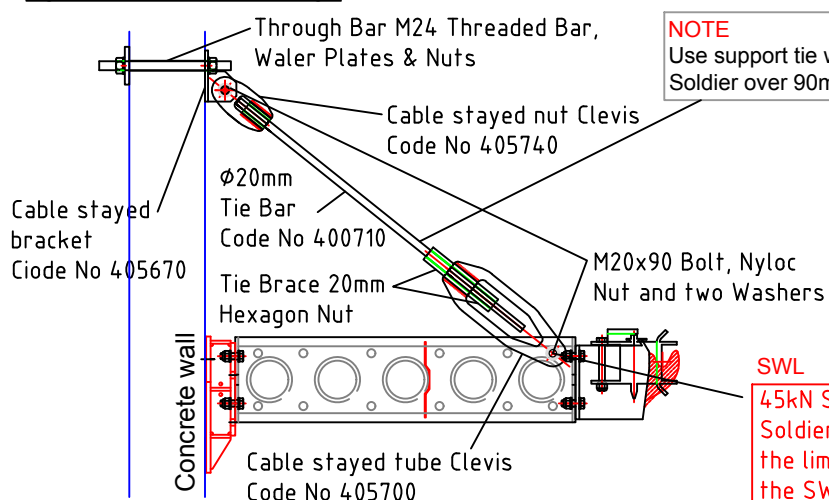
Wall Bracket fixed to 90mm Needle Soldier which in turn fixes to Latch Box.



NOTE
Orientation of Anchor



Wall Bracket fixed to 900mm Needle Soldier which in turn fixes to Latch Box. Supported by the Tie assembly.



NOTE
Use support tie when using a Needle Soldier over 90mm.



NOTE
The clevises below are **NOT** the same as the clevises used in the screen brace !



NOTE
USE WITH THE SUPERSLIM TYPE SOLDIER + M20 BOLT ONLY !

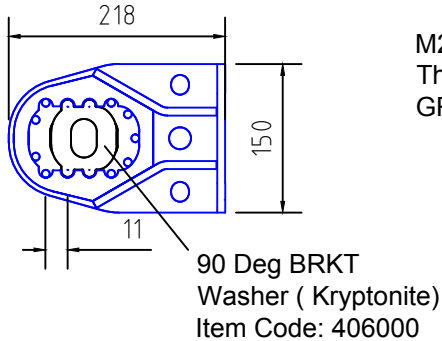


SWL
45kN SWL - when using RMD Soldier, this is due to it being the limiting factor. Without, the SWL is 67kN

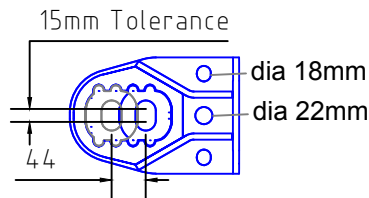
Technical Data Sheet Needle system

90 Deg Ischebeck Rear Anchor Bracket

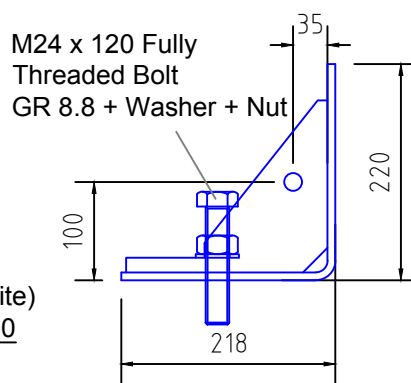
SIDE VIEW



Detail: Varying location of bolt hole location.

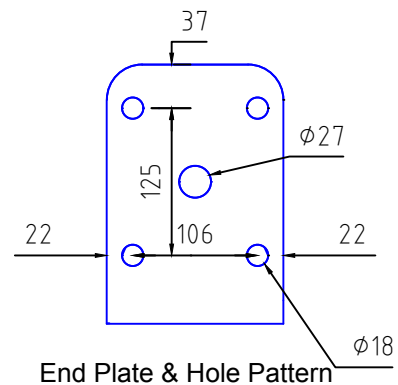
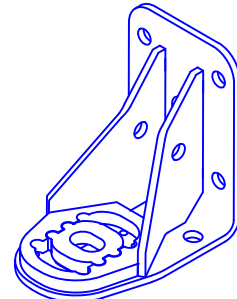


SIDE VIEW

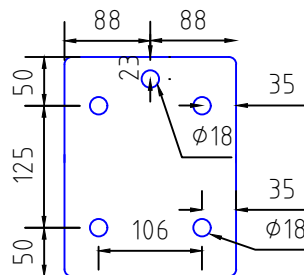
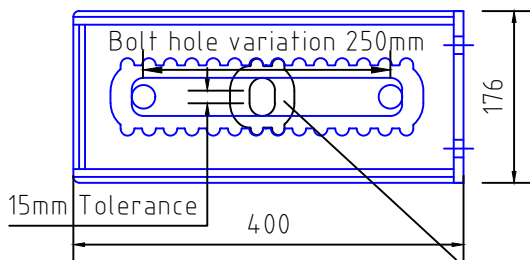


ANCHOR NOT SHOWN

ISOMETRIC VIEW



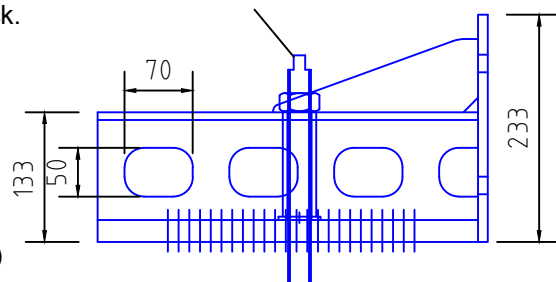
400 Long Adjustable Centurion Bracket



90 Deg BRKT Washer (Kryptonite) Item Code: 406000

ANCHOR NOT SHOWN

M24 x 240mm long threaded bar + 110mm spacer tube 35mm dia 5mm thick.

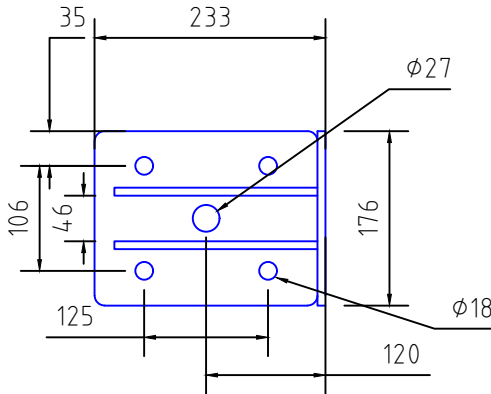


Description	Code	Material	Finish	Weight
90 Deg Ischebeck Rear Anchor Bracket	401696	Steel S235	Galvanized	6.5kg
400 Long Adjustable Centurion Bracket	407190	Steel S235	Galvanized	16kg

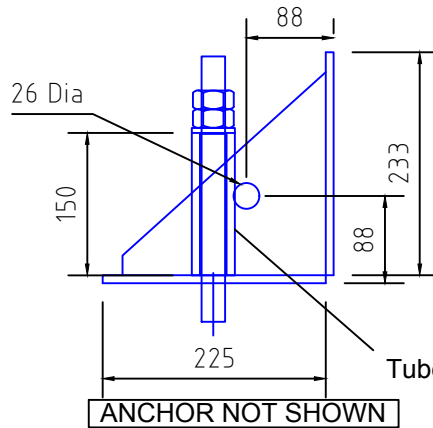
Technical Data Sheet Needle system

90 Deg Corner

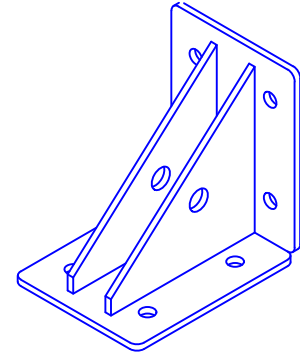
SIDE VIEW



SIDE VIEW



ISOMETRIC VIEW

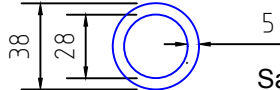


Tube Spacer (35 Dia x 5thk x 110)

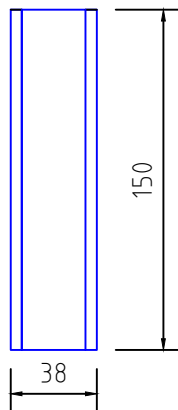
Maximum allowable bending moment
transferred through a soldier end plate about xx
axis of the soldier = 12 kNm

Tube Sleeve (38 Dia x 5thk x 150)

PLAN VIEW

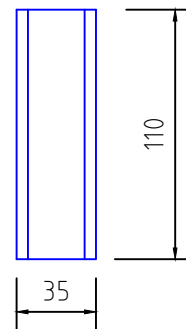
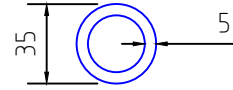


SIDE VIEW



Same Specification
tube as shown above
on the 90 Deg corner.

Tube Spacer (35 Dia x 5thk x 110)



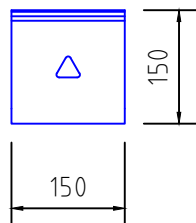
Same Specification
tube as used on 400
Long Adjustable
Centurion Bracket.
(Pg 50)

Description	Code	Material	Finish	Weight
90 Deg Corner		Steel		8.66kg
Tube Sleeve (38 Dia x 5thk x 150)		Steel S235	Galvanized	0.61kg
Tube Spacer (35 Dia x 5thk x 110)		Steel S235	Galvanized	0.40kg

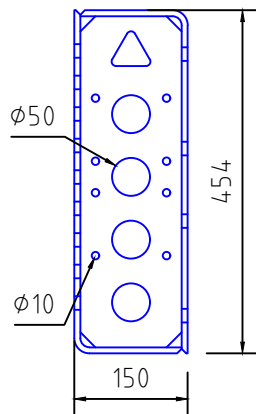
Technical Data Sheet Joggle Box

Joggle Box

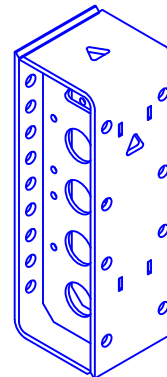
PLAN VIEW



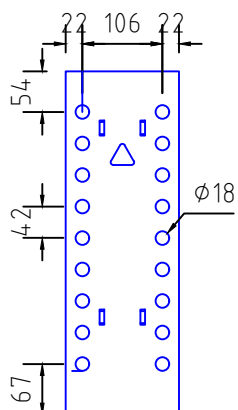
SIDE VIEW



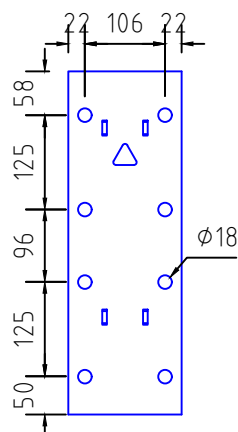
ISOMETRIC VIEW



REAR VIEW



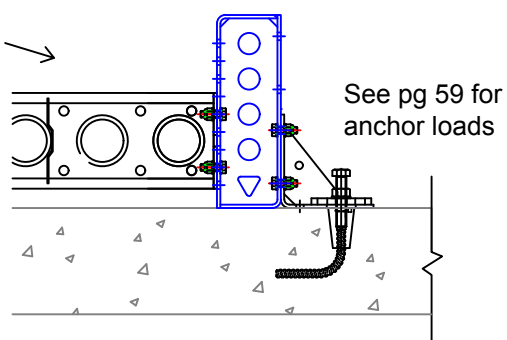
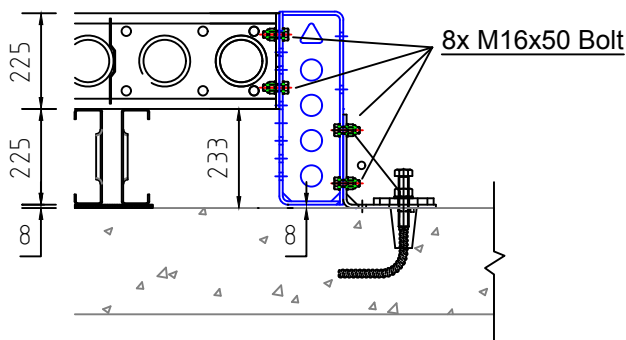
FRONT VIEW



MAX 233mm MIN 25mm
IN NOMINAL 21mm
STEPS

(Invert the unit to get half
pitch 21mm steps)

Note:
Used for
cross over
needles at
corners.



Description	Code	Material	Finish	Weight
Joggle Box	410240	Steel 355	Galvanized	14.8kg

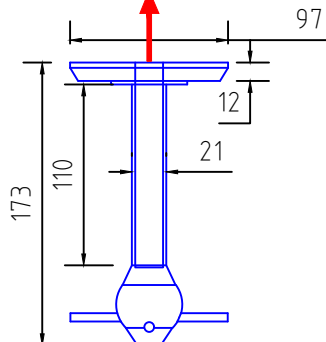
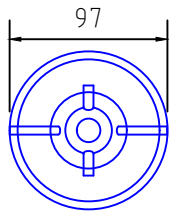
Technical Data Sheet Anchors

Form Anchor (Front Anchor)

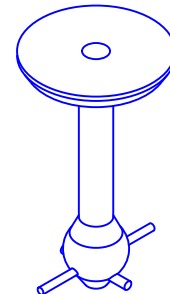
Safe working loads (SWL's)

SEE CHART

PLAN VIEW



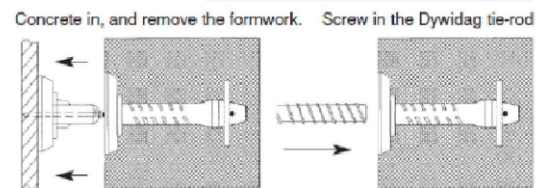
ISOMETRIC VIEW



SIDE VIEW

Form Anchor Detail

Code No: 420020



Code	O/A Length	Thread Length	Failing Load	Recommended Safe Working Load
SFA	130mm	65mm	100kn	50kn

Safe working loads (SWL's) Loads for Reinforced Concrete

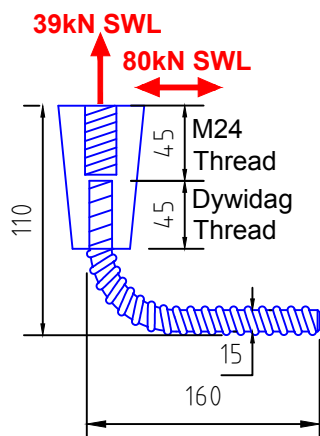
Minimum edge distance in any direction	150mm	225mm
Max pull out load	31kN	50kN

If your situation differs, contact D.O for advice

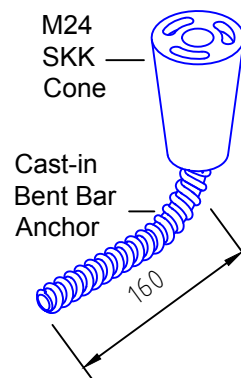
Cast-in Bent Bar Anchor

NOTE

Orientation of Anchor Bar. SKK Cone should be fully fixed to the 110mm leg of anchor only.

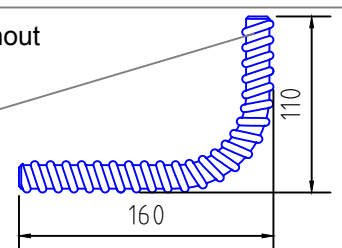


Factor of Safety = 2.0



Detail: Bent anchor without SKK cone.

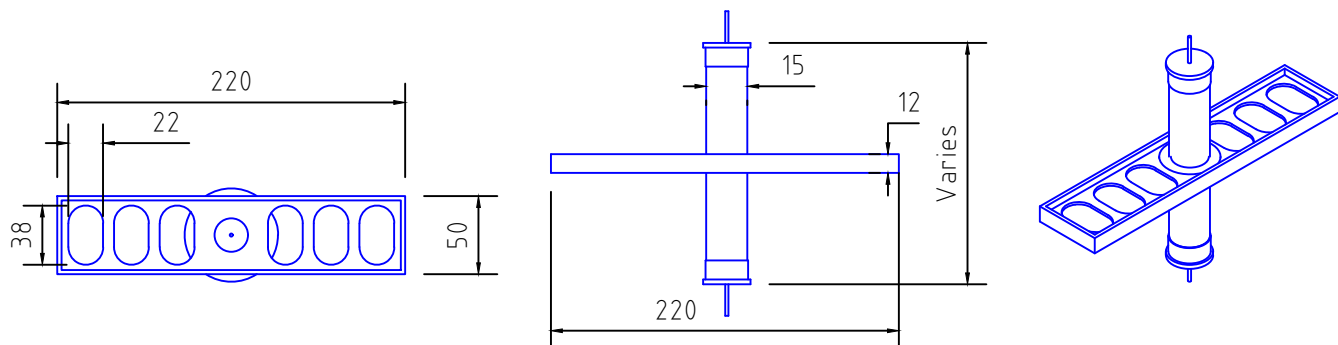
-Check for full engagement in SKK Cone



Technical Data Sheet Anchors

Description	Code	Material	Finish	Weight
Form Anchor (Front Anchor)	420020	Stainless Steel	None	0.15kg
Cast-in Bent Bar Anchor	420011	High Tensile Malleable Steel	None	0.43kg
M24 SKK Cone	420010	Steel	Galvanized	1.28kg
SKK Spanner	420012	Steel	Galvanized	4.04kg

Installation Kits ("Helicopter" Front Anchor)



Safe Working Loads

Length	Concrete 15N/mm ²	Concrete 15N/mm ²	Concrete 15N/mm ²	Concrete 25N/mm ²	Concrete 25N/mm ²	Concrete 25N/mm ²
	max. axis load with plate	max. axis load without plate	max. shear load with and without plate	max. axis load with plate	max. axis load without plate	max. axis load with and without plate
120 mm	7.0 kN	4.9 kN	30.0 kN	10.0 kN	7.0 kN	30.0 kN
170 mm	11.0 kN	7.7 kN	30.0 kN	16.0 kN	11.2 kN	30.0 kN
220 mm	15.0 kN	10.5 kN	30.0 kN	21.0 kN	14.7 kN	30.0 kN

NOTE:

- 1) No matter what angle you have, the resultant force from axial and shear must not be bigger than 30.0kN!
- 2) All the axial loads for sleeves without plate are only valid when using a bar with rolled thread, they are not valid for the use of original tie bars with two flat segments.

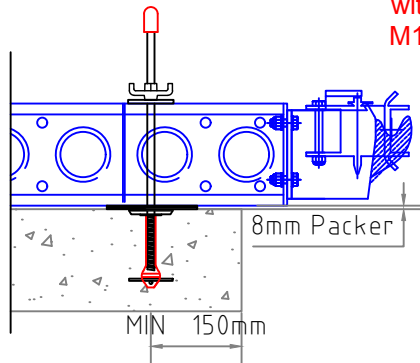
Description	Code	Material	Finish	Weight
Installation Kits ("Helicopter" Front Anchor)	502205	Steel + Plastic		0.20kg

Technical Data Sheet

Anchor Details / Solutions

Front Anchor Details

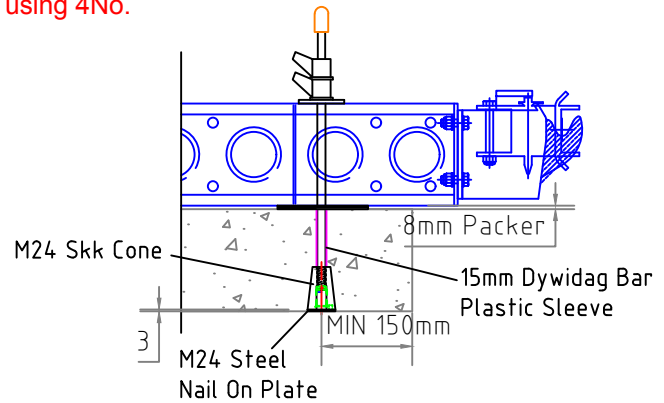
Form Anchor Detail



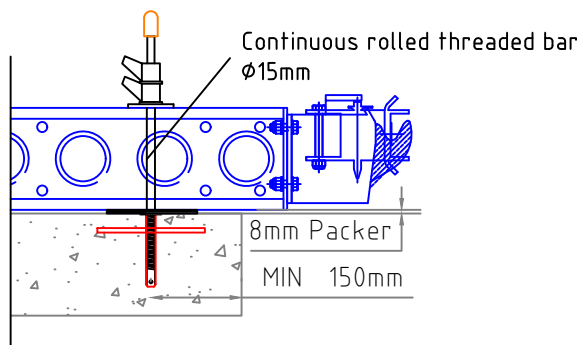
Form Anchor (Details on Pg 59)

NOTE:
Connect Needle Soldier
with Latch Box using 4No.
M16x50 Bolts

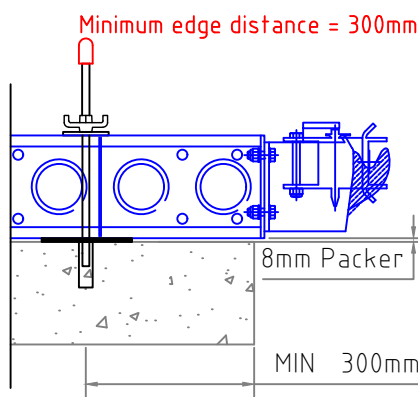
Recoverable Anchor Detail



Helicopter Anchor Detail



Post Drilled Anchor Option Detail



Use 15mm Drop in anchor
with standard 15mm
threaded tie rod nuts
and washers from
Inform.
Or
Drill through slab and
bolt through using
Dywidag bar.

Drop in Anchor Detail

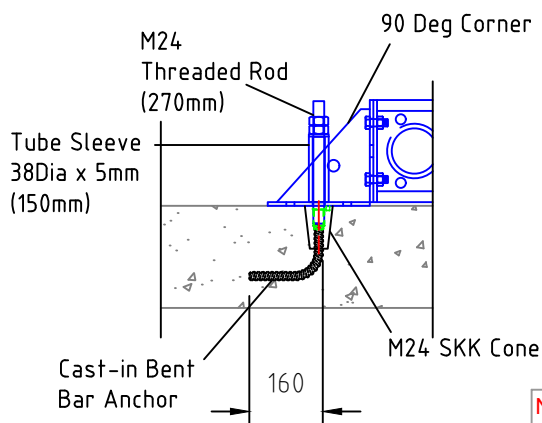
Code	Item	Weight kg
IA15	Drop in Anchor 15mm	0.2
IAP	Drop in Anchor Punch	0.3

	Concrete Strength		
Load Direction	15 N/mm	25 N/mm	35 N/mm
Axial tension	17.0	21.9	26.0
Diagonal Pull 45	21.5	27.8	32.8
Shearing 90	27.5	35.5	42.0

Technical Data Sheet Anchor Details / Solutions

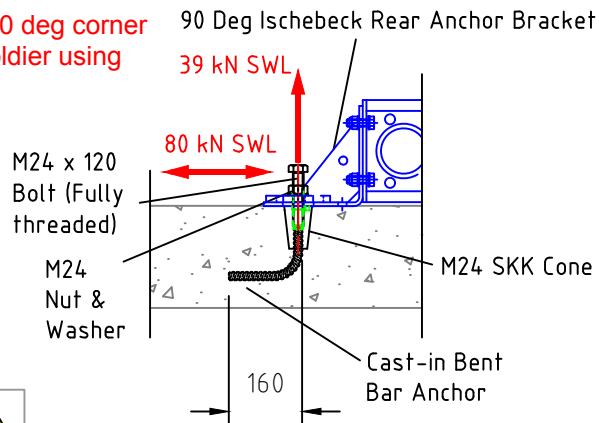
Rear Anchor Details

Cast-in Bent Bar Anchor with 90 Deg Corner Detail



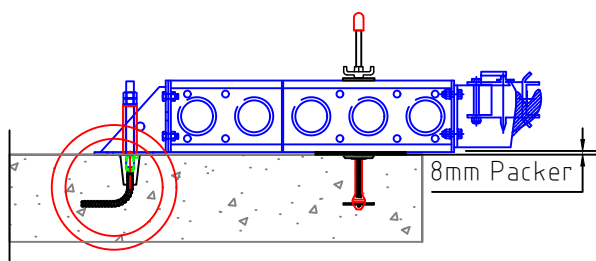
NOTE:
Connect Ischebeck 90 deg corner Bracket to Needle Soldier using 4No. M16x50 Bolts

Cast-in Bent Bar Anchor + M24 SKK Cone Detail



NOTE
Orientation of Anchor

M24 SKK Cone with Cast-in Bent Bar Anchor - Positions (90 Deg Corner)

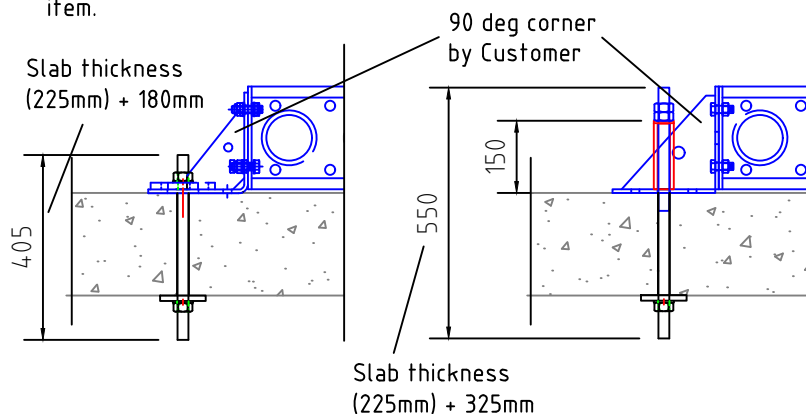


Post Drilled Anchor Option Detail

Drill 26mm hole and post fix with M24 threaded bar with nuts and washers.

