

CELEBRATING **50<sup>th</sup>** YEAR



**FORMWORK & SCAFFOLDING SYSTEMS**

**'DEDICATED TO CONSTRUCTION'**

**PRODUCT LINE' 23**



## TMS TUFEKCIOGLU ENGINEERING INDUSTRY & TRADE INC

Head Office : Şerifali Mah. Kızkalesi Sk. No.16  
34775 Ümraniye - İSTANBUL / TURKEY  
Tel: +90.216. 313 96 66 Fax: +90.216. 313 71 51

E-mail: [tms@tms.tc](mailto:tms@tms.tc) Web: [www.tms.tc](http://www.tms.tc) 44 44 TMS



[facebook.com/tmsformwork](https://facebook.com/tmsformwork)



[twitter.com/tmskalipiskele](https://twitter.com/tmskalipiskele)



[instagram.com/tms\\_formwork](https://instagram.com/tms_formwork)



[linkedin.com/company/tms\\_3](https://linkedin.com/company/tms_3)



[youtube.com/tmskalip](https://youtube.com/tmskalip)



|                                   |         |                             |         |
|-----------------------------------|---------|-----------------------------|---------|
| TMS AS YOUR PARTNER               | 2       | VINC'I 70 DECK              | 256-259 |
| ABOUT TMS                         | 3-35    | DEX®                        | 260-261 |
| REFERENCES                        | 36-153  | FLEX DECK®                  | 262-263 |
| K1 PANEL                          | 154-155 | MKH SHORING SYSTEM          | 264-269 |
| HT 20 PLUS TIMBER BEAMS           | 156-157 | MKH STAIR TOWER             | 270-271 |
| SIMPEX® WALL & COLUMN FORM        | 158-161 | MK-X SHORING TOWER          | 272-277 |
| ROUNDEX CIRCULAR WALL FORM        | 162-165 | DEV SHORE                   | 278-279 |
| ACCESSORIES WALL FORM             | 166-167 | BEAM BRACKETS               | 280-281 |
| VINC'I ® 80 WALL & COLUMN FORM    | 168-181 | KAM'A SHORING & SCAFFOLDING | 282-287 |
| VINC'I ® 70 WALL & COLUMN FORM    | 182-189 | KUP'A SHORING & SCAFFOLDING | 288-291 |
| HAND'I ® WALL & COLUMN FORM       | 190-193 | SCAFFAST®                   | 292-295 |
| MOPA WALL FORM                    | 194-205 | MOBILE PLATFORM             | 296-297 |
| COMBI PRO MODULAR FORM            | 206-209 | SAFEGUARD®                  | 298-301 |
| CIREX® COLUMN FORM                | 210-213 | PIPE-RACK SCAFFOLDING       | 302-304 |
| COMBI & GLOBAL MODULAR FORM       | 214-219 | FORMWORK ACCESSORIES        | 305     |
| TRENCH BOX                        | 220-221 | CUSTOM FORMS                | 306-309 |
| PUSH – PULL PROPS FOR ALL SYSTEMS | 222-225 | PRECAST FORMS               | 310-311 |
| SINGLE SIDED BRACE FRAME          | 226-227 | BOX CULVERT FORMS           | 312-313 |
| MULTIX KIT                        | 228-233 | CERTIFICATIONS              | 314-315 |
| CLIMBING SCAFFOLD                 | 234-239 | WISA® - FORM BIRCH          | 316-317 |
| CLIMBEX® HYDRAULIC CLIMBING       | 240-253 | CONCRETE PRESSURES          | 318-319 |
| SLABFLEX                          | 254-255 | SAFETY MEASURES             | 320     |

**Please Note That;**

- TMS reserves all rights to make modifications in the name of safety and technical progress.
- Always make sure to apply all relevant local safety regulations during the use of TMS products, depending on the country they have been used.
- Combined usage of TMS products with those of some other manufacturers may bear some unforeseen risks, in such cases please consult your TMS representative.
- Most pictures and/or illustrations within this brochure may show formwork during assembly or dismantling, hence may not always be complete in regard to application and safety.

In 2023, TMS will be celebrating her 50th year in business. The 'Product Line' 23, therefore, expresses our past 50 years bound with our Product and Service Quality, Reliability, and Innovation aimed for Job-Site Safety and Efficiency. Our deliberate and relentless search for improvement has been combined with our expertise and knowledge accumulated within the past 50 years. Thankfully, this justified our success as being a 'fast reacting' and reputable company bonded to our customers as their project team-mates.

TMS as a 'Customer Oriented Company' has always a complete provider attitude, supported with our elaborate service and wide product range acting like your formwork department, working hand in hand with you. Nevertheless, we excel with our competent engineering solutions, which bring our customers the economy in initial investment and efficiency at their projects from which our clients profit, and this is the key to our success especially in international markets.

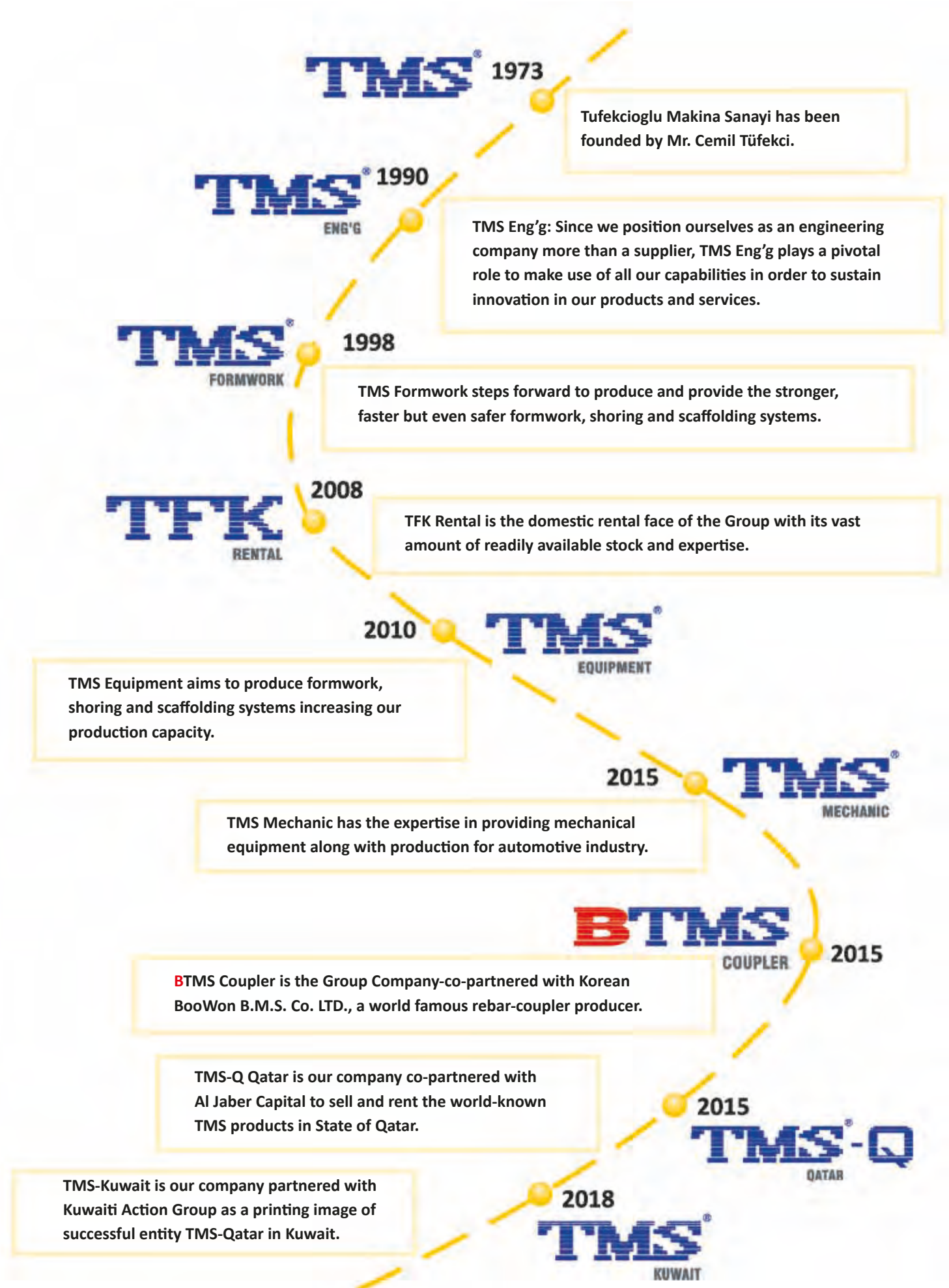
Modern day construction requires safety, efficiency, and being faster, whereas tending to more challenging buildings and complicated structures. While following all technological breakthroughs, we also focus on improving the old, tried and true systems, since for some markets, the best solution could still be the simplest. Therefore, innovation does not always mean to find and build the most technologically complicated solution, but sometimes offering the simplest one.

As always, we endeavor to be on the same page with our customers, understand their motivations, and generate actual added value, in lined with keeping perceived value of our products. We are aware of all the challenges of the construction world, which continuously raises the bar in building higher, bigger, and faster. As TMS, our aim is to cope with all these engineering challenges and ensure the best and most cost-effective solutions through developing safer, stronger, and quicker formwork and scaffolding systems to our esteemed customers.

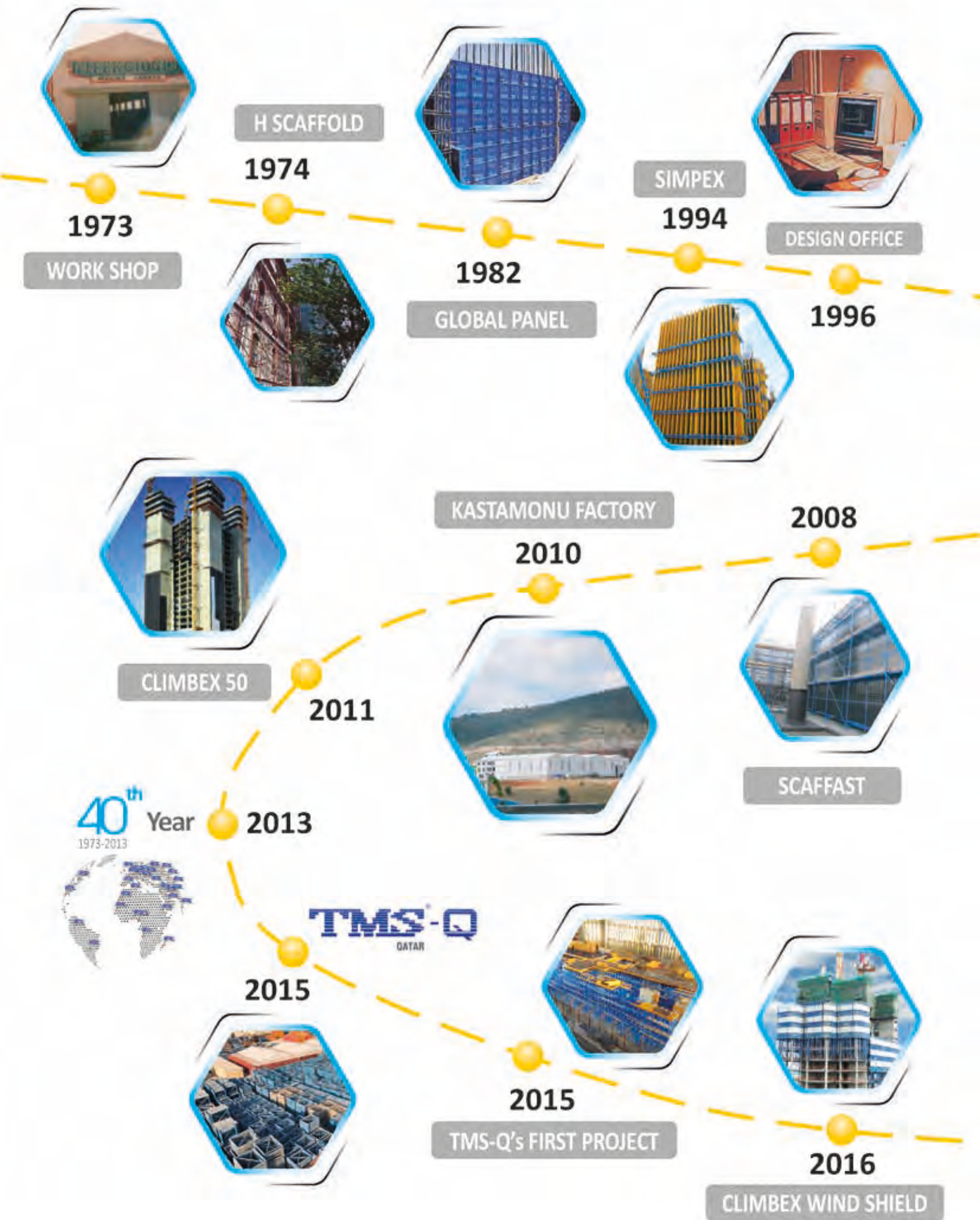
**Kubilay Tüfekçi,**  
Managing Director

