FORMWORK
SCAFFOLDING
TUBES
ROLL-FORMING
FORGING

FORMWORK SCAFFOLDING SYSTEMS

Waler System 2024

SINCE'2000

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ABOUT US

WTD Industries is considered as one of the major manufacturers & suppliers of Scaffolding and Formwork in the Middle East, GCC countries and North Africa.

WTD is offering wide rage of services such as formwork planning- including project analysis, detailed formwork study, initial cost estimation & computer-aided formwork planning with structural calculations-design, manufacturing, engineering services, sales, rental business & technical support after sales.

All WTD products adhere to international standards and undergo rigorous laboratory testing, including tests for safe working load requirements, deformation resistance, damage resistance, tensile strength, and stress tests.

In 2000, WTD Industries began its journey as a small steel factory in Tanta, Egypt, focusing on decorative steel frames under the name Nefertiti Forge. Over the following decade, our focus shifted towards scaffolding and formwork manufacturing, driven by collaboration with esteemed partners in the construction industry.

By 2010, WTD Industries had established itself as a prominent supplier of scaffolding and formwork in the GCC countries and North Africa. Our comprehensive production facility, spanning over 30,000 square meters in the Beni Sweif Industrial area of Egypt, was home to a workforce of over 150 engineers, technicians, and laborers.

In 2014, as part of our strategic growth plans, we inaugurated the WTD Misr factory in the Hamriya Free Zone of the UAE. This expansion aimed to bolster our sales network, meet market demand, and streamline material delivery across the Gulf region.

By 2017, furthering our capabilities, we established another factory in the 10th of Ramadan in Sharqia, Egypt, dedicated to scaffolding accessories. These strategic moves align with our ongoing mission to provide comprehensive scaffolding solutions to the global market.

In 2023, The road was paved to WTD Industries to flourish in Saudi Arabia, WTD Industries established شركة وتد حلول الانشاء المحدوده WTD Construction Solution LM. Company with two giant stores in Jeddah & Riya, then successes continued.

Such a success is the result of dedication and team spirit.

WTD FORMWORK & SCAFFOLDING SYSTEMS.

Over 20 Years of Trust, WTD remains offering the most economical formwork solutions for any types of construction project.

The values of our strong specialists & workforce are reliability, Accountability ,proficiency & highest commitment.

WTD perceives our team as an asset and a trustworthy success partner.

Customers satisfaction is our utmost goal.

As we measure our achievements against the success of our customers and their satisfaction by offering the most economical Formwork & scaffolding solutions.

Digitalization & Disruptive Innovation are WTD fundamental structures for sustainable success.

WTD organizational structure & consistent enthusiasm facilitate our local presence in many markets, our representatives are capable of providing the best services with excellence &maintain strong connections with our loyal customers.

Eng. Mostafa Bastawesy
WTD President & CEO

WTD CORPORATION

EGYPT | UAE | KSA | INDIA

WTD Network

HEADQUARTER El Sharqia Govern, Industrial Area- A5-10th of Ramadan city, Plot No.175.