Use minimum 100x100x12 plate washer on underside of slab.

If necessary use alternative (larger) soldier length if rear bolt position clashes with out of position anchors or any other cast in item.

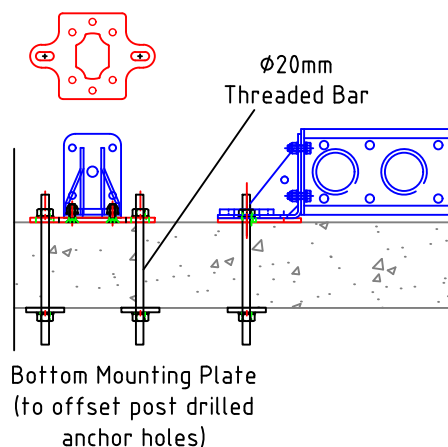


Technical Data Sheet

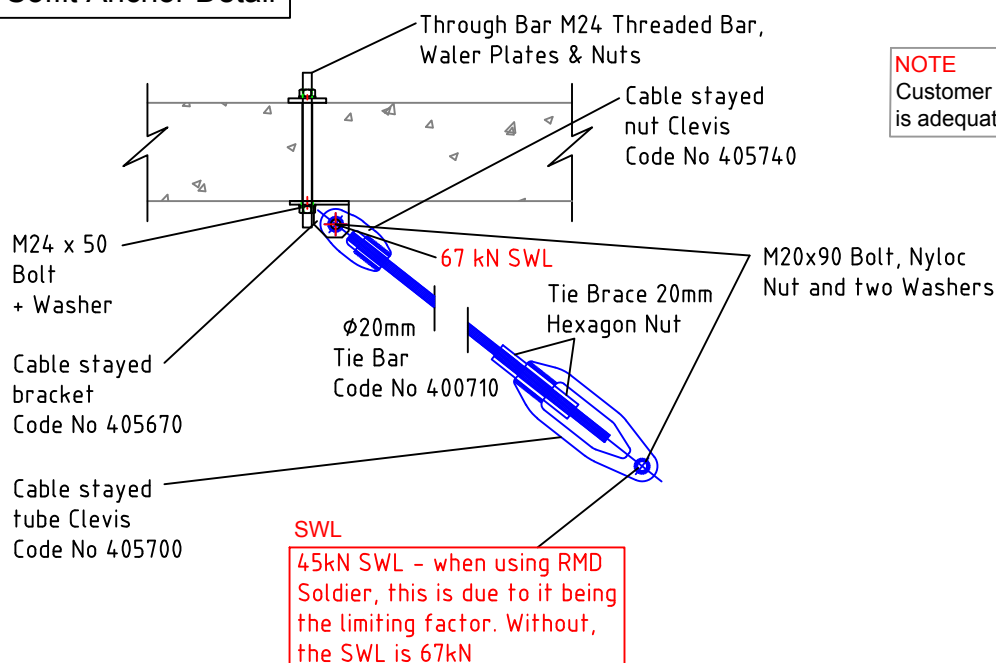
Anchor Details / Solutions

Alternative Anchor Solutions

Bottom Mounting Plate Detail



Soffit Anchor Detail



NOTE
USE WITH THE SUPERSLIM TYPE SOLDIER + M20 BOLT ONLY !

Considerations/ Guidance:
All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

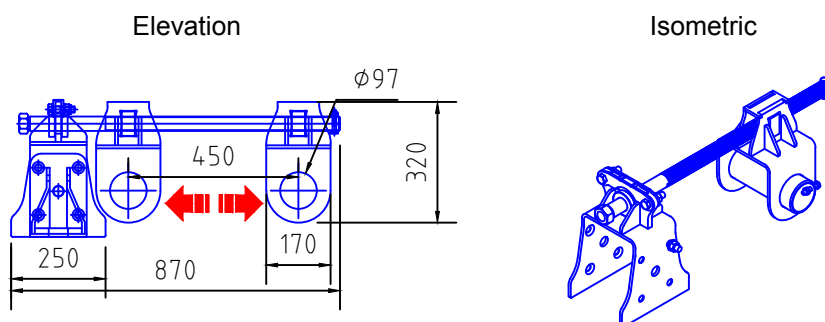
23/01/2018

K

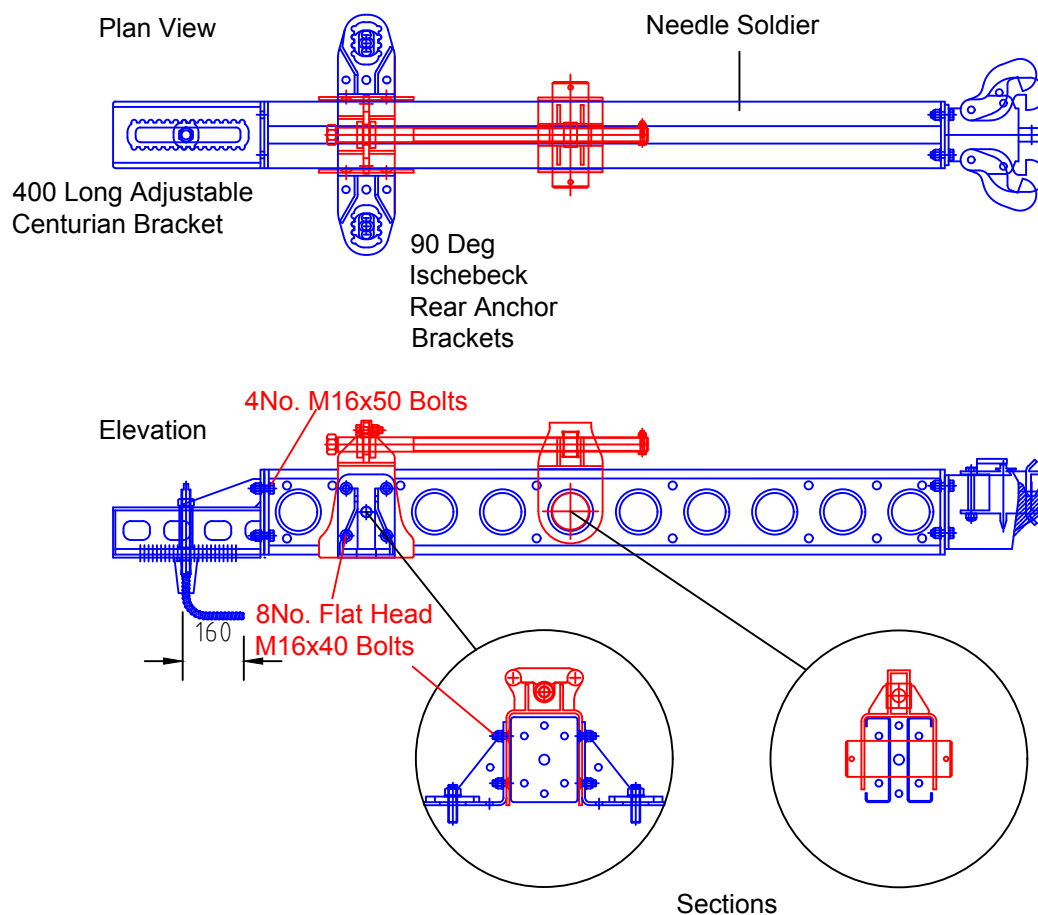
63

Technical Data Sheet Smooth Mover

Smooth Mover



Smooth Mover with Needle Assembly

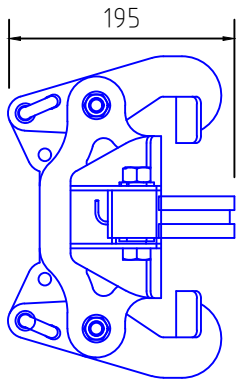


Description	Code	Material	Finish	Weight
Smooth Mover	407490	Steel	Galvanized	24.3kg

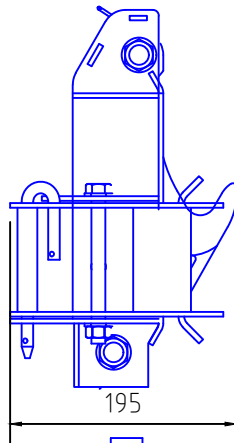
Technical Data Sheet Hydraulic system

RAM Head Assembly

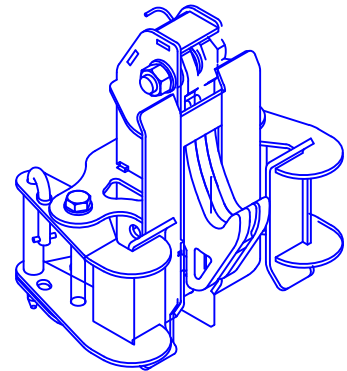
PLAN VIEW



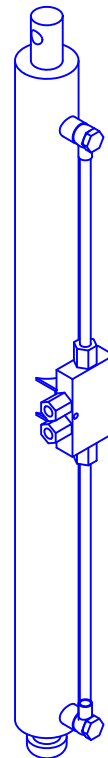
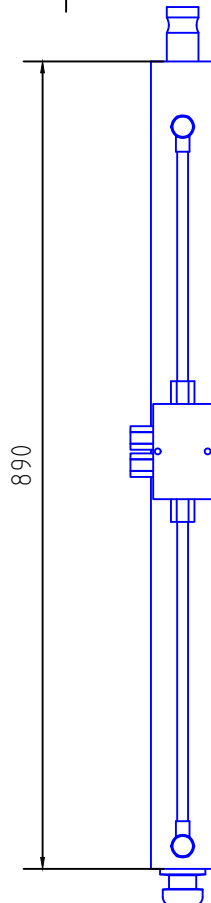
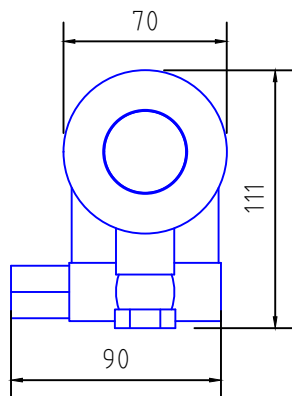
SIDE VIEW



ISOMETRIC VIEW



Hydraulic RAM



Safe working loads (SWL's)

LIMIT OF USE - Lift capacity per RAM

At 100 bar =	28.8kN
At 110 bar =	31kN
Max pressure = 120 bar =	31kN

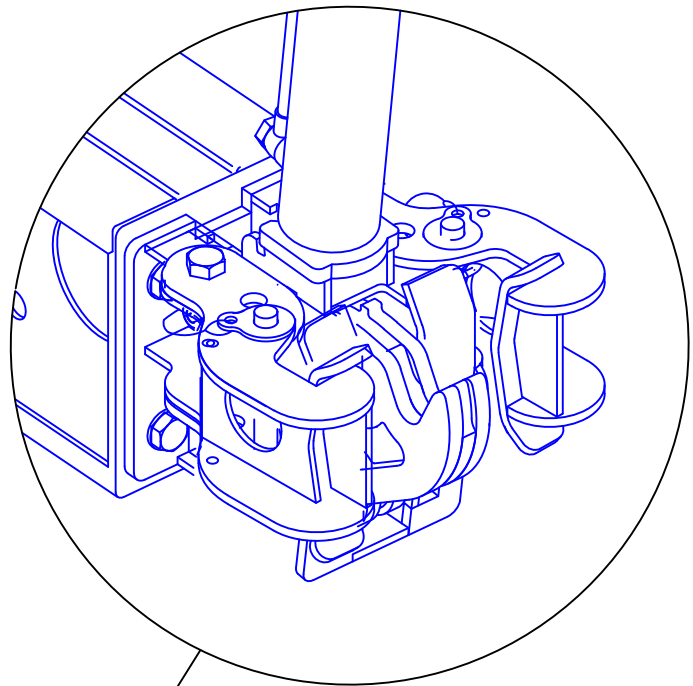
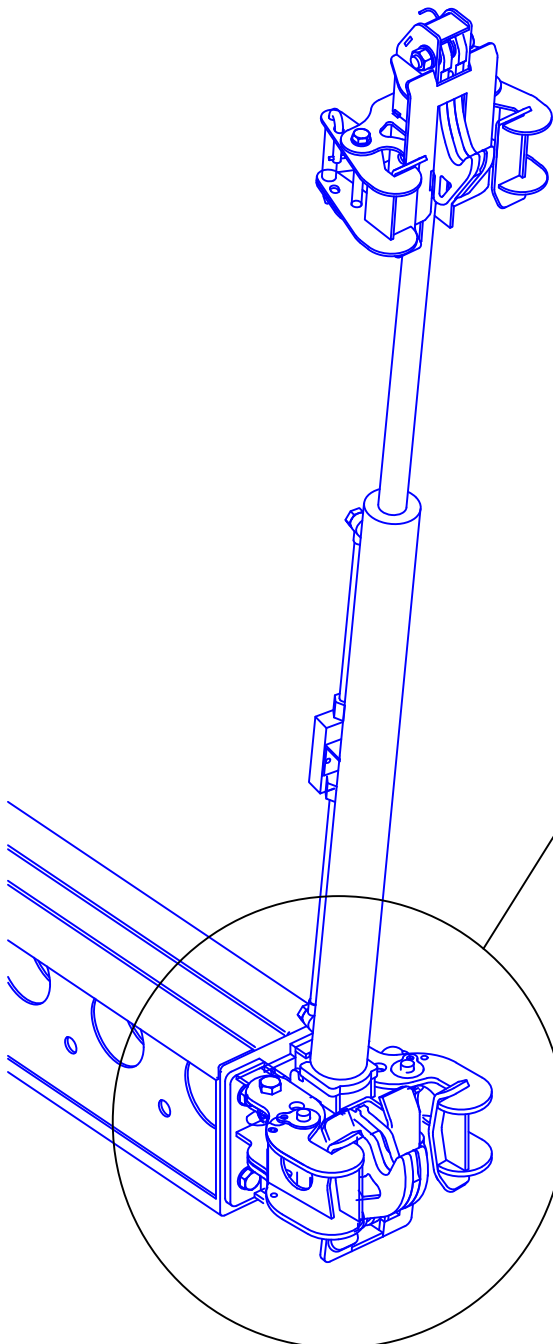
NOTE: Self climbing weight should include a friction allowance of 10-20% of self weight.

Description	Code	Material	Finish	Weight
RAM Head Assembly	405400	Steel	Galvanized	8.8kg
Hydraulic RAM	405403	Steel	Painted	19.1kg

Technical Data Sheet Hydraulic system

Hydraulic Ram in latch box

Isometric View

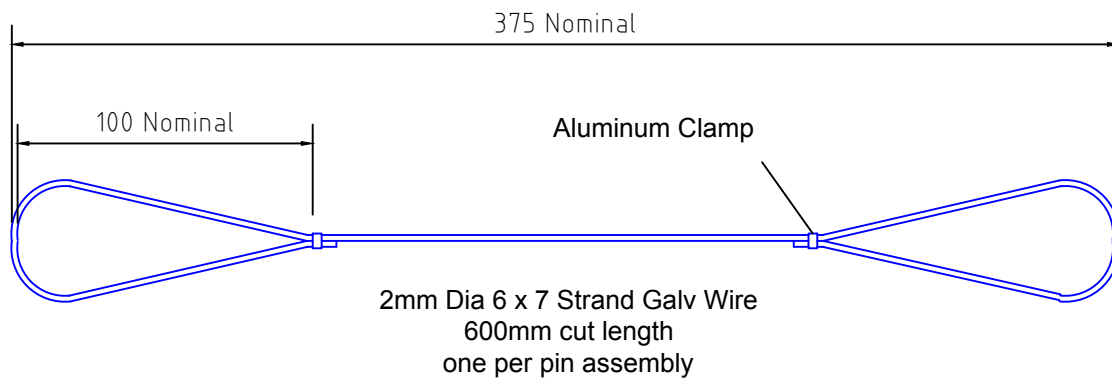
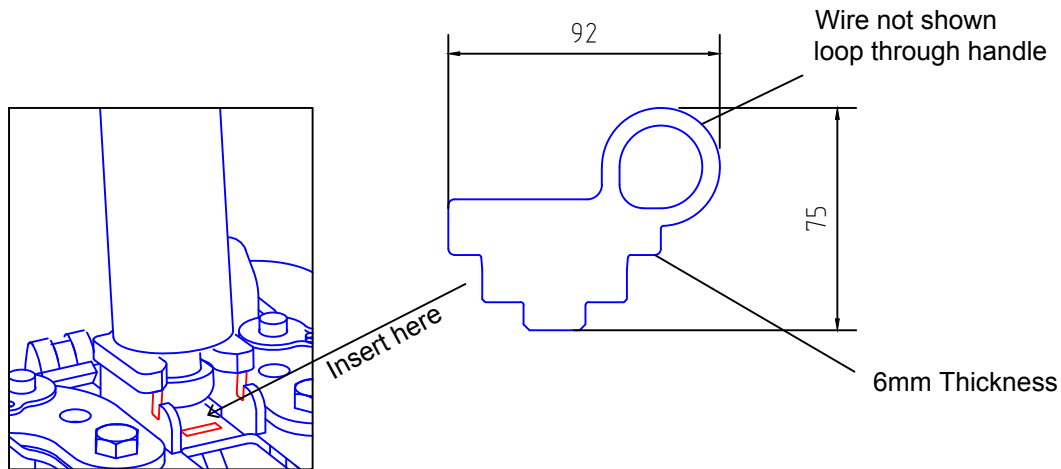


Enlargement Detail

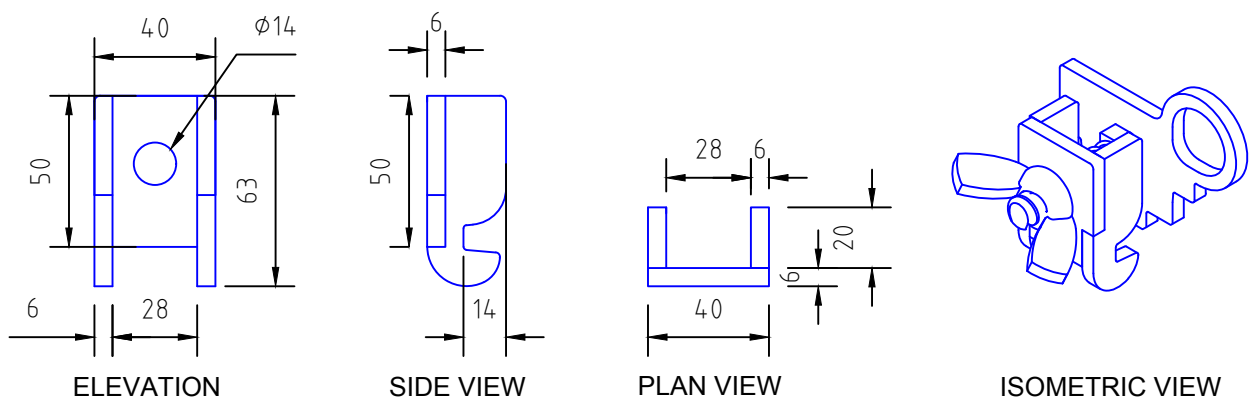
Technical Data Sheet

Hydraulic system

Hydraulic Ram Holding Plate



Anti-slip safety lock - used on inclined screens



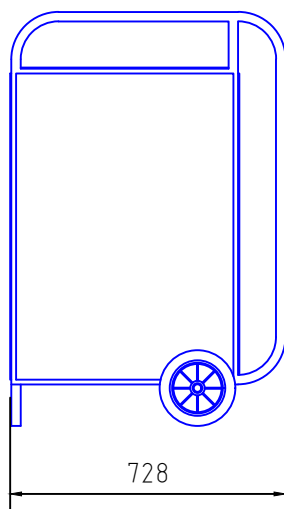
Description	Code	Material	Finish	Weight
Holding Plate	405840	Steel S235	Galvanized	0.12kg
Anti-slip safety lock	410090	Steel	Galvanized	0.477kg

Technical Data Sheet

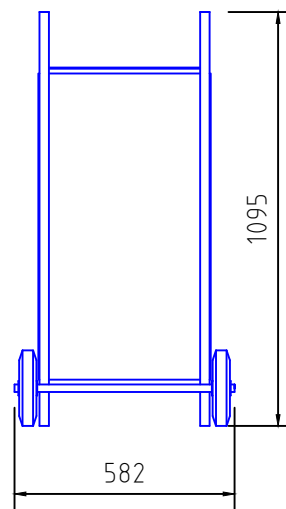
Hydraulic system

Hydraulic Power Pack

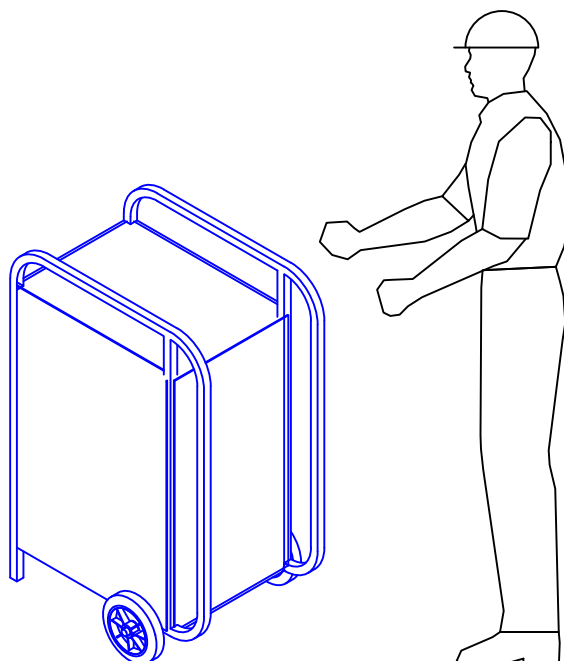
ELEVATION



SIDE VIEW



ISOMETRIC VIEW



Power	
Volts	110v
Amps	32 amps

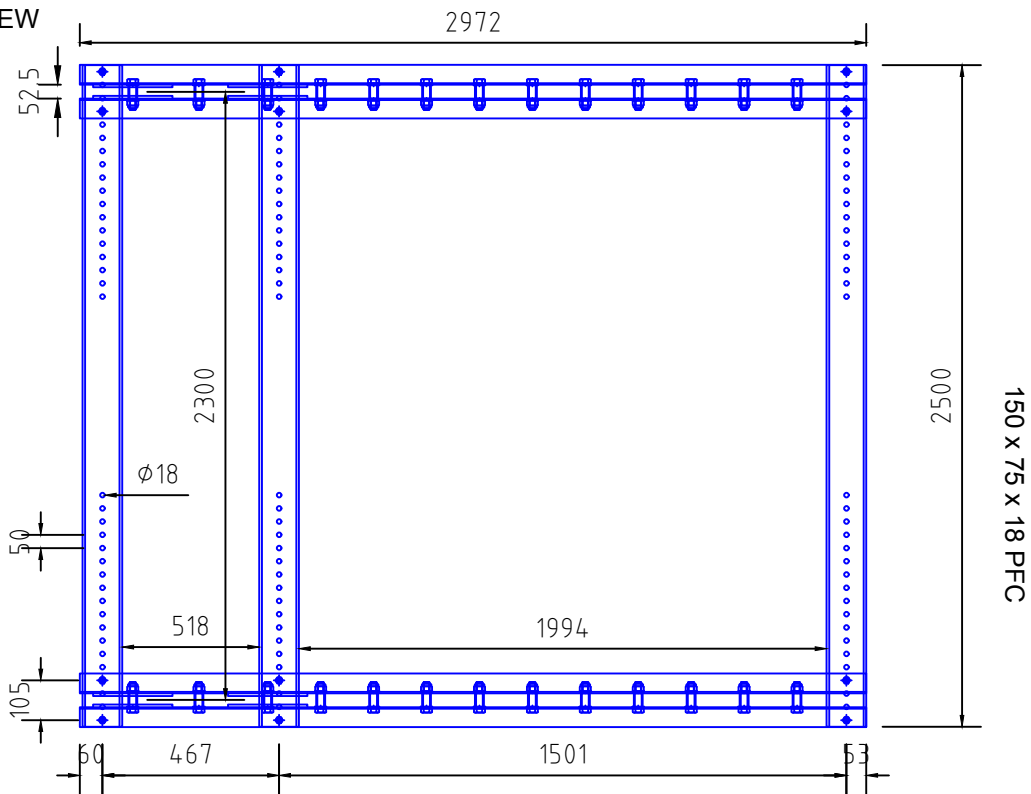
Power Pack supplied with:
Hydraulic twin hose 8m

