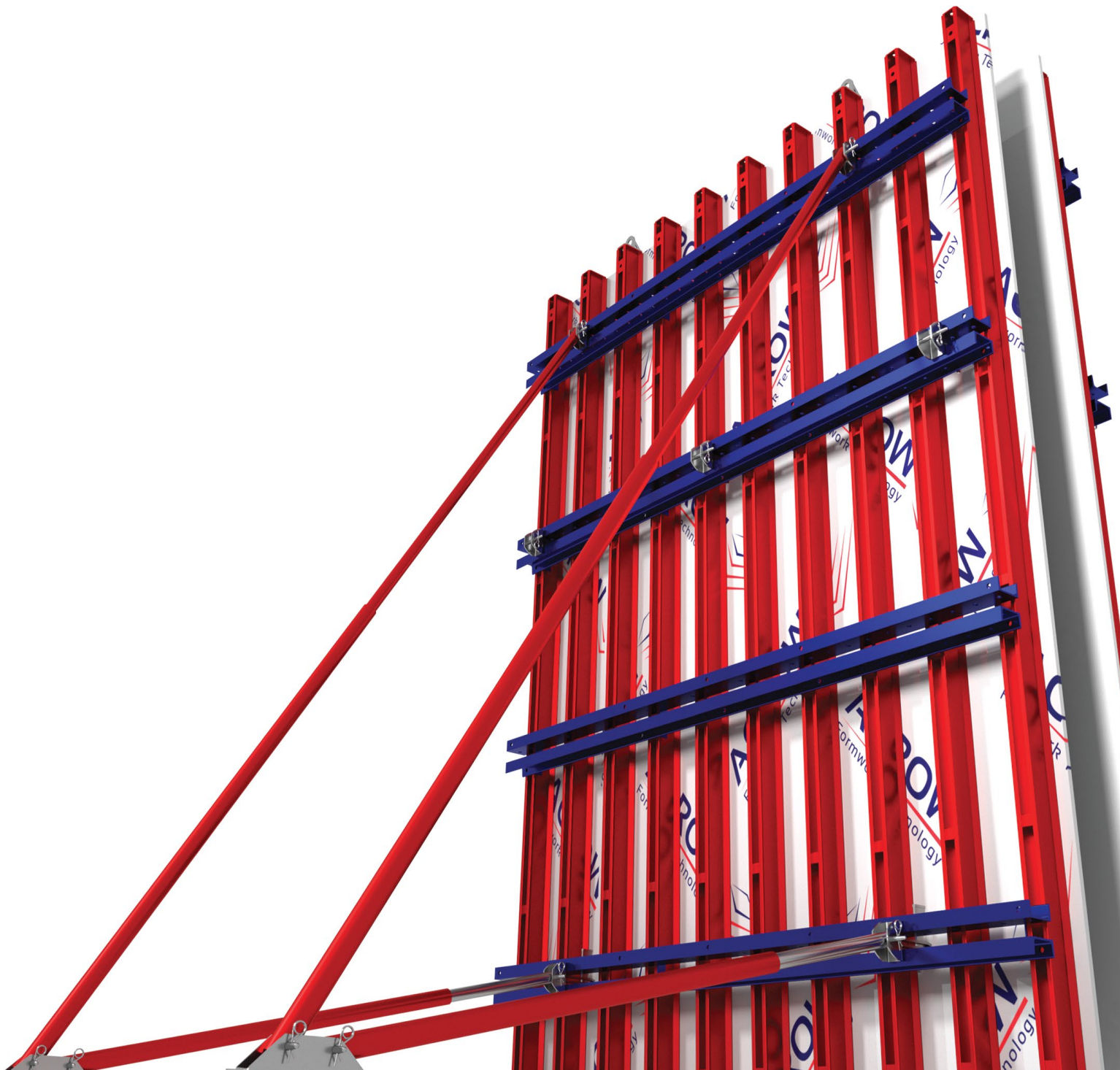


CATALOGUE
DYNAMIC A-12





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05

Components and accessories



DYNAMIC A-12

DYNAMIC A-12 is a groundbreaking alternative to traditional H20 beams, engineered to elevate performance across wall and slab formworks. This innovative system not only delivers a higher load capacity—especially in terms of shear resistance—but also offers significant cost savings by reducing the need for additional shoring systems, soldiers, and tie-rods. Compared with conventional H20 timber girders, its enhanced durability translates into a longer service life combined with a simplified assembly and dismantling process, saving valuable time and effort on site.

01

PRODUCT DESCRIPTION

CONCEPT OF THE SYSTEM

At the core of DYNAMIC A-12 is a commitment to unlimited flexibility. This system is designed to adapt effortlessly to your specific project requirements by enabling the assembly of customized panels based on several key factors:

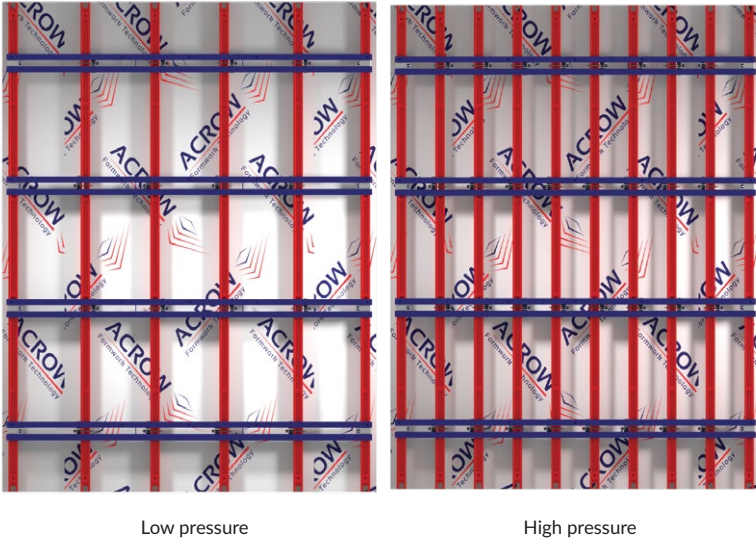
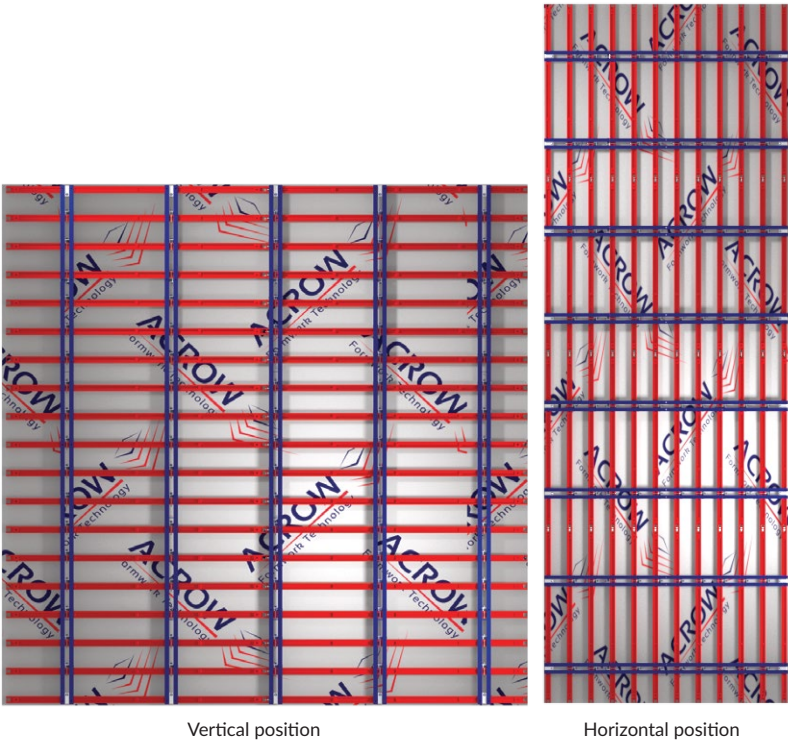
- **Size:** Each panel can reach up to a maximum area of 36 m², offering expansive coverage without compromising structural integrity.

- **Formwork Sheetting:** : Choose between various types of plywood or the advanced ACROW BOARD, taking into account how frequently the panels will be used and the desired quality of the concrete finish. (For further advantages and usage guidelines, please consult the ACROW BOARD User Manual.)

- **Shape:** Construct panels tailored to the precise dimensions needed for your project, all while relying on a set of standards, yet versatile components.

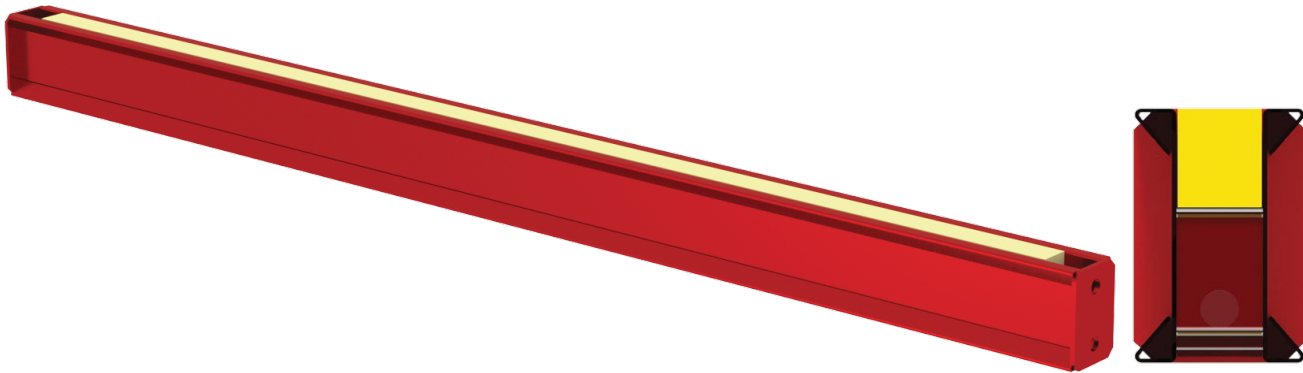
This dynamic combination of design elements makes the ACROW BEAM S12 system exceptionally adaptable—ideal for projects where ground plans are frequently altered. It's a cost-effective, high-performance solution that redefines formwork efficiency, providing both the robustness of traditional systems and the innovative flexibility demanded by modern construction.

- **Concrete pressure:** : The design intelligently adjusts the spacing between ACROW beams and soldiers according to the concrete pressure applied, ensuring optimal performance and stability under varying structural loads



ADVANTAGES

High-Load Capacity for Walls & Slabs: Optimized to support demanding construction projects, this system ensures exceptional load-bearing performance, reducing the need for additional shoring elements.



- **Enhanced Durability:** Designed with bent and welded edges, the beams resist twists and distortions, significantly increasing service life and maintaining structural integrity over time.

- **Smart Connectivity with End Plates:** The integrated end plates not only prevent deformations at the beam ends but also enable seamless connection—linking two beams to extend lengths and adapt to varied project dimensions.

- **Customizable Sizes:** Available in multiple sizes ranging from 2m to 4m in 0.5m increments, the system provides versatile options tailored to your project's specific needs.

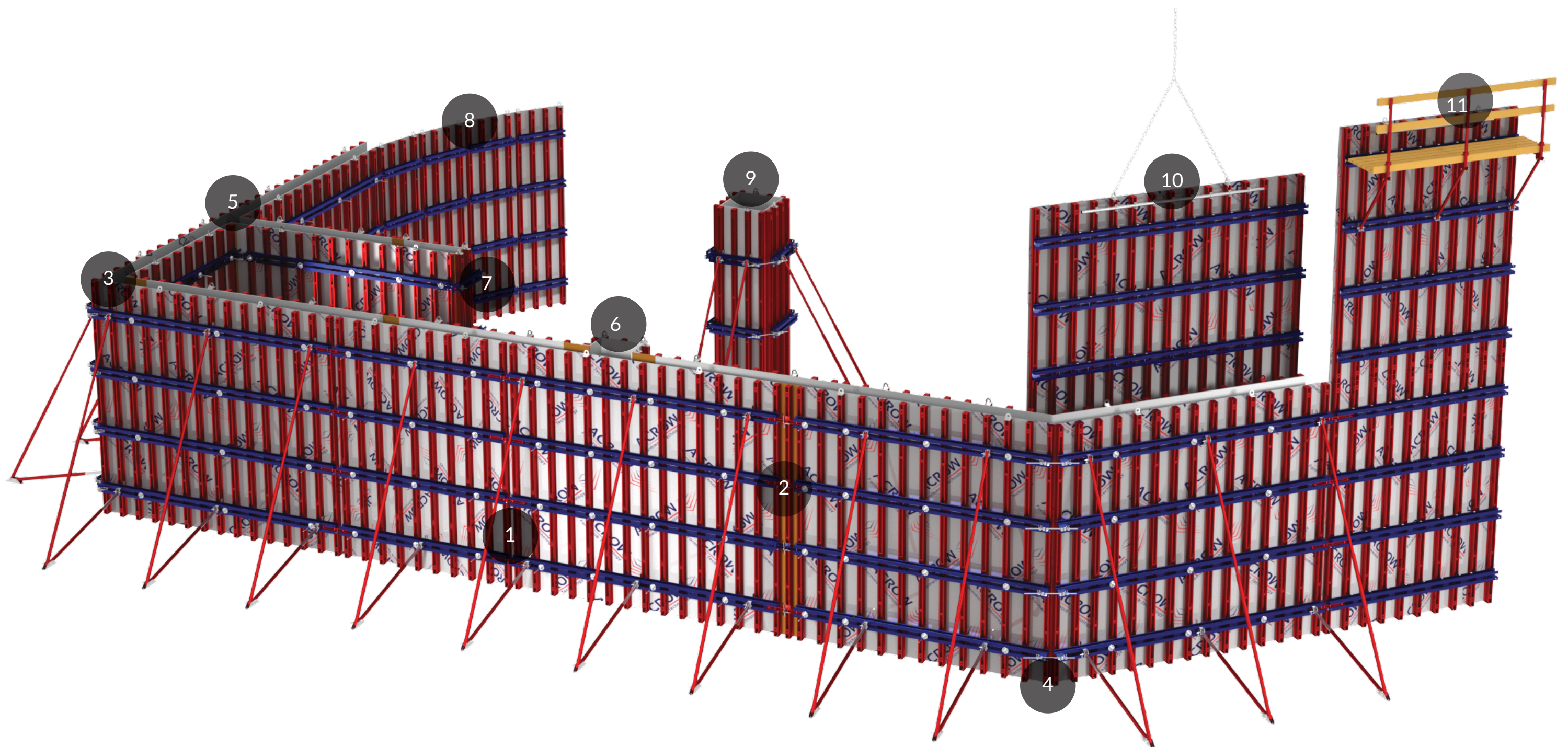
- **Integrated Chamber Design" (more standard):** The incorporated chamber ensures reliable fixation of plywood in wall formwork and doubles as a secondary girder in slab applications, enhancing overall stability.