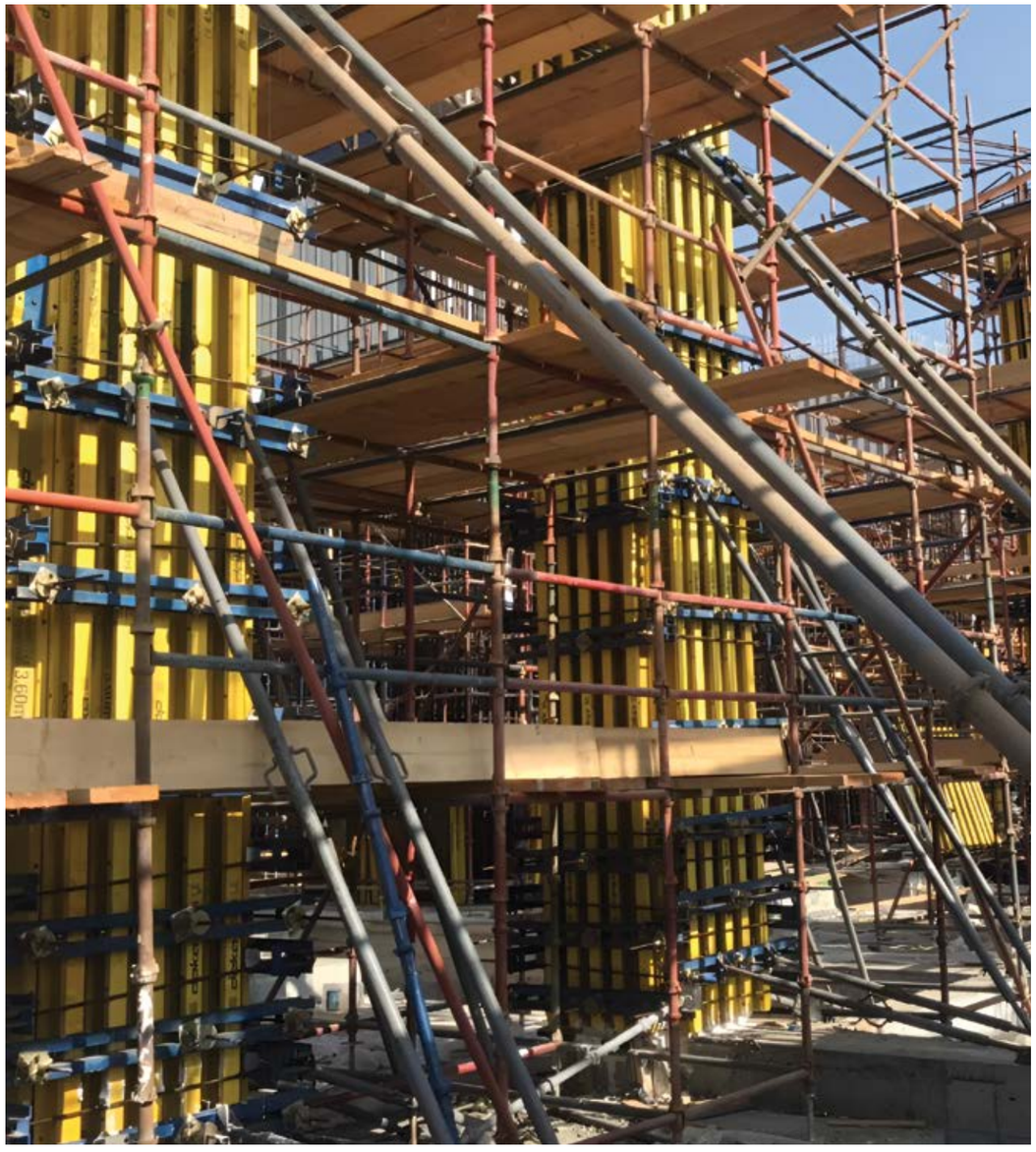
PIPE, COLD-FORMING & SCAFOLDING FACTORIES

Beni Sweif Govern, Industrial Area, Metal Sector, Bayad Al-Arab, Plot No. 26.

Waler System

It is a flexible formwork system that adapts itself to the several and often complicated shapes that happen in building and civil engineering.

The idea of the system comes from the need of designing a versatile system capable of solving several construction typologies with standard components, instead of the old systems, which were based on special components for each solution.



CONCEPT OF THE SYSTEM

The main feature of this system is its unlimited flexibility. This system offers to assemble the panels depending on the:

- **Shape:** This system enables to assemble customized panels with the needed dimensions, always with standard components.
- Size: the maximum area of each panel is 36 m2 .
- Formwork plywood: the type of ply wood will be selected depending on the number of times it will be used and the desired concrete-end quality.
- Concrete pressure: depending on the concrete pressure, the gap between the H20 beams and walers in the panels will be bigger or smaller.