Description	Code	Material	Finish	Weight
Hydraulic Power Pack	405401	Steel S235	Galvanized	135kg

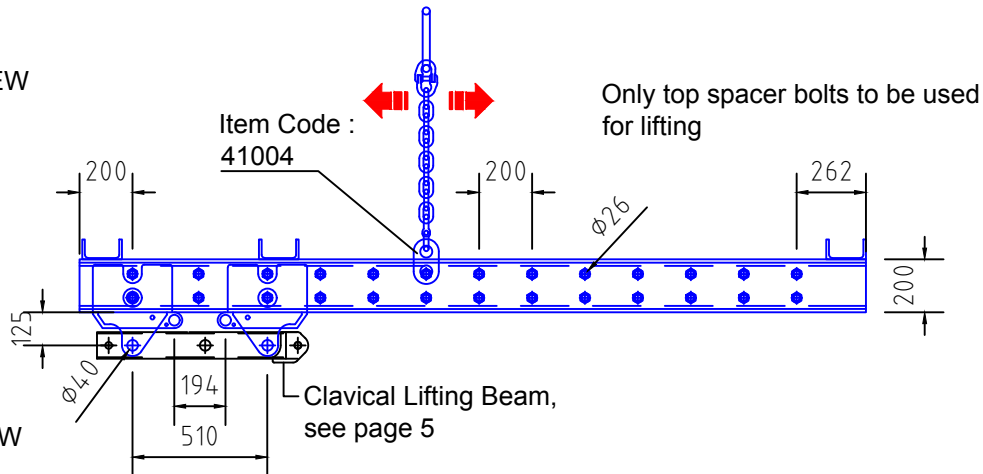
Technical Data Sheet Lifting Frame

Lifting Frame

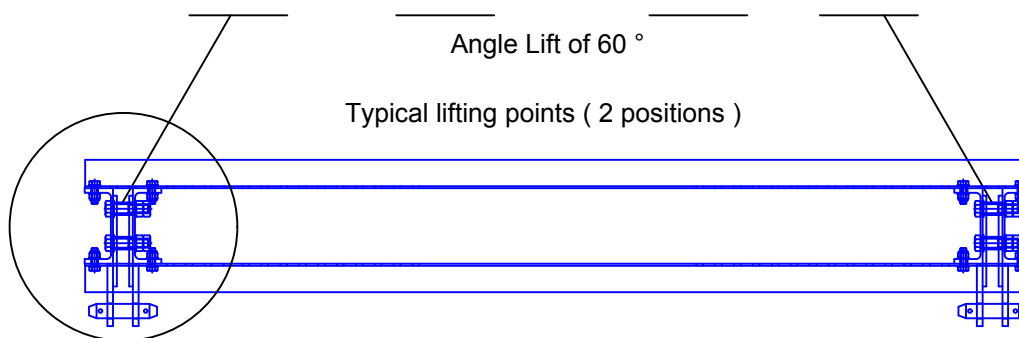
PLAN VIEW



SIDE VIEW



END VIEW

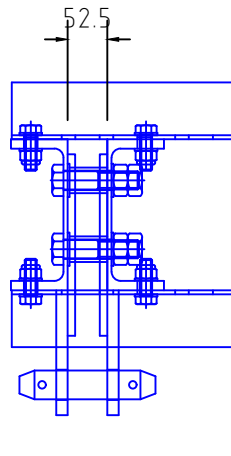


Technical Data Sheet

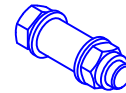
Lifting Frame

Lifting Frame

DETAILS

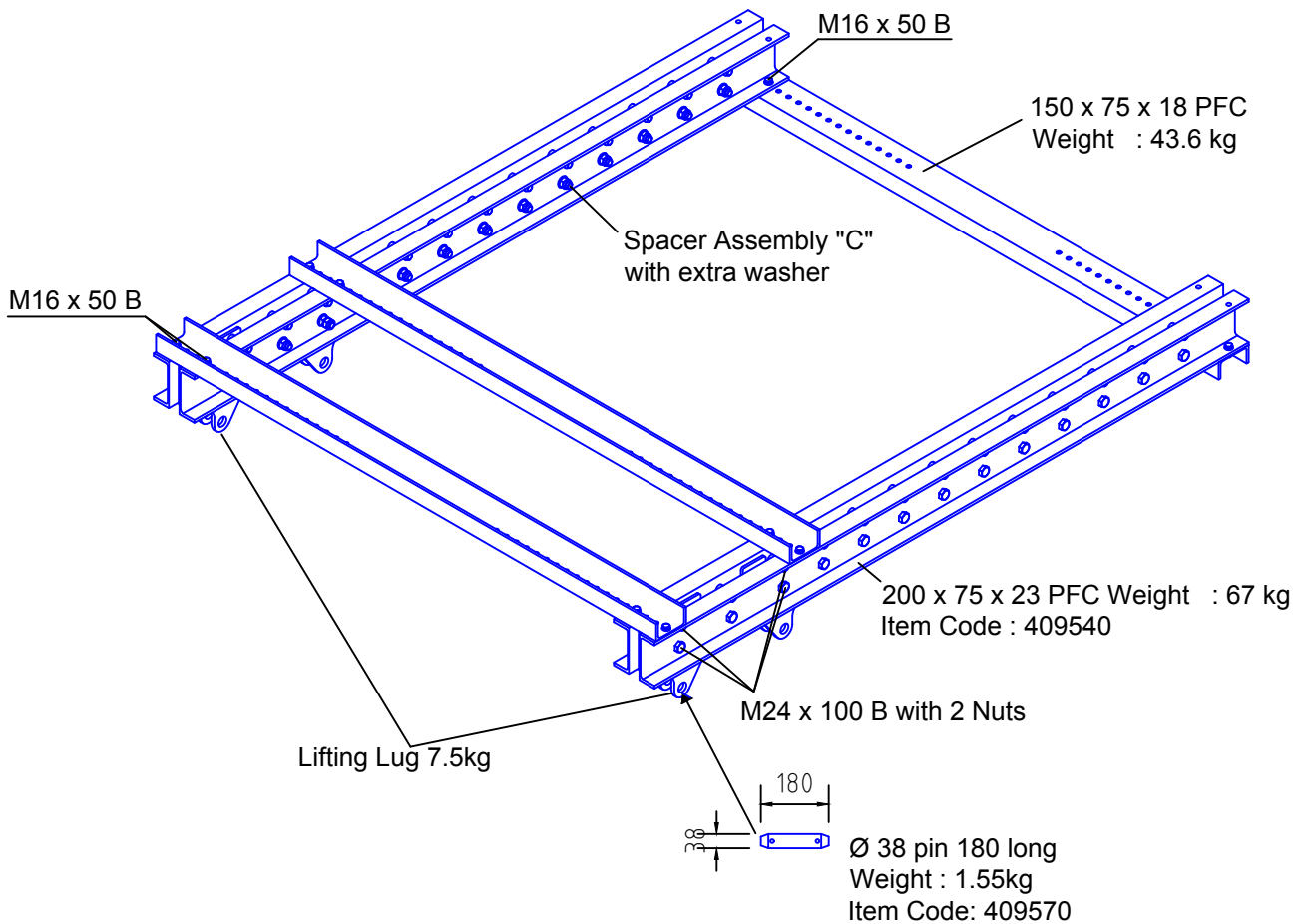


Spacer "C" Assembly



M24 x 100 HEX BOLT 8.8
 40088 Tube Spacer
 M24 Washers (2x)
 M24 Nylok Nut

ISOMETRIC VIEW

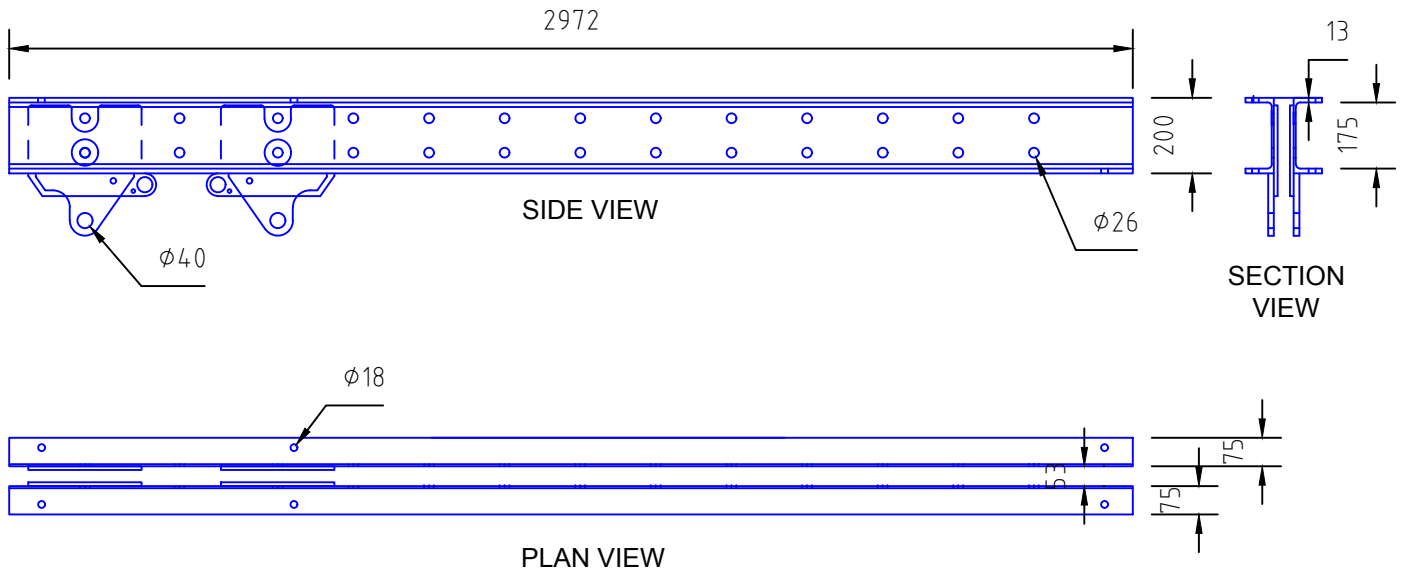


Description	Code	Material	Finish	Weight
Lifting Frame		Steel	Galvanized	440kg

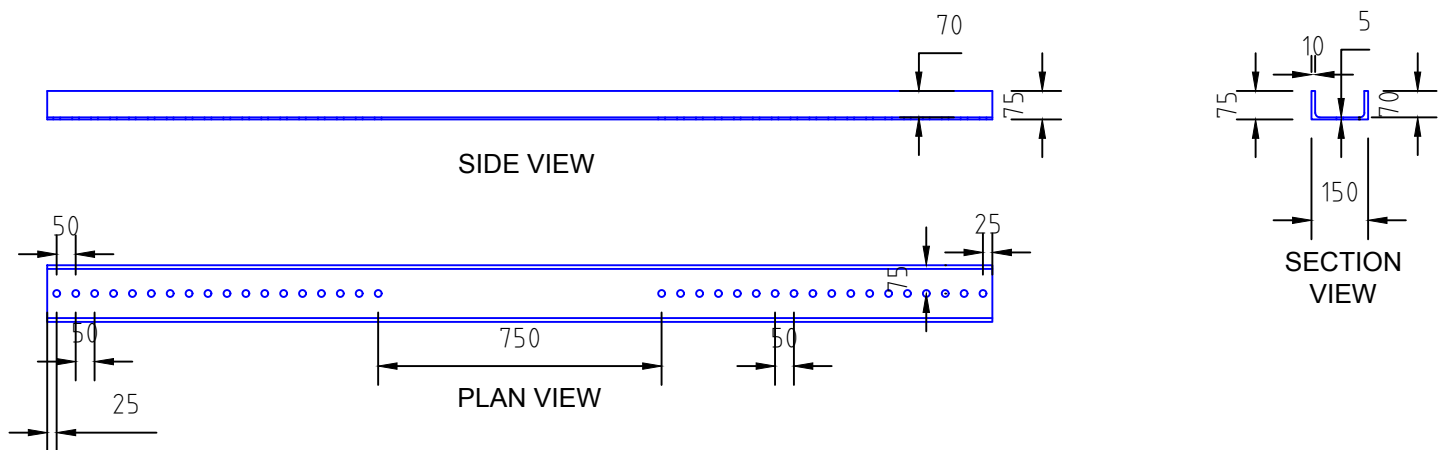
Technical Data Sheet

Lifting Frame

200 x 75 x 23 PFC



150 x 75 x 18 PFC

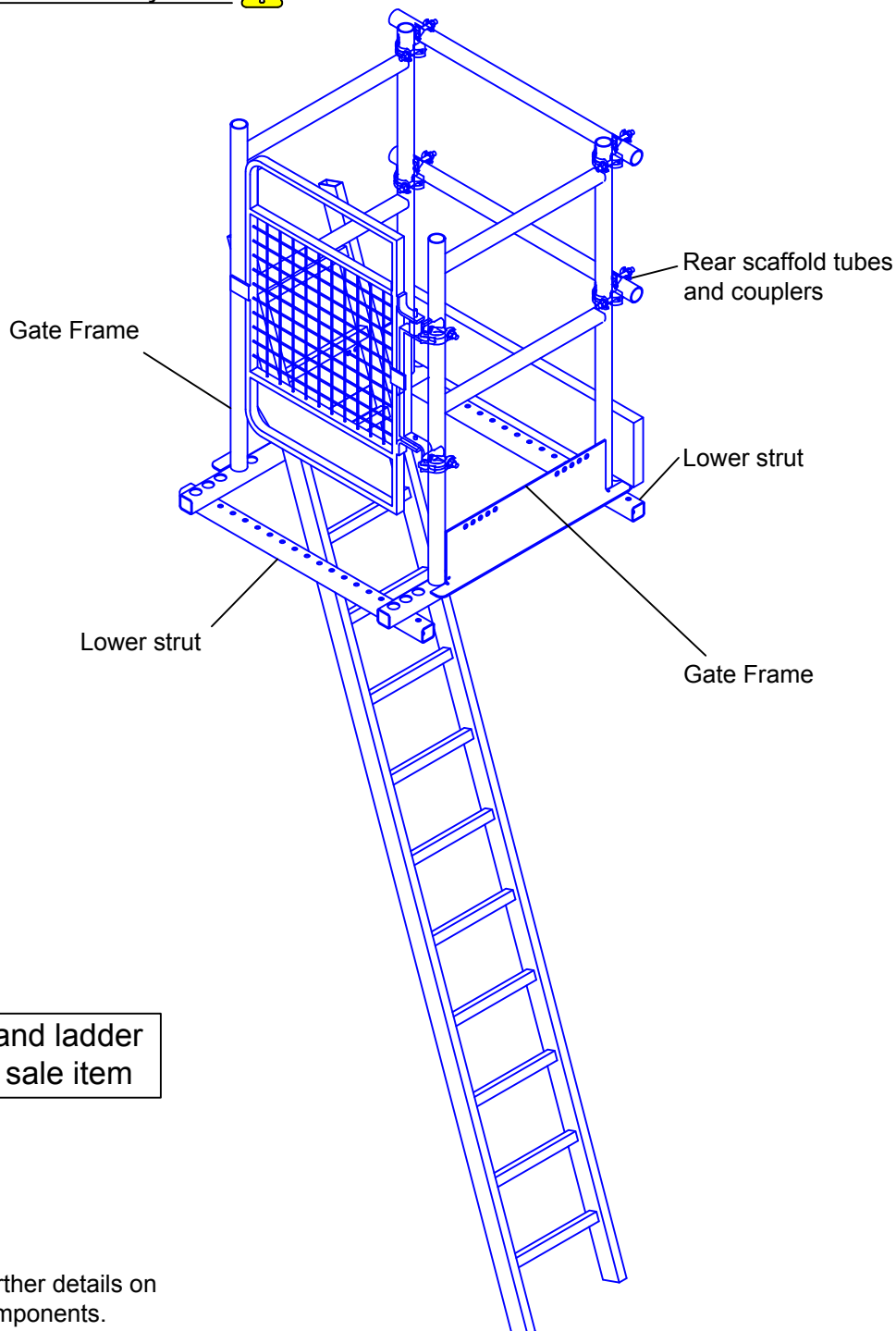


Description	Code	Material	Finish	Weight
200X75X23 PFC	409540	Steel	Galvanized	67kg
150X75X18 PFC		Steel	Galvanized	43.6kg

Technical Data Sheet

Screen ladder access system

Screen Access Ladder - Sale only item 



Tube, Fixings and ladder
not included in sale item

See following pages for further details on
Screen Ladder Access components.

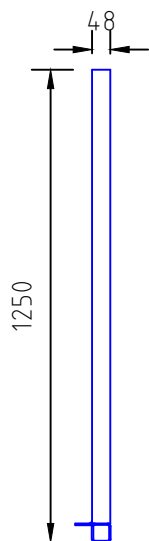
Description	Code	Material	Finish	Weight
Access Ladder	000009	Steel	Galvanized	110kg

Technical Data Sheet

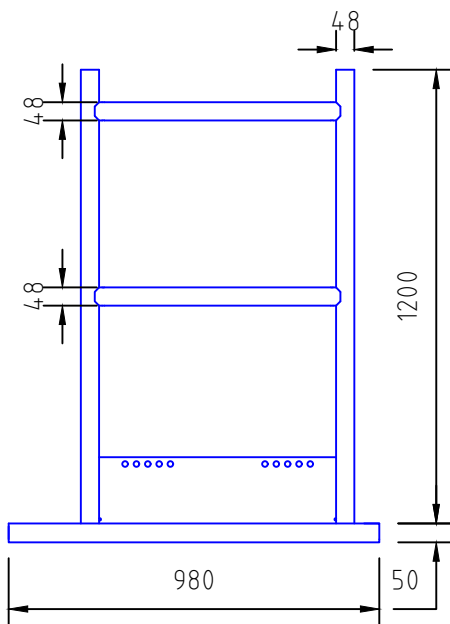
Screen ladder access system

Gate Frame - 2 per Screen Access Ladder

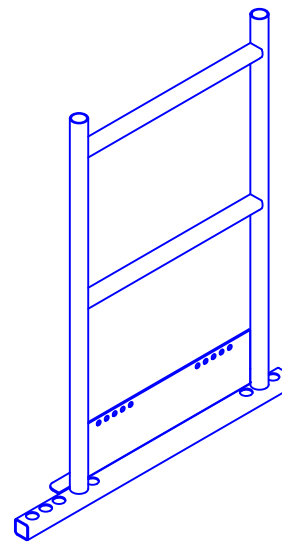
PLAN VIEW



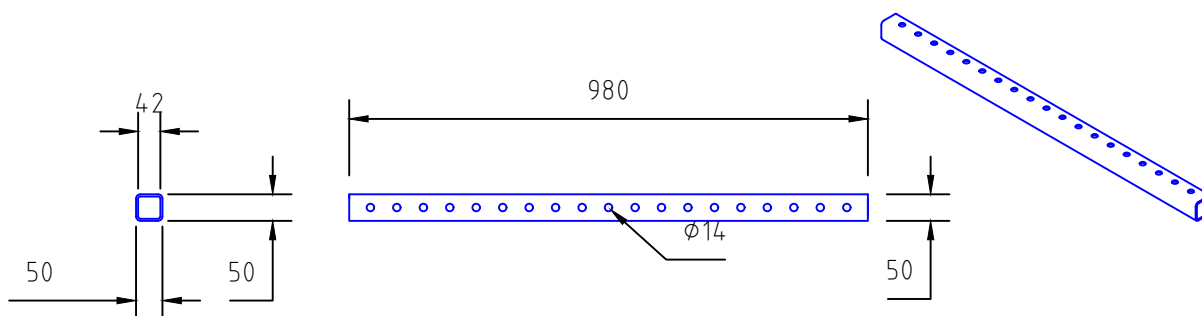
SIDE VIEW



ISOMETRIC VIEW



Lower strut - 2 per Screen Access Ladder



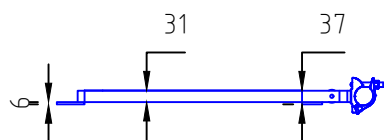
Description	Code	Material	Finish	Weight
Gate Frame		Steel	Galvanized	24.2kg
Lower strut		Steel	Galvanized	4.8kg

Technical Data Sheet

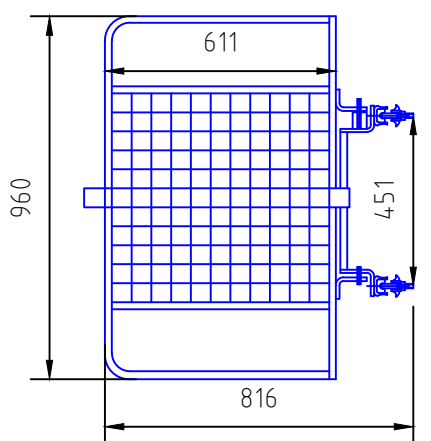
Screen ladder access system

Ladder Access Gate

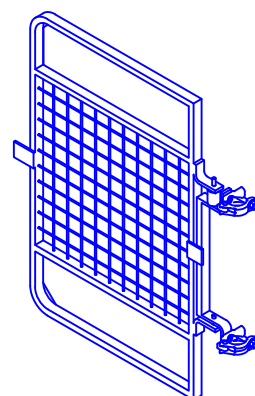
PLAN VIEW



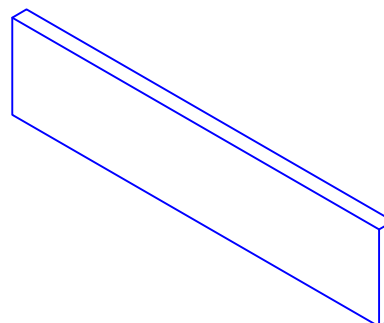
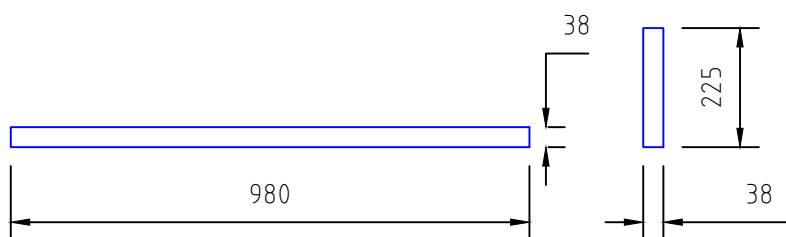
SIDE VIEW