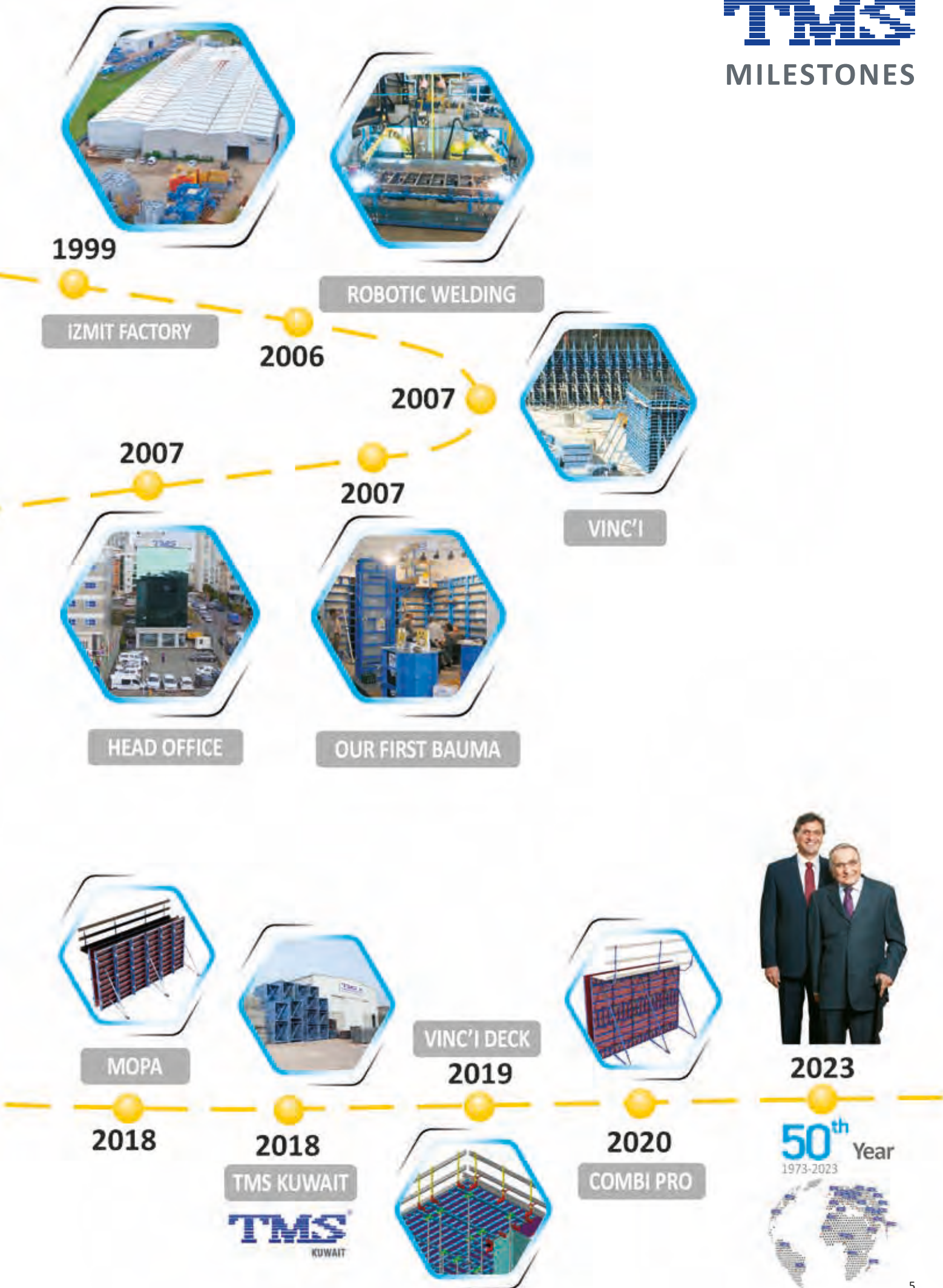


## DEDICATED TO CONSTRUCTION











CELEBRATING 50<sup>th</sup> YEAR



**TMS**<sup>®</sup>  
ENG'G

**TMS**<sup>®</sup>  
FORMWORK

**TFK**  
RENTAL

**TMS**<sup>®</sup>  
EQUIPMENT

**DEDICATED TO CONSTRUCTION**



**TMS<sup>®</sup>**  
MECHANIC

**BTMS**  
COUPLER

**TMS<sup>®</sup>** - Q  
QATAR

**TMS<sup>®</sup>**  
KUWAIT





- ‘Innovative Products’ which reduces the schedules at site
- ‘Dedicated Team’ committed to safety and quality of products
- Modern Production which brings savings
- ‘Handling & Safety’ is always the highest priority









TMS Group operates within the Construction Industry in all over the world; to provide Formwork and Scaffolding Products and related design services.

TMS has a quality product range together with an experienced outstanding team capable to supply innovative, safe and cost-effective construction solutions.

















TMS Equipment is Kastamonu based group company. Established in 2010, it keeps producing cost-effective TMS systems and increasing our production capacity.

TMS' company in Kastamonu contributes not only to the group but also to the people of the region by providing jobs.

TMS MKH shoring systems, TMS KAM'A flanged scaffolding, TMS Simpex type formworks and their accessories are in the main scope of the TMS Equipment's production line.





# TMS KASTAMONU PLANT









### **TMS Mark in Qatar: TMS-Q**

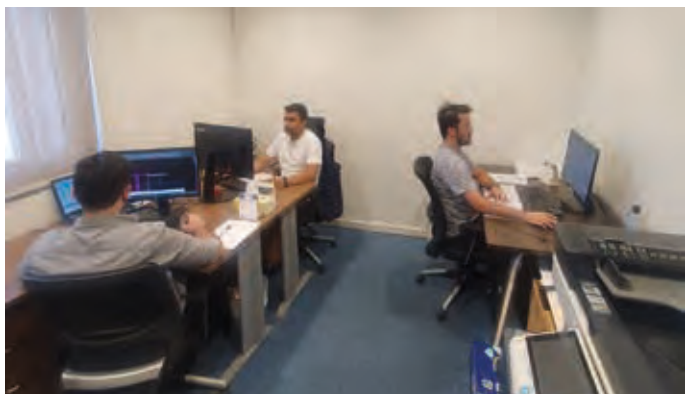
**TMS-Q Qatar** is our company co-partnered with Al Jaber Capital to sell and rent the world-known TMS products in State of Qatar.

Founded in 2015, TMS-Q, together with its professional management team, aims to become a hub in the region by projecting 'TMS Turkey's experience.

Filled with a variety of TMS products, 15000sqm Doha-stockyard is helping to respond to our esteemed clients' instant needs.

Doha- Gold Line Metro, Green Line Metro, Msheireb Downtown Phase4, Underground Reservoir, New Orbital Highway Contract-3, Al Bustan Highway Street North are some of the projects which TMS-Q successfully supplied TMS products and associated services.













### **TMS' New Milestone in Kuwait: TMS-K**

In line with TMS' substantial presence through a number of projects in the Middle East, Europe and the Far East during the past decades; Today, TMS-K Kuwait, founded in 2018, together with its professional management team, steps forward to become a leading actor in formwork business in the region.

Filled with a variety of TMS products, 15000 sqm Kuwait-Stockyard is helping to respond to our esteemed clients' instant needs.

The Kuwait branch, has manifested a remarkable start with a number of projects in the first year of operation highlighted by the construction of RA 263 J05, J06 Precast Bridge, Maternity Hospital and KBT Tower.







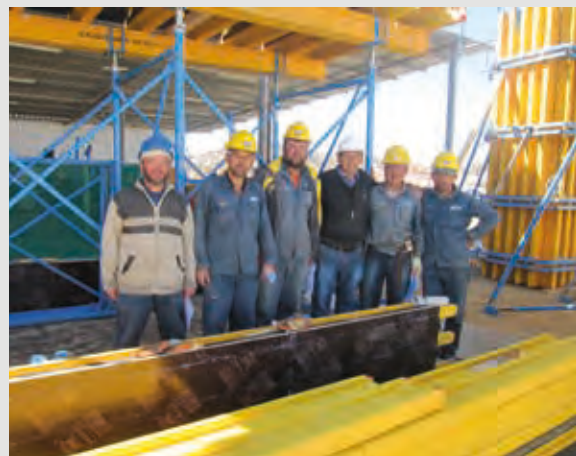




TMS supervisors, whenever and wherever needed, are ready to transfer to clients th

## Supervising & Training

TMS periodically gives training and instruction courses to her customers. TMS technicians teams up with the site managers and their technical departments, to find the best solutions with the most economical suitable products

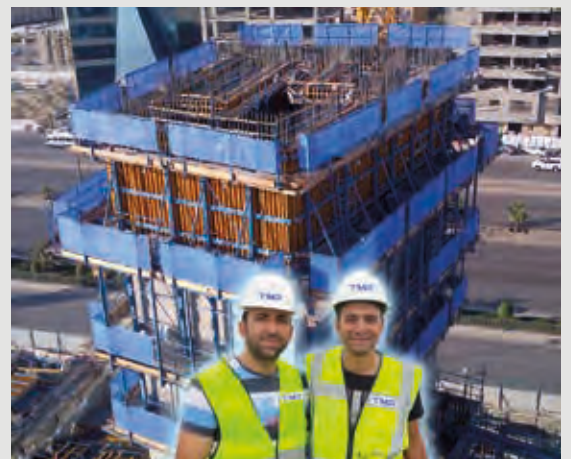




## TMS SUPERVISORS AT JOB-SITE



the knowledge and know-how of the technology of formwork for correct application.







BAUMA' 07 IN MUNICH, GERMANY

LAUNCHING OF VINC'I AT BAUMA' 07 IN MUNICH, GERMANY



## Participating in the World's Largest Trade Fair: BAUMA

TMS, with a full product range stand, is one of the exhibitors of Bauma, World's Leading Trade Fair for Construction.

Our robotic processed VINC'I series, wall and column formworks were introduced to the market for the first time in Bauma 2007.

Being a multi-regional and multi-national Group of companies and proudly exporting to more than 50 countries, TMS displays its world renown products and his engineering capabilities to the international clients through every Bauma organization from 2007 onwards.





BAUMA' 10 IN MUNICH, GERMANY











BAUMA' 16 IN MUNICH, GERMANY











BAUMA' 19 IN MUNICH, GERMANY







## Participating in the Largest Construction Trade Fair in USA: WoC'19

As TMS, we took our place in World of Concrete 2019 in Las Vegas.

WoC'19, became another milestone in TMS track record by shown interest from our visitors.

Our robotic processed VINC'I series, wall/column formworks, Mopa, MK-X, Cirex, Hydraulic Climbing Climbox 100, MULTIX and BTMS Mechanical Couplers were introduced to the US market for the first time in WoC'19.





World of Concrete 2019





Participating in the second event in the North America: CONEXPO-CON/AGG'20, the largest construction trade show of America. As TMS, we also took our place in CONEXPO 2020 in Las Vegas.

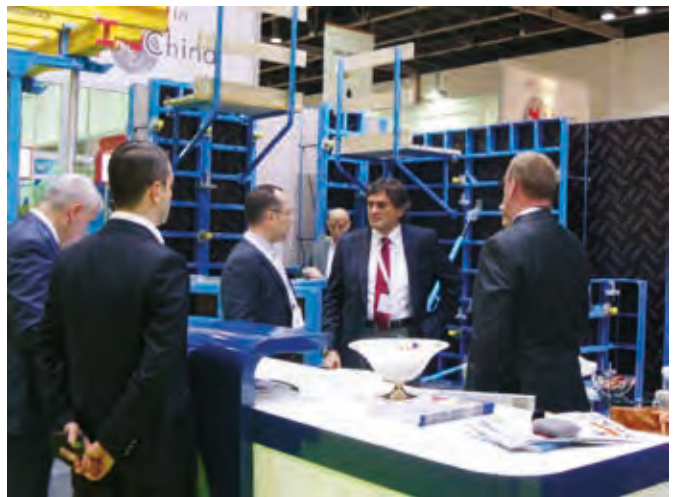
CONEXPO'20 became our second fair participation in US to introduce well engineered, high quality TMS products and services.

