- **Comprehensive Accessory Suite:** Standard accessories are included to guarantee full functionality across different systems, and additional safety accessories are available to maximize on-site security.

02

SYSTEM OVERVIEW

- 1- Joint Between Panels (Without Filler)
- 2- Joint Between Panels (With Filler)
- 3- 90° Corners
- 4- Acute & obtuse-angled corners
- 5- T-Corners
- 6- Pilasters
- 7- End Connection
- 8- Round Connection
- 9- Columns
- 10- lifting of Panel
- 11- Access Bracket



PANEL DETAILS

- **Versatile Assembly:** Using soldiers (steel walers), ACROW BEAM S12 elements can be assembled into panels with varying widths, giving you the flexibility to adapt to different project requirements.
- **Adaptive Height:** The height of each panel is directly dependent on the chosen beam length, ensuring that every configuration is optimized for the specific structural needs.
- **Extended Girder Length Options:** With a range of girder lengths available up to 4.5 meters, the system caters to various design complexities, allowing for extended spans and robust construction solutions.
- **Concrete Pressure Capacity:** The permissible fresh concrete pressure for each panel assembly is variable and determined based on the design, ensuring the system can safely and efficiently accommodate the required pressure during installation.

The Panel Components

- 1- Acrow beam S12
- 2- Plywood/Acrow Board
- 3- Soldier
- 4- Scaffolding tube & couplers
- 5- Lifting hook
- 6- Acrow Beam Connection

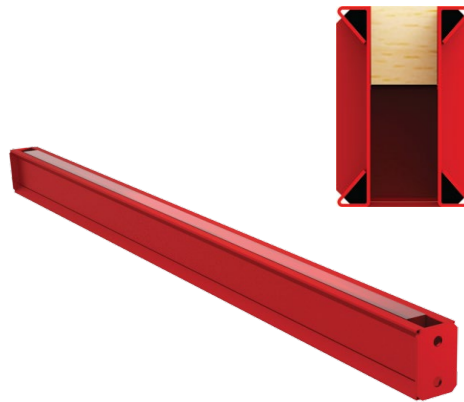


ELEMENTS DESCRIPTION

1- ACROW BEAMS S12

In the ACROW formwork system, the ACROW BEAM S12 plays a crucial role as the secondary element, complementing the primary structural components such as the soldiers (steel walers) and main girders. This secondary element is engineered to:

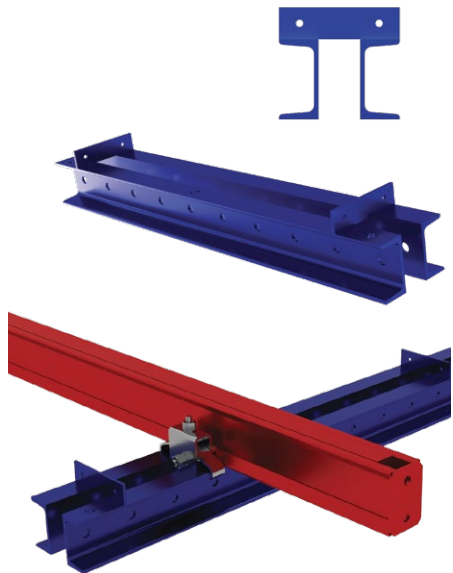
- **Enhance Stability:** It reinforces the overall assembly by providing essential support, ensuring load distribution and maintaining structural integrity even under varying concrete pressures.
- **Boost Flexibility:** The design of the ACROW BEAM S12 allows for rapid reconfiguration and extension. Its innovative connection features, including integrated end plates, facilitate the joining of multiple beams to accommodate design modifications quickly and efficiently.
- **Improve Durability:** Thanks to bended and welded edges, this secondary component resists twists and distortions, thereby extending the lifespan of the formwork system and reducing maintenance demands.
- **Optimize Performance:** With a range of available sizes and lengths, the ACROW BEAM S12 seamlessly adapts to specific project requirements, supporting both wall and slab configurations with precision.



2- STEEL WALER (SOLDIER)

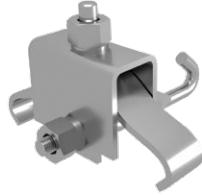
Achieve high-precision panel alignment with our ACROW Steel Waler. Its integrated splice end ensures a seamless, secure connection between panels, accelerating installation and enhancing overall efficiency. ACROW steel walers, offering a suite of benefits that enhance overall efficiency, safety, and performance on any construction site:

- **High Precision Alignment:** Their design ensures exact panel positioning, leading to consistent load distribution and superior structural integrity. This precision minimizes errors and rework, which is vital in high-stakes construction projects.
- **Streamlined Assembly:** The integrated ACROW splice system simplifies connections between panels. This innovative feature not only accelerates the installation process but also reduces labor costs by cutting down on assembly time and complexity.
- **Enhanced Structural Stability:** Built to withstand high loads, these steel walers contribute to improved overall stability in formwork systems. They distribute stresses evenly, which is crucial for the safety and durability of the structure.
- **Versatility and Adaptability:** ACROW steel walers adapt seamlessly to various formwork systems and project geometries. Their modular design means they can be used in a wide range of applications, from simple wall constructions to complex building frameworks.
- **Cost Efficiency:** With faster assembly times and reduced labor requirements, these walers offer significant cost savings over the duration of a project, making them a smart investment for both small-scale and large-scale constructions.



3- ACROW BEAM CONNECTION

Engineered for precision, the ACROW Beam Connection seamlessly joins ACROW BEAMS S12 with Soldiers in the required perpendicular alignment. This connection ensures exact positioning, simplifying the assembly process and enhancing overall system stability. Ideal for dynamic construction sites that demand swift, secure, and adaptable formwork, the ACROW Beam Connection is a key component for achieving efficient and cost-effective project execution.



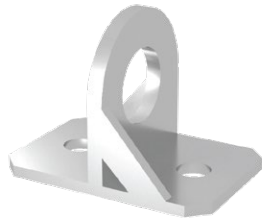
4- STEEL WALER SPLICE

- **Fast Panel Connection:** Maximize efficiency on-site with the ACROW Steel Waler Splice—designed for fast, secure, and hassle-free panel connections.
- **Fast & Easy Connection:** ACROW splice technology allows panels to be joined quickly and efficiently.
- **Secure Fit:** The rivet pin system ensures a strong, reliable bond between panels.
- **Hassle-Free Installation:** No need for wrenches—reducing setup time and simplifying the process.



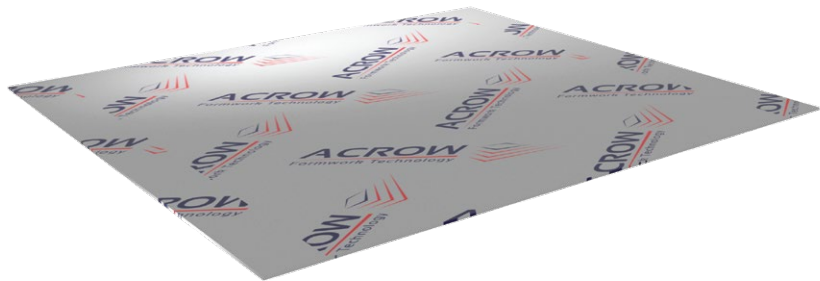
5- LIFTING LUG

- Ensure safe and efficient panel lifting with the ACROW Lifting Lug. Each panel is equipped with two crane splice lifting hooks, allowing for secure attachment and smooth handling.
- Designed for reliability, this system simplifies lifting operations while enhancing stability on-site.



6- PLYWOOD (18 MM)/ACROW BOARD

Designed for durability and efficiency, the ACROW Board serves as the panel surface in direct contact with concrete. Engineered for multiple reuses, it maintains structural integrity while delivering a smooth, high-quality finish. Its resistance to moisture, impact, and deformation makes it a reliable choice for construction projects requiring precision and longevity.



SCAFFOLDING TUBE AND HALF COUPLERS

Designed for stability, the Scaffolding Tube and Half Couplers are strategically positioned near the top of the panel to absorb horizontal forces during lifting. This ensures secure handling, minimizes structural stress, and enhances overall safety on-site.

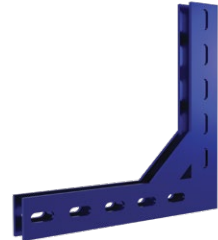


8- CORNER CONNECTOR (CORNER SPLICE)

The Corner Connector is designed to securely join two Soldiers at a perpendicular angle, ensuring stability and precision in formwork assembly.

- 90° corners
- Columns
- Pilasters
- Elevator cores

This versatile solution enhances structural integrity while simplifying complex connections in construction projects



9 - PIVOT SPLICE

The Pivot Splice securely connects two Soldiers that are set at a non-90° angle within a panel, enhancing flexibility in your formwork assembly. Its innovative design ensures a robust and precise connection, accommodating unconventional angles without compromising structural stability.

- **Flexible Connection:** Ideal for joining Soldiers at various angles to suit complex designs.
- **Enhanced Stability:** Provides a reliable connection that maintains panel integrity during assembly.



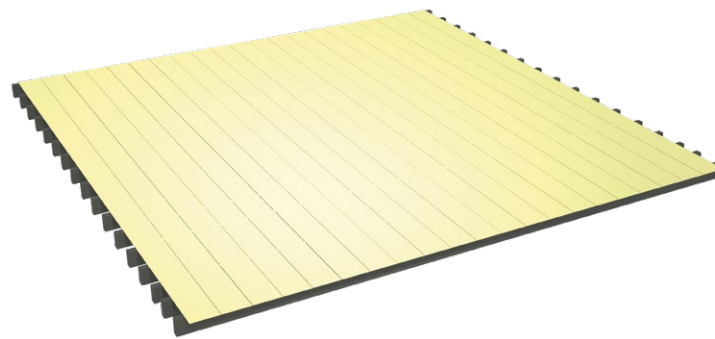
03

ASSEMBLY AND DISASSEMBLY

STEPS :

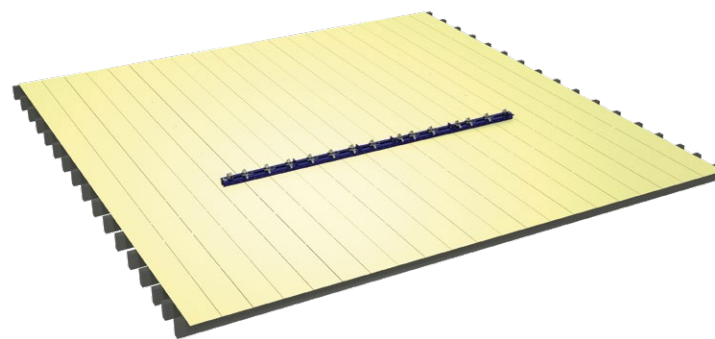
1-Set Up the Assembly Bench:

Ensure there is a flat assembly bench within the crane's reach for assembling all formwork elements.



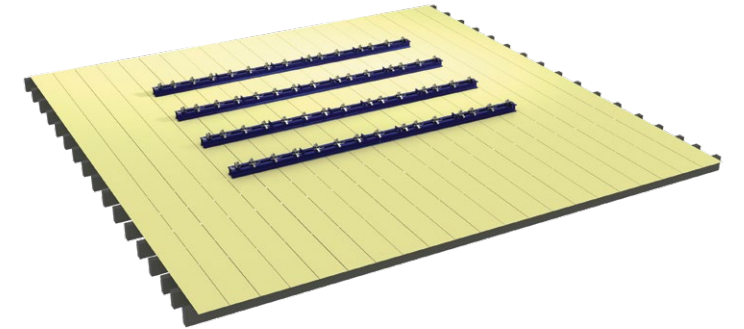
2- Install Stop Bars and Soldiers

Nail the stop bars in place for the Standard ACROW SOLDIERS according to the prescribed spacing.



3- Position the Soldiers:

Place the soldiers against the side stops with the connection plates facing upward.



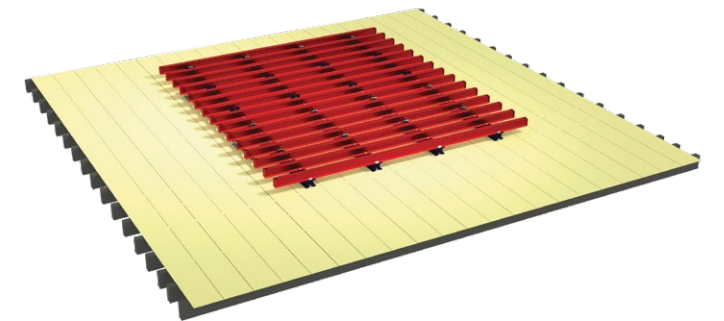
4- Prepare the ACROW Beams:

Bolt the lifting hook into the four drilled holes.