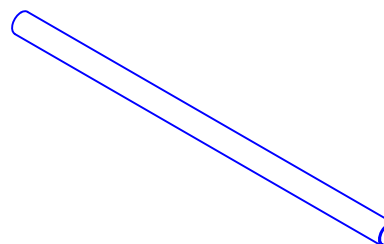
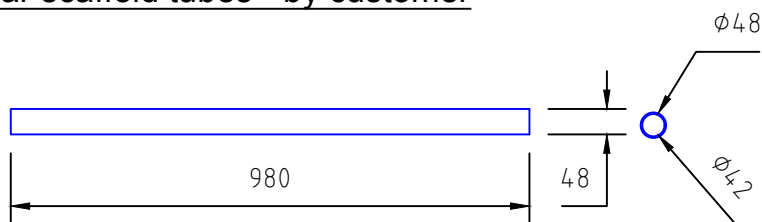
ISOMETRIC VIEW



Rear wood board - by customer



Rear scaffold tubes - by customer

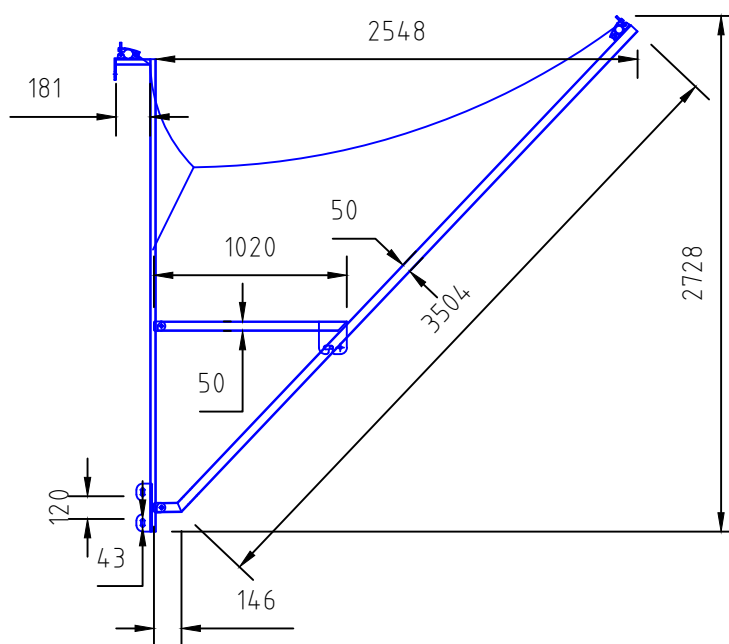
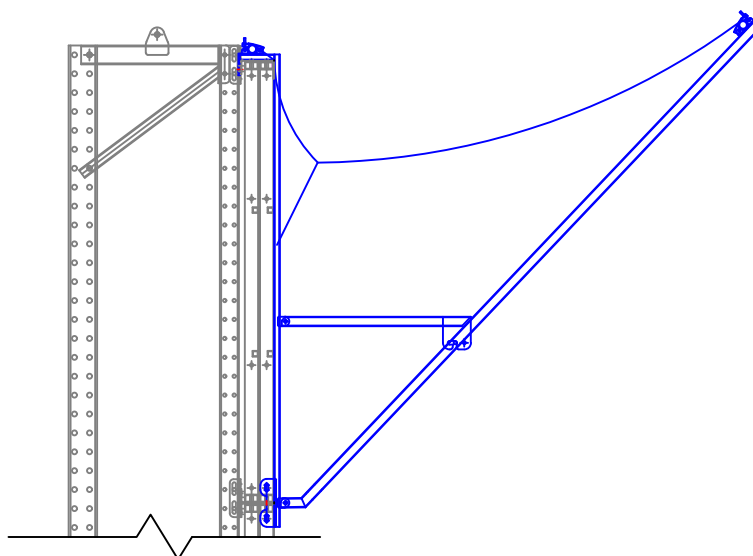


Description	Code	Material	Finish	Weight
Ladder Gate		Steel	Galvanized	??kg
Rear wood board		Wood		4.7kg
Rear scaffold tube		Steel	Galvanized	3.6kg

Technical Data Sheet Screen Saver Nets

Screen Fan Net

SIDE VIEW



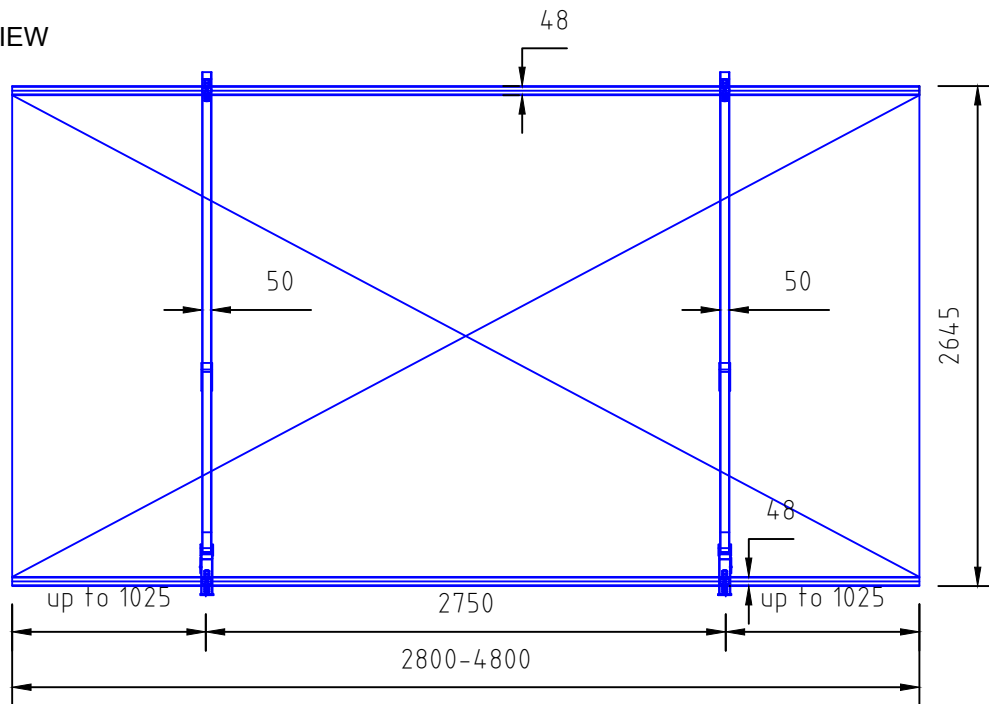
Plan & Elevation views
on next page.

Description	Code	Material	Finish	Weight
Screen Fan		Steel		??kg

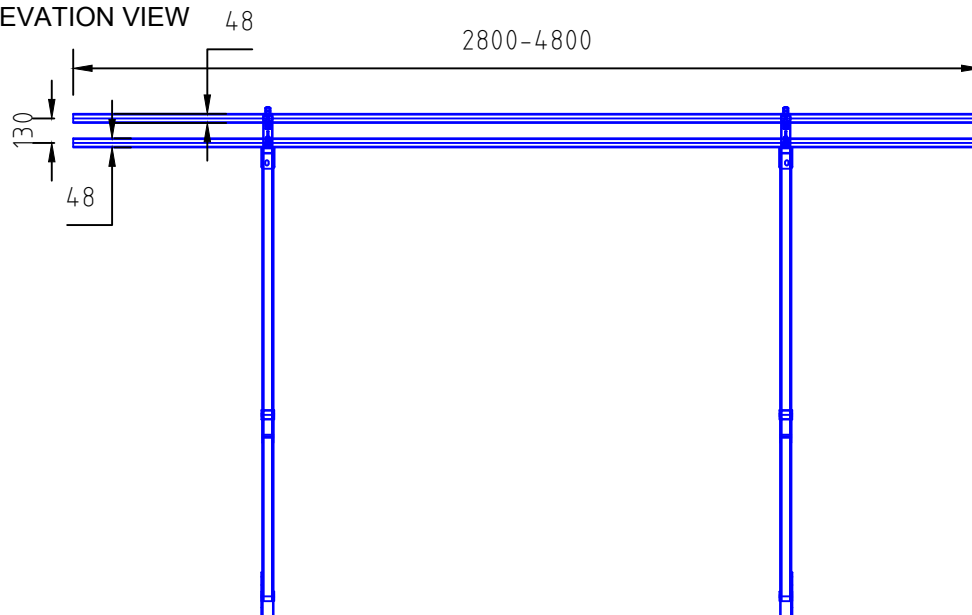
Technical Data Sheet | Screen Saver Nets

Screen Fan Net

PLAN VIEW



ELEVATION VIEW

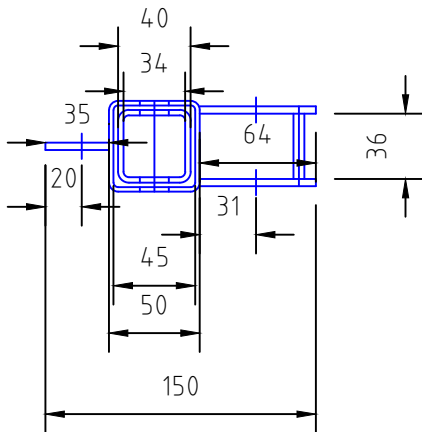


Technical Data Sheet

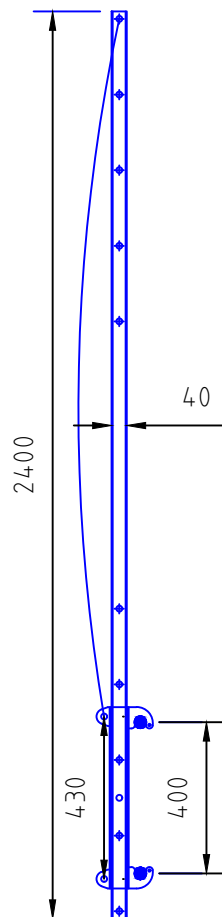
Screen Saver Nets

Column Pour Protection Post and Fixing

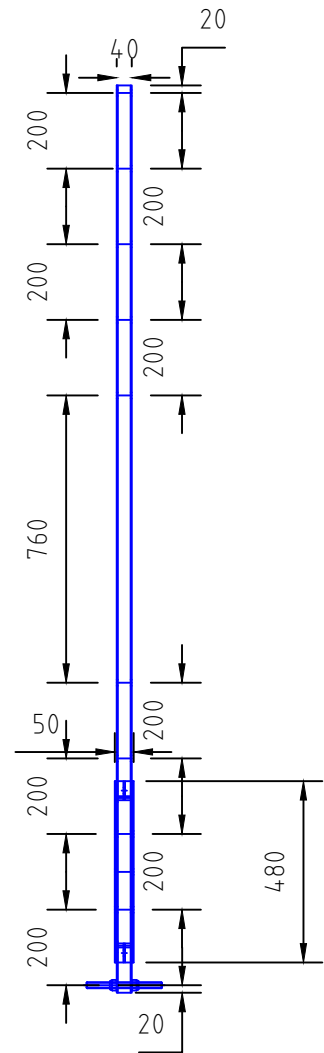
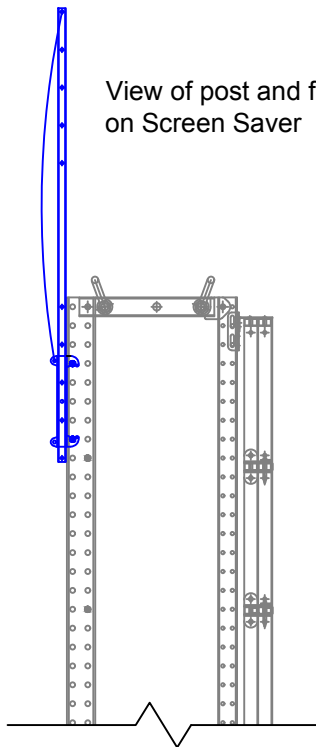
PLAN VIEW



SIDE VIEW



ELEVATION VIEW


View of post and fixing
on Screen Saver


Protection Post

Max Allowance

 $q = 0.3 \text{ kn/m}^2$ (50mph)

Porosity of mesh = 50% and over

Max centers = 2.4m

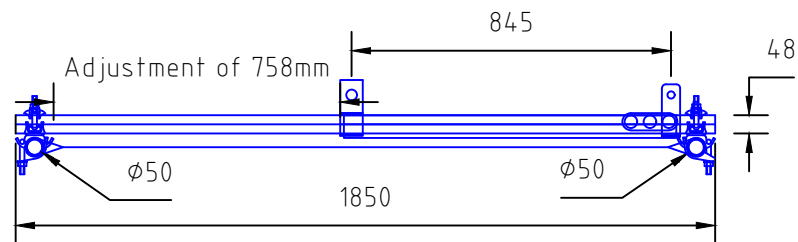
Description	Code	Material	Finish	Weight
Column Pour Protection Post		Steel		??kg

Technical Data Sheet

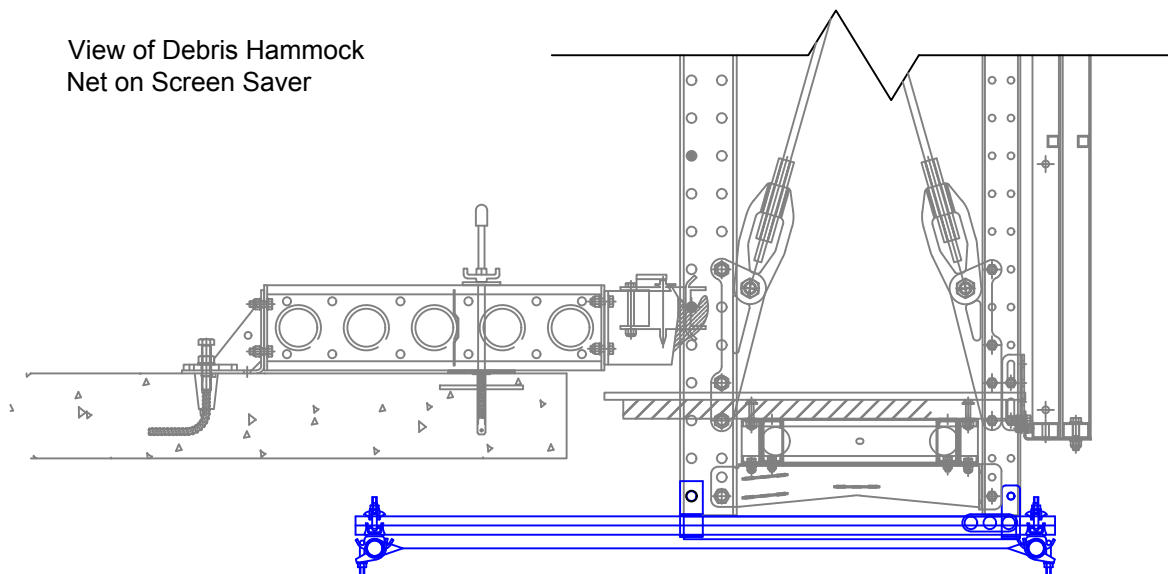
Screen Saver Nets

Debris Hammock Net

SIDE VIEW



View of Debris Hammock Net on Screen Saver



Description	Code	Material	Finish	Weight
Debris Hammock Net		Steel		??kg

Considerations/ Guidance:
All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

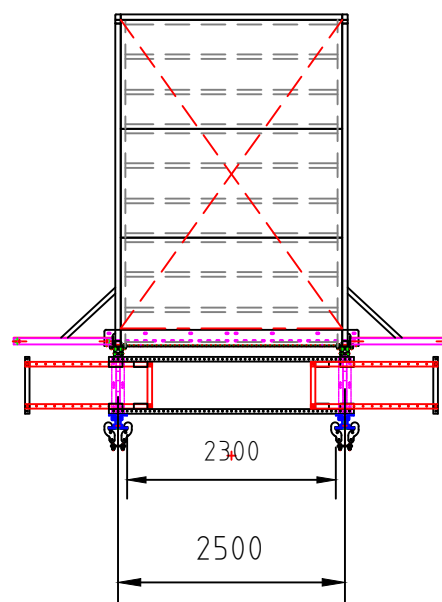
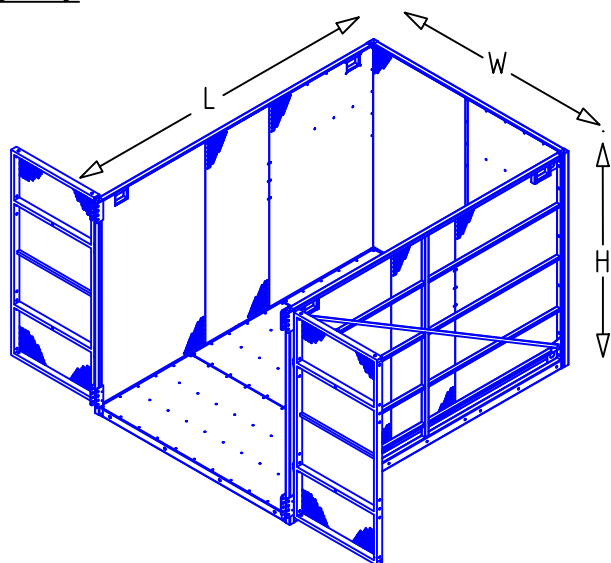
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Technical Data Sheet Loading Bay

Loading Bay



Loading Platform	Length L [m]	Width W [m]	Height H [m]	Weight [kg]	Pay Load [kg] UDL
3660	3.66	2.554	2.42	838	2000 *
4860	4.86	2.554	2.42	1093	2000 *

* For higher load please contact Ischebeck-Titan

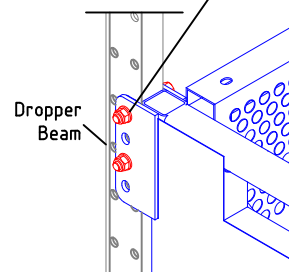
RISK NOTE

3 LEVELS OF NEEDLES ARE REQUIRED WHEN A LOADING BAY IS FITTED TO A SCREEN, ALONG WITH THE MAIN SUPPORT PLATE.

IN CERTAIN CONDITIONS IT IS FEASIBLE TO INSTALL A LOADING BAY ON 2 NEEDLES, ADVICE MUST BE REQUESTED FROM ISCHEBECK TECHNICAL DEPARTMENT.



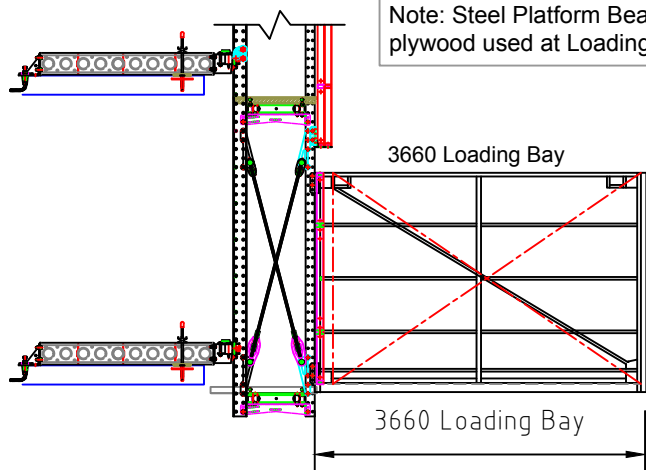
Fixing Loading Bay to 11.9m or 14.4m Screen Saver via Dropper Beam using 8No M16x100 Hex Bolt Gr 8.8



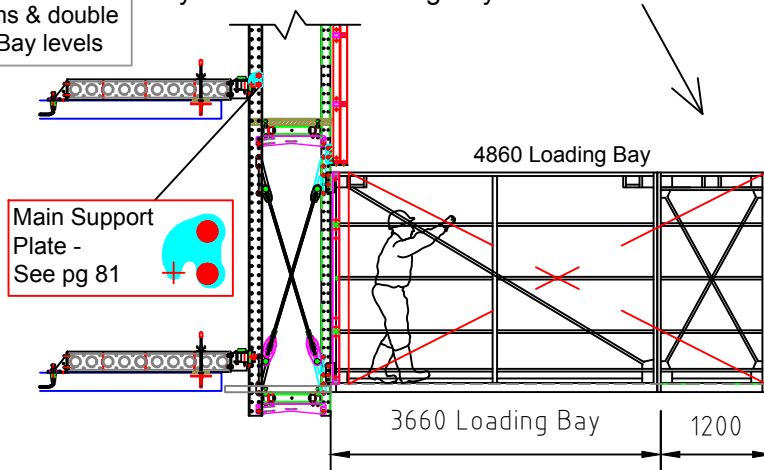
NOTE
Loading Bays must be used with 1.8m Soldiers minimum



Note: Steel Platform Beams & double plywood used at Loading Bay levels

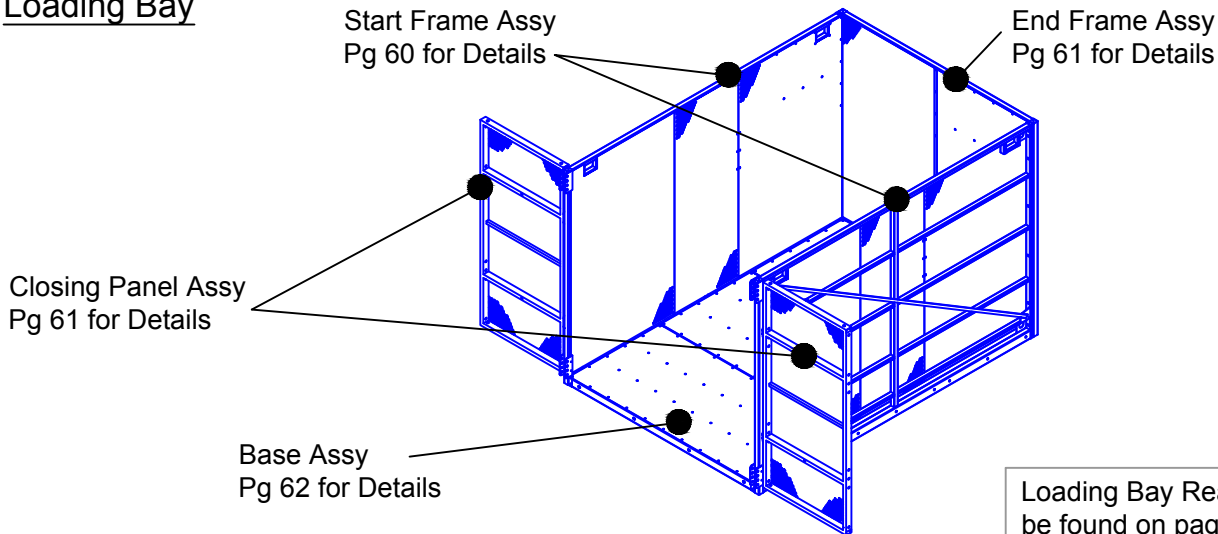


Bay 1200mm extension makes 3660 Loading Bay into a 4860 Loading Bay as shown.