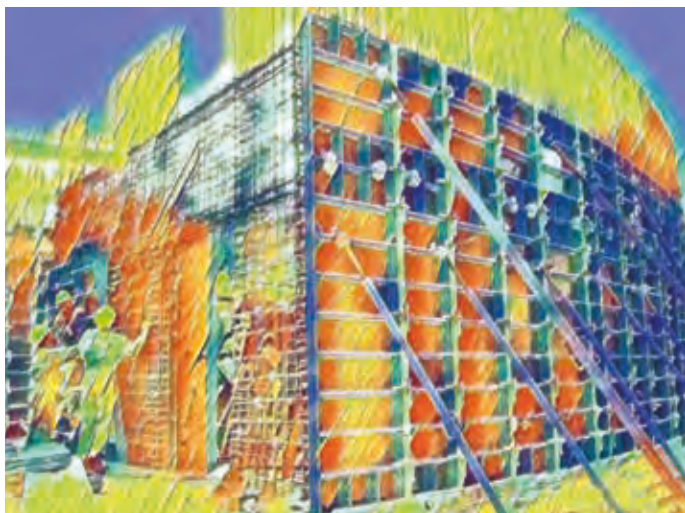




## REFERENCE PROJECTS









## REFERENCE PROJECTS









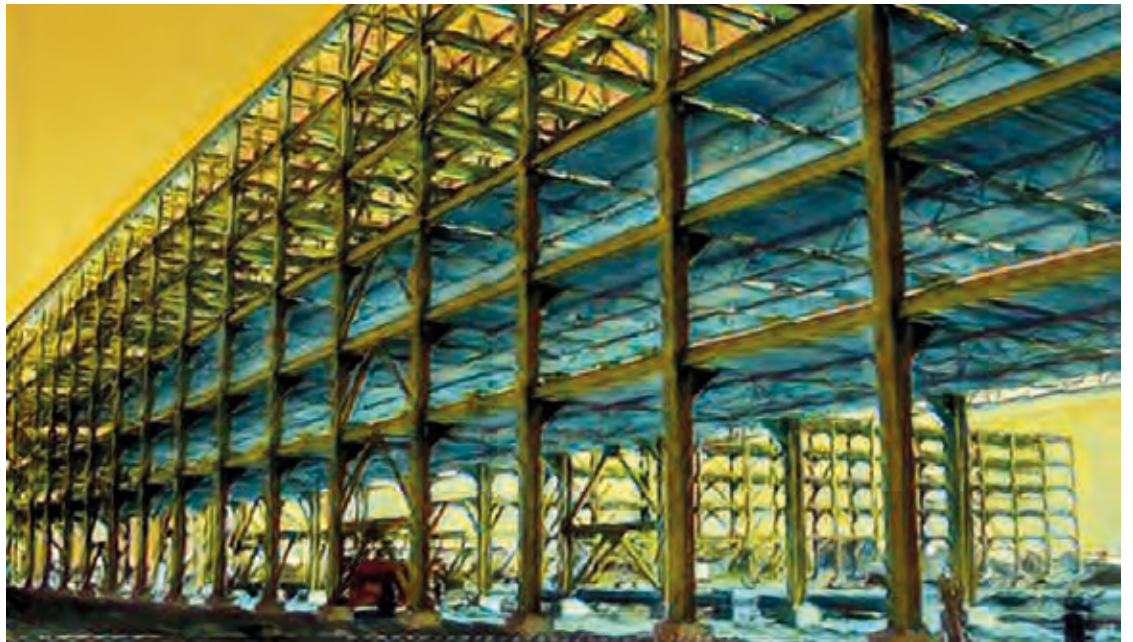
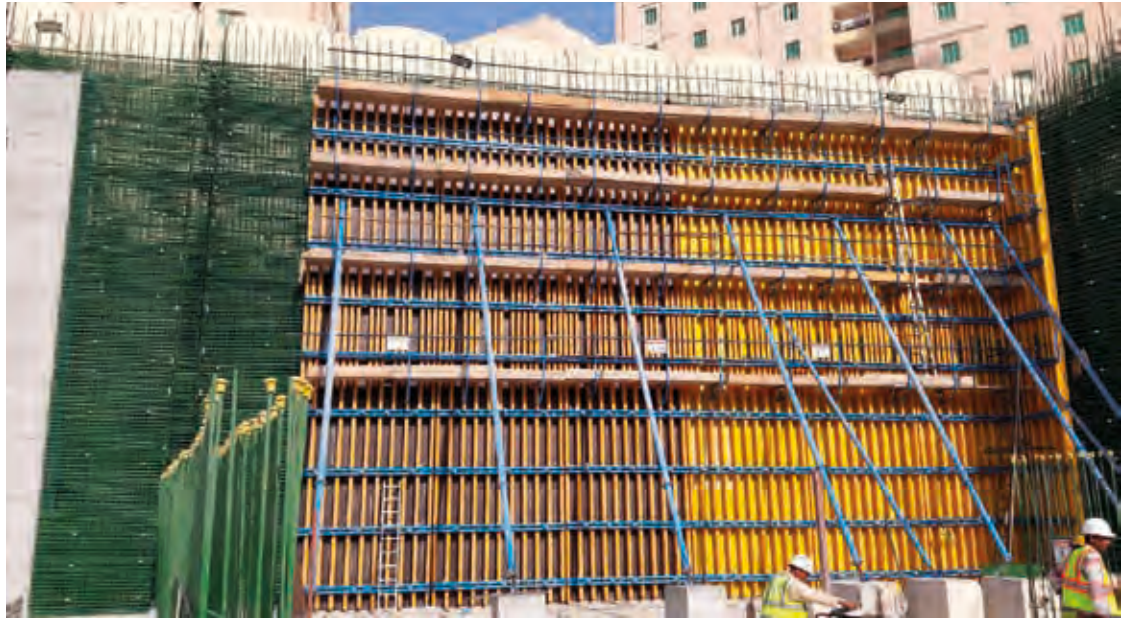
## REFERENCE PROJECTS

















TMS Formwork and Scaffolding Systems were successfully used in the Morocco Phosphate Port Project by the Greek company Archirodon.

With a length of 3170 m, this structure runs perpendicular to the coastline, and includes nearly eighty 40 m long spans. Each span is built on supports comprising of 5 driven steel piles, some of which are inclined.

**Formwork systems provided by TMS:**

- Simpex Wall & Column Formwork System
- MK-H Slab Formwork & Hydraulic Lifting Fork system.
- TR-K 250 Crane Climbing System





The Lusail Towers is a landmark project in Qatar, envisioned as the catalyst for a new central business district in Lusail city with a distinctive collection of four high-rise buildings.

Towers are Located at the end of the commercial boulevard linking the new football stadium to the corniche. Two taller towers stand at 70 storeys, while the other two at 50-storeys-high. At the base, a network of three, four and five storey podium buildings surround each tower.

**TMS supplied:**

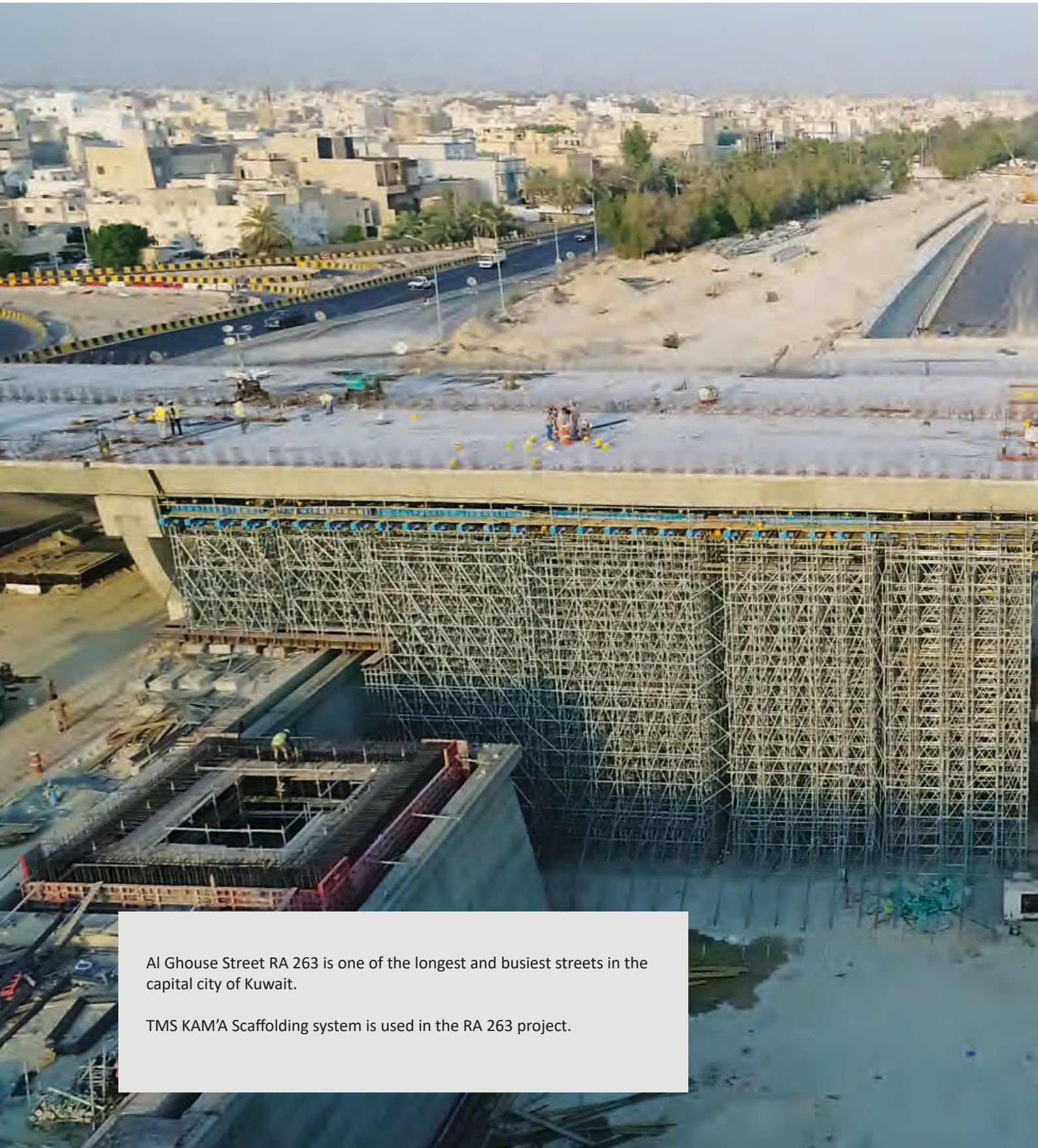
- MK-H Slab Shoring for Podium Slabs
- Vinc'I 80 Column Formwork
- Simpex Wall Formwork
- Edge Barriers for Towers











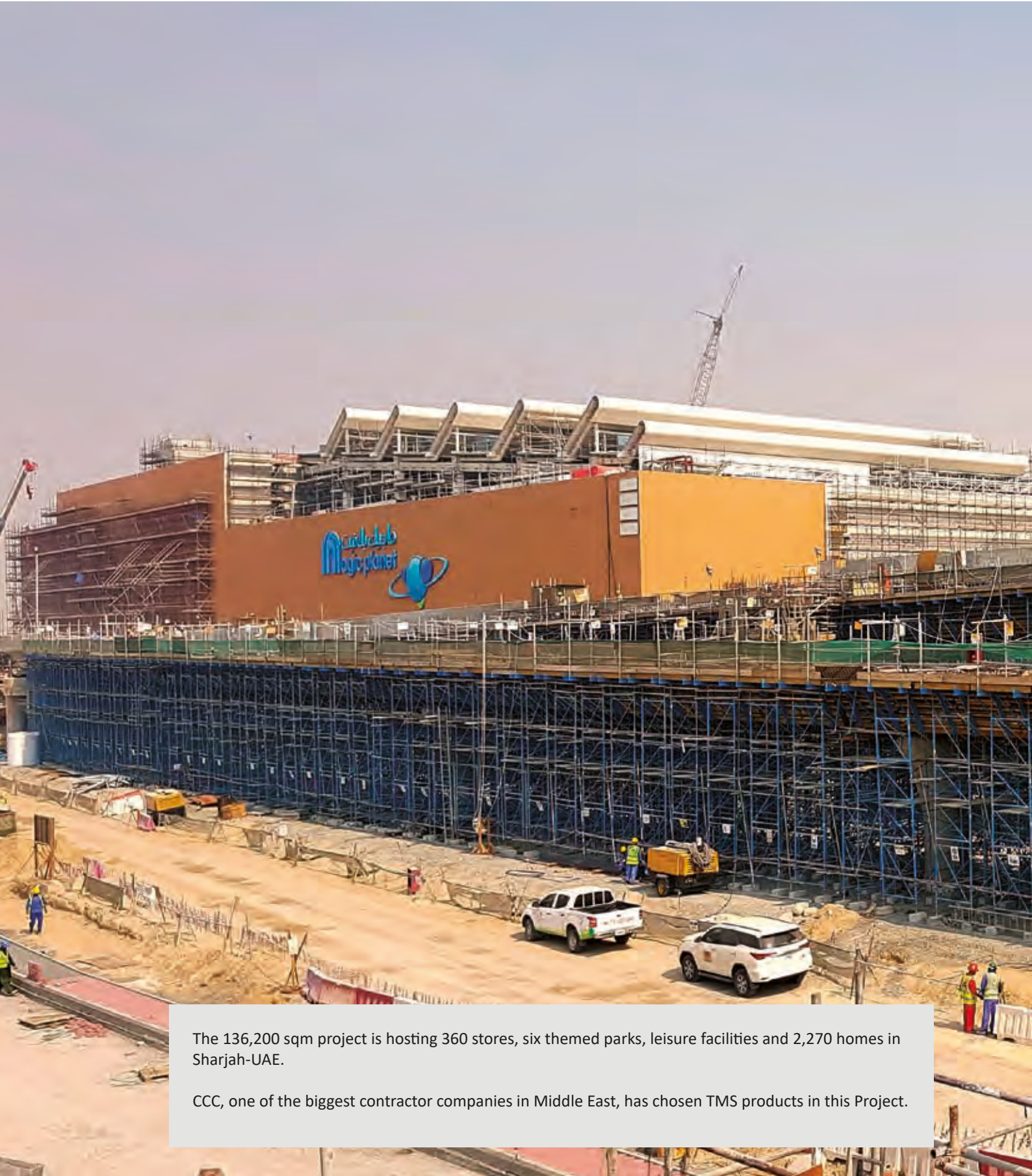
Al Ghouse Street RA 263 is one of the longest and busiest streets in the capital city of Kuwait.