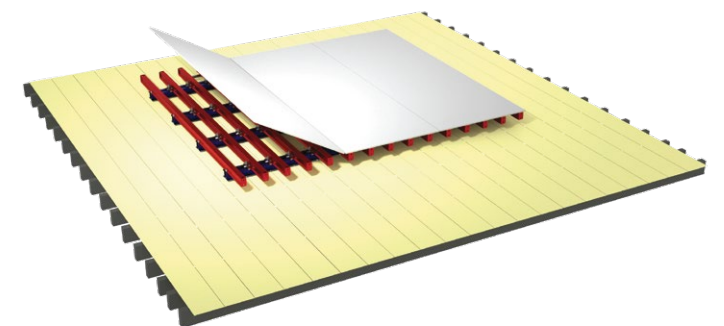
5- Attach the ACROW Beams:

Fasten the ACROW Beams at the desired centers (as specified in the shop drawings) using the ACROW connection system. Before tightening, ensure the beams are centered with a gap of at least 3 cm between the form-facing surface and the ACROW beam.



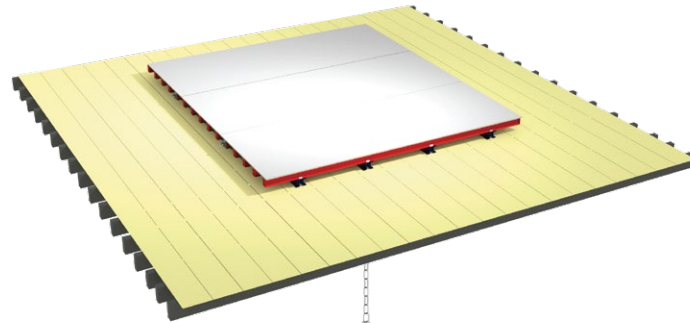
6- Install ACROW board (18mm) Sheets:

Position the ACROW board as required and nail them onto each ACROW beam.



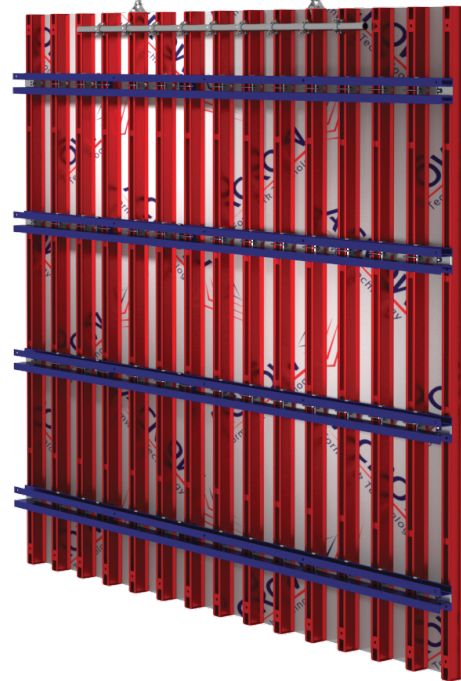
7-Drill Holes for the tie rods:

Drill the holes for tie rods.



8-Prepare for Lifting:

Before lifting, attach scaffolding tubes equipped with half-couplers to the ACROW beams near the top of the panel to provide bracing during lifting.



Disassembly:

Safely reverse the assembly process, carefully removing components in the proper sequence to ensure safety and integrity.

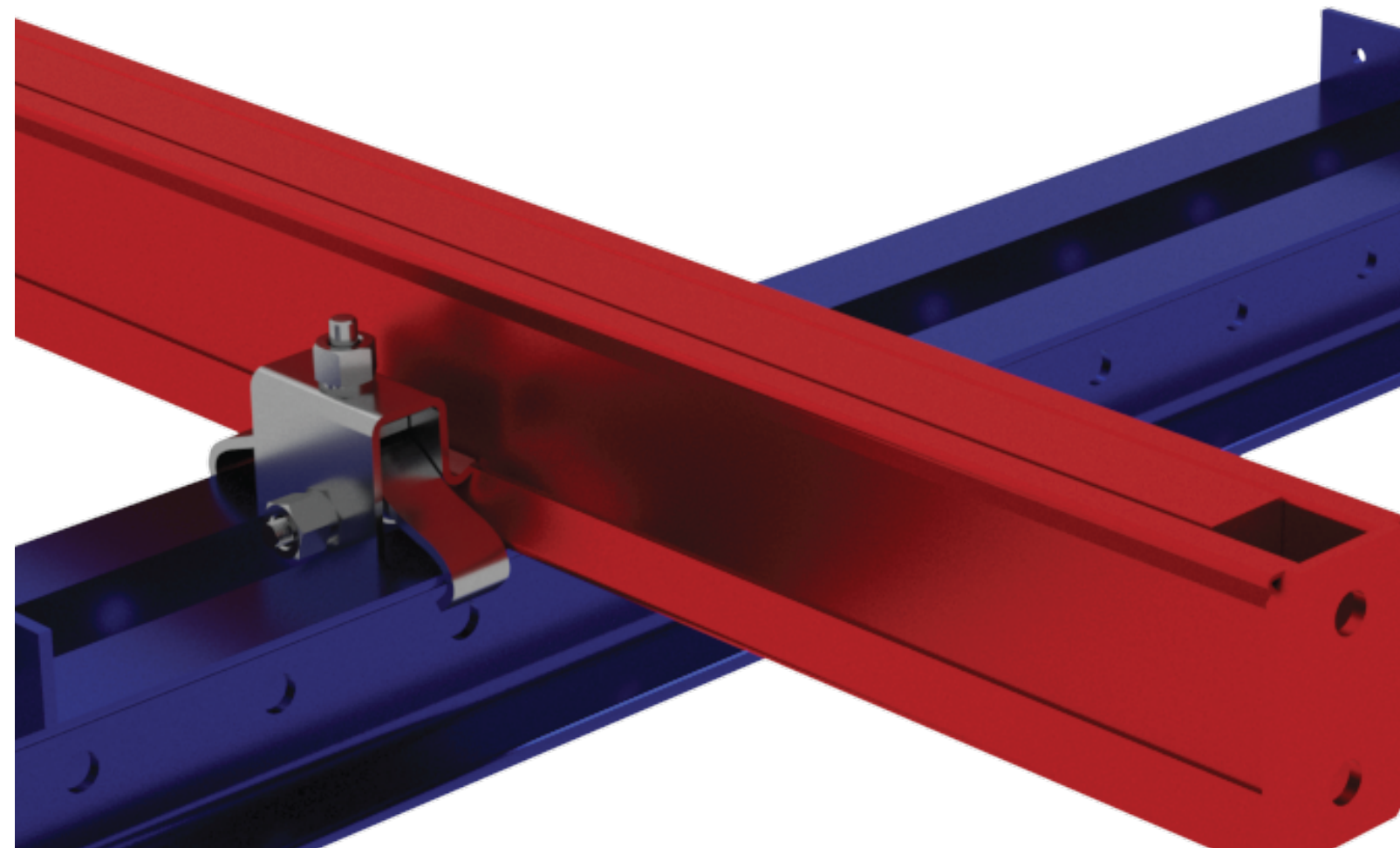


- Use nails to prevent the Soldiers sliding off
- Fix the lifting eyes to two Acrow Beams per panel as shown in the assembly drawing.
- There must always be a pressure bracing between the lifting eyes, the gap between the two lifting eyes must be firmly braced, without any play, to prevent any oblique pull being applied to the Acrow beams.



04

SITE APPLICATIONS



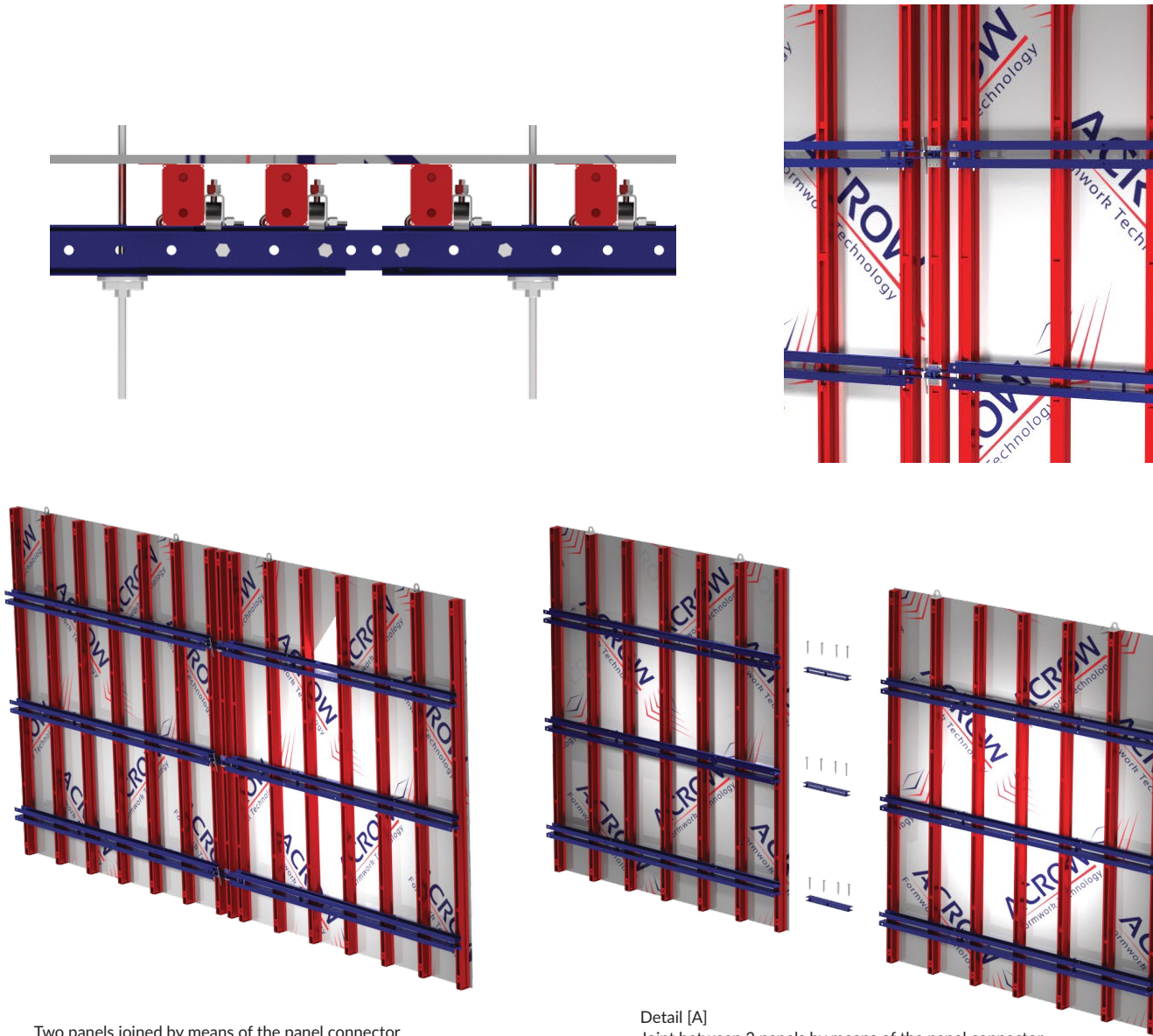
STRAIGHT CONNECTIONS

Element connections are formed with Splice and four Rivet Pin assuring that:

- Adjusting range is continuous.
- Element joint is flush.
- Element joint is aligned.

JOINT BETWEEN PANELS (WITHOUT FILLER)

- The component used to join two Panels together (without filler between them) is the Acrow Splice (60 OR 90) cm.