Technical Data Sheet Loading Bay

Loading Bay



Loading Bay Reactions can be found on page 93-100

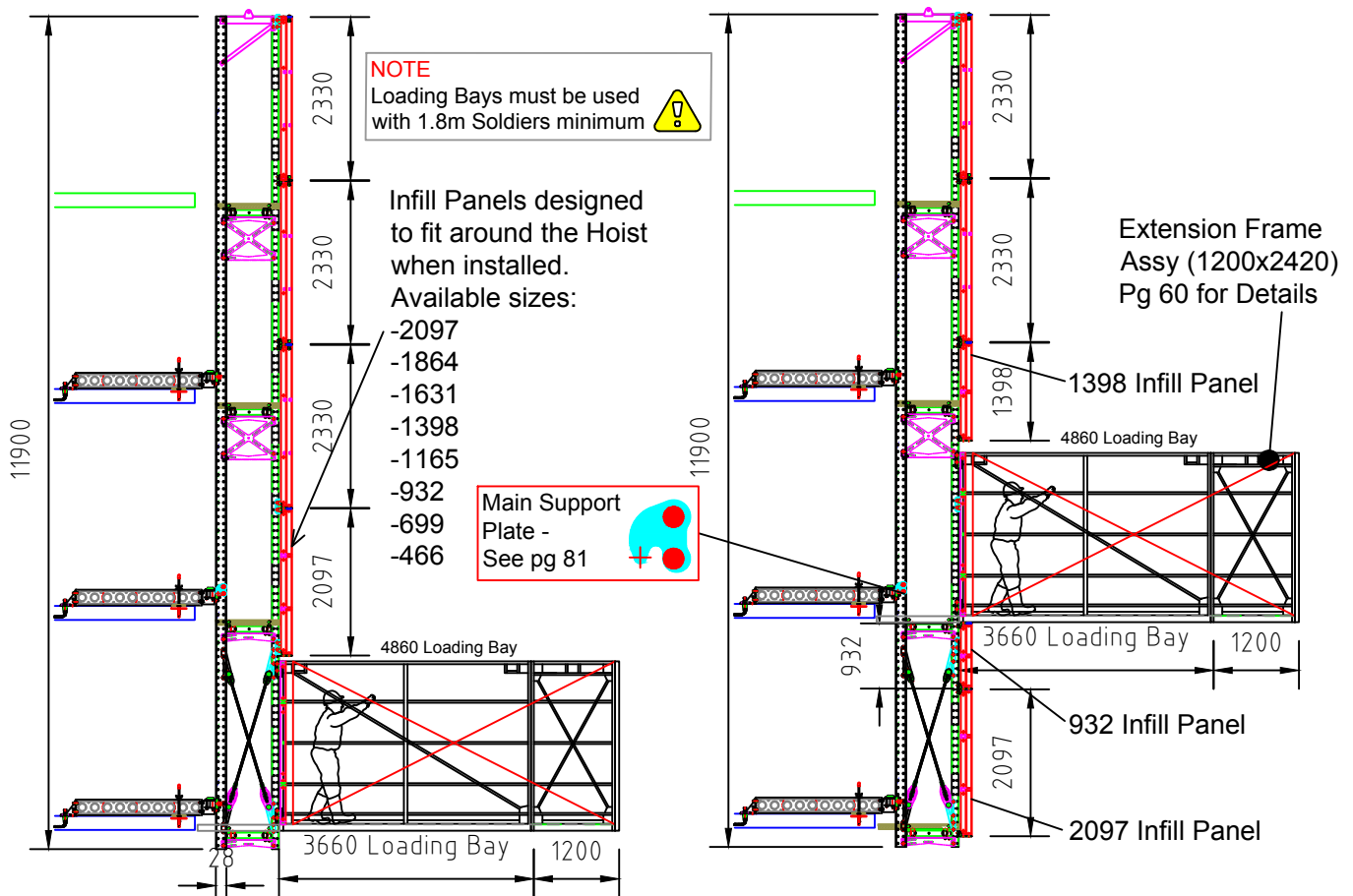
RISK NOTE

3 LEVELS OF NEEDLES ARE REQUIRED WHEN A LOADING BAY IS FITTED TO A SCREEN, ALONG WITH THE MAIN SUPPORT PLATE.

IN CERTAIN CONDITIONS IT IS FEASIBLE TO INSTALL A LOADING BAY ON 2 NEEDLES, ADVICE MUST BE REQUESTED FROM ISCHEBECK TECHNICAL DEPARTMENT.

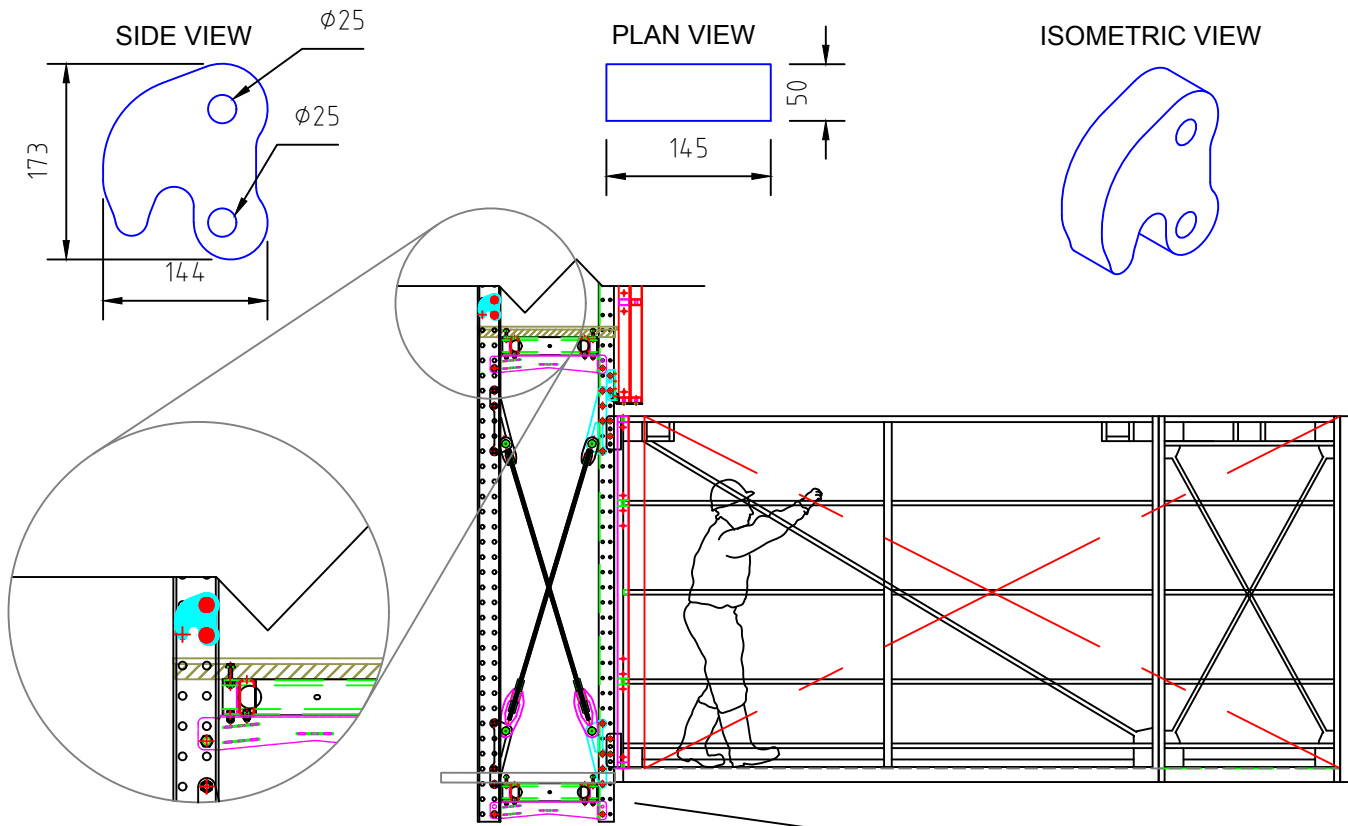


Note: Steel Platform Beams & double plywood used at Loading Bay levels



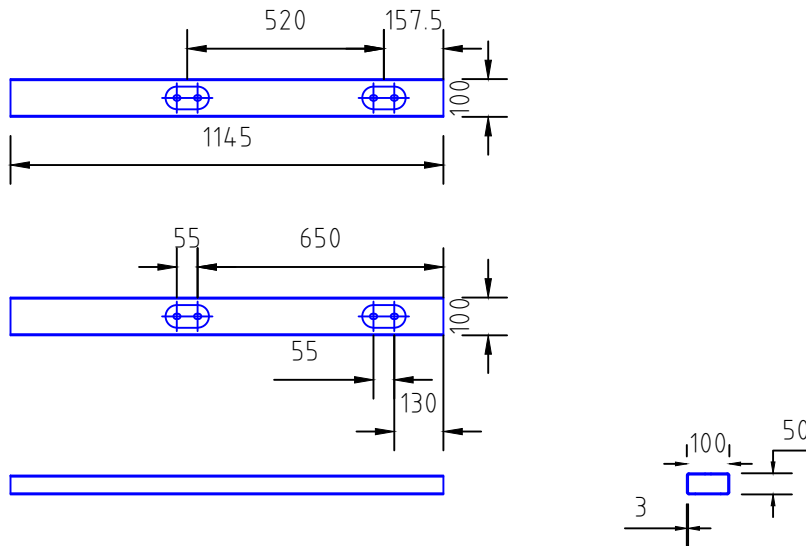
Technical Data Sheet Loading Bay

Main Support Plate - for supporting Needle



Type 4 Box Beam for Loading Bay - Loading bay level

Steel Box Beams for Loading Bay level (see below)

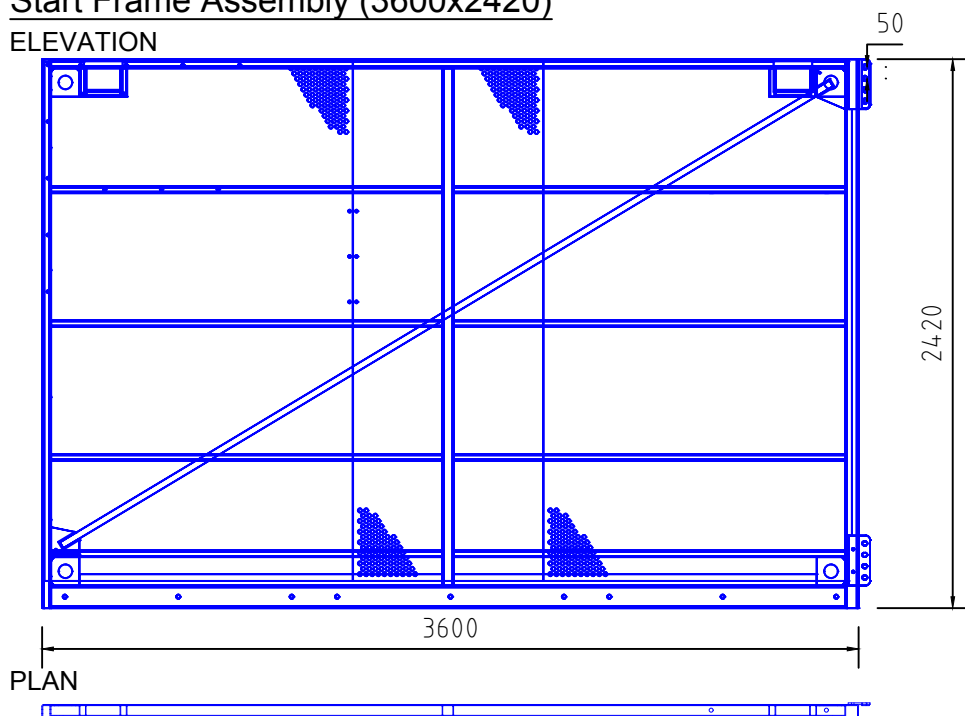


Description	Code	Material	Finish	Weight
Main Support Plate	40935	Steel	Galvanized	6.5kg
Type 4 Box Beam	405924	Steel	Galvanized	6.4kg/m

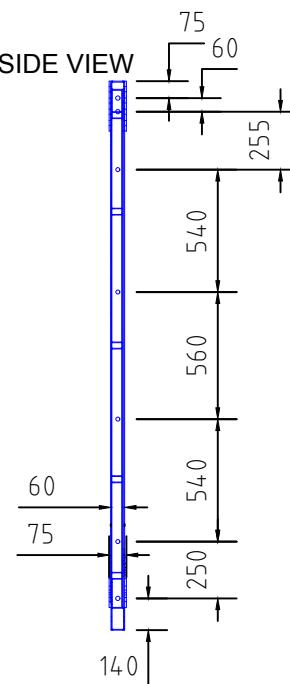
Technical Data Sheet Loading Bay Components

Start Frame Assembly (3600x2420)

ELEVATION

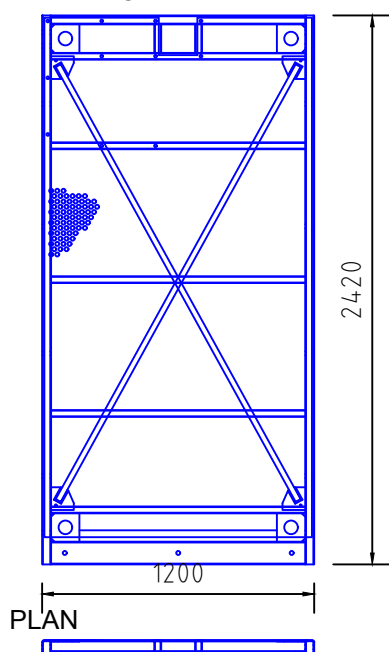


SIDE VIEW

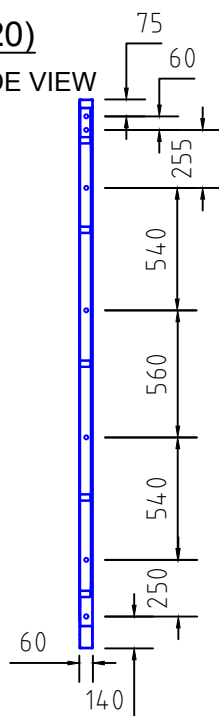


Extension Frame Assembly (1200x2420)

ELEVATION



SIDE VIEW



Description	Code	Material	Finish	Weight
Start Frame Assembly	40648A	Steel	Hot-Dip Galvanized	170kg
Extension Frame Assembly	40659A	Steel	Hot-Dip Galvanized	74.3kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

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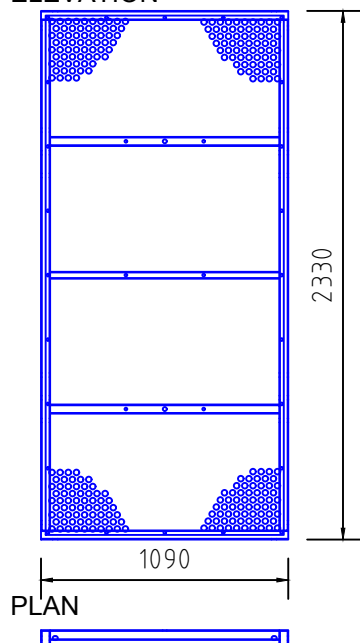
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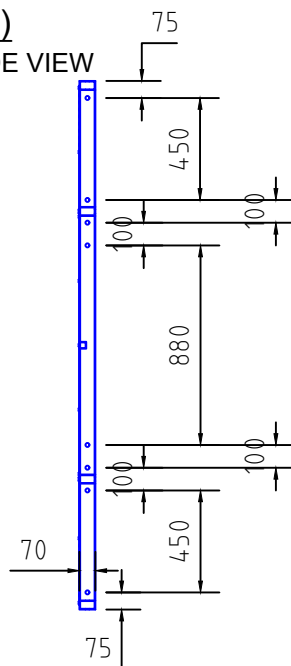
Technical Data Sheet Loading Bay Components

Closing Panel Assembly (1090x2330)

ELEVATION

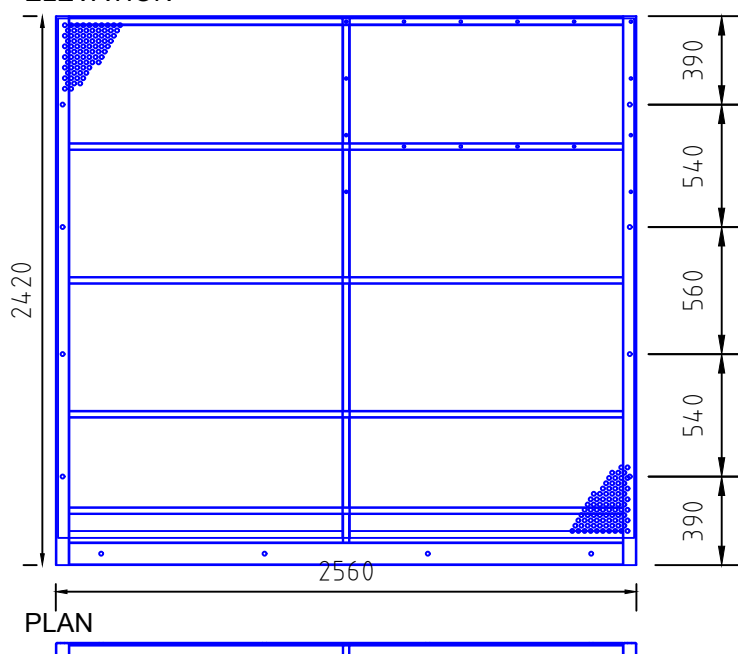


SIDE VIEW

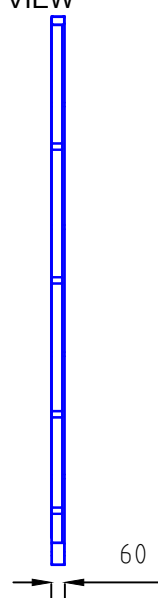


End Frame Assembly (2560x2420)

ELEVATION



SIDE VIEW



Description	Code	Material	Finish	Weight
Closing Panel Assembly	40669A	Steel	Hot-Dip Galvanized	24.7kg
End Frame Assembly	40665A	Steel	Hot-Dip Galvanized	110.2kg

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

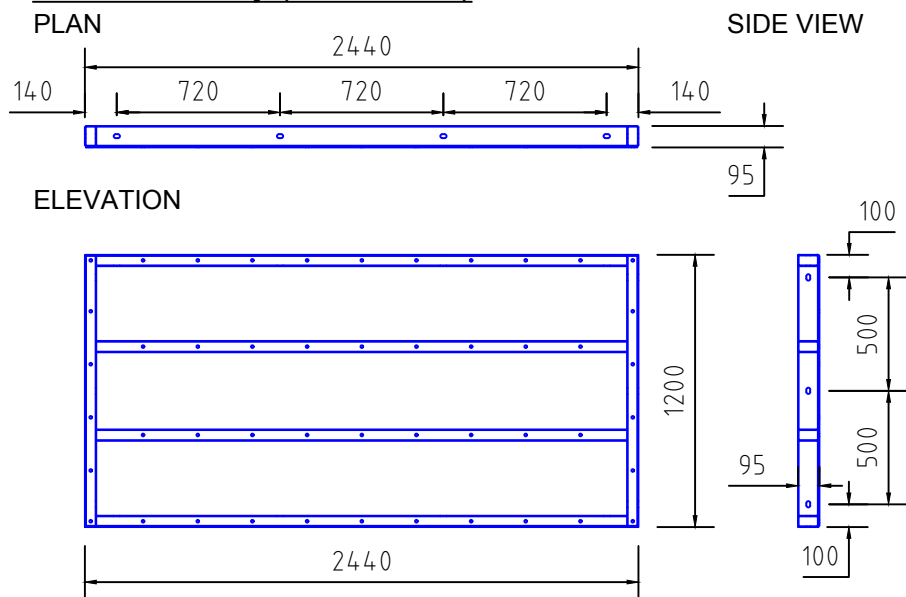
23/01/
2018

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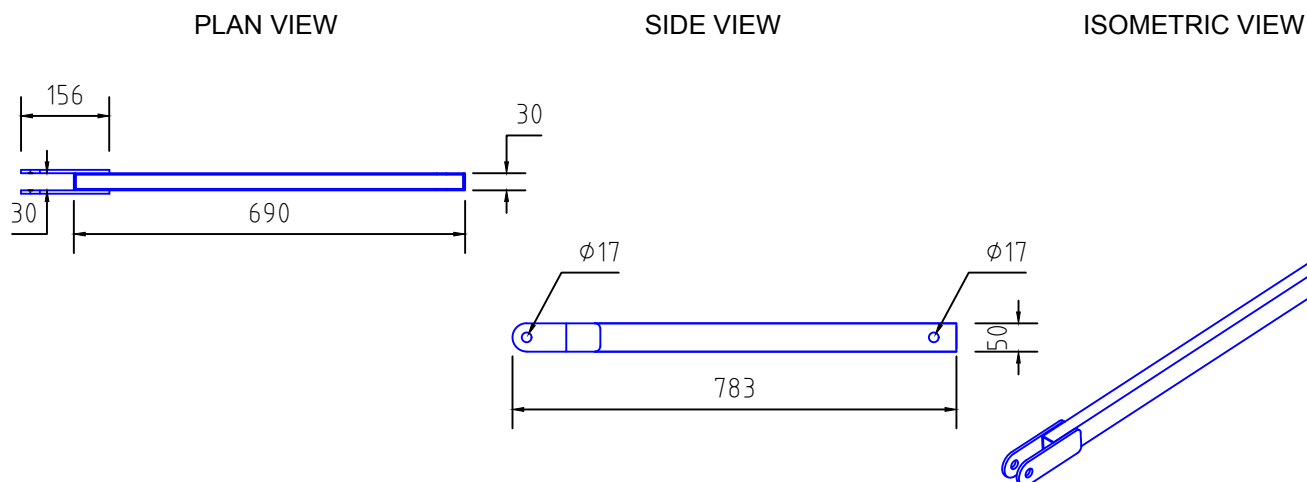
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Technical Data Sheet Loading Bay Components

Base Assembly (2440x1200)



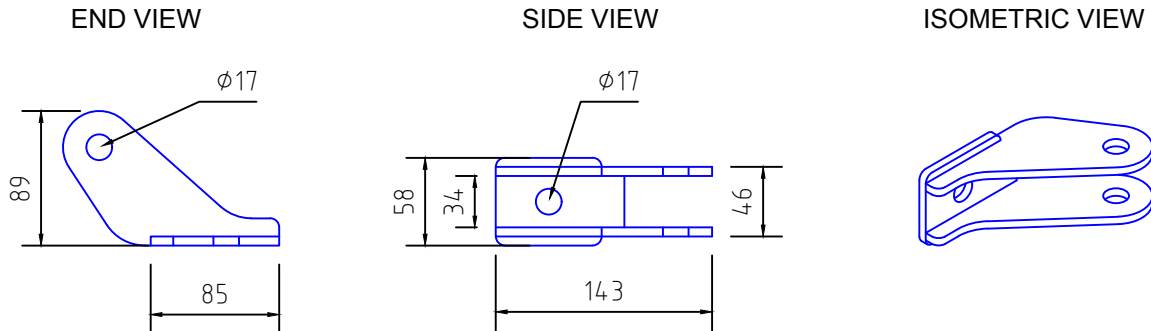
Panel Brace



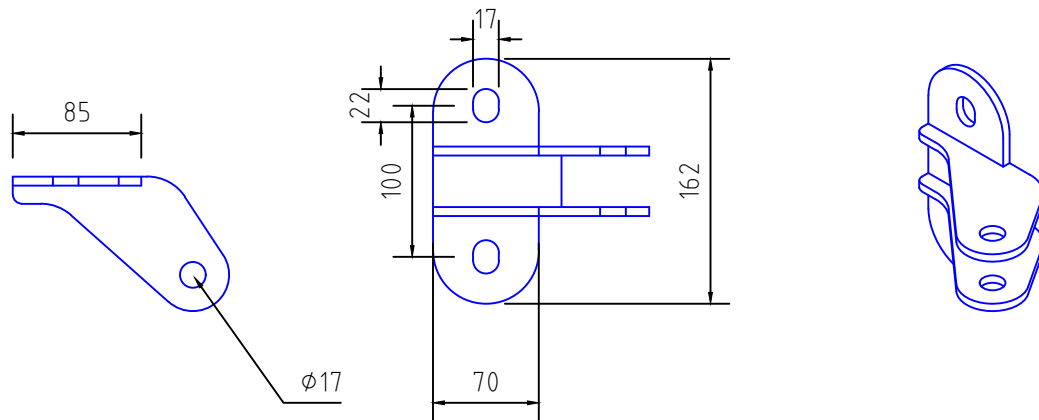
Description	Code	Material	Finish	Weight
Base Assembly	40645A	Steel	Hot-Dip Galvanized	107kg
Panel Brace	40689A	Steel	Hot-Dip Galvanized	2.6kg