TMS KAM'A Scaffolding system is used in the RA 263 project.









The 136,200 sqm project is hosting 360 stores, six themed parks, leisure facilities and 2,270 homes in Sharjah-UAE.

CCC, one of the biggest contractor companies in Middle East, has chosen TMS products in this Project.









TMS has provided scaffolding & formwork systems, application designs and technical supervision at the jobsite.

**Supplied systems:**

- Combi foundation formwork
- Simpex Wall and column formwork
- MKH Slab formwork
- Vinc'i 70 column formwork.













The project is Located in West Bay Doha, consisting of a 48 storey tower. The Tower is made up of one hotel & residential flats. When completed, the tower is expected to be Aquatherm Green as well.

**TMS supplied:**

- TMS Hydraulic Climbing with Simpex Wall Formwork for Corewall
- Flex Deck Slab Formwork
- Vinc'I 80 Column Formwork
- RAM Single Sided Retaining Wall Formwork











The project for the Barwa Bank Headquarter have a plot Area of 9,500 m<sup>2</sup> and a total built up area of around 35,000 m<sup>2</sup>.

**TMS supplied:**

- TMS Hydraulic Climbing with Simpex Wall Formwork for Corewall
- Simpex Wall Formwork & TRK 240 Crane Climbing System for Wing Walls
- MK-H 150 Shoring System under truss













The project is one of the Turkey's biggest Logistics storages, with a total volume of 400,000 m<sup>3</sup>, being a steel construction on a 21,400 m<sup>2</sup> reinforced concrete floor. It is located in Hadimkoy Akpınar-Istanbul Industrial Zone. The 70% of reinforced concrete floors is at 12 m height, other 30% is ceiling floor, offices and administrative zones which have different storey heights such as 3,30 - 4,50 - 7,50 - 8,20 m.

**Formwork systems provided by TMS:**

- Steel Faced Special Column Formwork System [100 x 100 cm, h: 11 m]
- Vinc'i 80 Wall & Column Formwork System
- MK-H Slab Formwork & Hydraulic Lifting Fork system.









#### Formwork systems provided by TMS:

- Internal slab formwork
- Transport trolley for bridge deck (box section) together with formwork materials; all related designs, static calculations, and supervision services of the special deck system were provided by TMS.

#### Main features:

- The formwork trolley is hydraulic operated system to transport the steel faced deck formwork panels on the rails.
- Labor saving solution.
- Internal deck formwork panels are approx. 6 m length. The rebar works can begin immediately, right after panels are moved and installed at the front.











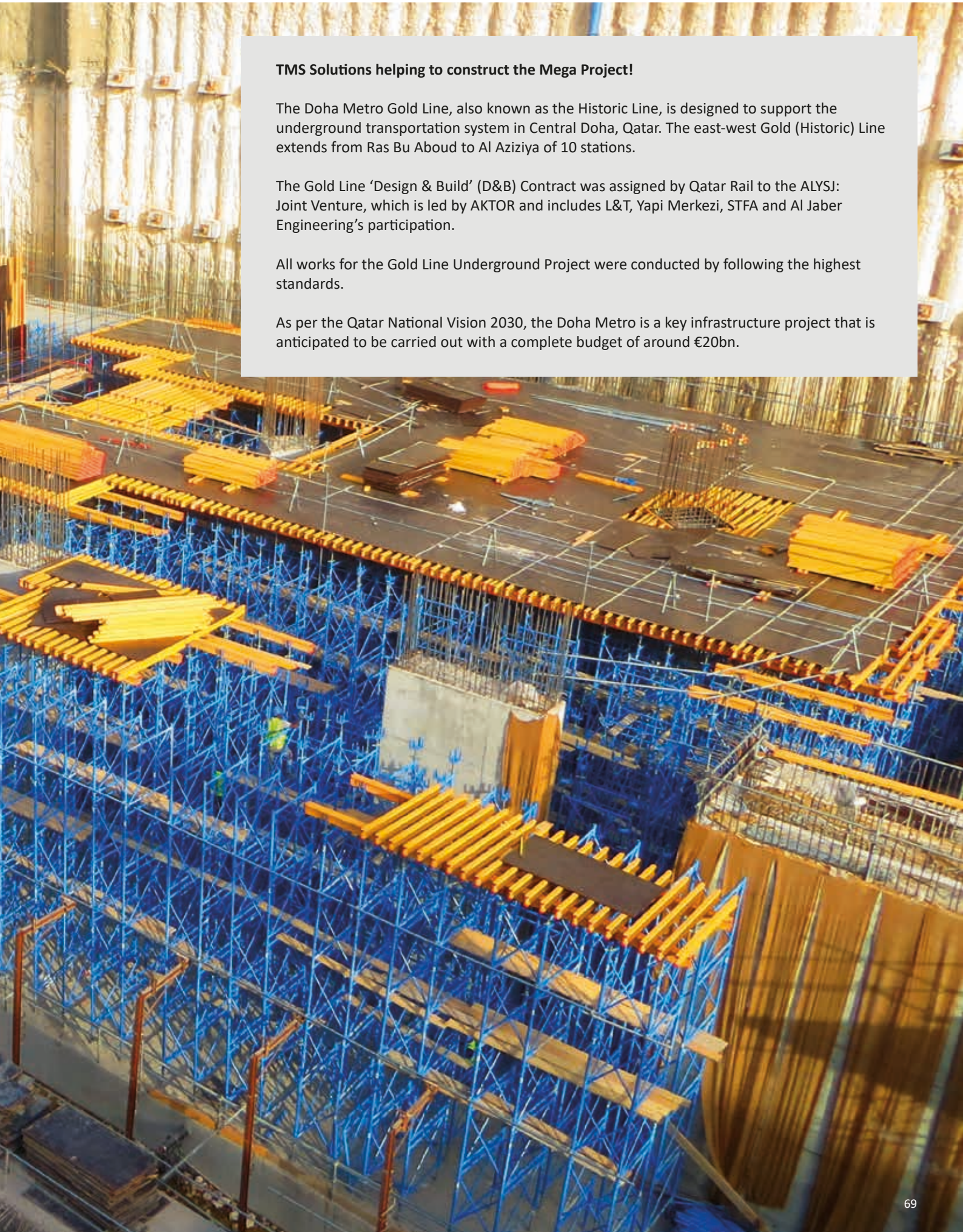
### **TMS Solutions helping to construct the Mega Project!**

The Doha Metro Gold Line, also known as the Historic Line, is designed to support the underground transportation system in Central Doha, Qatar. The east-west Gold (Historic) Line extends from Ras Bu Aboud to Al Aziziya of 10 stations.

The Gold Line 'Design & Build' (D&B) Contract was assigned by Qatar Rail to the ALYSJ: Joint Venture, which is led by AKTOR and includes L&T, Yapi Merkezi, STFA and Al Jaber Engineering's participation.

All works for the Gold Line Underground Project were conducted by following the highest standards.

As per the Qatar National Vision 2030, the Doha Metro is a key infrastructure project that is anticipated to be carried out with a complete budget of around €20bn.









**TMS contributed to the Mega Project as one of the major formwork and scaffolding suppliers.**

**Following stations of Gold line was constructed by using TMS Systems:**

- Ras Bu Abboud (ACN)
- Qatar National Museum (SHQ)
- Souq Waqif (DSQ)
- Bin Mahmoud (ADB)
- Al Sudan (SAS)

TMS Products used in the Project are:

- SIMPEX and VINC'I 80: Wall and Column Formworks
- SIMPEX Foundation Formwork
- MK-H 150 Table Forms
- GLOBAL Systems specially designed for TBM entries.
- Single Sided TMS Brace Frames: RAM

















**TMS continues to be partner of prestigious projects:  
Al Zahia City Center Mall, in UAE.**

136,200 sqm project hosts 360 stores, six themed parks, leisure facilities and 2,270 homes in Sharjah.

CCC, one of the biggest contractor companies in Middle East, chose TMS products once again.

TMS prepared all kind of structural design projects related with formwork and scaffolding systems and technical supervising on jobsite.

**TMS supplied:**

- Combi Foundation Formwork
- Simpex Wall and Column Formwork
- MKH Slab Formwork
- Vinc'i 70 Column Formwork.

















**TMS Climbox (Hydraulic Wind Shield System): 24 m height of 5.5 storey-protection!**

The Adress Hotel is the latest and tallest building in the mixed used project of Emaar Square Istanbul.

Concrete Core wall in the middle of the plan and surrounded steel composite columns around the core carried out 53 floors of the skyscraper.

TMS has the record of highest hydraulic wind shield system design and application in Turkey.

The screen was able to close 5.5 storey, 24 m at once and this have given the maximum safety to work at high floors.

**TMS systems used in the project are:**

- Climbox Hydraulic Wind Shield System
- Climbox Hydraulic Climbing System
- Simpex Wall Formwork





**Engineering, Design, Planning, Production, Application, all in one: Only TMS & TMS Systems!**

One of the largest mixed used projects in Turkey and Europe, Emaar Square Istanbul consists of eight residential and Office buildings, together with shopping mall. Only phase 2 of the project is settled on 65.000 sqm area and has 530.000 sqm closed area in total, which includes 4.500 car parking capacity.

TMS has been the only formwork and scaffolding designer and Supplier Company during the project. All required calculations and technical supervising on job site, along with formwork application details, was overtaken by TMS against Sera Yapı, the main contractor.

**Only TMS systems in many different architectural and structural details have been used on job site:**

- Climbox Hydraulic climbing system
- Climbox Hydraulic windshield system
- Simpex and Vinc'i 80 Wall and Column formworks
- MKH Slab formwork
- Cirex Circular Column Formwork
- Safeguard safety net and working platform











**44 Storey Tower in Riyadh, with Climbex self-climbing system of TMS.**

In Riyadh, Kingdom of Saudi Arabia, TMS was awarded to supply all formwork and scaffolding systems.

One of the World's construction leader Samsung and CCE partnership was the main contractor of this highrise building together with Hill International project management.

Climbex Hydraulic Climbing Systems, developed and produced by TMS Engineering, have been used in four reinforced concrete core walls, situated around tower building.