Element Description

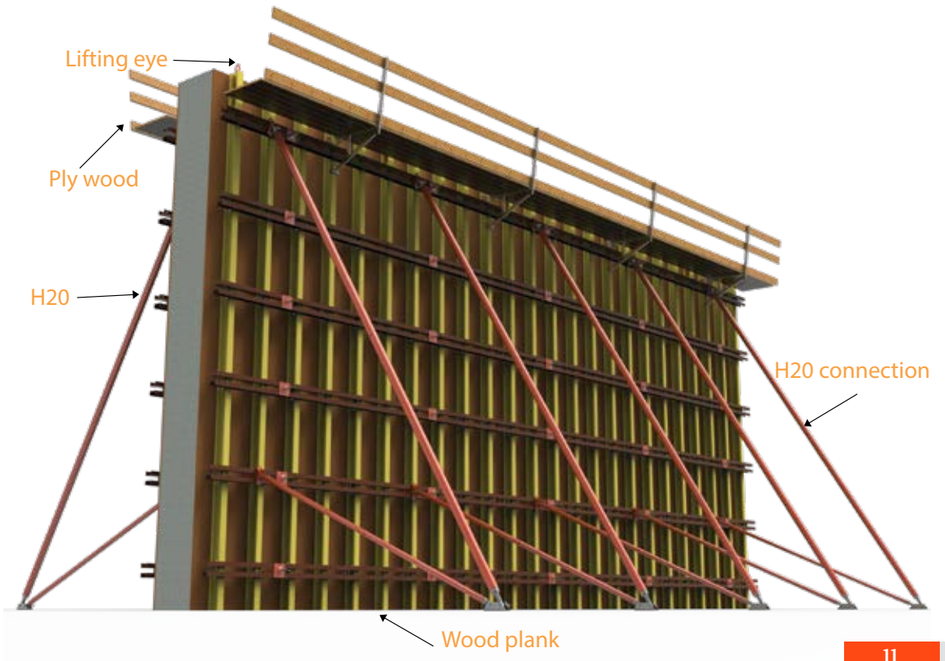
Panel in details

The unit element of the system is the panle. Although this system is formed by many components, the unit of the system will be the PANEL.

The placement of some panel next to each other will make possible to adjust to the required geometry of the wall. The panel is made up of:

- WALERS (1st line beams)
- H20 beams (2nd line beams)
- H20 connection (clamp between the two beams)
- LIFTING eye
- WOOD PLANKS

The assembly formed this way makes a completely stiff component, ready to be used as the unit of the system.



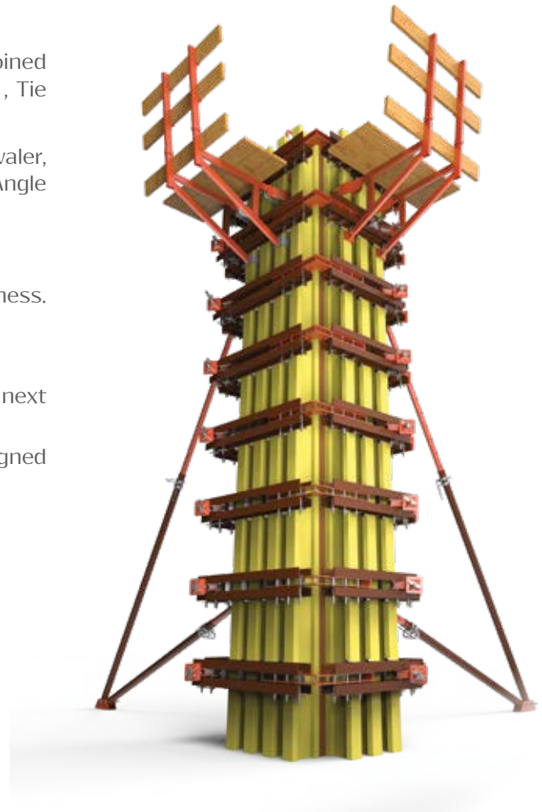
Columns

The column formwork consists of column panels joined to each others which are the universal angle tie , Tie rod and wing nuts.