Technical Data Sheet Loading Bay Components

Panel Bracket



Panel Hinge



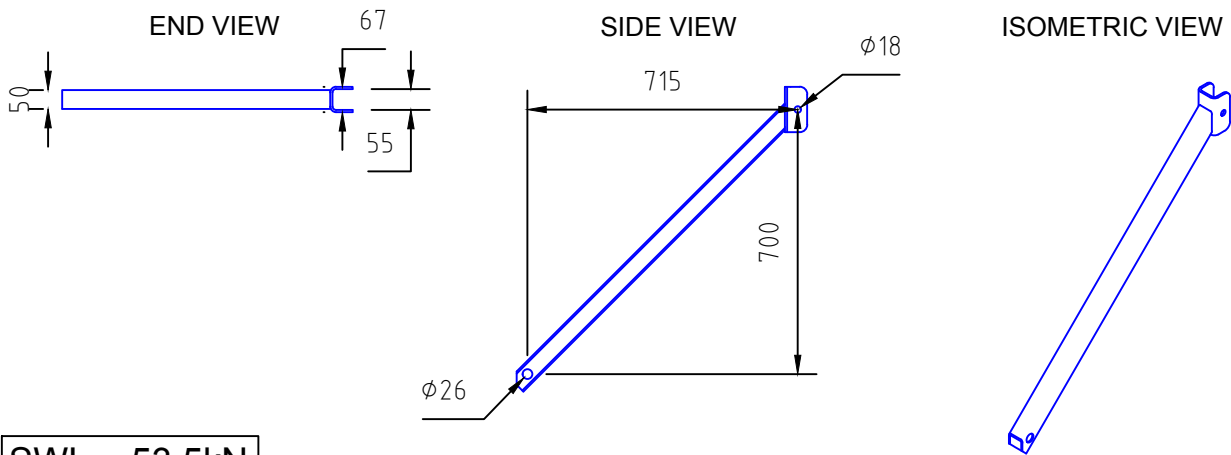
Bolt used for fixing

M16 x 70 Hex Bolt Gr 8.8	Hinge, Brace
M16 x 100 Hex Bolt Gr 8.8	Start Frame to Dropper
M16 x 110 Hex Bolt Gr 8.8	Start Frame to Extension Frame
M16 x 130 Hex Bolt Gr 8.8	Base to Base, Base to End Frame
M16 x 140 Hex Bolt Gr 8.8	Base to Frames, Base to End

Description	Code	Material	Finish	Weight
Panel Bracket	40686A	Steel	Hot-Dip Galvanized	0.75kg
Panel Hinge	40683A	Steel	Hot-Dip Galvanized	1.0kg

Technical Data Sheet Diagonal Brace

Diagonal Brace - Special Item



SWL = 53.5kN

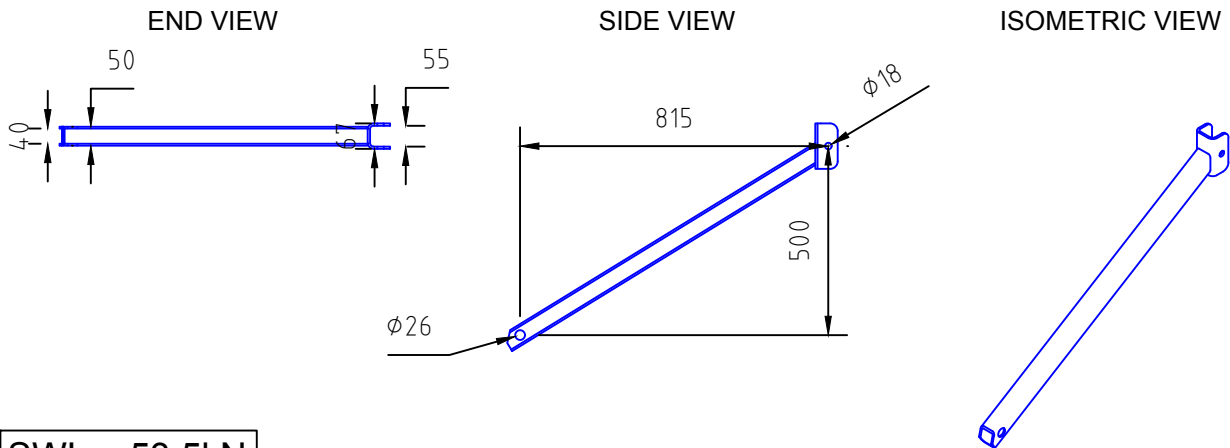
Description	Code	Material	Finish	Weight
Diagonal Brace		S275 Steel	Galvanised	

Considerations/ Guidance:
All dimensions in this document are in (mm) unless stated otherwise.

Date:	Issue:	Page:
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Technical Data Sheet Diagonal Brace - Special

Diagonal Brace - Special Item



SWL = 53.5kN

NOTE
NOT FOR GENERAL USE - Special Item

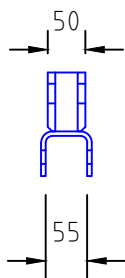


Description	Code	Material	Finish	Weight
Diagonal Brace - Special		S275 Steel	Galvanised	

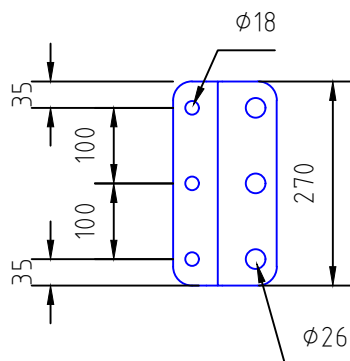
Technical Data Sheet Crane Screens

Dropper to Main Channel Direct Link 3 Hole

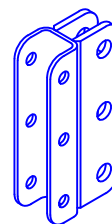
END VIEW



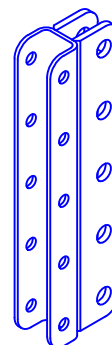
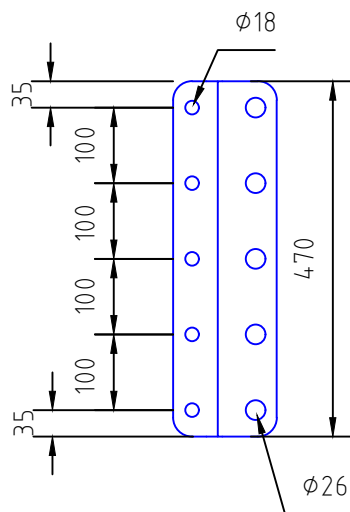
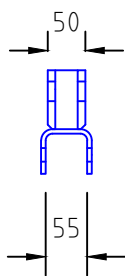
SIDE VIEW



ISOMETRIC VIEW



Dropper to Main Channel Direct Link 5 Hole



Description	Code	Material	Finish	Weight
Dropper to Main Channel Direct Link 3 Hole				5.2kg
Dropper to Main Channel Direct Link 5 Hole				8.9kg

Technical Data Sheet Method of Analysis/Wind Load

Method of Analysis

A structural frame analysis has been carried out using Rstab v8.03 2d to carry out a second order p-delta frame analysis. The input loads have been applied as service loads (without load factors) as is the norm for temporary works calculations in the UK.

The output from the analysis has been used to compare actual member and connection loads to given allowable loadings or Safe Working Loads (SWL's).

The allowable member SWL's have been derived from a mixture of calculations and component load testing. Load factors and material factors have been used to derive SWL's from the limit state codes used.

Wind Force

Wind force for the full storm wind cases in London are generally taken as 1.0kN/m² in the frame analysis, equating to a site wind speed of approximately 111mph. We believe this is a conservative figure against the general calculated full wind force for the London sites of approximately 0.85kN/m². Each site will have individual wind calculations submitted, showing assumptions on wind factors according to local conditions.

Wind force for the working wind cases are taken as a minimum wind force of 0.216kN/m² in the frame analysis. This equates to a site wind speed of approx. 40mph.

Explanation of Wind Factors used:

Cf = Force coefficient. The Cf for this equipment taken as a best fit from the following information:

BS EN 12811 - Annex A2.2 pg35. Cf (aerodynamic force coefficient for fully sheeted scaffold is 1.3)

For perforated sheet refer to HSE Wind Loading on Temporary Structures Conference Proceedings chart. (Paper by P.Schnabel - Model experiment on covered scaffolding in a wind tunnel)

With Net penetrability of 40%, Cf = 0.975

Also, BS EN 1991-1-4:2005 cl 7.4.3, references Cf = 1.80 for a signboard separated from the ground by more than H/4. The perforated sheets are 60% solid. Using an approximation of $1.8 \times 0.6 = 1.08$ gives a conservative figure c/w Schnabels chart.

Ischebeck Titan have used a Cf of 1.08 for the Screen Saver calculations for numerous projects in London and from site observations during storm conditions have confidence that this is suitably conservative figure for the system.

Reduced Wind load from 1:50 year wind for Temporary Works

Twf = Temporary works factor = 0.7 (ref - BS EN 12812 Cl8.2.4.1 pg 16)

Alternatively use Cprob = 0.83 (ref - cl 4.2, BS5975:2008+A1 Cl17.5.1, Formwork A Guide to Good Practice 4.5.1.3)

q working wind = 0.2 (ref - BS 12811-1:2003 Cl 6.2.7.4.2 pg 25)

Technical Data Sheet

Method of Analysis/Wind Load

Note:

The data sheets that follow consider 2.4m & 3.0m influence width and 1.0kN/m² wind force for a set range of H values. The figures stated can be interpolated for influence widths less than 3.0m, however, if the wind load increases and/or the H value falls outside value stated and/or influence width increases, a separate analysis should be carried out.

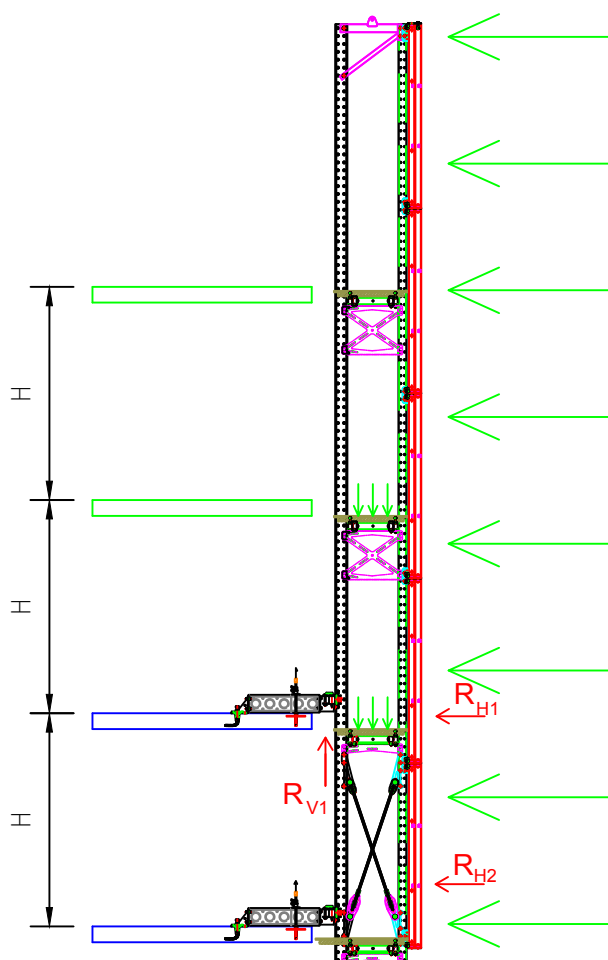


It is very important that the data taken from these tables is used with care. A separate check of the Soldier Main Support Pin (SWL 71kN, see page 30) is required.

Technical Data Sheet Screen typical applications

Concreting Screens 11.9 Typical Application - Upper Needle Support

Typical weight of Screen = 2700kg



WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD 1.5kN/m² ON 2 PLATFORMS

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	53.8	48.4	44.0	9.3	8.4	7.6		57.6	51.9	47.2	15.6	13.7	12.5	
R _{V1}	13.6	13.6	13.6	20.8	20.8	20.8		13.6	13.6	13.6	20.8	20.8	20.8	
R _{H2}	25.6	20.2	15.8	3.1	2.2	1.4		29.4	23.7	19.0	9.0	7.5	6.3	

3.0m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	67.4	60.6	55.1	11.8	10.6	9.6		71.9	64.7	58.8	19.5	17.0	15.5	
R _{V1}	15.2	15.2	15.2	24.3	24.3	24.3		15.2	15.2	15.3	24.3	24.3	24.3	
R _{H2}	32.1	25.4	19.9	4.0	2.8	1.9		36.7	29.5	23.6	11.2	9.3	7.7	

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

Date: Issue: Page:

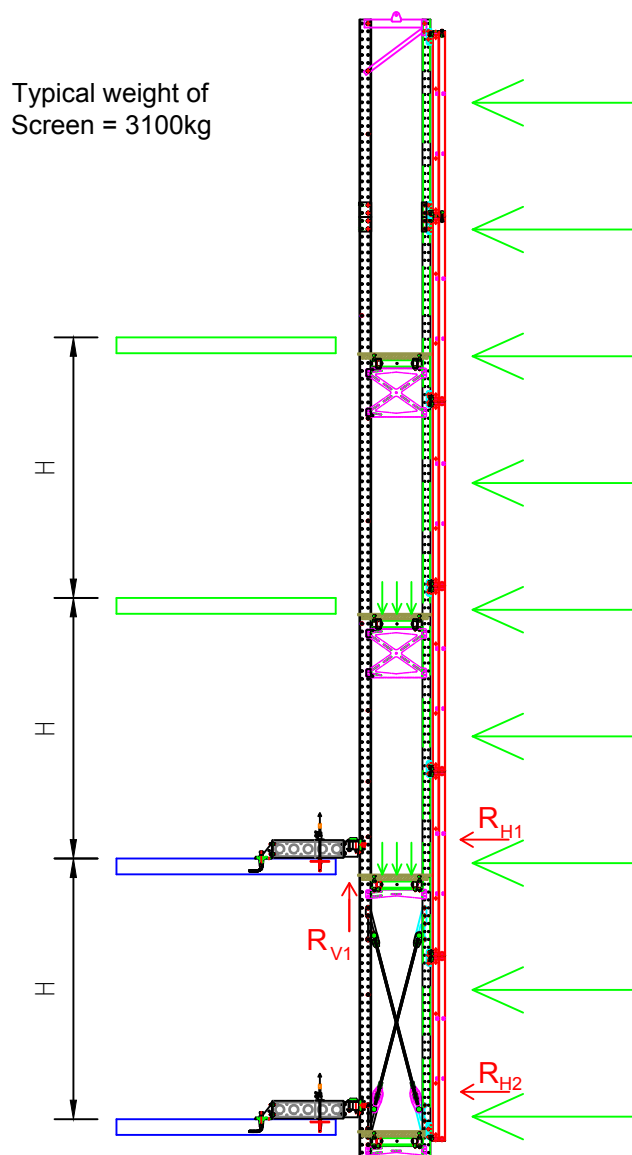
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Technical Data Sheet Screen typical applications

Concreting Screens 14.4 Typical Application - Upper Needle Support



WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD 1.5kN/m² ON 2 PLATFORMS

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			Full (1.0kN/m ²)				Working (0.216kN/m ²)		
	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m
R _{H1}	61.4	56.7	52.6		11.3	10.6	9.7	64.7	59.7	55.5		16.5	15.2	14.1
R _{V1}	15.5	15.5	15.5		22.7	22.7	22.7	15.5	15.5	15.5		22.7	22.7	22.7
R _{H2}	26.8	22.1	18.1		3.7	2.9	2.1	30.1	25.2	20.9		8.9	7.6	6.5

3.0m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			Full (1.0kN/m ²)				Working (0.216kN/m ²)		
	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m
R _{H1}	76.9	71.0	65.9		14.3	13.2	12.3	80.7	74.5	69.2		20.5	18.9	17.6
R _{V1}	17.4	17.4	17.4		26.4	26.4	26.4	17.4	17.4	17.4		26.4	26.4	26.4
R _{H2}	33.7	27.8	22.7		4.8	3.7	2.8	37.5	31.3	26.0		11.0	9.4	8.1

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

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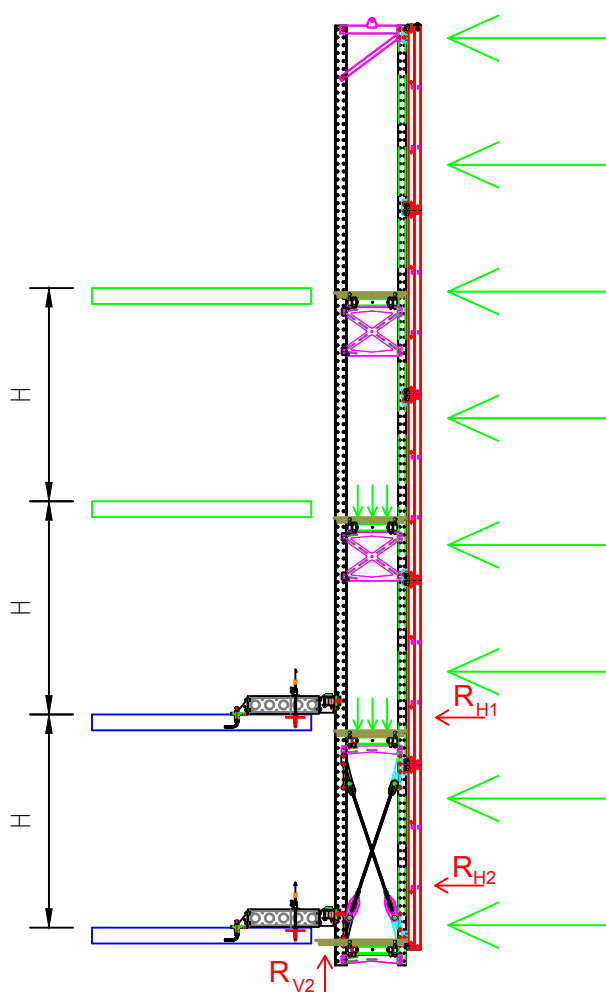
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Technical Data Sheet Screen typical applications

Concreting Screens 11.9 Typical Application - Bottom Needle Support

Typical weight of Screen = 2700kg



WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD 1.5kN/m² ON 2 PLATFORMS

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

2.4m influence width

	Wind into building				Wind away from building							
	Full (1.0kN/m ²)				Working (0.216kN/m ²)				Full (1.0kN/m ²)			
H	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	
R _{H1}	53.8	48.4	44.0		8.2	7.4	6.7		57.6	51.9	47.2	
R _{V2}	13.6	13.6	13.6		20.8	20.8	20.8		13.6	13.6	13.6	
R _{H2}	25.6	20.2	15.8		2.5	2.7	1.1		29.4	23.7	19.0	

3.0m influence width

	Wind into building				Wind away from building							
	Full (1.0kN/m ²)				Working (0.216kN/m ²)				Full (1.0kN/m ²)			
H	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	
R _{H1}	67.4	60.6	55.1		11.8	10.6	9.6		71.9	64.7	58.8	
R _{V2}	15.2	15.2	15.2		24.3	24.3	24.3		15.2	15.2	15.3	
R _{H2}	32.1	25.4	19.9		4.0	2.8	1.9		36.7	29.5	23.6	

Considerations/ Guidance:

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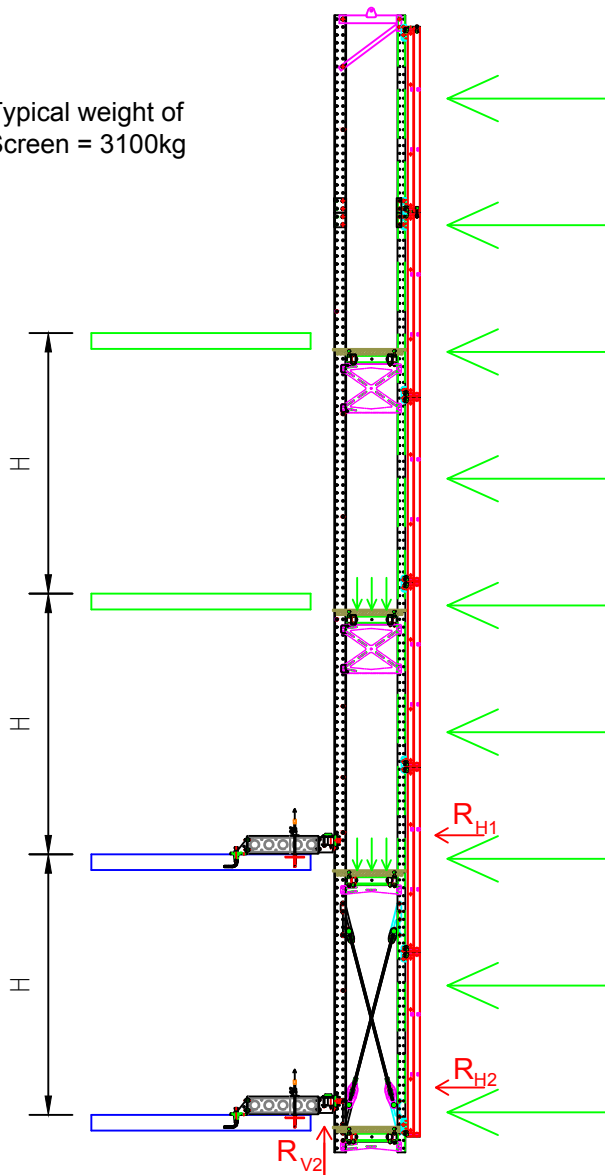
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Technical Data Sheet Screen typical applications

Concreting Screens 14.4 Typical Application - Bottom Needle Support

Typical weight of
Screen = 3100kg



WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD 1.5kN/m² ON 2 PLATFORMS

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

2.4m influence width

	Wind into building							Wind away from building						
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			Full (1.0kN/m ²)				Working (0.216kN/m ²)		
H	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m
R _{H1}	61.4	56.7	52.6		11.5	10.6	9.9	64.7	59.7	55.5		15.8	14.6	13.5
R _{V2}	15.5	15.5	15.5		22.7	22.7	22.7	15.5	15.5	15.5		22.7	22.7	22.7
R _{H2}	26.8	22.1	18.1		4.0	3.1	2.4	30.1	25.2	20.9		8.3	7.1	6.1

3.0m influence width

	Wind into building							Wind away from building						
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			Full (1.0kN/m ²)				Working (0.216kN/m ²)		
H	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m
R _{H1}	76.9	71.0	65.9		14.3	13.2	12.3	80.7	74.5	69.2		20.5	18.9	17.6
R _{V2}	17.4	17.4	17.4		26.4	26.4	26.4	17.4	17.4	17.4		26.4	26.4	26.4
R _{H2}	33.7	27.8	22.7		4.8	3.7	2.8	37.5	31.3	26.0		11.0	9.4	8.1

Technical Data Sheet Screen typical applications

Concreting Screens 11.9 - Banner option - Bottom Needle Support - 2.4m Influence Width



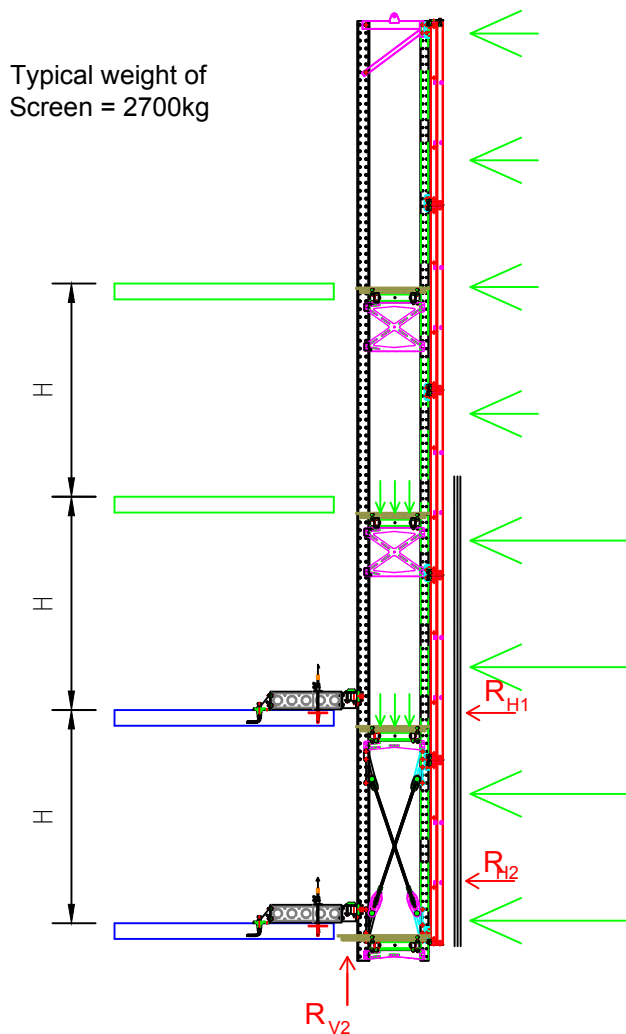
NOTE

Banner can be full width of 11.9m screen. Maximum height of banner = 6.0m and it MUST be at the bottom of the screen as shown below.