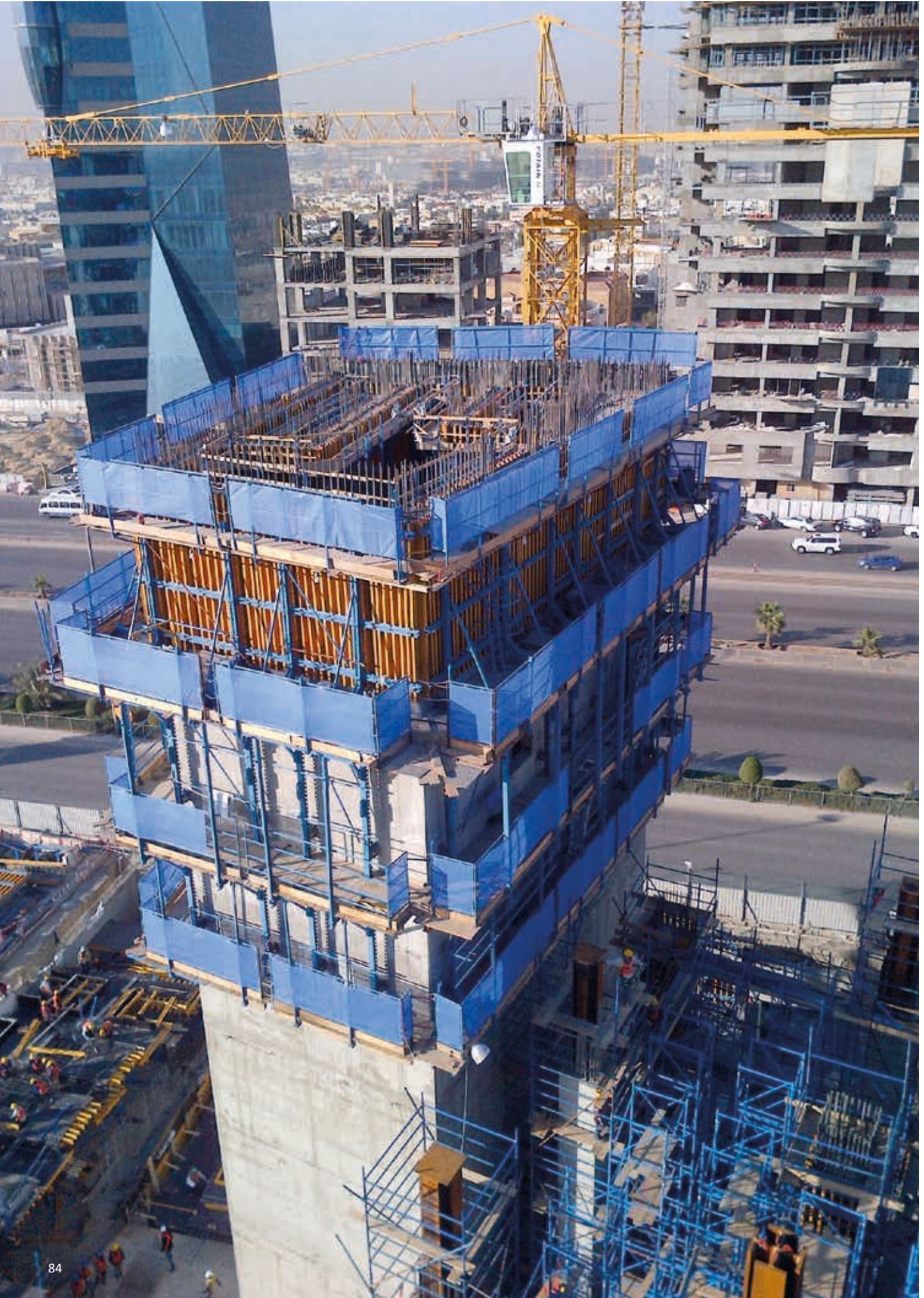
**The supplied materials by TMS are:**

- Climbex Hydraulic Climbing System
- Simpex Wall and Column Formwork
- MKH Slab Formwork
- Stairway riser Formwork
- MKH Stair Tower



















## REFERENCE PROJECTS



“Mozoon Towers” Project is a four-tower complex under development on a plot land of 29,395 m<sup>2</sup>, with a total construction area of 435,503 m<sup>2</sup>, detailed as follows:

- Tower “A” – Hotel and Hotel Apartments (5B+G+25) – Operated by Oberoi Hotels and Resorts under Brand name “The Oberoi – Doha”
- Tower “B” – Hotel (5B+G+32) – Operated by Marriott International under Brand names “Renaissance Hotel” and “Courtyard Hotel”
- Tower “C” – Hotel Apartments (5B+G+37) – Operated by Retaj Hotels & Hospitality under Brand name “Retaj Suites and Residence”
- Tower “D” – Hotel Apartments (5B+G+45) – Operated by Marriott International under Brand names “Marriott Executive Apartments” and “Marriott Residence Inn”

**Following Formwork systems were provided by TMS:**

- Climbox 100 Hydraulic Climbing System
- Simpex Wall Formwork
- MKH 150 Slab Formwork







### SFSF: Another mega project in Qatar is rising with TMS

The New Port Project (NPP) Steering Committee and Al Jaber Engineering (JEC) signed a contract for designing and constructing food security facilities and warehouses at Hamad Port. The facilities of the project was constructed on an area of approximately 53 hectares (about 530,000 square meters).

The project consists of specialized facilities for the processing, manufacturing and refining of rice, raw sugar and edible oils. These products will be available for local, regional and global use.

As TMS Group, we are proud to be part of this project with our products.

- Roundex Wall Formwork
- Climbing Scaffold













The project calls for the construction of a four-lane bridge branching out of Al Yalaisy Road into two bridges of two lanes each located on Sheikh Zayed Road, Dubai. The first one is bound to Abu Dhabi and the other one leads to Dubai Road and from there to Jebel Ali Free Zone and Port. The road works will raise the capacity of Al Yalaisy Road to almost 10,000 vehicles per hour in each direction.

**TMS supplied the following formwork and scaffolding material to this special project:**

- MKH Heavy-duty shoring towers
- Simpex Wall Formwork







Public Works Authority (Ashghal) is currently implementing Al Khor Expressway Project, which is one of the key projects of the DOHA-Expressway Programme.

The 34 km-highway runs from southern edge of the Doha Golf Club to the Al Bayt Stadium in Al Khor City at the North.











Under the supervision of Kuwait Ministry of Public Works, in the scope of maintenance of Al Ghouse Road which is one of the longest in Kuwait City , comes the construction works of the RA /263 bridge in junction 5.

The project involves the development and rehabilitation of roads situated between the Fifth Ring road to the Sixth Ring road.

**The scope of the project would include:**

- Construction of an elevated bypass bridge above the fifth ring road.
- Construction of a three level interchange and footbridge
- Maintenance and upgrade of Al Ghouse road from 5th to 6th ring road

TMS was awarded the 5th and the 6th Junction J05 and J06 and KAM'A system was utilized in both Junction.

















**Mahall Bomonti Tower rises with Climbex 60 hydraulic climbing system.**

The Mahall Bomonti İzmir project built on approximately 45,000 m<sup>2</sup> of land, consists of residential, office and commercial areas, in addition to 9 historical buildings restored. It contributes to the social fabric of the region.

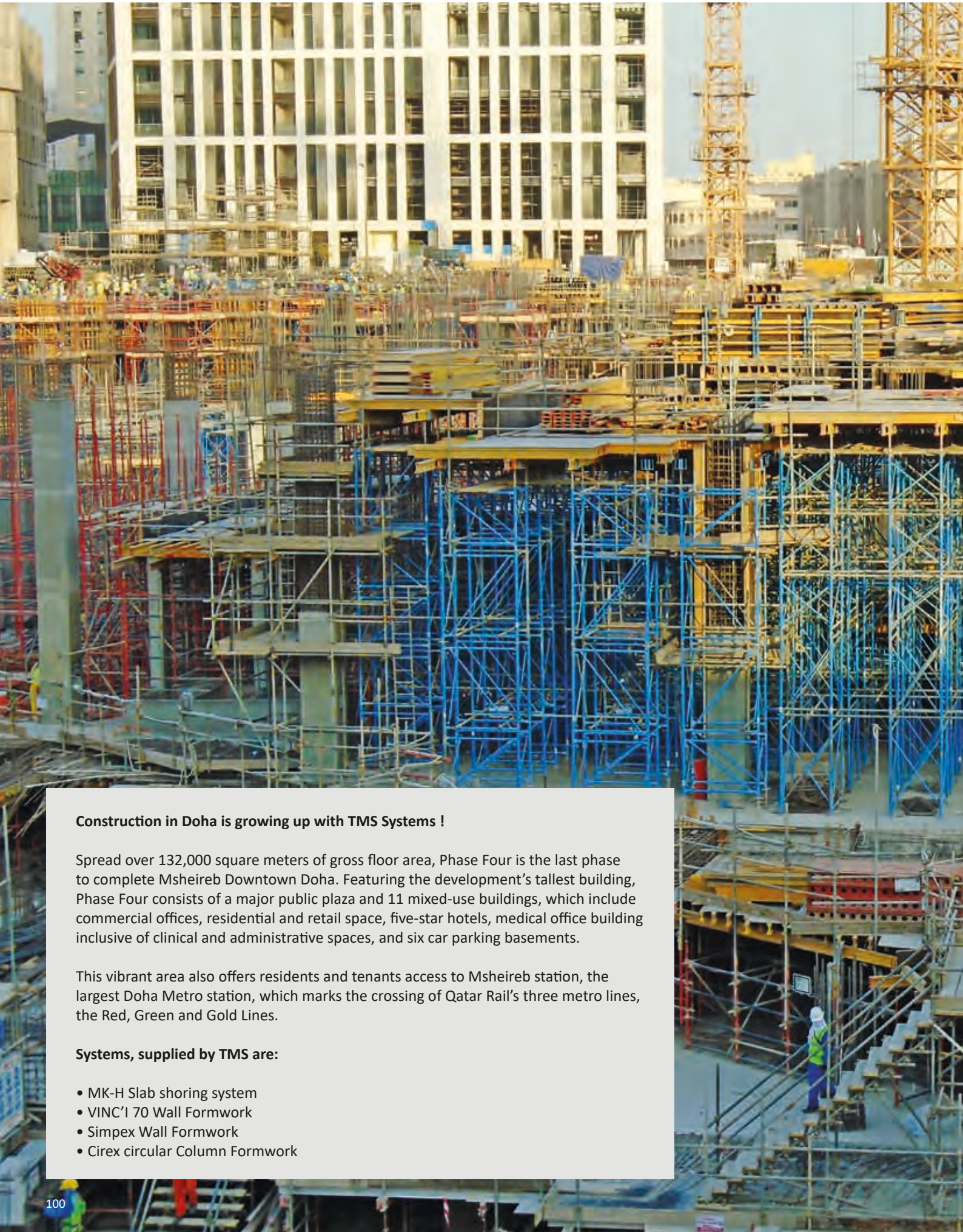
Mahall Bomonti Tower consist of 4B+G+58 Floor + Roof which climbed up by Climbex 60 Hydraulic Climbing System.

**Formwork systems provided by TMS:**

- Climbex 60 Hydraulic Climbing System
- Hydraulic Climbing Windshield System
- Simpex Wall Formwork







### **Construction in Doha is growing up with TMS Systems !**

Spread over 132,000 square meters of gross floor area, Phase Four is the last phase to complete Msheireb Downtown Doha. Featuring the development's tallest building, Phase Four consists of a major public plaza and 11 mixed-use buildings, which include commercial offices, residential and retail space, five-star hotels, medical office building inclusive of clinical and administrative spaces, and six car parking basements.

This vibrant area also offers residents and tenants access to Msheireb station, the largest Doha Metro station, which marks the crossing of Qatar Rail's three metro lines, the Red, Green and Gold Lines.

#### **Systems, supplied by TMS are:**

- MK-H Slab shoring system
- VINC'I 70 Wall Formwork
- Simpex Wall Formwork
- Cirex circular Column Formwork













### **TMS Systems, as a solution partner in Osmangazi Bridge Project !**

The most important part of Gebze – İzmir Motorway Project is İzmit Bay Crossing Bridge which has 2.5 km length in total and takes its place as the World's 4<sup>th</sup> biggest suspended bridge.

STFA, one of the oldest and rooted companies of Turkey, carried out the construction of caissons while IHI and Itochu JV has become the main contractor of entire bridge.

### **TMS joined into this project with the systems of:**

- Roundex Circular Wall Formwork
- TRK 250D Climbing Scaffold (Dam Type)
- Vinc'i 80 Wall Formwork
- Scaffast Frame Type Working Scaffolding











**TMS Group, with its over 45-year-experience, is in “1915 Canakkale Bridge” Project: World’s longest Span Bridge!** 1915 Canakkale Bridge over Dardanel Strait of Turkey is the World’s “longest” suspension bridge with a middle span of 2023 metres. The monumental project with a visually appealing and modern suspension shape is going to reflect the city’s prominence and history. Bridge length will be 4608m. Towers are planned to be at 318m height. The lifespan of the design is set to be 100 years.

**TMS systems being used for Caisson Manufacture are as follow:**

- TMS SIMPEX: Wall Forms
- TMS ROUNDEX: Circular Wall Forms
- VINC’I 80: Panel forms
- TRK 160 & TRK 240 Climbing Scaffold









### **VINC'I Panels: TMS' heavy duty workers!**

Project sits on 40.000 sqm construction area with a tight schedule.

COSKU, a loyal customer to TMS, undertook the Project.

**Following TMS products were used in the project:**

- VINC'I 80 Wall & Column systems
- RAM Single Sided Brace frames
- TRK Climbing Scaffold







**Formworks of Motorway bridges were designed and supplied by TMS.**

Oman Bidbid – Sur Highway Project Package Part 1 consists of 75 km. road construction along with roundabouts, over and under passes. STFA & Al Habtoor Leighton partnership is the contractor.

**TMS supplied:**

- MKH Heavy-duty shoring towers
- Multix special walers
- Simpex Wall Formwork
- TRK Climbing Scaffoldings







**TMS Pipe-Racks distinguish themselves in Kashagan.**

Project consists of constructing petroleum processing units & Gas pressurization facilities. GAMA & TEKFEN Partnership, known as GATE, took over the construction. TMS executed 16.160 tons of steel construction work, and supplied scaffolding to 63.990 m<sup>2</sup> various facilities, along with 357.000 lm pipe for related Works.