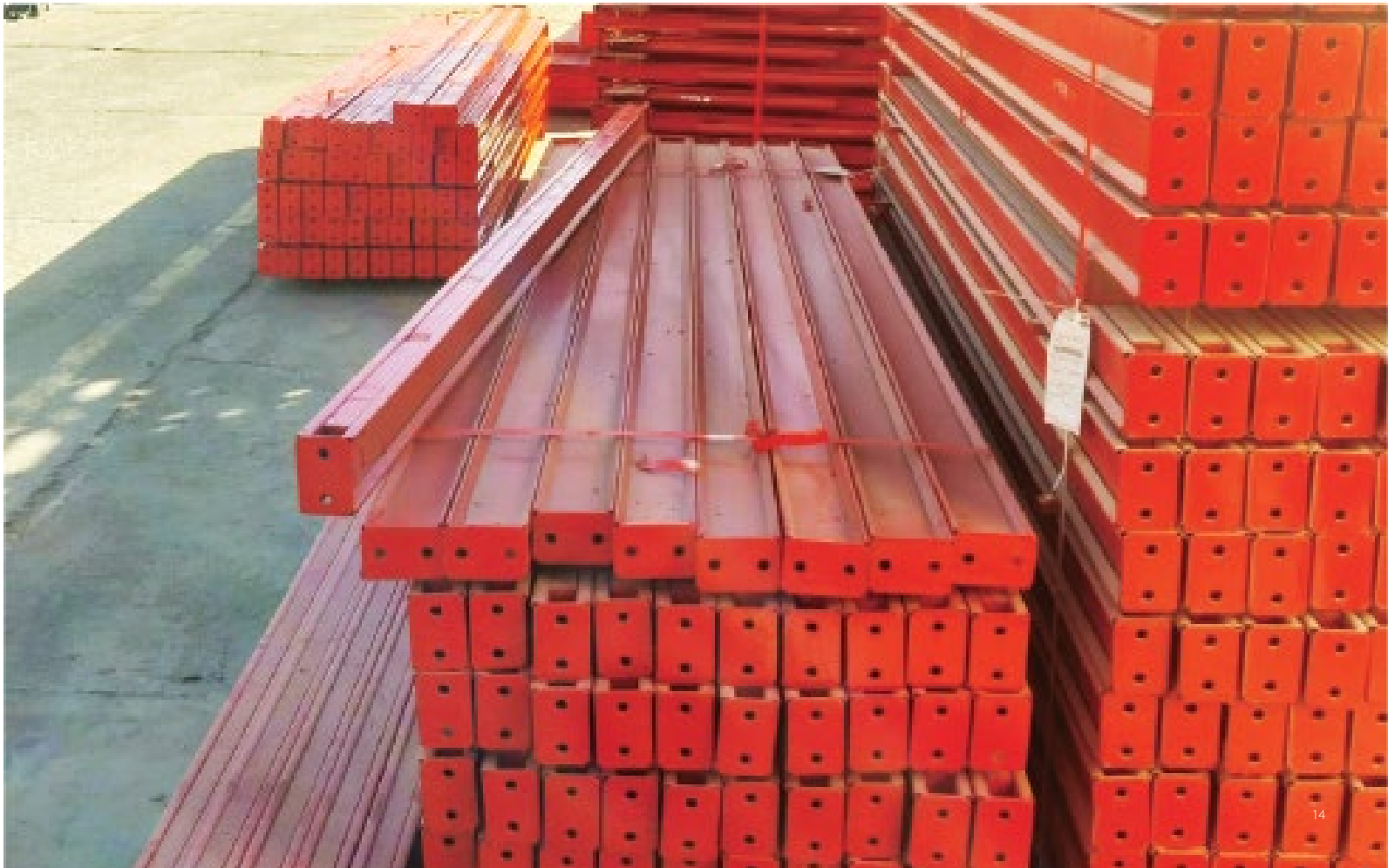
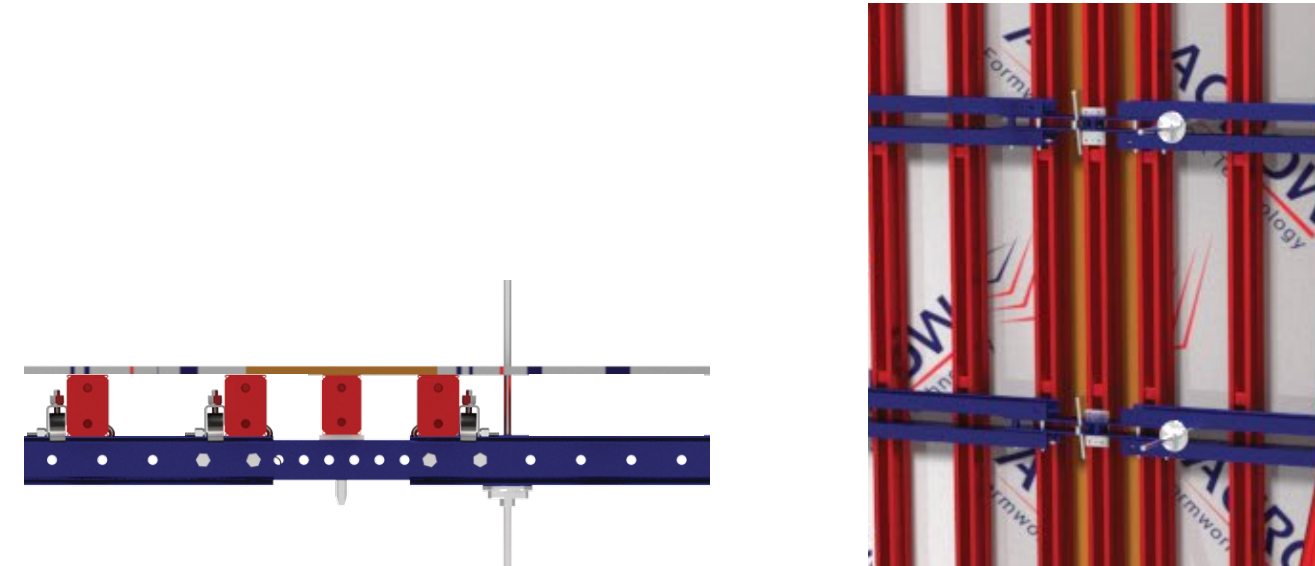


Two panels joined by means of the panel connector

Detail [A]
Joint between 2 panels by means of the panel connector

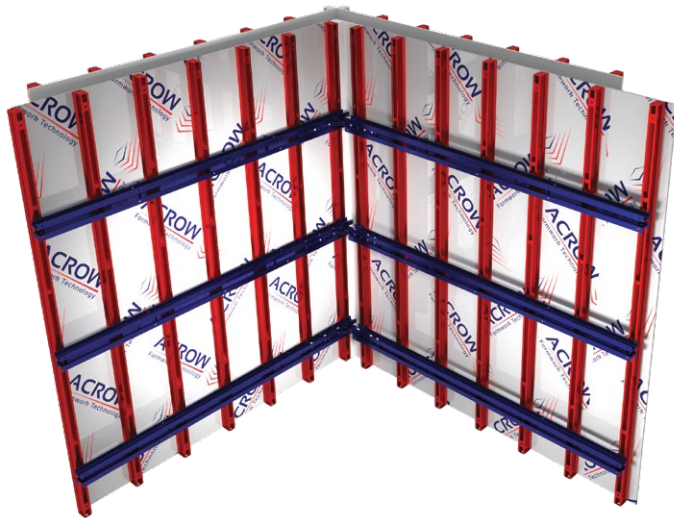
JOINT BETWEEN PANELS (WITH FILLER)

The component used to join two Panels with a filler between them is the same component without filler

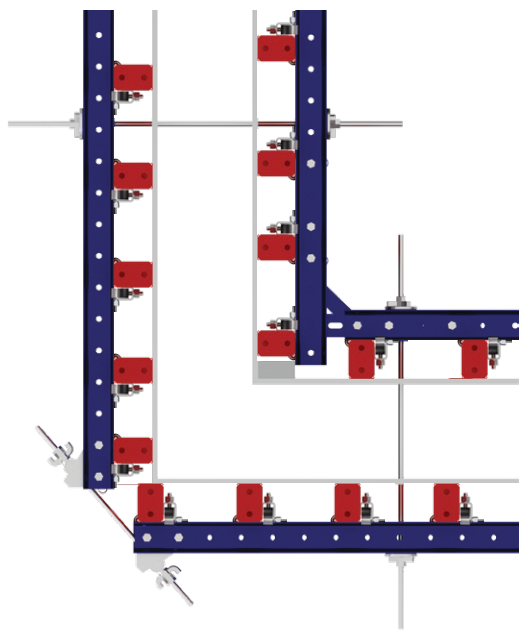


CORNER CONNECTIONS 90° CORNERS

When forming 90° corners, the outer and inner corners are addressed using different components:

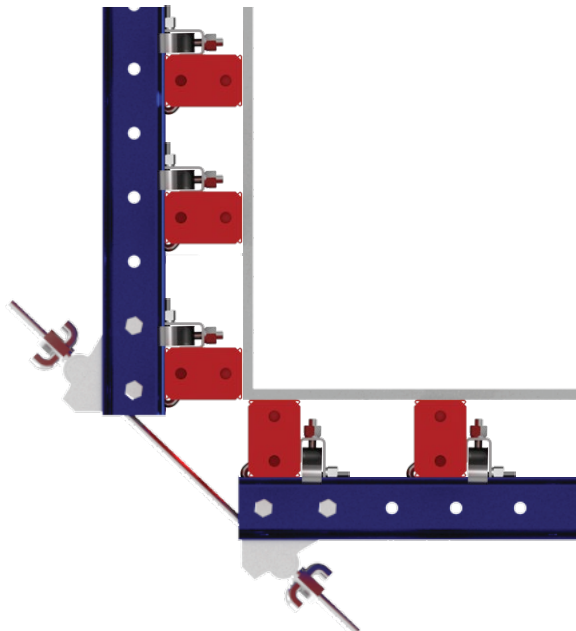


Example of solution to inner 90° corner



FOR OUTER PART

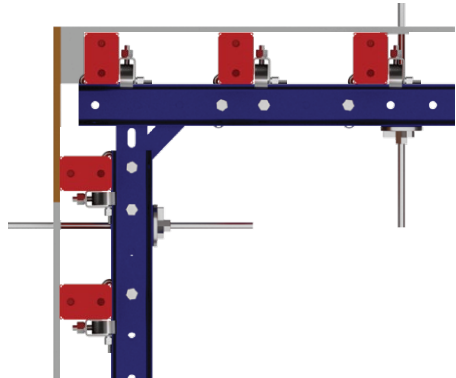
The outer joint between two panels is secured using two Universal Corner Angles connected by a Tie Rod. This solution maintains both alignment and stability.



FOR INNER PART

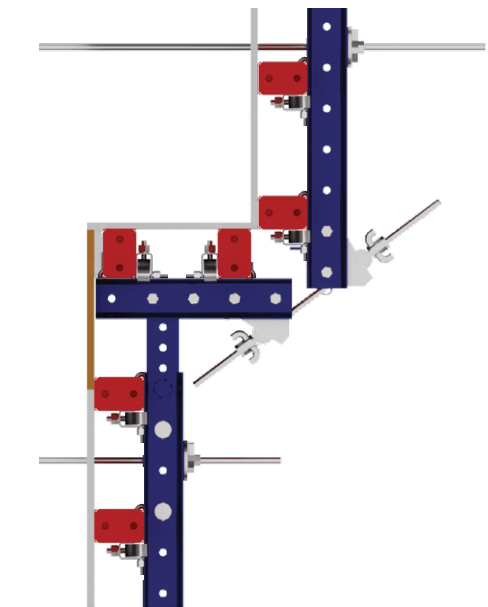
1- With Corner Splice

The Corner Splice creates a true inside corner. It leverages the strength of ACROW Beams to maintain accurate dimensions while ensuring a secure, rigid connection between panels.



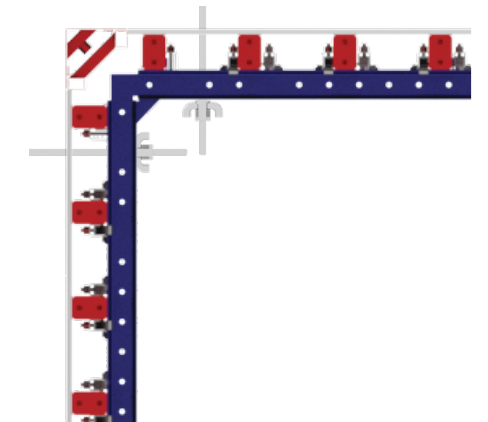
2- With T-Splice.

With T-Splice: The T-Splice method employs a T-shaped connector that joins the panels to form a robust inner corner. This design facilitates precise alignment and efficient load distribution, offering versatility for situations where slight adjustments are needed. Its straightforward assembly ensures that the connection is both secure and adaptable to various project requirements.



3- With Corner Panel (Corner Filler).

The Corner Panel, or Corner Filler, is a prefabricated insert designed to fill the void at an inside corner junction. It interlocks seamlessly with adjoining panels, creating a smooth, continuous form face while enhancing overall stability. This solution simplifies installation and ensures consistent dimensions, resulting in a polished, high-quality finish.



Each of these solutions is tailored to address specific challenges encountered in forming 90° corners, ensuring that both structural integrity and ease of assembly are achieved regardless of the project demands.

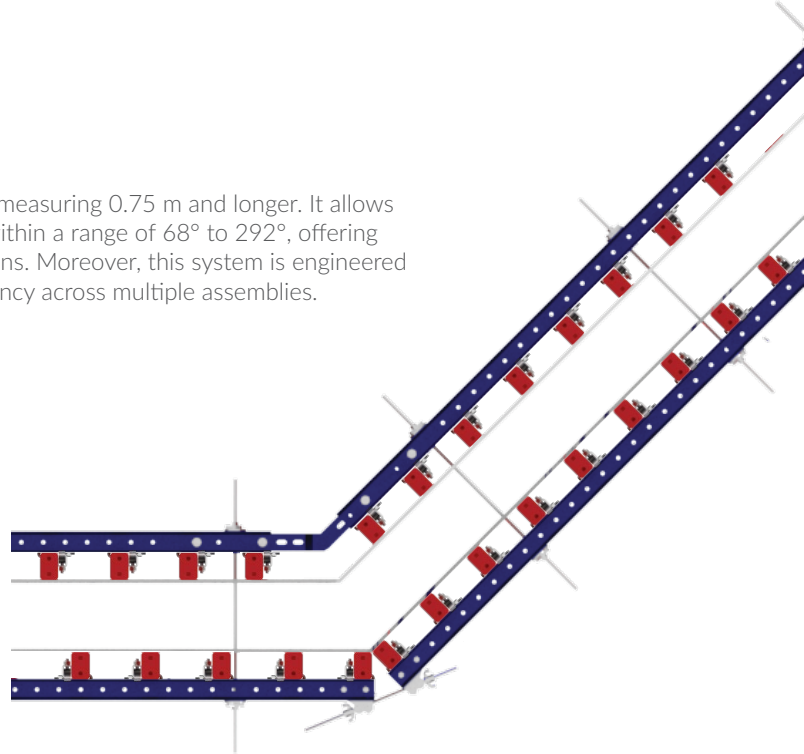
ACUTE & OBTUSE-ANGLED CORNERS.

Outside corners

For outside corners, components are primarily connected using Universal Corner Angle Tie —similar to those used for right-angled corners. This method delivers a robust, reliable assembly while ensuring precise alignment and optimal structural stability.

Inside corners (With Pivot Splice)

The Pivot Splice is designed for use with soldiers measuring 0.75 m and longer. It allows two steel soldiers to be configured at any angle within a range of 68° to 292°, offering exceptional flexibility for complex corner formations. Moreover, this system is engineered for repeated use, ensuring efficiency and consistency across multiple assemblies.