Influence widths are stated for 2.4 & 2.75m - MAX influence width = 2.75m.

Max wind forces stated below MUST be observed or design referred to Ischebeck Design Office.

Combined porosity of mesh / banner = 88% solid (based on 71% max porosity of banner)



2.4m influence width

H	Wind into building							Wind away from building						
	Full (0.95/1.4kN/m ²)			Working (0.22/0.32kN/m ²)				Full (0.95/1.4kN/m ²)			Working (0.22/0.32kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	56.9	51.2	46.5	10.5	9.5	8.6		60.7	54.7	49.7	16.5	14.8	13.5	
R _{V2}	13.6	13.6	13.6	20.8	20.8	20.8		13.6	13.6	13.6	20.8	20.8	20.8	
R _{H2}	23.6	17.9	13.2	2.9	1.8	1.0		27.5	21.4	16.4	8.8	7.2	5.8	

Considerations/ Guidance:

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Technical Data Sheet Screen typical applications

Concreting Screens 11.9 - Banner option - Bottom Needle Support - 2.75m Influence Width



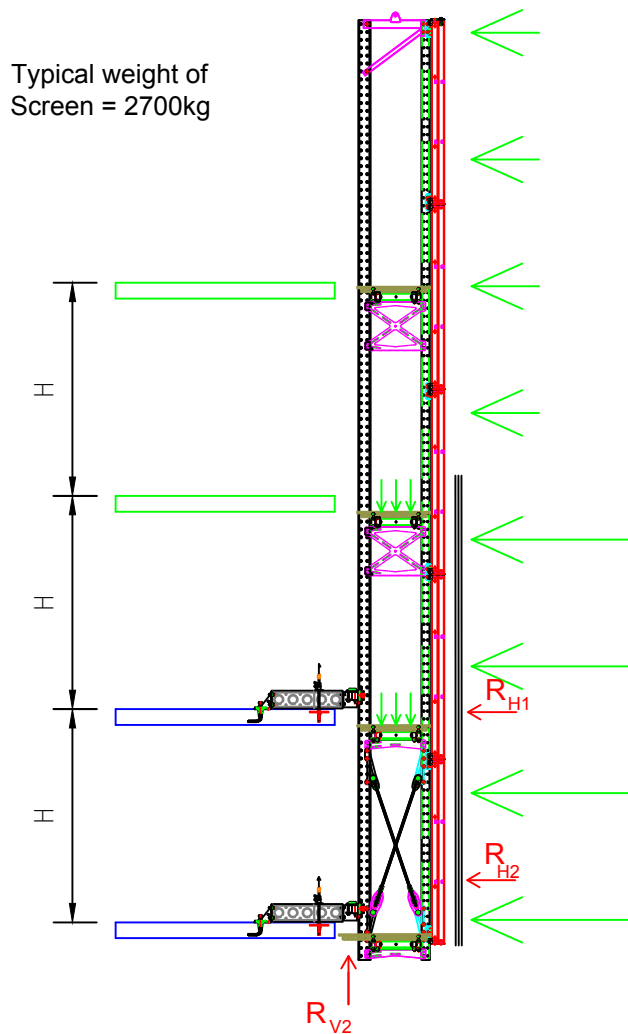
NOTE

Banner can be full width of 11.9m screen. Maximum height of banner = 6.0m and it MUST be at the bottom of the screen as shown below.

Influence widths are stated for 2.4 & 2.75m - MAX influence width = 2.75m.

Max wind forces stated below MUST be observed or design referred to Ischebeck Design Office.

Combined porosity of mesh / banner = 88% solid (based on 71% max porosity of banner)



Typical weight of
Screen = 2700kg

WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE BANNER = 1.4 kN/m²

WIND FORCE MESH PANEL = 0.95 kN/m²

LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE BANNER = 0.32 kN/m²

WIND FORCE MESH PANEL = 0.22 kN/m²

LIVE LOAD 1.5kN/m² ON 2 PLATFORMS

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

2.75m influence width

H	Wind into building							Wind away from building						
	Full (0.95/1.4kN/m ²)			Working (0.22/0.32kN/m ²)				Full (0.95/1.4kN/m ²)			Working (0.22/0.32kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	65.3	58.7	53.4	12.1	10.9	9.9		69.5	62.6	56.9	18.8	16.9	15.4	
R _{V2}	14.5	14.5	14.5	22.8	22.8	22.8		14.5	14.5	14.5	22.8	22.8	22.8	
R _{H2}	27.2	20.6	15.3	3.4	2.2	1.2		31.4	24.4	18.7	10.0	8.2	6.6	

Technical Data Sheet

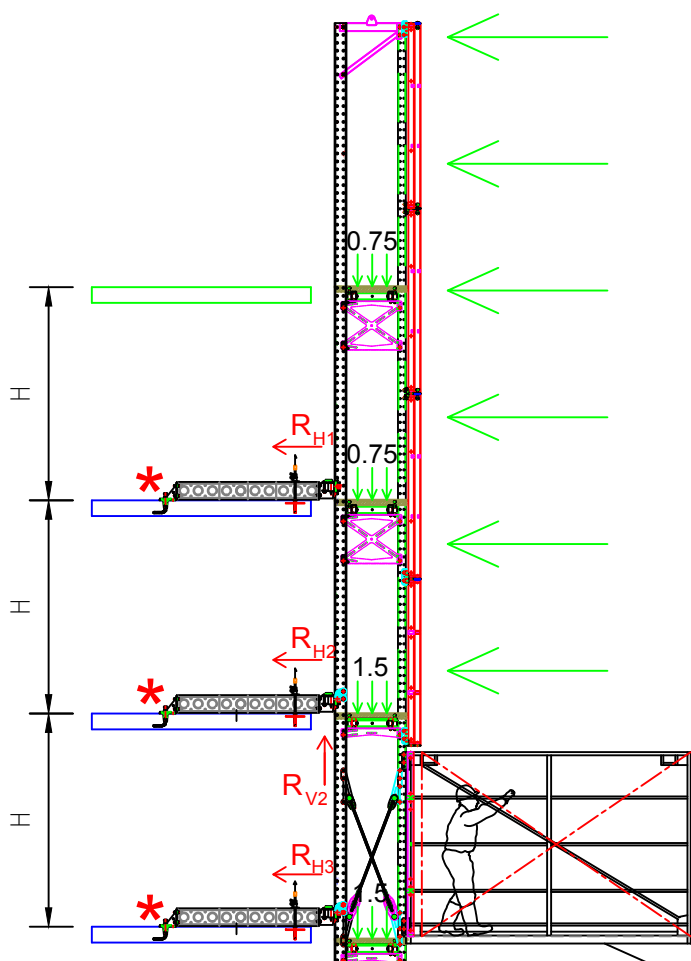
Screen typical applications

3.660 Loading Bay on 11.9 Screen Typical Application - Middle Needle Support Loading Bay - Bottom Position

Typical weight of Screen &
Loading Bay = 3840kg

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

✱ Minimum Needle length 1.8m



WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD = 1.5kN/m² ON 2 PLATFORMS
= 0.75kN/m² ON 2 PLATFORMS

Loading Bay Pay Load = 2000kg

All loads for 2.4m influence width

H	Wind into building						Wind away from building					
	Full (1.0kN/m ²)			Working (0.216kN/m ²)			Full (1.0kN/m ²)			Working (0.216kN/m ²)		
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m
R _{H1}	23.3	22.9	20.4	0.1	1.1	1.2	27.0	26.6	24.0	10.9	11.7	11.5
R _{H2}	3.0	1.2	0.2	14.0	10.3	9.0	10.3	4.8	4.7	16.7	11.3	8.6
R _{V2}	19.2	19.2	19.2	41.6	41.8	41.8	19.2	19.2	19.2	41.8	41.8	41.8
R _{H3}	1.0	5.6	7.2	19.8	17.3	16.0	9.9	4.0	1.3	21.8	17.2	14.2

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

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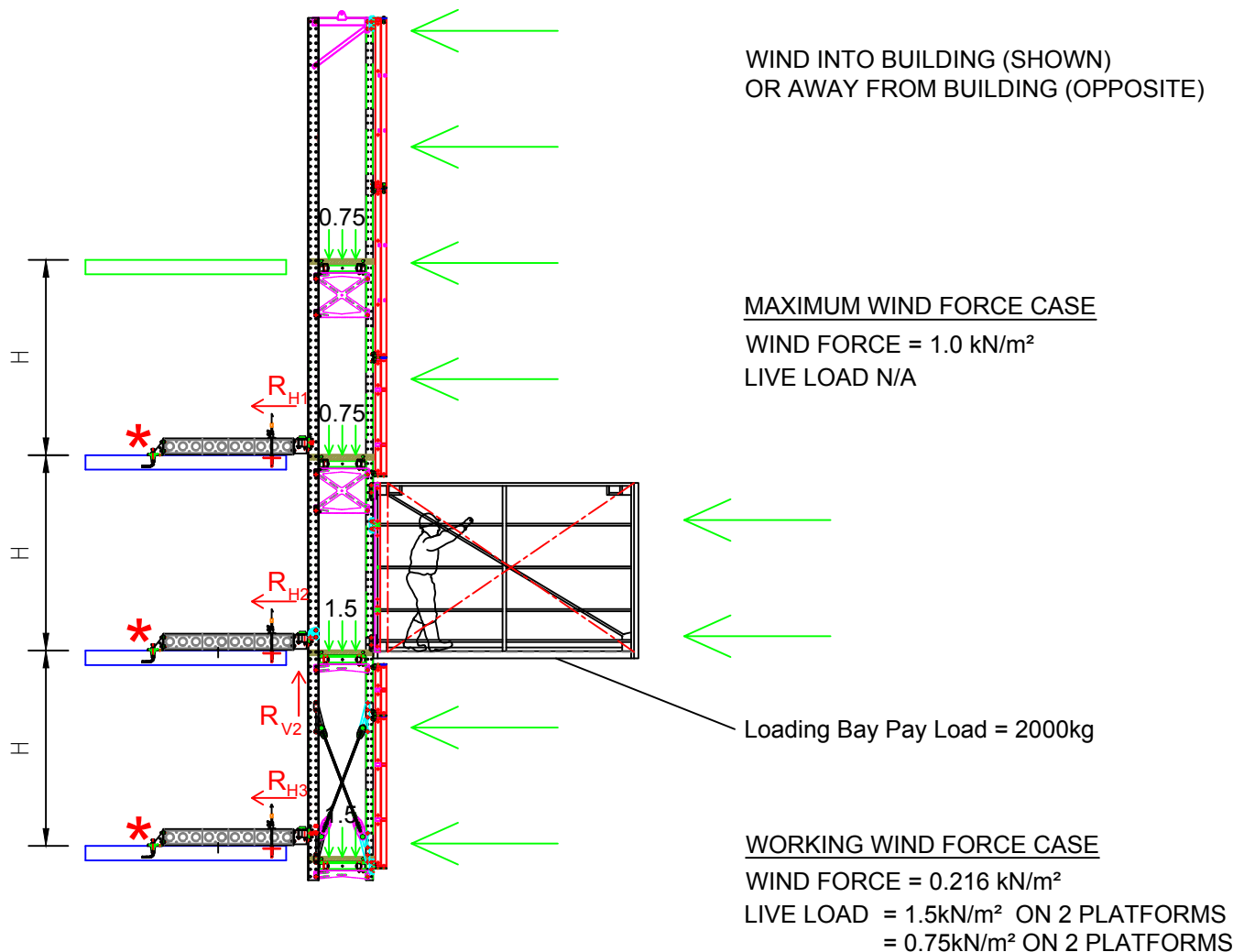
Technical Data Sheet Screen typical applications

3.660 Loading Bay on 11.9 Screen Typical Application - Middle Needle Support Loading Bay - Middle Position

Typical weight of Screen &
Loading Bay = 3840kg

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

* Minimum Needle length 1.8m



All loads for 2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	17.6	17.5	16.9	16.4	15.5	12.0		27.8	27.4	25.0	26.1	25.0	20.8	
R _{H2}	11.8	7.3	4.6	18.3	17.8	12.0		6.1	0.8	0.5	14.4	16.0	10.7	
R _{V2}	19.2	19.2	19.2	41.8	41.8	41.8		19.2	19.2	19.2	41.8	41.8	41.8	
R _{H3}	4.0	0.6	3.9	3.5	3.0	5.4		8.6	2.8	0.2	6.3	3.6	4.7	

Technical Data Sheet

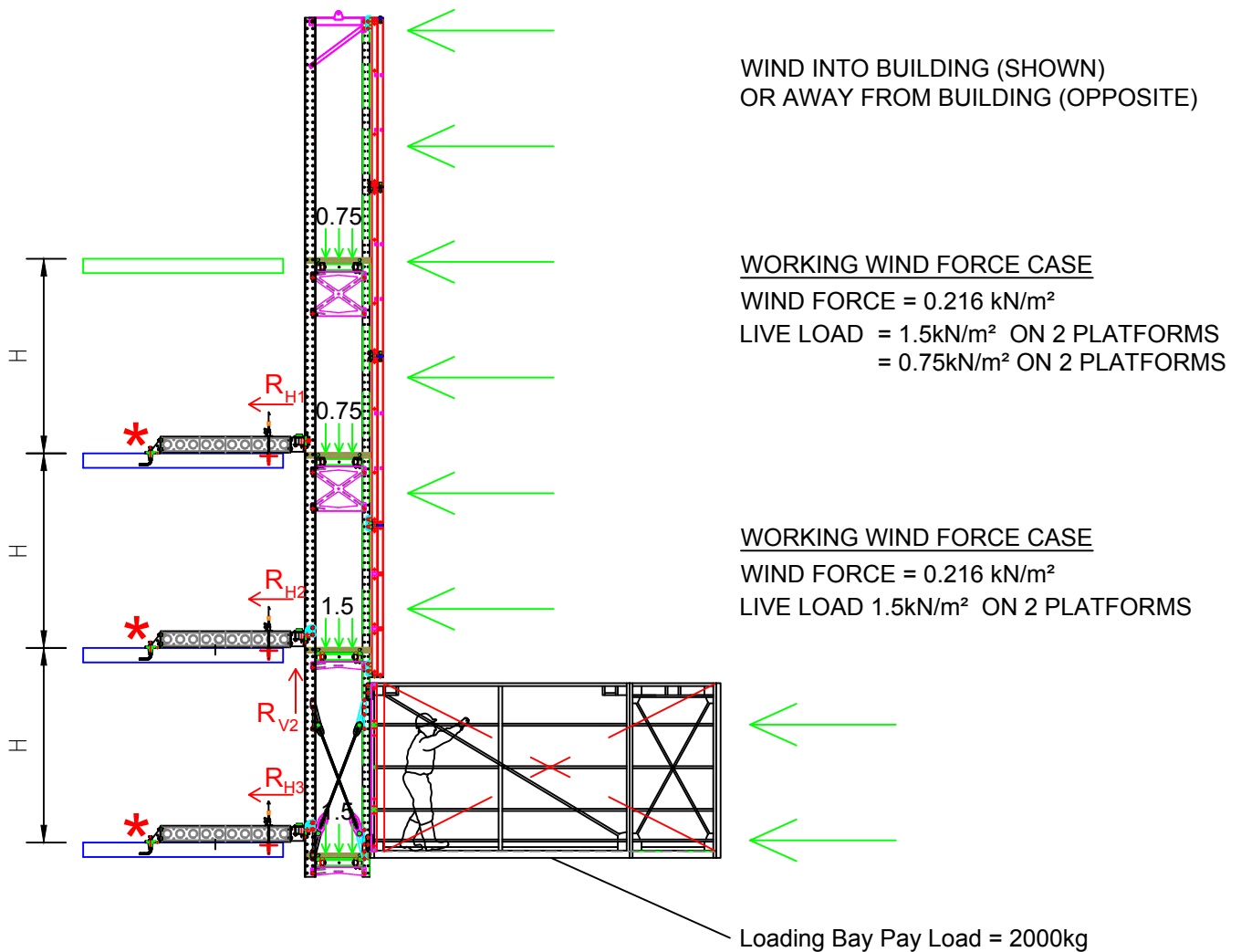
Screen typical applications

4.860 Loading Bay on 11.9 Screen Typical Application - Middle Needle Support Loading Bay - Bottom Position

Typical weight of Screen &
Loading Bay = 4200kg

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

✱ Minimum Needle length 1.8m



All loads for 2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m²)			Working (0.216kN/m²)				Full (1.0kN/m²)			Working (0.216kN/m²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R_{H1}	23.4	23.0	20.4	0.7	1.8	1.2		27.6	27.2	24.6	11.7	12.5	11.6	
R_{H2}	0.6	4.5	3.1	17.8	13.6	13.2		12.6	6.7	6.2	20.5	14.4	12.6	
R_{V2}	21.0	21.0	21.0	43.5	43.5	43.5		21.0	21.0	21.0	43.5	43.5	43.5	
R_{H3}	4.6	8.9	10.0	24.3	21.3	20.3		12.8	6.5	3.5	26.3	21.1	18.4	

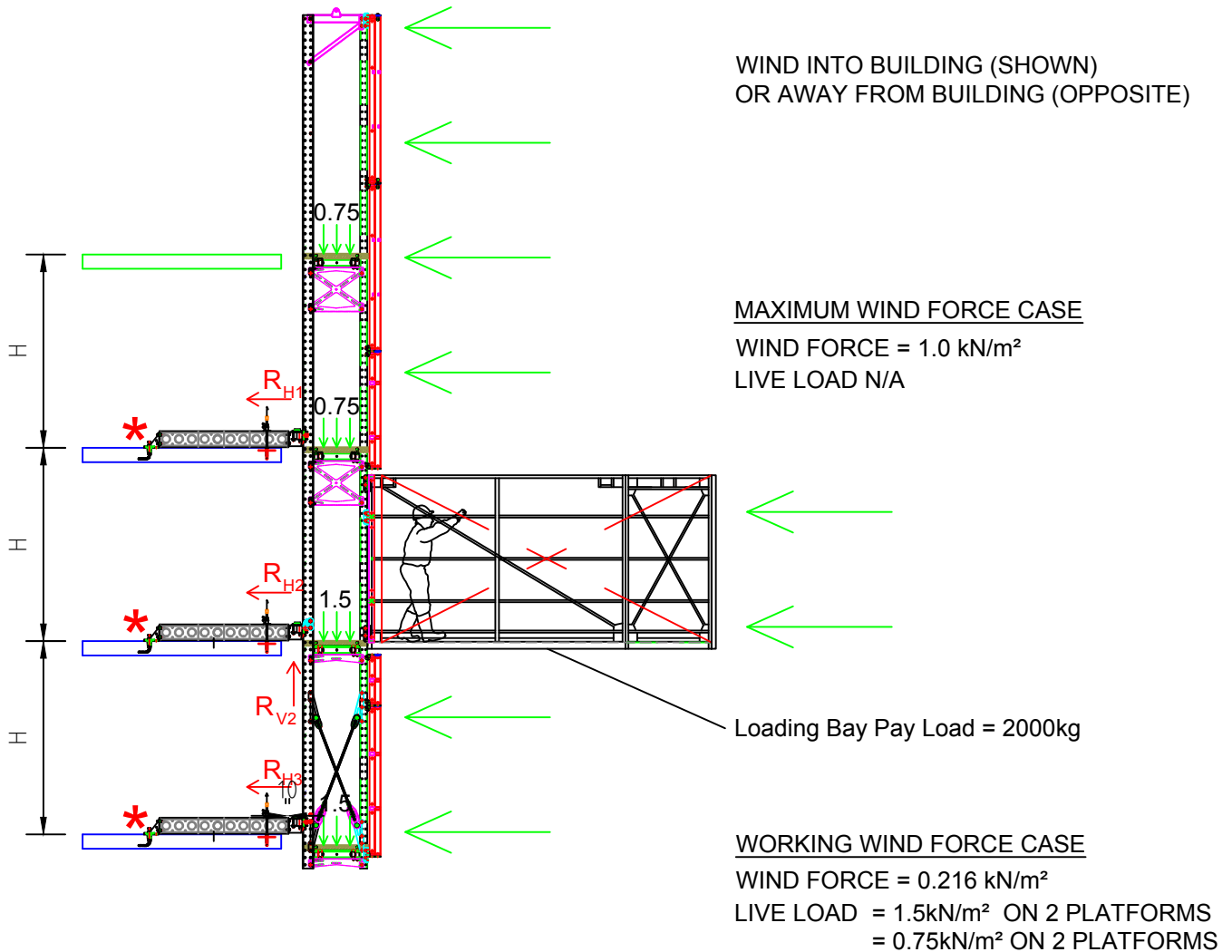
Technical Data Sheet Screen typical applications

4.860 Loading Bay on 11.9 Screen Typical Application - Middle Needle Support Loading Bay - Middle Position

Typical weight of Screen &
Loading Bay = 4200kg

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

★ Minimum Needle length 1.8m



All loads for 2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	2.7m	3.0m	3.3m	2.7m	3.0m	3.3m		2.7m	3.0m	3.3m	2.7m	3.0m	3.3m	
R _{H1}	14.2	14.3	14.4	21.6	20.5	15.6		31.1	30.4	27.3	31.3	29.7	24.4	
R _{H2}	15.1	10.6	6.8	23.4	23.1	14.9		3.1	2.0	1.2	19.5	20.6	13.5	
R _{V2}	21.0	21.0	21.0	43.5	43.5	43.5		21.0	21.0	21.0	43.5	43.5	43.5	
R _{H3}	3.9	0.5	4.2	3.7	2.8	6.1		8.8	3.0	0.7	6.5	3.7	5.5	

Technical Data Sheet Screen typical applications

3.660 Loading Bay on 14.4 Screen Typical Application - Middle Needle Support Loading Bay - Bottom Position

Typical weight of Screen &
Loading Bay = 4240kg

* Minimum Needle
length 1.8m

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

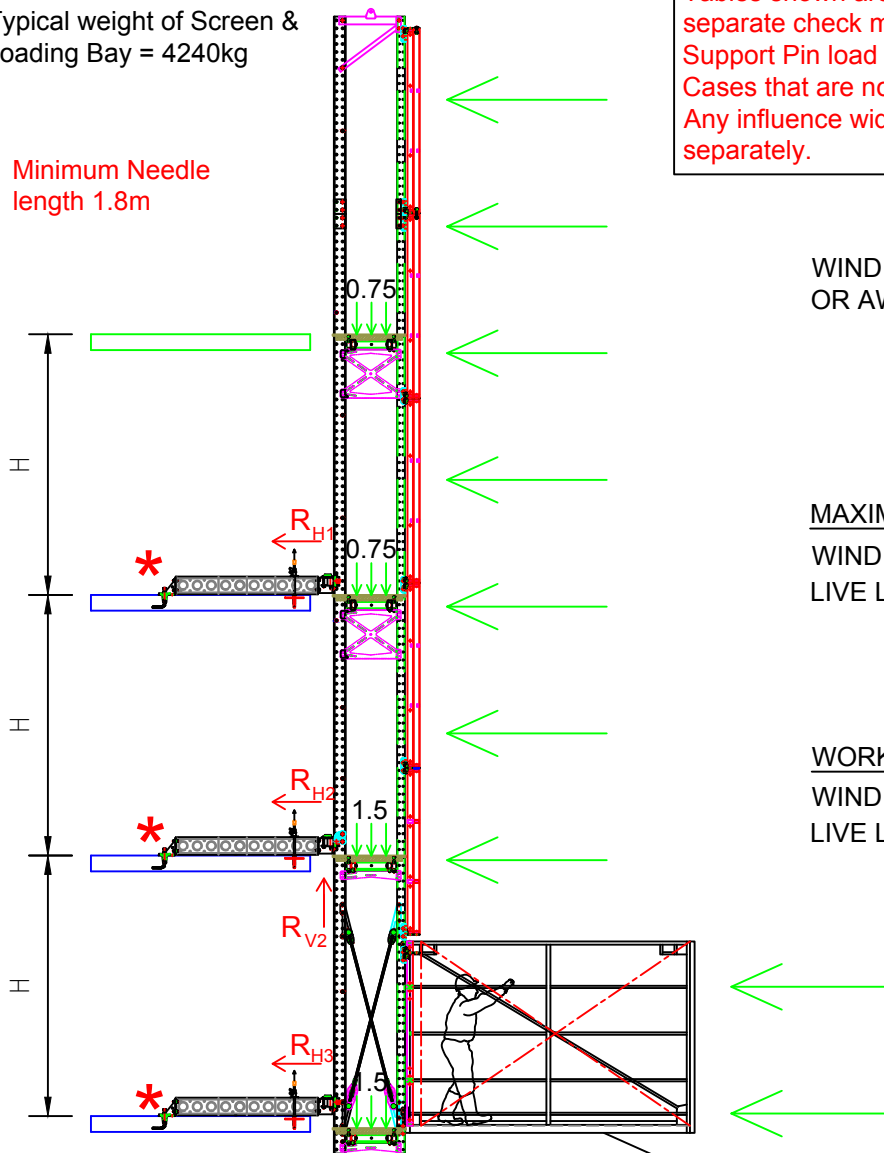
WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD = 1.5kN/m² ON 2 PLATFORMS
= 0.75kN/m² ON 2 PLATFORMS