**TMS systems used include:**

- Pipe-rack Suspended Scaffolding (as per BS 5973)
- MKH Stair Towers
- Tube & Coupler / Suspended Scaffolding









**TMS Scaffolding with safety equipment were used in full confidence !**

Investment cost of the Project is 2.7 billion USD and consisting of 4 refineries along with relevant facilities.

TEKFEN, the contractor, used TMS pipe-racks, along with safety equipment, in full confidence, as before.

TMS scaffolding systems used in the Project cope with EN12810, EN12811 and EN12812 as below:

- Pipe – Rack Suspended Scaffolding Systems
- Kup'a Shoring and Scaffolding systems
- Kup'a Stair Tower systems









**TMS' European standard-scaffolding systems came to prominence in Turkmenistan!**

Development of the gas field project is undertaken by Tekfen Construction. The scope of the work consists of utilities and off sites, works of the Central Gas Processing facility including civil, mechanical and electrical and instrumentation works. All TMS scaffolding systems provided meets the standards of EN 39 certified (tubes), EN74 (couplers) and BS 2482 (timber).

**TMS was awarded by supplying the systems below:**

- Kup'a slab formwork
- Kup'a working scaffolding and stair tower within the norms of EN 12810 and EN 12811
- Pipe-rack suspended scaffolding system according to BS 5973 norms
- Tube and Coupler working scaffolding system













### **TMS continues to be the part of Mega Projects!**

Totally 5.6 billion USD investment project is going to be producing a wide range of oil products and having storage capacity of 1.64 million m3 in its 63 tanks.

TMS working scaffold, stair towers and safety equipment has been chosen by Mega Industry, to use around the tanks. All systems have been designed and produced according to EN12810, EN 12811, EN12812 standards, together with EN 74 and EN39 certified accessories.

### **TMS is proud to supply the systems below:**

- Kup'a Shoring and Scaffolding Systems
- Kup'a Stair Tower Systems.





### **TMS: The Sole Formwork Solution Partner of the Project!**

The plant will provide cooling to the residential and commercial towers. The plant is designed to produce 40,000 tons-cooling, cutting down energy usage by 40-45% compared to traditional cooling systems.

District cooling is offering an environment-friendly solution to address the nation's cooling requirements and Al Jaber Engineering is the contractor of the project. TMS is proudly participating in the Project as a sole formwork solution partner.

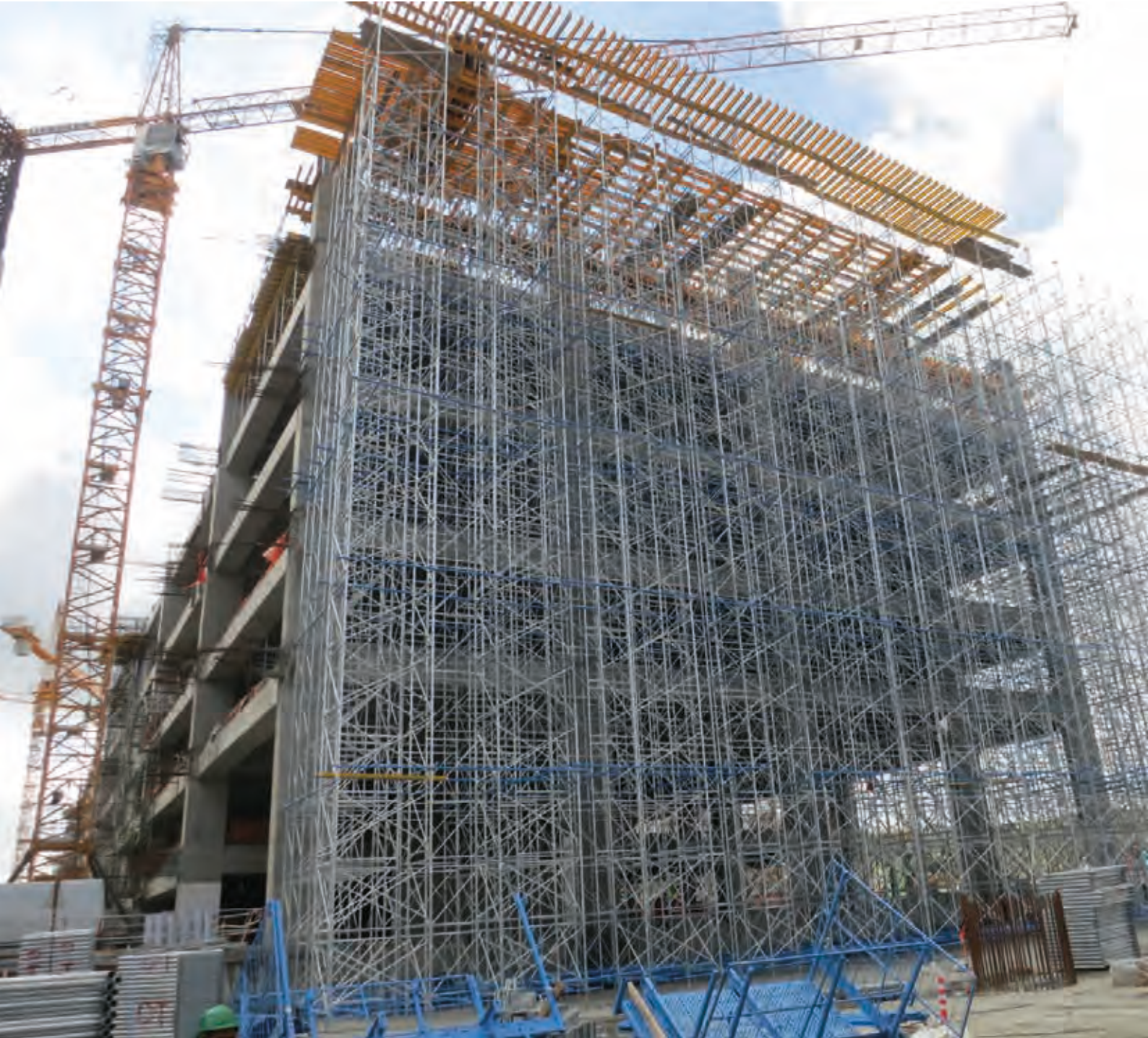
### **TMS Systems contributing to the construction are:**

- Simpex Wall and Column Formworks
- RAM Single Sided Brace Frame
- MKH Slab Formwork
- TRK 160 Climbing System









### **TMS systems contributing to the Mega Project: Istanbul's New Airport !**

Having more than 350 destinations and upto 200 million annual passenger capacity, Istanbul New Airport is planned to be one of the biggest airport in the world. The consortium, IGA, consists of 5 companies: Cengiz, Mapa, Limak, Kolin, and Kalyon Construction.

Caba-Artland-Inotek JV is one of the subcontractors of IGA, who prefer TMS systems in this mega project. Systems have been used both in carparking block and terminal building. TMS has supplied the materials below, together with structural design calculations of high beams.

### **The systems supplied by TMS are:**

- Vinc'i 80 Column Formwork
- MKH Slab and beam heavy duty shoring system
- Cirex Column Formwork

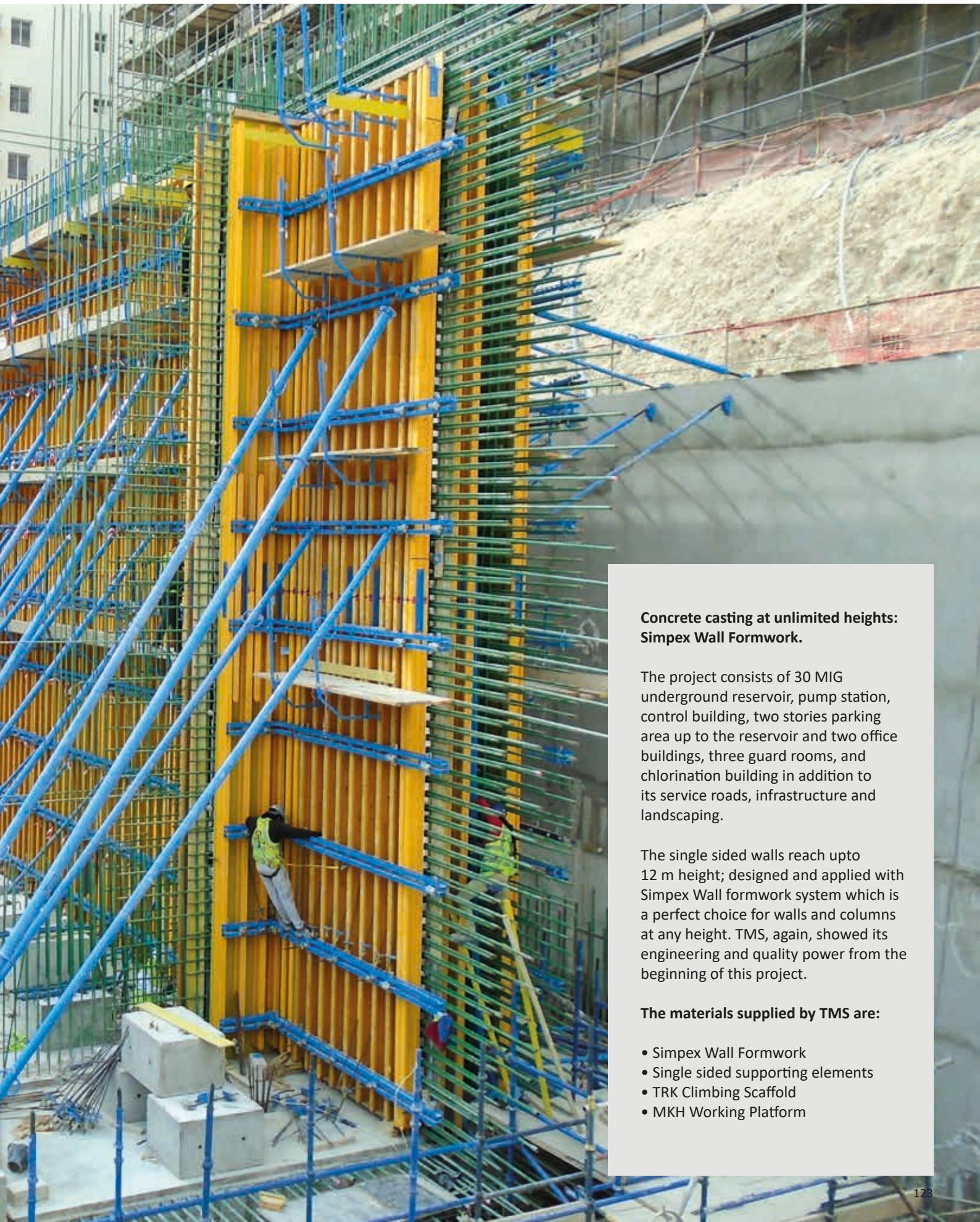












### **Concrete casting at unlimited heights: Simpex Wall Formwork.**

The project consists of 30 MIG underground reservoir, pump station, control building, two stories parking area up to the reservoir and two office buildings, three guard rooms, and chlorination building in addition to its service roads, infrastructure and landscaping.

The single sided walls reach upto 12 m height; designed and applied with Simpex Wall formwork system which is a perfect choice for walls and columns at any height. TMS, again, showed its engineering and quality power from the beginning of this project.