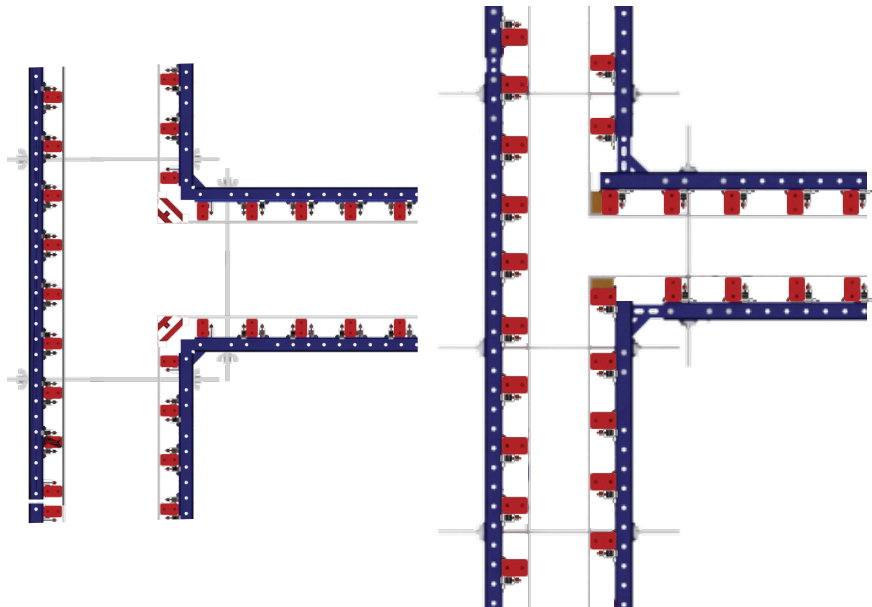
T-CORNERS

In similar fashion to right-angled corners, inside corners in formwork assemblies are primarily connected using the following methods:

- **Corner Panel (Filler):** A prefabricated insert that fills the gap at the inside corner junction, ensuring a smooth form face and maintaining structural continuity. This solution simplifies installation and provides consistent, precise alignment.

- **Corner Splice:** An innovative connector that securely joins two formwork elements at the inner corner. It leverages the strength of the main components to achieve a robust, rigid joint, enhancing the overall integrity of the assembly.

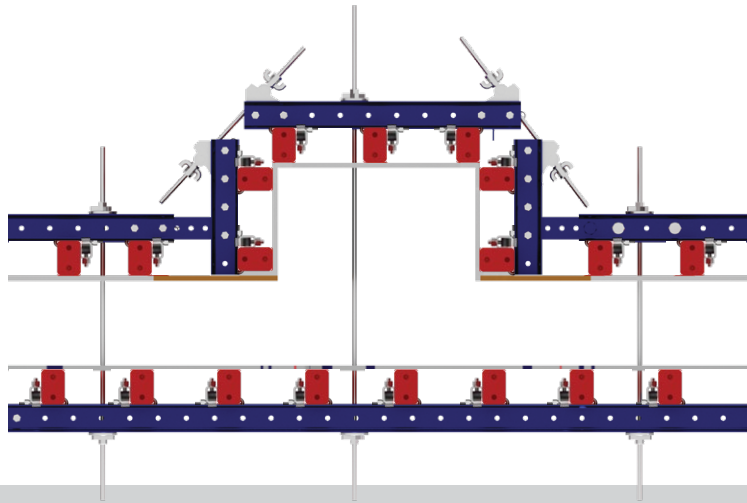
- **T-Splice:** A T-shaped connector designed to link the panels at the interior corner. This method not only simplifies the connection process but also provides adjustable alignment, ensuring a secure and stable assembly even in complex layouts.



Each of these approaches can be selected based on project requirements, offering flexibility and efficiency in achieving steadfast inside corner connections.

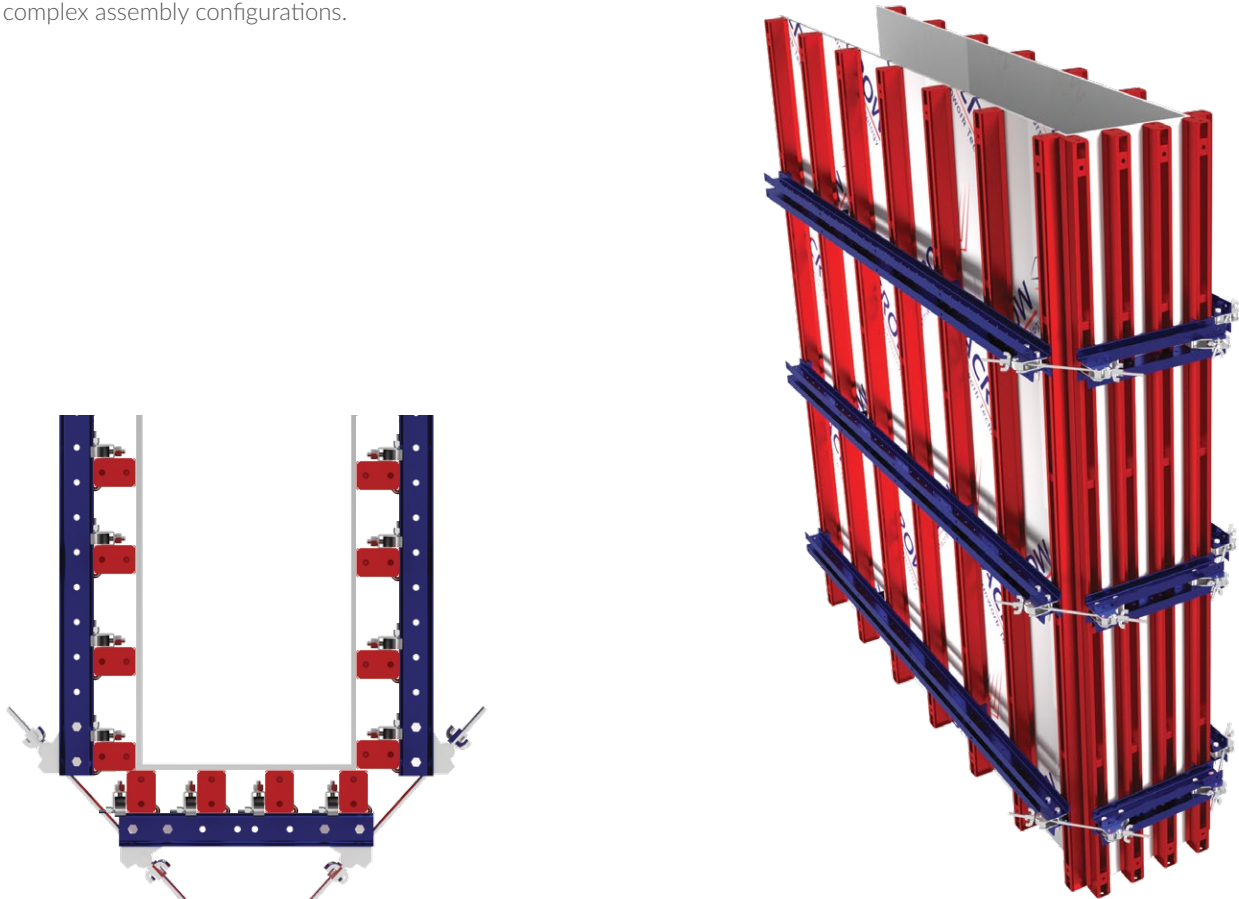
PILASTERS

- The solution to pilasters will be carried out with T-Connection. The measure of these Panels will be the one that adapts better to the requirements.



END CONNECTION

For end connections, the same principle used in right-angled corners applies. Both end corners are primarily secured with Universal Angle Tie. This method ensures robust, stable joints by delivering precise alignment and consistent structural integrity—even under heavy loads. The use of Universal Angle simplifies installation while maintaining reliable performance across complex assembly configurations.

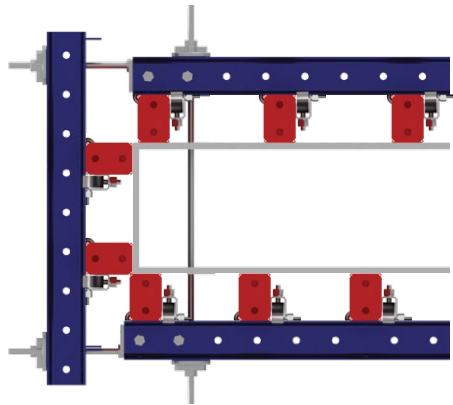


Plan for end connection of wide wall

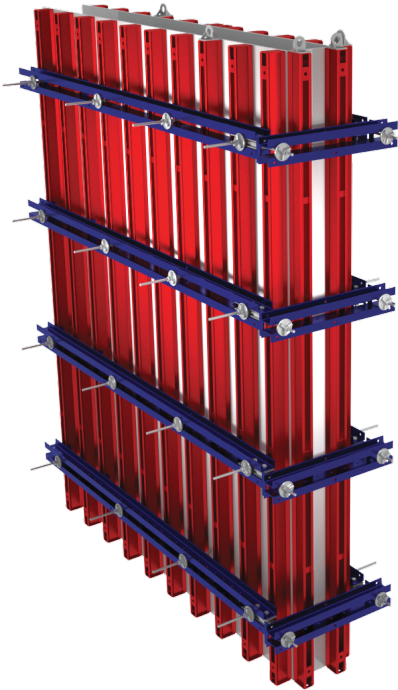
A general solution of end connection

END CONNECTION

A- Using Stop-End Splice:



Plan for end connection with anchor plate

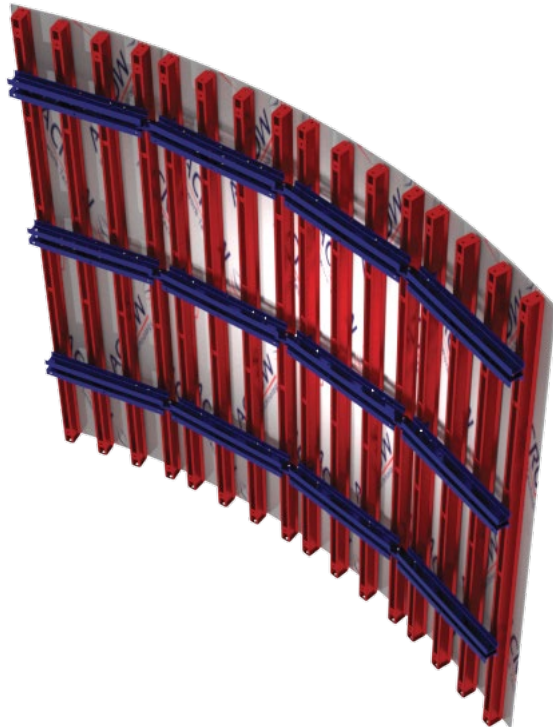
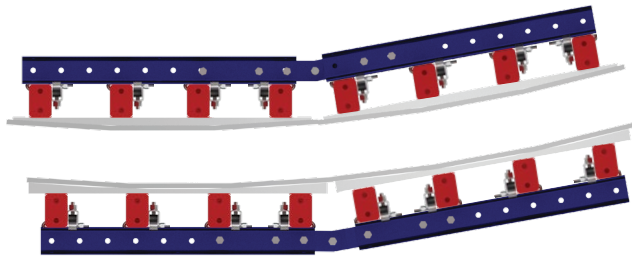


End connection with stop-end splice

B- Using corner/pivot splice & universal corner angle ties:

ROUND CONNECTION

Curved structures can be efficiently formed using Pivot Splices. Curb timbers are strategically placed between the ACROW beams and the form-ply to create the desired shape. For tighter curves, smaller radii can be achieved by using thinner plywood sheets—either 12 mm thick panels or layers of 9 mm sheets—to maintain the structural integrity while accommodating a more pronounced curvature.



Smaller radii can be achieved by using thinner plywood sheets (12mm or layers of 9mm sheets)

COLUMNS

ACROW BEAMS designed for columns are versatile, catering to both rectangular and circular configurations. For more complex shapes, such as circular columns, timber negatives can be incorporated to achieve the desired form while maintaining consistent dimensions and structural integrity. This system not only streamlines the construction process but also provides a high-quality finish for the formed column, making it a practical solution for a variety of construction projects.

- 1- Acrow Beam
- 2- ACROW board
- 3- Corner Splice
- 4- Shore Connector
- 5- Small Wedge
- 6- Soldier
- 7- Universal corner angel tie
- 8- Tie Rod
- 9- Double Base Plate
- 10- Push pull prop

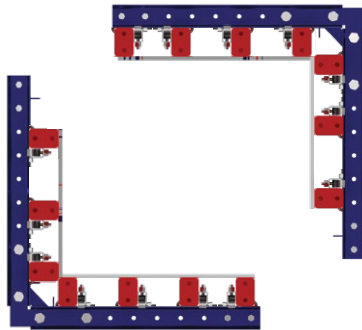


COLUMNS

Using the same components as the ACROW BEAM and Soldier wall formwork system, a column formwork can be easily assembled.

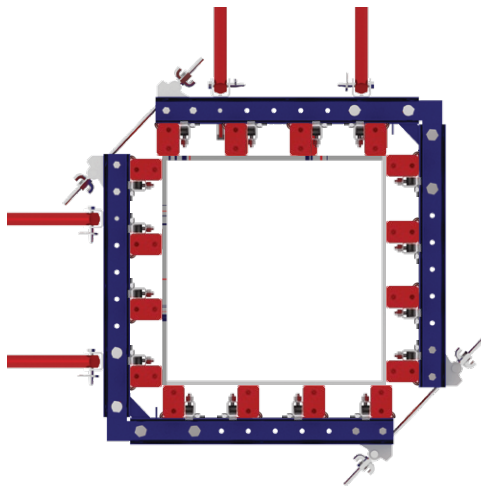
1- Assemble Two L-Shaped Halves:

The column formwork is constructed in two L-shaped halves. Each half consists of two panels securely anchored together using a Corner Splice.