On the other hand, column panels are formed by waler, H20 beams H20 connectors , Lifting eye, Corner Angle and ply wood planks.

Steel Waler for Walls & Columns

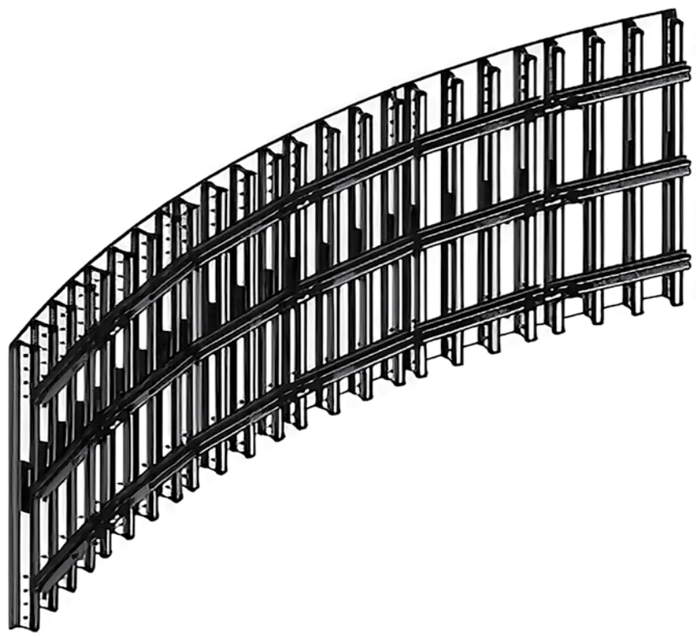
- WTD Steel Waler Beam increases the panel stiffness.
- Provide high accuracy for the panel alignment.
- Act as a support for the H20 Beam.
- The holes at its ends are to connecting to the next panel using splice connection.
- Available in different lengths to meet designed requirements



Circular Formwork

This type of formwork will be u bigger tan 20m.

- The Pivot splice 60x60 is us panles.



COMPONENTS & ARTICAL LIST

Description	Weight
Waler] [0.50 10 m (Holes)	10.75
Waler] [0.75 10 m (Holes)	16.125
Waler] [1.00 10 m (Holes)	21.50
Waler] [1.25 10 m (Holes)	26.875
Waler] [1.50 10 m (Holes)	32.25
Waler] [1.75 10 m (Holes)	37.625
Waler] [2.00 10 m (Holes)	43.00
Waler] [2.25 10 m (Holes)	48.375
Waler] [2.50 10 m (Holes)	53.75
Waler] [2.75 10 m (Holes)	59.125
Waler] [3.00 10 m (Holes)	64.50

Waler

WTD Steel Waler Beam increases the panelstiffness.

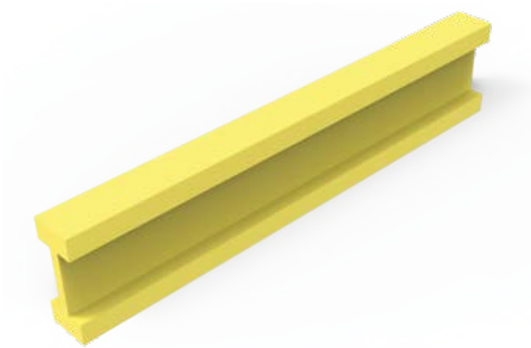
Provide High Accuracy for the Panel Alignment.

Act as a Support for the H20 Beam.

The holes at its ends are to connecting to the next Panel using Splice connection.

Available in different lengths to meet design requirements.

Description	Weight
Timber H20 L = 1.80 m	8.30
Timber H20 L = 1.90 m	8.75
Timber H20 L = 2.50 m	11.50
Timber H20 L = 2.90 m	13.35
Timber H20 L = 3.30 m	15.20
Timber H20 L = 3.60 m	16.55
Timber H20 L = 3.90 m	17.95
Timber H20 L = 4.50 m	20.70
Timber H20 L = 4.90 m	22.55
Timber H20 L = 5.90 m	27.15



H20 Beams

The H20 formwork timber beam is a solid Beam used for concrete Formwork construction.