### **The materials supplied by TMS are:**

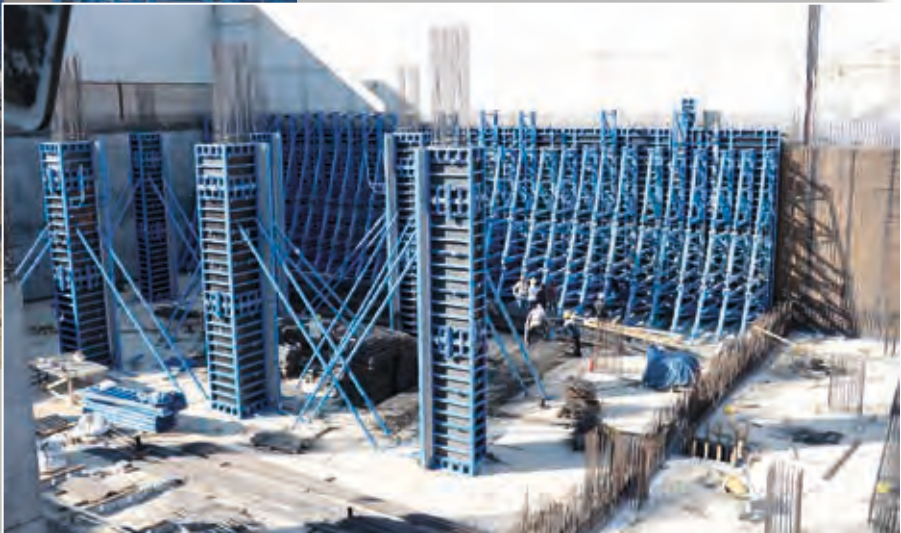
- Simpex Wall Formwork
- Single sided supporting elements
- TRK Climbing Scaffold
- MKH Working Platform



BECHTEL & ENKA J.V., MORAVA CORRIDOR MOTORWAY PROJECT / SERBIA



JOINT CIRCLE, SAHBAN STORES / KUWAIT





MARINA MIX 004, AL ATIYAH / QATAR





**POLATYOL, RA-243 BRIDGE PROJECT / KUWAIT**



**UGCC, RA-245 BRIDGE PROJECT / KUWAIT**





### UGCC, RA-245 BRIDGE PROJECT / KUWAIT









## REFERENCE PROJECTS

NICC NATIONAL INDUSTRIAL CONTRACTING COMPANY, AI SANIM MOSQUE / QATAR



ENKA CONSTRUCTION, TRIPOLI WEST & MISURATA SIMPLE CYCLE / LIBYA





AL KHRAFI CONSTRUCTION COMPANY, NEW PALACE OF JUSTICE / KUWAIT



AL HANI CONSTRUCTION & TRADING CO., AL SHAHEED PARK PHASE 03 / KUWAIT





### AL DARWISH ENGINEERING, SHIELD TOWERS PROJECT / QATAR









MNG GUNAL MAPA CO., R1045 IMPROVEMENT OF INTERCHANGE NR. 7 PROJECT / UAE



MAPA GUNAL CONSTRUCTION , JUMERIAH CREEK-SHEIKH ZAYED CROSSING PROJECT /RTA 999-1 /DUBAI





CCC (CONSOLIDATED CONTRACTORS CO. ) AL BUSTAN HIGHWAY STREET NORTH, DOHA / QATAR



TEKFEN CONSTRUCTION, AL KHOR EXPRESSWAY INTERCHANGE D-G DOHA - QATAR





### ORIENTALS ENTERPRISES, MOOZON TOWERS PROJECT







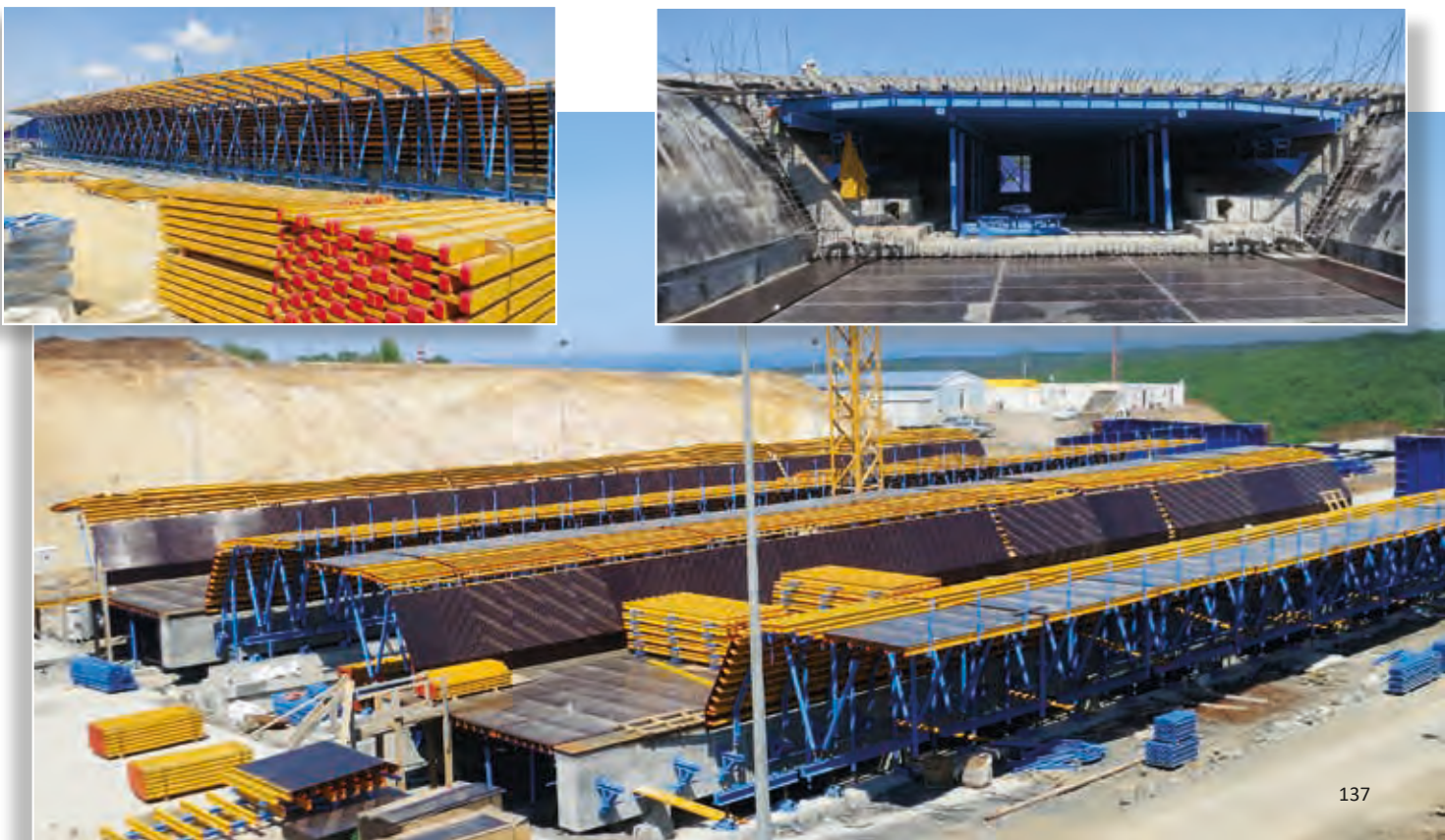


## REFERENCE PROJECTS

USTAY CONSTRUCTION, BAKU WASTE TO ENERGY PLAN PROJECT / AZERBAIJAN



ICTAS & ASTALDI, 3 rd BOSPHORUS BRIDGE and NORTH MARMARA HIGHWAY ILM BRIDGE PROJECT/TURKEY





**AZENCO FACTORY PROJECT / AZERBAIJAN**



**GURYAPI, MIMAR SINAN MOSQUE PROJECT / TURKEY**





## REFERENCE PROJECTS

BAYTUR, KING KHALID UNIVERSITY / SAUDI ARABIA



GAP INSAAT, SEAPORT PROJECT / TURKMENISTAN





**BAB TRABLUS PROJECT TRIPOLI, LIBYA** A premium office, shopping mall and hotel project in Tripoli, LIBYA with 330.000 sqm usable area.





## REFERENCE PROJECTS

### TEKFEN, DAP (DIAMMONIUM PHOSPHATE) FERTILIZER PLANTS / MOROCCO



### 77 CONSTRUCTION, BEDAR BRIDGE/ IRAQ





**TAKANEKA, DOHA INTERNATIONAL AIRPORT PROJECT / QATAR**



**TAISEI, & GAMA & NUROL J.V., MARMARAY PROJECT / TURKEY**

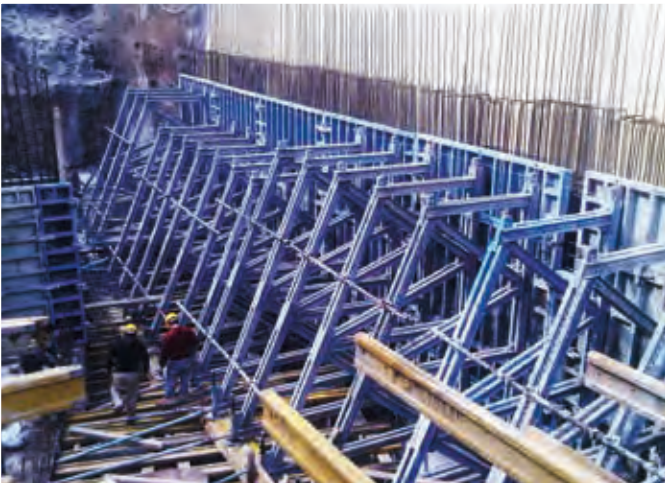




PROMAVI CONSTRUCTION, KARTAL - PENDIK METRO PROJECT/ TURKEY

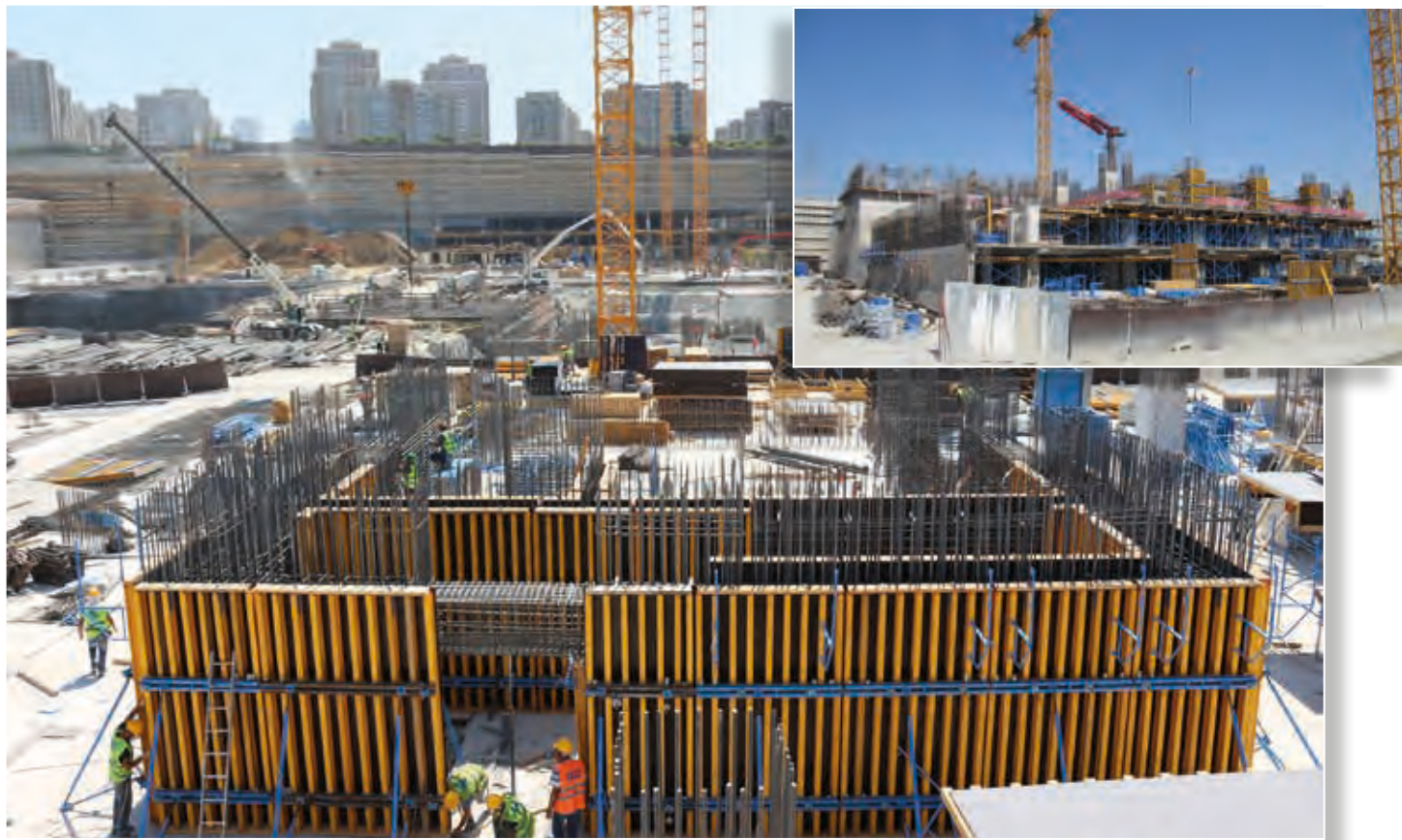


PROMAVI CONSTRUCTION, IZMIR METRO PROJECT / TURKEY





**OMSA INSAAT, ISTANBUL FINANCIAL CENTER / TURKEY**



**KMK CONSTRUCTION, NORTHERN MARMARA MOTORWAY PROJECT / TURKEY**





YAVUZ DEKORASYON, KOCAELI HEALTH CAMPUS / TURKEY





**“BLUE CITY PROJECT”** A 15 billion USD mega project for OMAN, aiming a contemporary new city near Muscat. Phase 1 has been awarded to AECO, an equal share JV between Greek AKTOR and Turkish ENKA.





**“GELINCIK HOTEL”** A Five Star Hotel project, Krasnodarski, Russian Federation.



**“BAKU PORT , AZERBAIJAN”** A premium project at Baku with a beautiful Caspian Sea view.







High Tower Project is rising with TMS Climbox System!

Kiev Sky Tower Project consists of 2 high rise buildings with 47 and 36 storeys. The total area of the Project is 220.000 sqm. TMS Climbox Hydraulic Climbing System has been preferred for elevator and staircase shaft walls for saving time and man work. Systems, supplied by TMS are: Climbox Hydraulic Climbing System, Vinc'i 80 Wall and column formwork , MKH Slab shoring system.