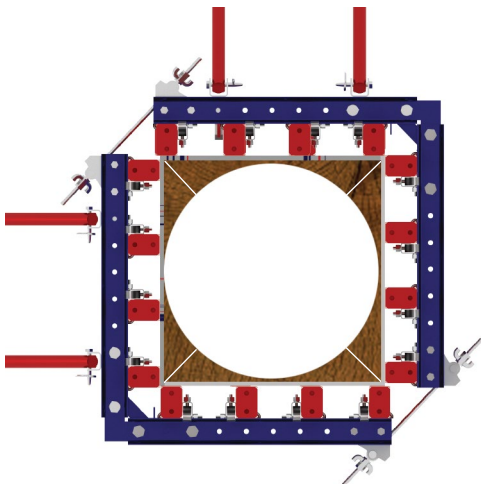
2- Connect the L-Shaped Halves:

In a manner similar to right-angled corners, the two L-shaped halves are connected using Universal Corner Angles. This method ensures precise alignment and robust stability throughout the formwork structure.



3- ACROW Beam Configuration for Columns:

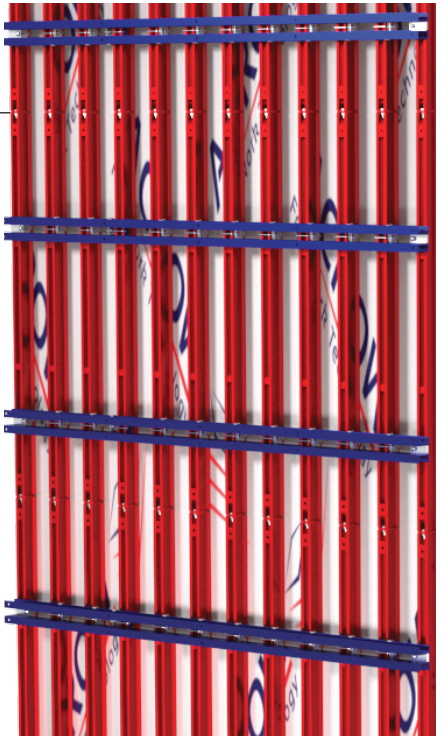
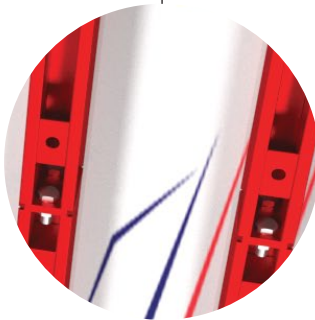
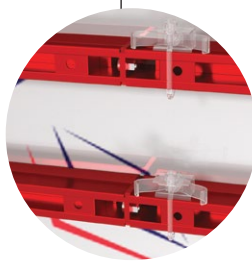
ACROW BEAMS used in column formwork are versatile and suitable for creating both rectangular and circular columns. For circular columns or other complex shapes, timber negatives can be employed to achieve the desired form, ensuring accuracy and consistency.



This system allows for efficient assembly and reliable structural performance, making it a practical solution for various column configurations on construction sites

VERTICAL STACKING OF ELEMENTS

ACROW beams are connected together vertically using M16x30 bolts (grade 8.8) and M16 nuts (grade 8.8), ensuring a secure multi-level assembly.



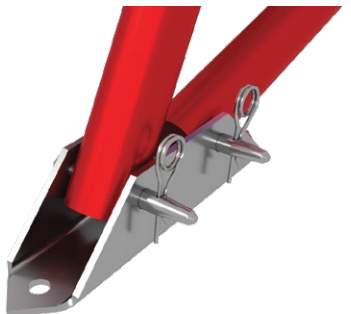
PANEL STABILIZATION

Using Tilt-Up Shore / Push-Pull Props for panel stabilization offers several benefits:.

- **Protection:** Shields the formwork from potential wind forces.
- **Ease of Placement:** Facilitates easier placement and precise positioning of the formwork.
- **Vertical Alignment:** Assists in adjusting and maintaining the verticality and proper alignment of panels.
- **Ground Connection:** Push-Pull Props are connected to the ground via a single or double base plate, which is anchored securely (Detail B).
- **Soldier Connection:** Push-Pull Props are attached to the Soldiers using a Shore Connector and a small wedge (Detail A).
- **Connector Attachment:** The Shore Connector is linked to the Push-Pull Props with a Rivet Pin and Spring Clip.

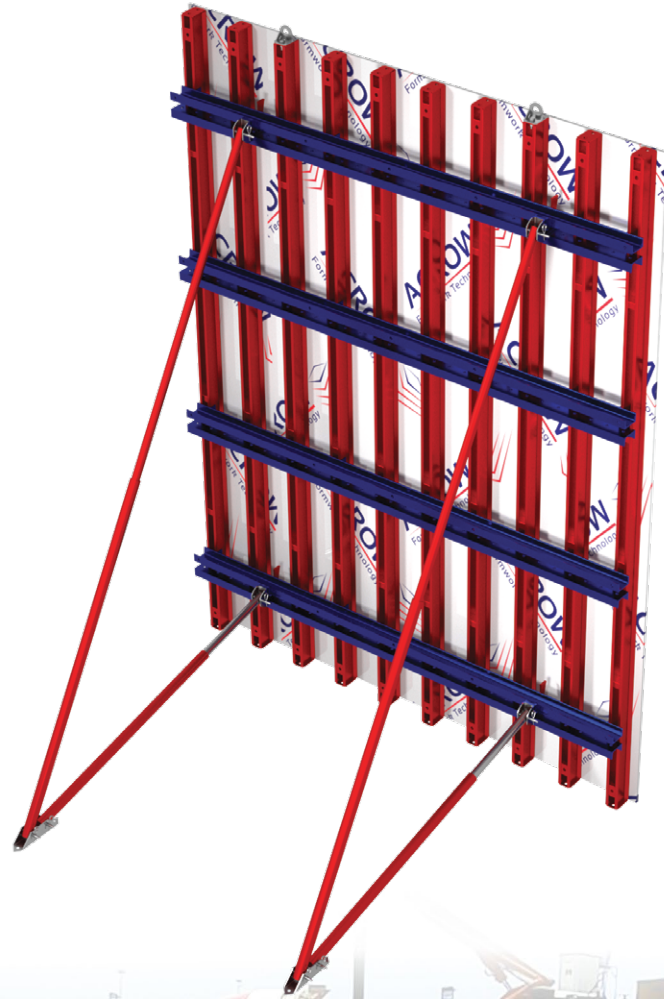


This structured approach ensures both stability and accuracy during the stacking and alignment of formwork elements.



PANEL STABILIZATION

- Push-pull props are connected to the Soldiers with Shore Connector & Small wedge. (Detail A)
- The Shore Connector is connected to Push-Pull Props with Revit Pin & Spring clip



PUSH-PULL MAXIMUM WIDTH OF INFLUENCE

Push-pull props are essential for ensuring the verticality and stability of walls, cores, and columns by counteracting lateral forces, such as wind loads. To maximize efficiency and safety, it is critical that push-pull props are distributed appropriately along the formwork plan.

The maximum width of influence refers to the maximum allowable spacing between push-pull props when laid out in plan-view. Maintaining this spacing within the recommended limits ensures that:

- The formwork is adequately supported against wind and other lateral forces.
- Placement and alignment of the formwork are simplified.
- The verticality of the panels is efficiently maintained and adjusted.

For precise guidelines, refer to the recommended values provided in Tables 1 and 2 of your project documentation. These tables specify the maximum spacing based on factors like load conditions, the type of structure, and overall formwork configuration.

Table (1) - Suitable for most European regions

Formwork Height H [m]	Figure 1						Figure 2					
	3.0	4.0	5.0	6.0	7.0		7.0	8.0	9.0	10.0	11.0	12.0
Permissible width of influence [m]	5.0	4.0	2.7	2.3	2.1		3.5	3.0	2.5	1.7	1.6	1.5
Upper Push-Pull prop load [KN]	10.4	11.2	11.8	12.9	13.6		9.7	10.7	12.1	11.0	12.4	13.9
Lower Push-Pull prop load [KN]	2.6	2.9	3.0	3.1	3.9		17.4	17.5	13.8	10.2	10.2	10.0
Shear force @ base plate Fsh [KN]	7.8	8.3	8.8	9.5	10.6	1.0	4.3	3.9	4.1	2.8	2.8	2.8
Uplift force [KN/m]	2.0	2.6	4.0	5.3	6.0	2.0	4.9	5.4	5.9	5.4	6.2	6.9
Applied Wind Pressure (w) [KN/m2]	0.52	0.52	0.64	0.70	0.74		13.3	12.6	10.9	7.8	7.9	7.8
X= Distance of Base Plate from rear edge of formwork [m]	1.2	1.6	2.0	2.4	3.0	x1	6.7	8.1	9.5	11.1	12.5	14.1
Y= Distance of top connection from top of formwork [m]	1.0	1.2	1.5	1.8	1.8	x2	0.74	0.80	0.84	0.88	0.95	0.99
						y1	3.3	3.9	4.2	4.7	5.1	5.5
						y2	2.4	2.4	2.6	2.6	2.8	3.0
							1.3	1.3	1.5	1.8	2.1	2.4
							3.0	3.8	4.5	5.5	6.2	6.9

Wind Speed (vb) = 25 m/s, Terrain Category III

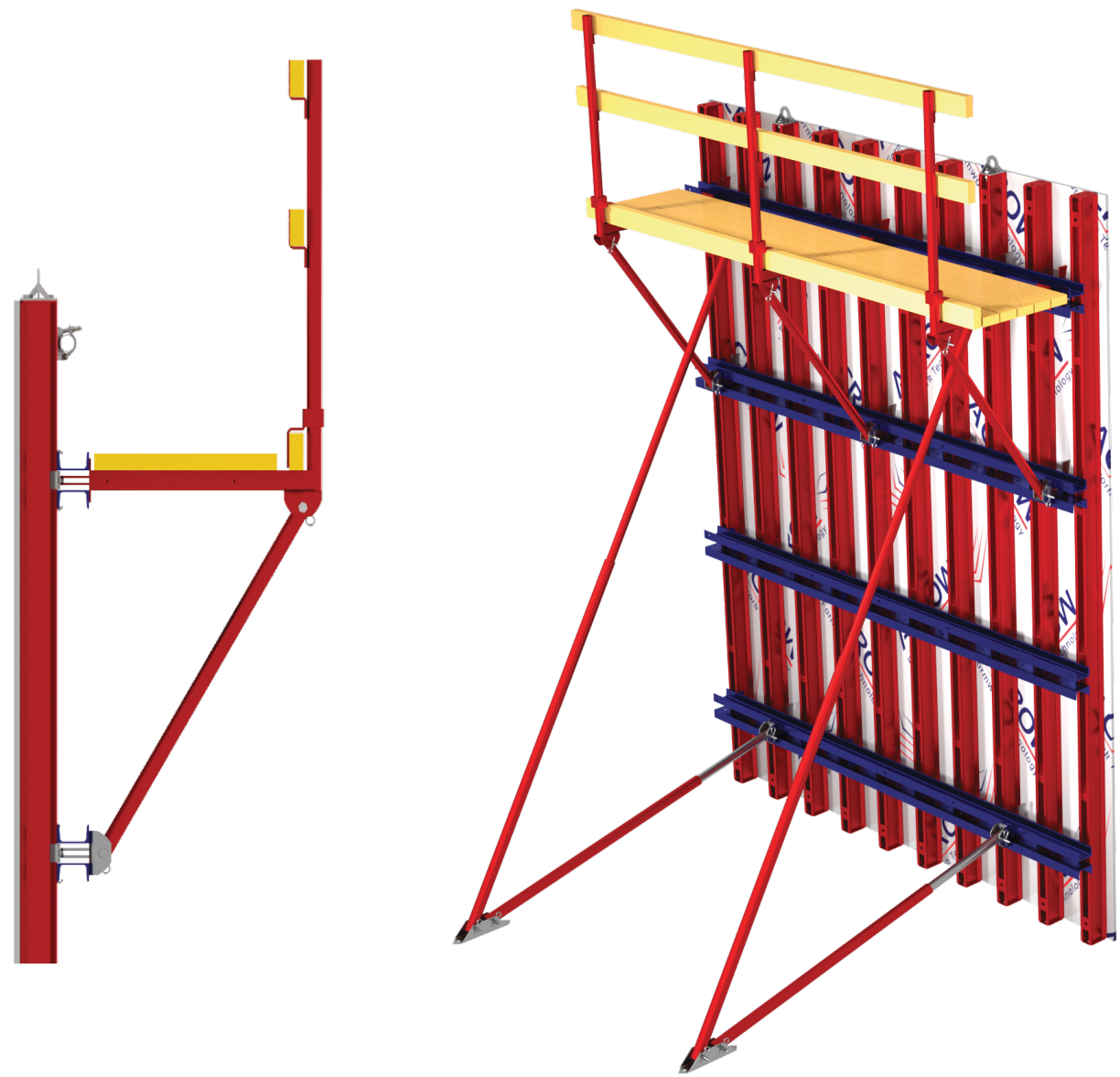
Table (2) - Suitable for most Middle East regions

Formwork Height H [m]	Figure 1						Figure 2					
	3.0	4.0	5.0	6.0	7.0		7.0	8.0	9.0	10.0	11.0	12.0
Permissible width of influence [m]	3.5	3.2	2.7	2.3	1.4		2.2	2.0	1.5	1.3	1.3	1.2
Upper Push-Pull prop load [KN]	12.6	17.5	20.3	22.9	16.1		11.9	13.2	12.5	12.8	17.7	19.6
Lower Push-Pull prop load [KN]	3.1	4.5	5.2	5.6	4.6		15.8	17.7	14.2	14.3	12.1	13.2
Shear force @ base plate Fsh [KN]	9.5	13.1	15.1	16.8	12.6	1.0	5.9	5.5	4.2	4.3	3.9	3.7
Uplift force [KN/m]	3.4	5.1	7.0	9.2	10.5	2.0	6.0	6.6	6.1	6.6	8.9	9.7
Applied Wind Pressure (w) [KN/m2]	0.9	1.0	1.1	1.2	1.3		13.9	14.2	11.2	11.2	10.2	10.8
X= Distance of Base Plate from rear edge of formwork [m]	1.2	1.6	2.0	2.4	3.0	x1	11.4	14.0	16.6	18.6	20.9	23.9
Y= Distance of top connection from top of formwork [m]	1.0	1.2	1.5	1.8	1.8	x2	1.3	1.4	1.5	1.5	1.7	1.7
						y1	3.3	3.9	4.2	4.9	5.1	5.5
						y2	2.4	2.4	2.6	2.9	3.0	3.2
							1.3	1.3	1.5	1.8	2.3	2.4
							3.0	3.8	4.5	4.8	6.2	7.0

Wind Speed (vb) = 33 m/s, Terrain Category III

ACCESS BRACKET

The Access Bracket is an essential component for concrete formwork systems, engineered to create secure and reliable working platforms. Its design supports the placement of planks for creating a stable working surface, while additional planks serve as handrails to ensure safety during concreting operations.