Loading Bay Pay Load = 2000kg

All loads for 2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m	
R _{H1}	Independent Rstab analysis required for all 14.4m Screens with Loading Bays													
R _{H2}														
R _{V2}														
R _{H3}														

Technical Data Sheet

Screen typical applications

3.660 Loading Bay on 14.4 Screen Typical Application - Middle Needle Support Loading Bay - Middle Position

Typical weight of Screen &
Loading Bay = 4240kg

* Minimum Needle
length 1.8m

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD = 1.5kN/m² ON 2 PLATFORMS
= 0.75kN/m² ON 2 PLATFORMS

Loading Bay Pay Load = 2000kg

All loads for 2.4m influence width

H	Wind into building							Wind away from building						
	Full (1.0kN/m ²)			Working (0.216kN/m ²)				Full (1.0kN/m ²)			Working (0.216kN/m ²)			
	3.6m	3.9m	4.2m	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	3.6m	3.9m	4.2m	

R_{H1}
 R_{H2}
 R_{V2}
 R_{H3}

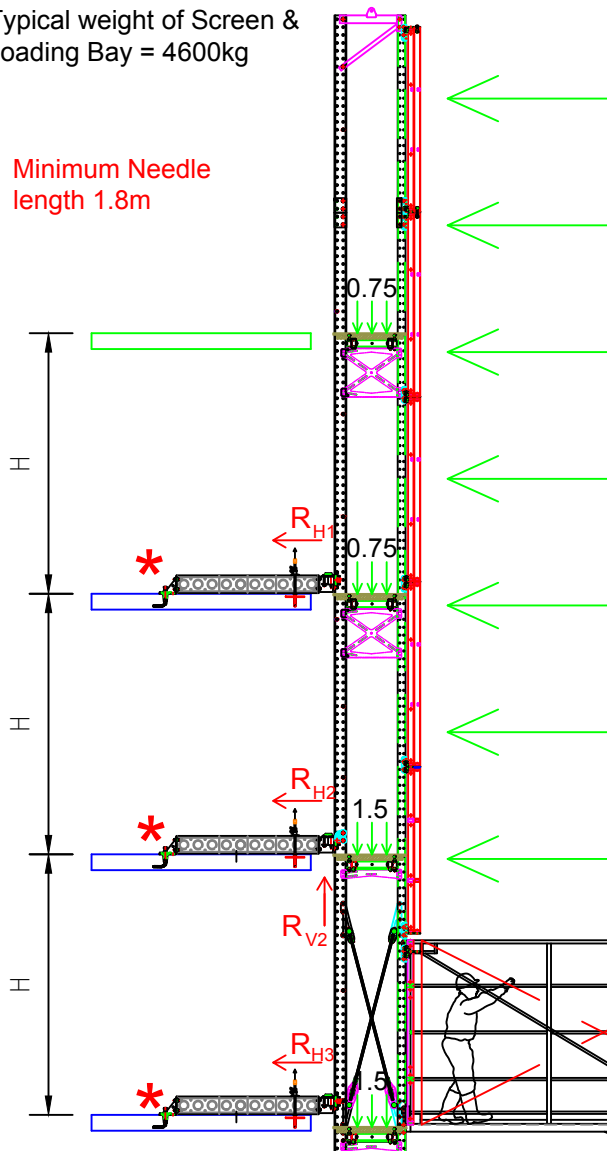
Independent Rstab analysis required for
all 14.4m Screens with Loading Bays

Technical Data Sheet Screen typical applications

4.860 Loading Bay on 14.4 Screen Typical Application - Middle Needle Support Loading Bay - Bottom Position

Typical weight of Screen & Loading Bay = 4600kg

* Minimum Needle length 1.8m



Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.

WIND INTO BUILDING (SHOWN)
OR AWAY FROM BUILDING (OPPOSITE)

MAXIMUM WIND FORCE CASE

WIND FORCE = 1.0 kN/m²
LIVE LOAD N/A

WORKING WIND FORCE CASE

WIND FORCE = 0.216 kN/m²
LIVE LOAD = 1.5kN/m² ON 2 PLATFORMS
= 0.75kN/m² ON 2 PLATFORMS

Loading Bay Pay Load = 2000kg

All loads for 2.4m influence width

H	Wind into building				Wind away from building			
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			
	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	
R _{H1}								
R _{H2}								
R _{V2}								
R _{H3}								

Independent Rstab analysis required for
all 14.4m Screens with Loading Bays

Technical Data Sheet Screen typical applications

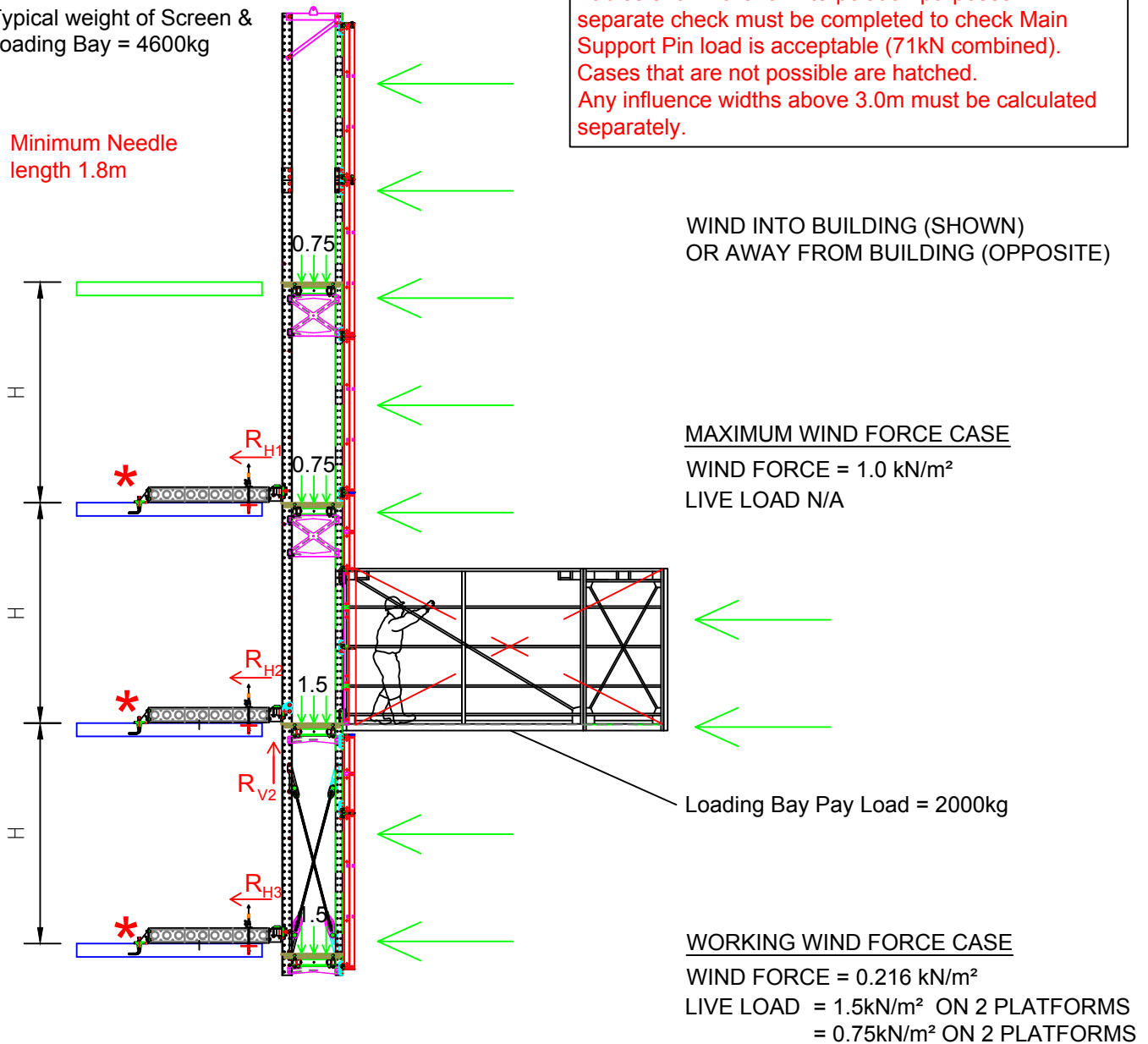
4.860 Loading Bay on 14.4 Screen Typical Application - Middle Needle Support

Loading Bay - Middle Position

Typical weight of Screen & Loading Bay = 4600kg

* Minimum Needle length 1.8m

Tables shown are for interpolation purposes. A separate check must be completed to check Main Support Pin load is acceptable (71kN combined). Cases that are not possible are hatched. Any influence widths above 3.0m must be calculated separately.



All loads for 2.4m influence width

H	Wind into building				Wind away from building			
	Full (1.0kN/m ²)				Working (0.216kN/m ²)			
	3.6m	3.9m	4.2m		3.6m	3.9m	4.2m	
R _{H1}								
R _{H2}								
R _{V2}								
R _{H3}								

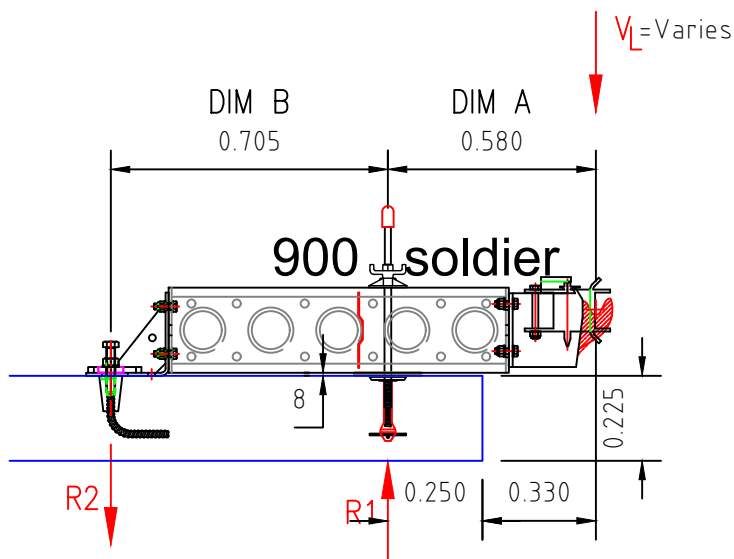
Independent Rstab analysis required for all 14.4m Screens with Loading Bays

Technical Data Sheet Needle loadings

900 Soldier

Design risk note:

Max Cantilever without tube
bracing Soldier is approximately
850mm



900 Soldier					
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)	
-12.4	0.805	33.2	0.48	20.8	11.9m Screen Saver
-17.2	0.705	38.0	0.58	20.8	I.W =2.4m
-23.5	0.605	44.3	0.68	20.8	

900 Soldier					
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)	
-14.5	0.805	38.8	0.48	24.3	11.9m Screen Saver
-20.0	0.705	44.3	0.58	24.3	I.W =3.0m
-27.3	0.605	51.6	0.68	24.3	

900 Soldier					
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)	
-13.5	0.805	36.2	0.48	22.7	14.4m Screen Saver
-18.7	0.705	41.4	0.58	22.7	I.W =2.4m
-25.5	0.605	48.2	0.68	22.7	

900 Soldier					
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)	
-15.7	0.805	42.1	0.48	26.4	14.4m Screen Saver
-21.7	0.705	48.1	0.58	26.4	I.W =3.0m
-29.7	0.605	56.1	0.68	26.4	

Technical Data Sheet Needle loadings

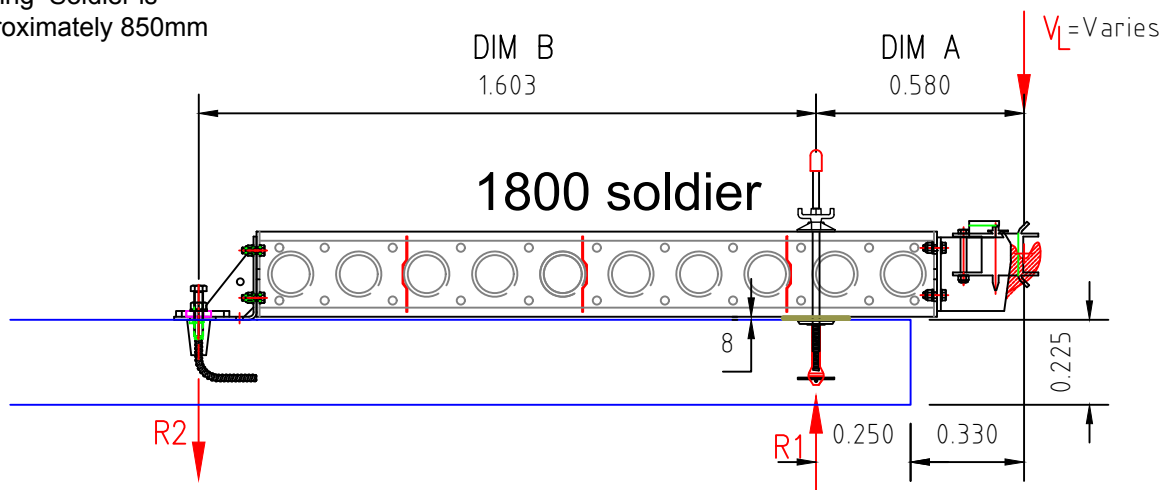
1800 Soldier - for standard Screens

Design risk note:

Max Cantilever without tube

bracing Soldier is

approximately 850mm



1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-5.9	1.703	26.7	0.48	20.8
-7.5	1.603	28.3	0.58	20.8
-9.4	1.503	30.2	0.68	20.8
-11.6	1.403	32.4	0.78	20.8
-14.0	1.303	34.8	0.88	20.8
-16.9	1.203	37.7	0.98	20.8

11.9m Screen Saver
I.W =2.4m

1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-6.8	1.703	31.1	0.48	24.3
-8.8	1.603	33.1	0.58	24.3
-10.2	1.503	34.5	0.68	24.3
-13.5	1.403	37.8	0.78	24.3
-16.4	1.303	40.7	0.88	24.3
-19.8	1.203	44.1	0.98	24.3

11.9m Screen Saver
I.W =3.0m

1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-6.4	1.703	29.1	0.48	22.7
-8.2	1.603	30.9	0.58	22.7
-10.3	1.503	33.0	0.68	22.7
-12.6	1.403	35.3	0.78	22.7
-15.3	1.303	38.0	0.88	22.7
-18.5	1.203	41.2	0.98	22.7

14.4m Screen Saver
I.W =2.4m

1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-7.4	1.703	33.8	0.48	26.4
-9.6	1.603	36.0	0.58	26.4
-11.9	1.503	38.3	0.68	26.4
-14.7	1.403	41.1	0.78	26.4
-17.8	1.303	44.2	0.88	26.4
-21.5	1.203	47.9	0.98	26.4

14.4m Screen Saver
I.W =3.0m

Considerations/ Guidance:

All dimensions in this document are in (mm) unless stated otherwise.

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Technical Data Sheet Needle loadings

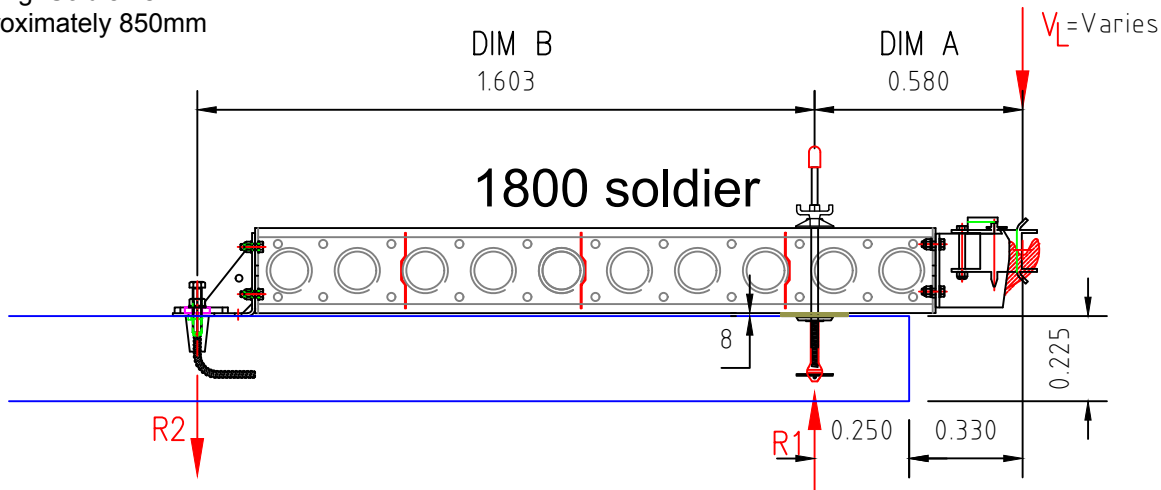
1800 Soldier - for Loading Bay Screens

Design risk note:

Max Cantilever without tube

bracing Soldier is

approximately 850mm



1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-11.8	1.703	53.6	0.48	41.8
-15.1	1.603	56.9	0.58	41.8
-18.9	1.503	60.7	0.68	41.8
-23.2	1.403	65.0	0.78	41.8
-28.2	1.303	70.0	0.88	41.8
-34.1	1.203	75.9	0.98	41.8

11.9m Screen Saver
Loading Bay - Short
I.W =2.4m

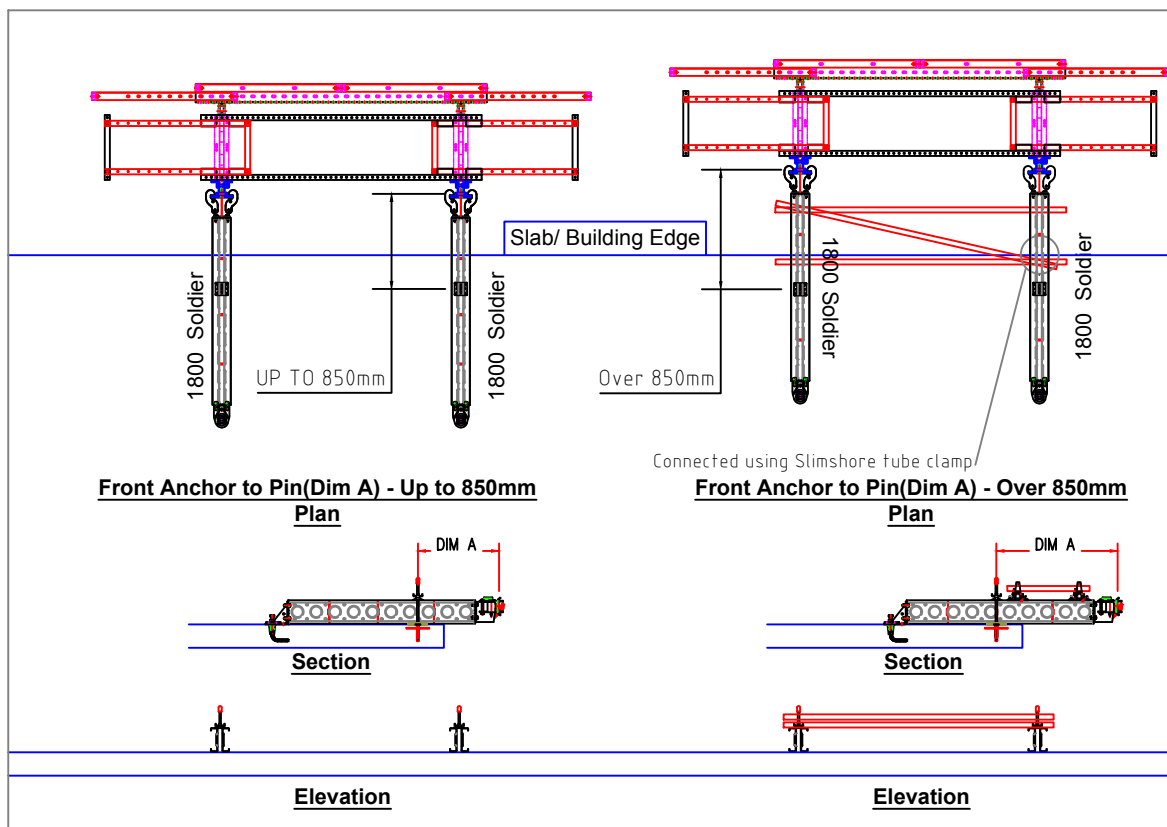
1800 Soldier				
R2 (kN)	Dim B (m)	R1 (kN)	Dim A (m)	VL (kN)
-12.3	1.703	55.8	0.48	43.5
-15.7	1.603	59.2	0.58	43.5
-19.7	1.503	63.2	0.68	43.5
-24.2	1.403	67.7	0.78	43.5
-29.4	1.303	72.9	0.88	43.5
-35.4	1.203	78.9	0.98	43.5

11.9m Screen Saver
Loading Bay - Long
I.W =2.4m

Technical Data Sheet Needle loadings

1800 Soldier - for Loading Bay Screens

Non-standard Screen layouts or where Needles exceed a cantilever of 850mm, the 1.8m Needles must be braced to reduce the effects of lateral torsional buckling of the Needles - as shown below.





Ischebeck Titan Group

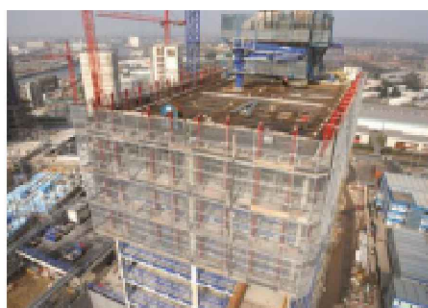
Founded in Germany over 120 years ago, Ischebeck is renowned internationally for its aluminium formwork and false work systems, trench support systems and ground engineering products.

Ischebeck Titan Ltd

The company operates from headquarters centrally located in the heart of the UK.

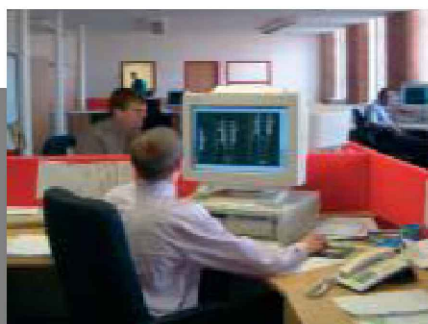
Product Availability

Substantial stocks of equipment are available ex-stock from the company's strategically located 4-acre distribution site, with most items available nationwide on a 48-hour delivery. Products are available for both hire and outright purchase.



Technical Support

We will participate in concept stage development. Providing input on applications, production rates, budget design and costings. Active for on site support, particularly for new users. We can provide guidance on industry special European and national standards.



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