The natural elasticity of the timber is used to absorb the impact energy if Girder falls to the ground.

The highly compressed web board has a high proportion of synthetic resin Ensures high dimensional stability.

Ease of handling thanks to its very low weight.

High-quality flanges, achieved by 100% machine stress-grading.

COMPONENTS & ARTICAL LIST

Description	Weight
H20 Connection	0.70

H20 Connections

For fixing H-20 Beam to Steel Waler.
It reliably connects the H20 beam to the soldier at any required position.

Description	Weight
Splice Connection 60 cm	5.80
Splice Connection 90 cm	8.70

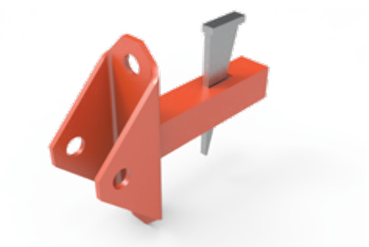
Splice Connections

- For Connecting to panel at position of the soldier.
- Adjusts the horizontal panels together.
- They are connected with the Panels by the Rivet Pins.

Description	Weight
Pivot Splice 60x60 cm Slotted	7.17

Pivot Splice 60x60 cm Slotted

it joins 2 panels that form a non 90 angle between them.



Description	Weight
Shore Connector	1.07.

Shore Connector

Used for fixing push pull With Steel Walers easy and Quickly.

Description	Weight
Small Wedge	0.33

Small Wedge

COMPONENTS & ARTICAL LIST

Description	Weight
Double Base Plate	2.55

Double Base Plate

- Used for fixing Push Pull in the ground in order to Avoid turnover of the formwork panel.

Description	Weight
Single Base Plate	1.30

Single Base Plate

Description	Weight
Corner Angle 45x45 cm	6.335
Corner Angle 60X60cm	7.14

Corner Angle

- used to connect two column steel walers together at angle 900 for the outer corner and to connect between two steel walers in the inner corner of walls and cores at angle 90.

Description	Weight
Access Bracket	11.00

Access Bracket

- Used for construction of pouring and Services platforms helping labors inErection and pouring.
- It is recommended to maintain the Distance between two brackets not Greater than 1.50 meters.
- Max permitted live load 1.5 KN/m2.

Description	Weight
Universal Angel Tie	2.45

Universal Angel Tie

- To connect between the panels corner Together.
- Using with a tie-rod to connect the outer corners together using the required angle.
- The angle range between tie rod and Steel Waler from 23o to 64o.

COMPONENTS & ARTICAL LIST

Description	Weight
Tie rod L = 0.75 m	1.19
Tie rod L = 1.00 m	1.58
Tie rod L = 1.25 m	1.98
Tie rod L = 1.50 m	2.37
Tie rod L = 1.75 m	2.77
Tie rod L = 2.00 m	3.16
Tie rod L = 2.25 m	3.55
Tie rod L = 2.50 m	3.95
Tie rod L=2.75m	4.35
Tie rod L = 3.00 m	4.74
Tie rod L = 3.50 m	5.53
Tie rod L = 4.00 m	6.32
Tie rod L = 5.00 m	7.90
Tie rod L = 6.00 m	9.48

Tie Road

Description	Weight
Wing Nut	0.225

Wing Nut

Description	Weight
Steel Washer	1.30

Steel Washer

Description	Weight
Push Pull PPS202 - (from 1.5 m to 2.5 m)	15.00
Push Pull PPS2) - 252 m to 3 m)	17.80
Push Pull PPS352 - (from 3 m to 4 m)	20.40
Push Pull PPH403 - (from 3.5 m to 4.5 m)	41.40
Push Pull PPH454 - (from 4 m to 5 m)	52.60

Push Pull

- Used to adjust the verticality and position of the panels.
- Used in the formation of trusses because of its ability to resist the forces of tension and pressure.
- Used to support the Panels when using Single-side wall system.