- Secure Working Platforms:

Supports planks that form the working surface for concreting.
Accommodates additional planks configured as handrails.

- Versatile Connections:

Column Formwork: The bracket attaches to the upper soldier using a Small Wedge.

Wall Formwork: Utilizes a Rivet Pin and Spring Clip for a firm connection with the upper soldier.

- Enhanced Structural Stability:

Incorporates a Diagonal Tube connected to the lower soldier via a Shore Connector and Small Wedge.
The Diagonal Tube is further secured to both the Access Bracket and Shore Connector using a Rivet Pin and Spring Clip.



Maximum allowable spacing of Access Brackets = 2.00 m.



LIFTING OF PANEL

Each panel is designed for efficient and safe lifting using two integrated lifting eyes on the ACROW Beam. The crane eye, which is an integral part of the panel, is securely fixed to the ACROW Beam with two M16 bolts to ensure robustness during lifting.

Lifting Method:

- Panels are lifted using two lifting eyes integrated into the ACROW Beam.
- The crane eye is a built-in component of the panel, fixed with two M16 bolts.

Load Capacity:

- Allowable load per lifting eye: 1.25 tons.
- Maximum combined lifting capacity for the ACROW Beam S12 & Soldier Panel: 2.50 tons.

Lifting Configuration:

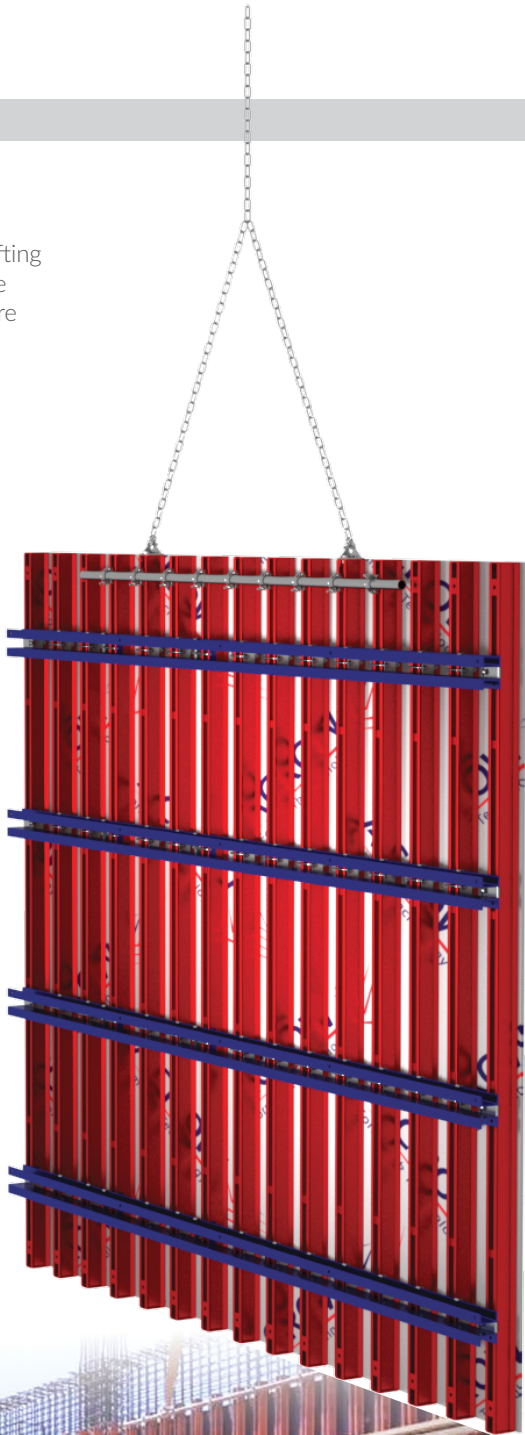
- The maximum angle between the two crane chains is limited to 60° for optimal balance.

Panel Dimensions:

- A panel weighing 2.5 tons can cover up to 38 square meters.

Additional Provisions:

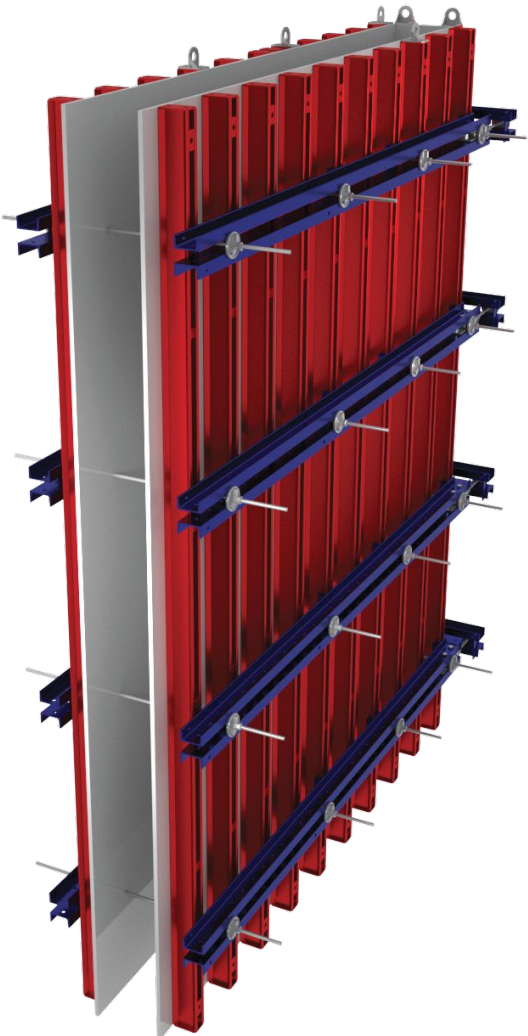
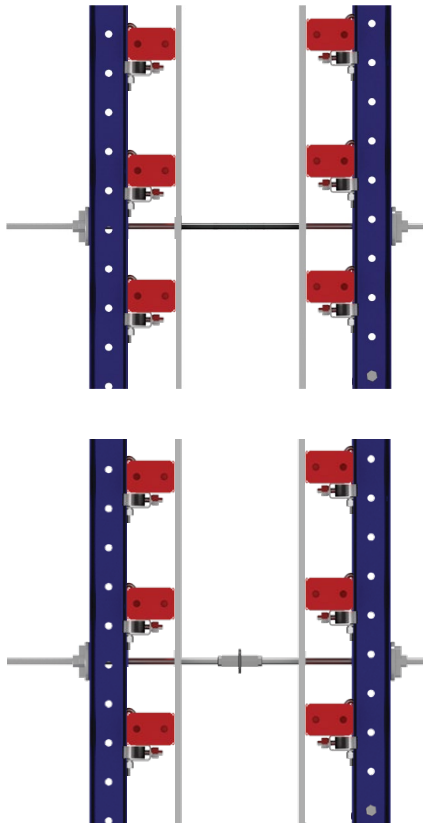
- For panels weighing more than 3 tons, vertical soldiers are employed to enhance lifting stability.



DW 15 TIE SYSTEM

The ACROW DW 15 Tie System is engineered for formwork applications where the use of soldiers with a minimum number of ties is required. This system promotes rapid assembly and efficient stripping while delivering robust performance in demanding construction environments.

- Continuous Thread High-Tensile Steel Rod: The system's assembly is based on a continuous thread high-tensile steel rod, ensuring superior strength and durability.
- Freely Spinning Wing Nut: The wing nut is designed to rotate freely on the fast-threaded rod, significantly speeding up both formwork erection and stripping.
- Secure Tie Rod Installation: Tie rods are inserted through the gap between the two UPN profiles of the soldiers and are securely fastened using a wing nut paired with a steel washer for a reliable connection.
- Panel Alignment Accessories: A Plastic Tube 18 is installed between panels on both sides, with Plastic Cones 18 on either side ensuring precise alignment and enhanced stability.
- Liquid Hold-Back Provision: In cases where liquid hold-back is required, a water barrier is positioned at the mid-width of the wall. This is augmented by the Plastic - Tube 18 and Plastic Cones 18 on both sides, ensuring effective sealing and performance.



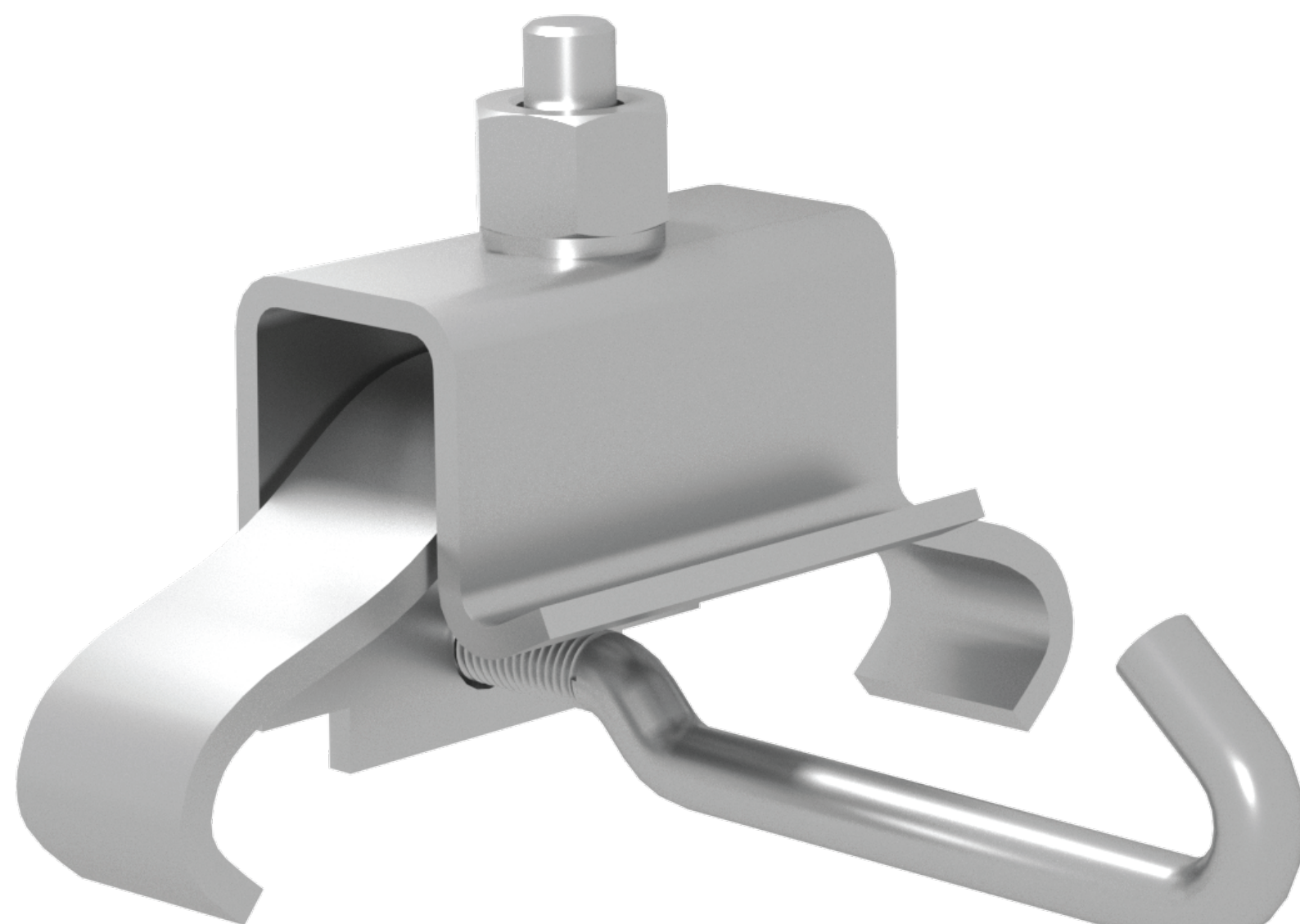
Ideal for streamlining formwork operations, the ACROW DW 15 Tie System offers a balanced combination of speed, safety, and structural integrity—a standout solution for modern construction applications.

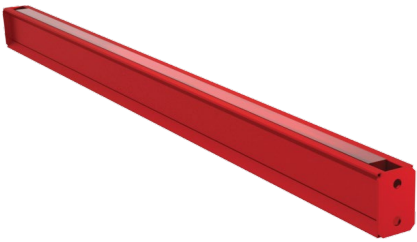
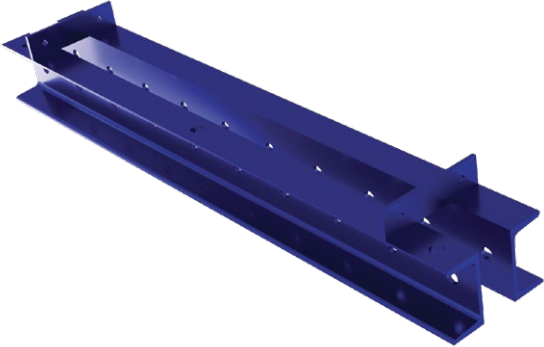
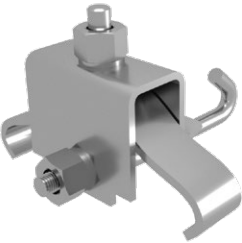



The maximum working load of Tie Rods 15 is 90 kN.

05

COMPONENTS
AND ACCESSORIES






Item	Description	Code no.	Weight (kg)
Acrow Beam S12			
	Acrow Beam S12 , L=1.80m	6221177140618	14.40
	Acrow Beam S12 , L=2.00m	6221177132101	16.00
	Acrow Beam S12 , L=2.50m	6221177127862	20.00
	Acrow Beam S12 , L=3.00m	6221177127848	24.00
	Acrow Beam S12 , L=3.50 m	6221177134440	28.00
	Acrow Beam S12 , L=4.00m	6221177131937	32.00
	Acrow Beam S12 , L=4.50m	6221177131944	36.00
Soldier U100			
	Soldier U100 ,L=0.50 m	6221177115050	11.80
	Soldier U100 ,L=0.75 m	6221177115074	16.10
	Soldier U100 ,L=1.00 m	6221177115081	21.40
	Soldier U100 ,L=1.25 m	6221177115098	26.40
	Soldier U100 ,L=1.50 m	6221177115104	31.40
	Soldier U100 ,L=1.75 m	6221177115111	36.60
	Soldier U100 ,L=2.00 m	6221177115128	42.20
	Soldier U100 ,L=2.25 m	6221177115135	47.60
	Soldier U100 ,L=2.50 m	6221177115142	52.00
	Soldier U100 ,L=2.75 m	6221177115159	58.90
	Soldier U100 ,L=3.00 m	6221177115166	63.60
	Soldier U100 ,L=3.25 m	6221177115173	70.80
	Soldier U100 ,L=3.50 m	6221177115180	73.50
	Soldier U100 ,L=3.75 m	6221177115197	78.00
	Soldier U100 ,L=4.00 m	6221177115203	86.20
	Soldier U100 ,L=4.50 m	6221177115210	96.70
	Soldier U100 ,L=5.00 m	6221177115227	104.00
	Soldier U100 ,L=5.50 m	6221177115234	114.70
	Soldier U100 ,L=6.00 m	6221177115241	126.50
Soldier-S12			
	Soldier-S12 connection-S	6221177141684	0.85
	Soldier-S12 End Connection	6221177135768	0.75
	S12 - Curved Splice Connection	6221177137519	0.75

Item	Description	Code no.	Weight (kg)
Lifting Lug			
	Lifting lug for Acrow Beam S12	6221177134082	0.80
	Bolt M16 × 40 mm (8.8)	2012060062780	0.10
Scaffolding Tube			
	Scaffolding Tube L=2.00 m (Painted)	6221177017484	5.70
	Scaffolding Tube L=2.50 m (Painted)	6221177017491	7.13
	Scaffolding Tube L=3.00 m (Painted)	6221177017507	8.55
	Scaffolding Tube L=3.50 m (Painted)	6221177017514	9.98
	Scaffolding Tube L=4.00 m (Painted)	6221177017521	11.40
	Scaffolding Tube L=4.50 m (Painted)	6221177017538	12.83
	Scaffolding Tube L=5.00 m (Painted)	6221177017545	14.25
	Scaffolding Tube L=5.50 m (Painted)	6221177064495	15.68
	Scaffolding Tube L=6.00 m (Painted)	6221177017552	17.10
Splice			
	Splice 60cm (double)	6221177022242	6.50
	Splice 90cm (double)	6221177022266	9.50
	Splice 90cm (double)(S&H)	6221177147655	6.50
Forged Half Swivel Coupler			
	Forged Half Swivel Coupler (1.5") (Type I)	6221177089689	0.80
	Bolt M16 × 30 mm (8.8)	2012060063986	0.10
	Nut M16 (8.8)	2012180029632	0.033

Item	Description	Code no.	Weight (kg)
Corner Splice			
	Corner Splice 60x30cm (for soldier)	6221177032623	8.80
	Corner Splice 45x45cm (for soldier)	6221177022112	8.75
	Corner Splice 60x45cm (for soldier)	6221177022129	10.35
	Corner Splice 60x60cm (for soldier)	6221177022136	11.90
T-Splice			
	T-Splice	6221177022280	9.85
Corner Splice			
	Corner Splice 60x60 cm (Slotted)	6221177147389	11.80
	Corner Splice 45x45 cm (Slotted)	6221177147396	8.70
Pivot Splice			
	Pivot Splice 30x30cm (Slotted)	6221177147341	6.50
	Pivot Splice 45x45cm (Slotted)	6221177147358	9.50
	Pivot Splice 60x60cm (Slotted)	6221177147365	12.50
	Pivot Splice 75x75cm (Slotted)	6221177147372	15.50


Item	Description	Code no.	Weight (kg)
Corner Filler Panel L-shape			
	Corner Filler Panel L-shape , H=1.0m	6221177006624	12.80
	Corner Filler Panel L-shape , H=2.0m	6221177006631	26.50
	Corner Filler Panel L-shape , H=3.0m	6221177006648	37.00
Corner Filler Panel Ladder-shape			
	Corner Filler Panel Ladder-shape , H=1.0m	6221177006594	9.30
	Corner Filler Panel Ladder-shape , H=2.0m	6221177006600	18.00
	Corner Filler Panel Ladder-shape , H=3.0m	6221177006617	26.35
Unit Of Channel Splice 90cm			
		6221177142889	15.00
Compression Plate			
	Compression Plate for Acrow Beam S12	6221177?????	1.60
	Small Wedge (5cm)	6221177082918	0.43
Bolt M16 × 100 mm			
		2012090028565	0.20
	Nut M16	2012210029779	0.033

Item	Description	Code no.	Weight (kg)
Universal Corner Angle Tie Holes (new)			
		6221177026042	2.40
	Stop-End Splice		
		6221177028008	2.35
	Base Plate for VI. Soldier		
		6221177129705	2.30
	Assembling Bracket (For H20 & S12)		
		6221177144234	8.50
	Access Bracket-L- (Hr-VI) For Soldier (810-)cm	6221177133641	8.00
	Access Bracket-L-For HL.Soldier][10	6221177102357	10.20
	shore connector for Hz. Soldier][10 (U-lug)	6221177086824	1.45
	Small Wedge (5cm)	6221177082918	0.43
	Diagonal tube Lv= ???		
	Rivet Pin 17 mm, L=12.5 cm (Type I)	6221177012304	0.25
	Spring Clip (medium)	6221177087289	0.03

Item	Description	Code no.	Weight (kg)
Tilt Up Shore			
	Tilt Up Shore X0 (Galv.)	6221177112424	12.50
	Tilt Up Shore X1 (Galv.)	6221177112431	19.20
	Tilt Up Shore X2 (Galv.)	6221177112448	20.40
	Tilt Up Shore X3 (Galv.)	6221177112455	23.00
	Tilt Up Shore X4 (Galv.)	6221177112462	27.80
Push Pull			
	Push Pull PPS132	6221177014261	7.30
	Push Pull PPS162	6221177014285	8.40
	Push Pull PPS202	6221177014308	9.60
	Push Pull PPS252	6221177014315	11.40
	Push Pull PPS302	6221177014322	13.30
	Push Pull PPS352	6221177014339	15.10
	Push Pull PPH164	6221177014032	21.70
	Push Pull PPH204	6221177014056	26.00
	Push Pull PPH206	6221177014070	27.60
	Push Pull PPH254	6221177014094	28.80
	Push Pull PPH304	6221177014117	33.00
	Push Pull PPH354	6221177014131	38.10
	Push Pull PPH404	6221177014155	42.40
	Push Pull PPH454	6221177014162	48.00
	Push Pull PPH502	6221177014186	50.70
	Push Pull PPH552	6221177014209	56.30
	Push Pull PPH602	6221177014223	82.10
	Push Pull PPH652	6221177014247	86.40
	Push-Pull Prop MPP4 (2.65:4.65) m	6221177163556	39.40
	Push-Pull Prop MPP5 (4.45:6.75) m	6221177163563	61.60
	Push-Pull Prop MPP6 (6.45:10.00) m	6221177163570	120.80
Base Plate			
	Double	6221177000813	2.40
	Single	6221177000882	1.50

Item	Description	Code no.	Weight (kg)
Shore Connector			
	shore connector for Hz. Soldier][10 (U-lug)	6221177086824	1.45
	Shore Connector For Acrow Beam S12	6221177167547	2.00
Rivet Pin 17 mm, L=12.5 cm (Type I)			
		6221177012304	0.25
Spring Clip (medium)			
		6221177087289	0.03

Item	Description	Code no.	Weight (kg)
Wing Nut Pivot Plate 15mm DVD			
		6221177042745	1.60
Forged Wing Nut			
	Forged Wing Nut 15 mm DVD (Type I)	6221177011314	0.35
	Casting Wing Nut 20 mm DVD (Type G)	6221177070199	0.50
Steel Washer			
	Steel Washer 15 mm	6221177027513	1.10
	Steel Washer M20 (120x120x15mm)	6221177224837	1.70
Water Stop Tying System			
	Water barrier (flange type) (Type T)	6221177053574	0.56
	Water barrier (flange type) (Type I)	6221177028220	0.52
	Water Barrier 20 mm (flange type) (Type G)	6221177134099	2.26
Tie Rod Steel Cones			
	Steel-Plastic Cone type MKK	6221177136109	0.59
	Removing Tool for MKK Cone	6221177326777	
	Mold for Concrete Cone Type MKK	6221177226374	37.34

Item	Description	Code no.	Weight (kg)
	Tie Rod 15mm DW L=0.50m	6221177095581	0.79
	Tie Rod 15mm DW L=0.75m	6221177095598	1.20
	Tie Rod 15mm DW L=1.00m	6221177095604	1.60
	Tie Rod 15mm DW L=1.25m	6221177095611	2.00
	Tie Rod 15mm DW L=1.50m	6221177095628	2.40
	Tie Rod 15mm DW L=1.75m	6221177095635	2.80
	Tie Rod 15mm DW L=2.00m	6221177095642	3.20
	Tie Rod 15mm DW L=2.25m	6221177095659	3.60
	Tie Rod 15mm DW L=2.50m	6221177095666	4.00
	Tie Rod 15mm DW L=2.75m	6221177095673	4.30
	Tie Rod 15mm DW L=3.00m	6221177095680	4.70
	Tie Rod 15mm DW L=3.25m	6221177095697	5.10
	Tie Rod 15mm DW L=3.50m	6221177095703	5.50
	Tie Rod 15mm DW L=3.75m	6221177095710	5.90
	Tie Rod 15mm DW L=4.00m	6221177095727	6.30
	Tie Rod 15mm DW L=4.25m	6221177095734	6.70
	Tie Rod 15mm DW L=4.50m	6221177095741	7.10
	Tie Rod 15mm DW L=4.75m	6221177095758	7.50
	Tie Rod 15mm DW L=5.00m	6221177095765	7.90
	Tie Rod 15mm DW L=5.25m	6221177095772	8.30
	Tie Rod 15mm DW L=5.50m	6221177095789	8.70
	Tie Rod 15mm DW L=5.75m	6221177095796	9.10
	Tie Rod 15mm DW L=6.00m	6221177095802	9.50
	Tie Rod 20mm DW Type (G) L=0.50m	6221177100964	1.30
	Tie Rod 20mm DW Type (G) L=0.75m	6221177100988	2.00
	Tie Rod 20mm DW Type (G) L=1.00m	6221177100995	2.60
	Tie Rod 20mm DW Type (G) L=1.25m	6221177101015	3.30
	Tie Rod 20mm DW Type (G) L=1.50m	6221177101039	3.90
	Tie Rod 20mm DW Type (G) L=1.75m	6221177101053	4.60
	Tie Rod 20mm DW Type (G) L=2.00m	6221177101077	5.20
	Tie Rod 20mm DW Type (G) L=2.25m	6221177101091	5.90
	Tie Rod 20mm DW Type (G) L=2.50m	6221177101114	6.50
	Tie Rod 20mm DW Type (G) L=2.75m	6221177101138	7.20
	Tie Rod 20mm DW Type (G) L=3.00m	6221177101169	7.80
	Tie Rod 20mm DW Type (G) L=3.25m	6221177101183	8.50
	Tie Rod 20mm DW Type (G) L=3.50m	6221177101206	9.10
	Tie Rod 20mm DW Type (G) L=3.75m	6221177101220	9.80
	Tie Rod 20mm DW Type (G) L=4.00m	6221177100056	10.40
	Tie Rod 20mm DW Type (G) L=4.25m	6221177101251	11.10
	Tie Rod 20mm DW Type (G) L=4.50m	6221177100063	11.70
	Tie Rod 20mm DW Type (G) L=4.75m	6221177101282	12.40
	Tie Rod 20mm DW Type (G) L=5.00m	6221177101305	13.00
	Tie Rod 20mm DW Type (G) L=5.25m	6221177101329	13.70
	Tie Rod 20mm DW Type (G) L=5.50m	6221177101718	14.30
	Tie Rod 20mm DW Type (G) L=5.75m	6221177101732	15.00
	Tie Rod 20mm DW Type (G) L=6.00m	6221177101756	15.60
Hex. Nut Dvd with Welded Bars			



6221177136352

1.25



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