COMPONENTS & ARTICAL LIST

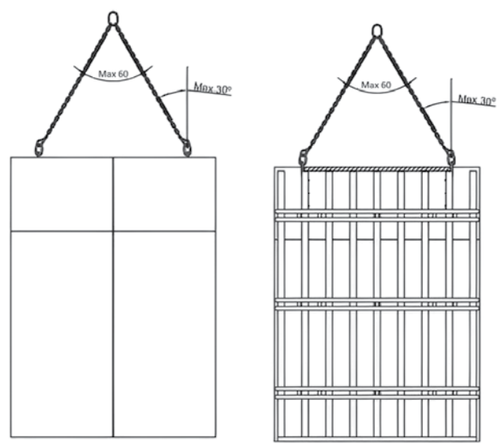
Description	Weight
Lifting Eye	4

Lifting eye

For Setting upright ,Transporting and hitting formwork panels.
Bolted on to the webs of H20 Beams

The slings that go to the Lifting eye should form a maximum angle of 60º between them.

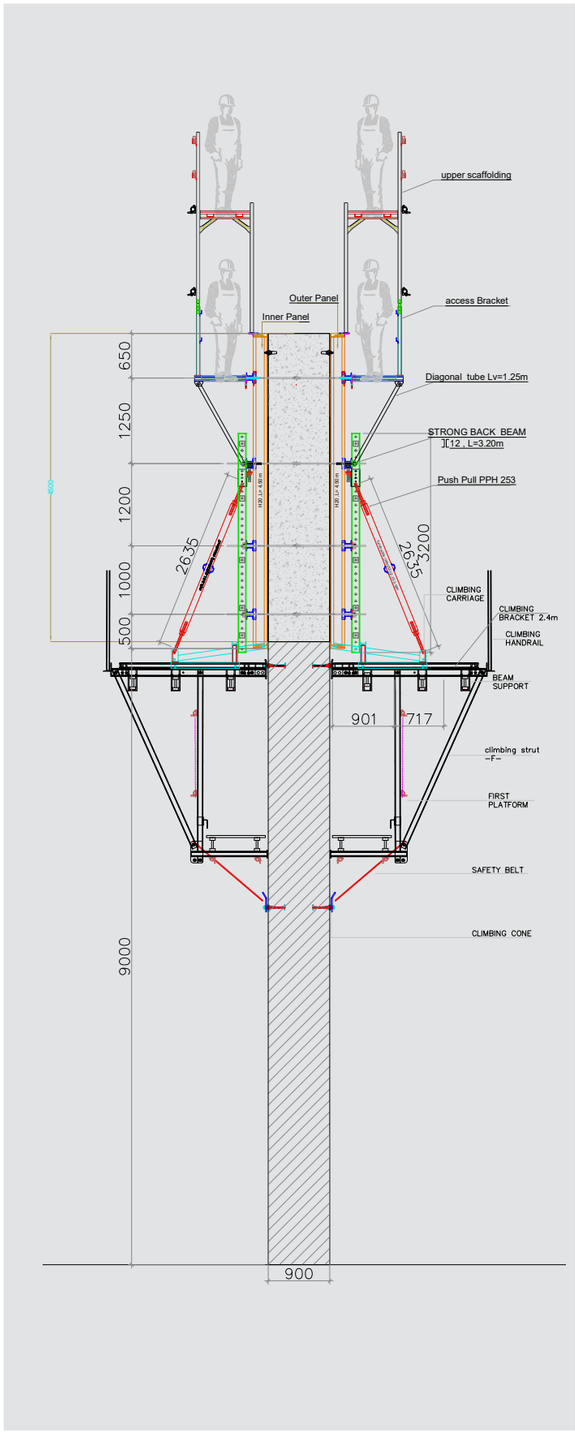
I.e., the sling or chain that goes to each Lifting eye will have at least the same length of the separation between the two brackets.



The angle between the raising chains will be of maximum 60º.

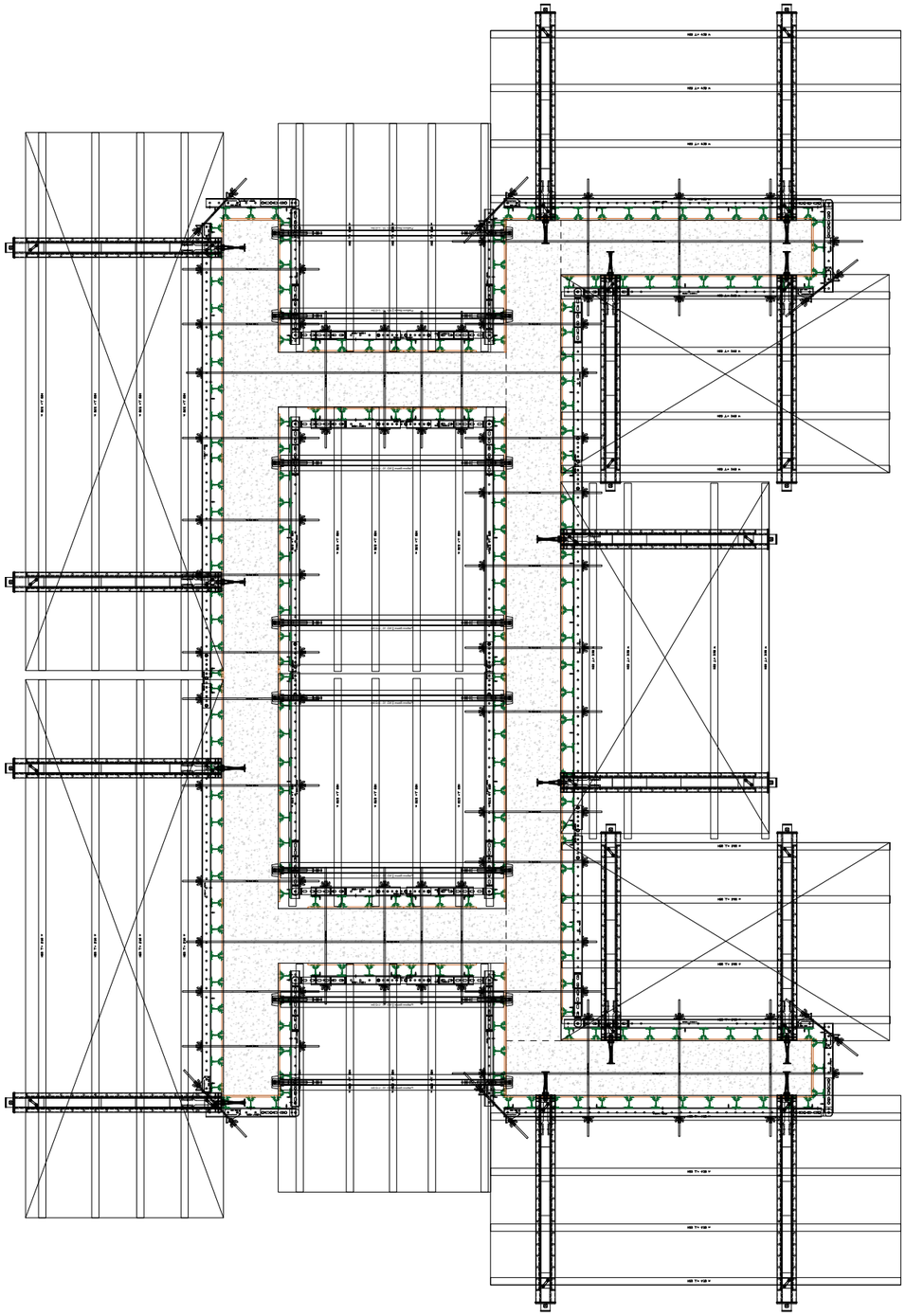
Waler System

WALER APPLICATIONS

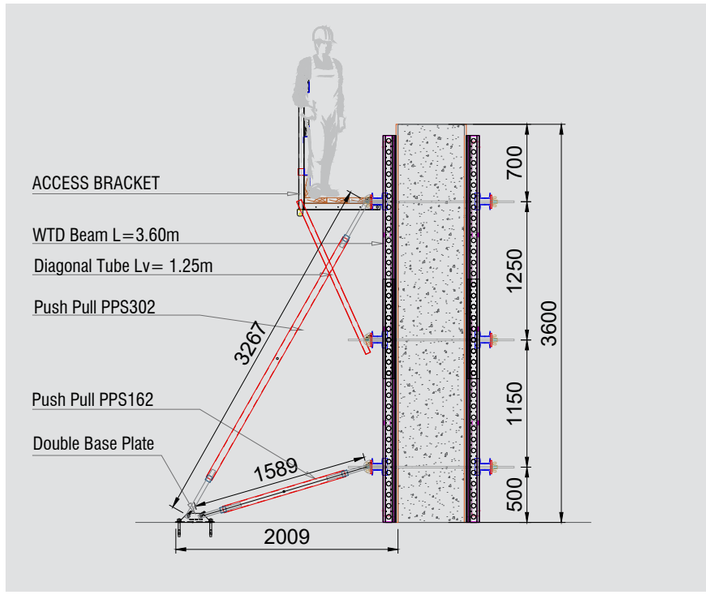


WALER APPLICATIONS

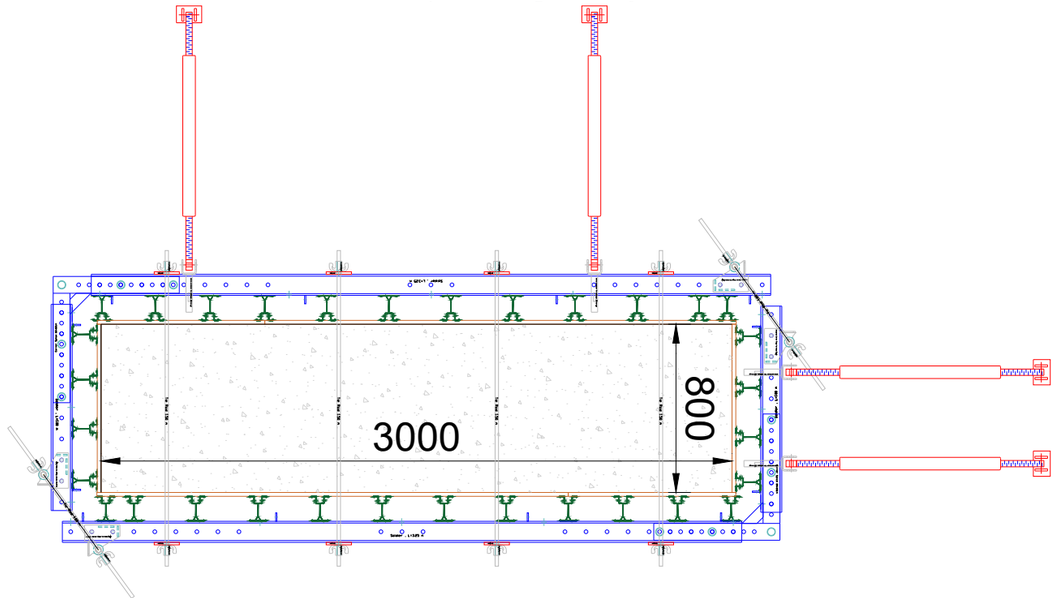
Technical drawing for inner platform used for core and climbing system.



WALER APPLICATION



On-site installation for column formwork panel using Waler system and WTD Smart Beam.)



Technical drawing for column formwork using Waler system and WTD Smart Beam

New Administrative Capital Projects

WTD OFFICES WORLD WIDE

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1. WTD Smart Beam
2. **Waler System**
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4. H-Frame System
5. Shore Load System
6. Steel Blank
7. ERW Steel Pipes & Tubes
8. Accessories
9. Column Clamp
10. Staking System
11. Circular Column

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