**METROPOLIS** a shopping and business center at Moscow undertaken by ENKA.

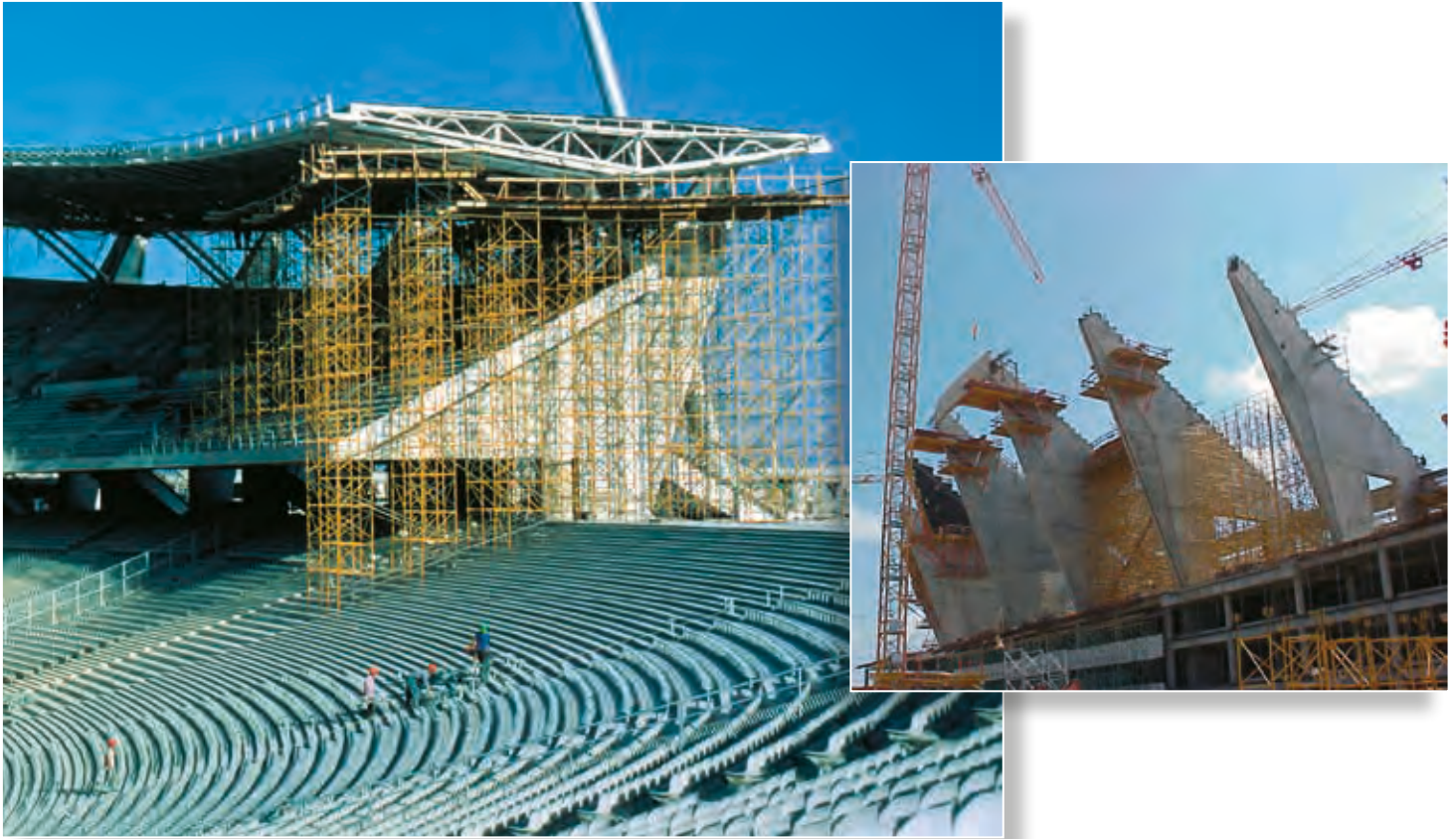


**“ESENTAI TOWER”** is going to be a significant landmark with its Apartments, JW Marriot Hotel, Office Space and Ballroom facilities at Almaty, KAZAKHSTAN. This tower has a real presence with its 162 m height at Almaty skies. Project has been undertaken by ENKA.





**“ISTANBUL OLYMPIC STADIUM” project undertaken by CAMPENON BERNARD, SAE and TEKFEN.**



**“FORMULA 1” Istanbul takes its part at the world-wide mega-show with the “ISTANBUL PARK”,**





## REFERENCE PROJECTS

Adapazari and Gebze Natural Gas Co-generation Power Plant, project undertaken by BEJV, BECHTEL-ENKA J.V.



Palm Jumeirah Shoreline Housing Project at Dubai, U.A.E. Project undertaken by BAYTUR.





**AL KHAIL ROAD RTA 842-2 BRIDGE PROJECT, DUBAI-UAE** Two new junctions over Al Khail Road has been constructed for easing up the heavy traffic load. Each junction consists of two 200m long bridges and 600m long ramps for heavy trucks.



**BORYSPIL INTERNATIONAL AIRPORT UKRAINE –Contractor “DOGUS-ALARKO-YDA” JV.**





## REFERENCE PROJECTS

CHELIFF PROJECT is a Water Dam with 300.000 cubic meters of concrete in ALGERIA. Project has been undertaken by MNG INSAAT.



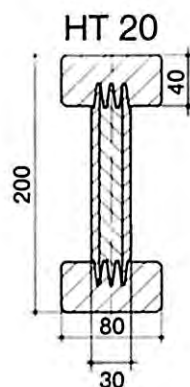
SABIHA GOKCEN AIRPORT – HABOM Project Contractor YDA



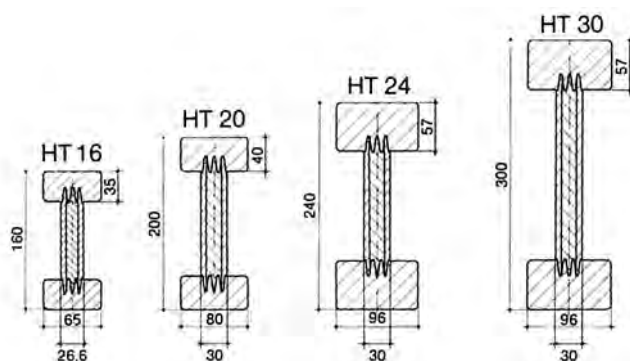


## HT 20 Plus Shuttering Beam Technical Data

|                                            |          |
|--------------------------------------------|----------|
| Admissible moment of bending M [kNm]       | 5,0      |
| Admissible shear force Q [kN]              | 11,0     |
| Moment of inertia Jy [cm <sup>4</sup> ]    | 4613     |
| Moment of resistance Wy [cm <sup>3</sup> ] | 461      |
| Weight                                     | 4,8 kg/m |
| Flange width                               | 80 mm    |
| Flange depth                               | 40 mm    |
| Web thickness                              | 30 mm    |



| Standard Length | Weight kg | Item No      |
|-----------------|-----------|--------------|
| 2,45 mm         | 11,76     | 010 020 0245 |
| 2,90 mm         | 13,92     | 010 020 0290 |
| 3,30 mm         | 15,84     | 010 020 0330 |
| 3,60 mm         | 17,28     | 010 020 0360 |
| 3,90 mm         | 18,72     | 010 020 0390 |
| 4,20 mm         | 20,16     | 010 020 0420 |
| 4,50 mm         | 21,60     | 010 020 0450 |
| 4,90 mm         | 23,52     | 010 020 0490 |
| 5,90 mm         | 28,52     | 010 020 0590 |



## Shuttering Beams Technical Data

| Depth | Admissible moment of bending M [kNm] | Admissible shear force Q [kN] | Moment of inertia Jy [cm <sup>4</sup> ] | Moment of resistance Wy [cm <sup>3</sup> ] | Weight [kg/m] | Flange width [mm] | Flange depth [mm] | Web thickness [mm] |
|-------|--------------------------------------|-------------------------------|-----------------------------------------|--------------------------------------------|---------------|-------------------|-------------------|--------------------|
| HT 16 | 2,7                                  | 7,5                           | 2000                                    | 251                                        | 3,2           | 65                | 35                | 26,6               |
| HT 20 | 5,0                                  | 11,0                          | 4613                                    | 461                                        | 4,6           | 80                | 40                | 30,0               |
| HT 24 | 8,5                                  | 11,5                          | 9600                                    | 800                                        | 6,8           | 96                | 57                | 30,0               |
| HT 30 | 12,0                                 | 15,0                          | 19503                                   | 1278                                       | 7,8           | 96                | 57                | 30,0               |
| HT 36 | 16,0                                 | 16,0                          | 30156                                   | 1675                                       | 8,8           | 96                | 57                | 30,0               |



HT 20 stock at  
Formula 1 Project  
Istanbul, TURKEY



**KAUFMANN HT 20 plus**  
**THE CONCRETE SHUTTERING BEAM WITH THE**  
**UNIQUE AND TRUE, TRADEMARK PROTECTED**  
**END REINFORCEMENT**

- Made of high-quality plastic - Shock proof
- Frost resistant - Accurate slits therefore
- Effective protection against splintering of boom ends
- Considerably extended longevity
- No risk of injury caused by splintering boom ends
- No reduction of end support surface

**KAUFMANN HT 20 plus**  
**GERÇEK MARKA TESCİLLİ BAŞLIK KORUMASI**  
**OLAN AHŞAP KİRİŞ**

- Yüksek kaliteli plastik koruma başlığı
- Darbeye dayanıklı, Donmaya dayanıklı, Hassas kanallar
- Kiriş başlarının çatlamasına ve yarılmasına karşı korumalı
- Uzun ömürlü
- Kiriş uçlarının yarılmasından dolayı yaralanma riski yaratmaz
- Uç noktalarda taşıma yüzeyi ve kesiti azaltılmamıştır.

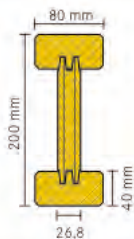


HT 20 beam stock, Istanbul, TURKEY



|                           |                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b>            | Formwork timber beam, glued, solid-wall I-joist beams                                                                                                                                                                                                                                                                                                                                                        |
| <b>Wood types</b>         | Spruce, fir, a mixture of wood types is permitted                                                                                                                                                                                                                                                                                                                                                            |
| <b>Wood moisture</b>      | 12% + / - 3% at the time of delivery                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Weight</b>             | 4,6 kg / m                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Gluing</b>             | Melamine resin-based adhesive, Adhesive Type I acc. to EN 301 approved for gluing load-bearing timber components.                                                                                                                                                                                                                                                                                            |
| <b>Chords</b>             | <ul style="list-style-type: none"> <li>Made of carefully selected class S 10 spruce wood according to DIN 4074</li> <li>Finger-jointed, solid wood cross-sections with a dimension of 80 x 40 mm</li> <li>Finger-jointing of the chords according to DIN 68140-1</li> <li>Web milling on the opposing side of the core (left-sided chord surface)</li> <li>Planed and chamfered to approx. 0.4 mm</li> </ul> |
| <b>Webs</b>               | 3-ply solid wood panel, laminated primarily showing vertical growth rings.                                                                                                                                                                                                                                                                                                                                   |
| <b>Design</b>             | Technical approval certificate Z-9.1-146 in conjunction with DIN 1052 or Eurocode 5 and EN 12812 apply for the design of the HT 20plus formwork beams.                                                                                                                                                                                                                                                       |
| <b>Surface protection</b> | The complete beam is waterproofed using a water-repellent colour glaze.                                                                                                                                                                                                                                                                                                                                      |
| <b>Supports</b>           | Thanks to the 3-ply solid wood webs, HT 20plus formwork beams can be cut into and supported at any lengths.                                                                                                                                                                                                                                                                                                  |

#### Dimensions tolerances



| Dimensions <sup>1)</sup> | HT 20 plus | Tolerances <sup>2)</sup> |
|--------------------------|------------|--------------------------|
| <b>Beam height</b>       | 200 mm     | + / - 2,0 mm             |
| <b>Chord height</b>      | 40 mm      | - 1,5%                   |
| <b>Chord width</b>       | 80 mm      | - 1,5%                   |
| <b>Web thickness</b>     | 26,8 mm    | + / - 0,5 mm             |

*These values apply at a wood moisture content of 12 %*

*According to technical approval certificate Z-9.1-146*

#### Material properties

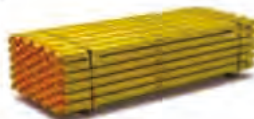
| Properties                                         | DIN 1052-1:1988-04                     | DIN 1052:2008-12 / Eurocode 5                  |
|----------------------------------------------------|----------------------------------------|------------------------------------------------|
| <b>Strains</b>                                     | Permissible stress values              | Characteristic limits of load-bearing capacity |
| <b>Shear force</b>                                 | zul Q = 11,0 kN                        | V <sub>k</sub> = 23,9 kN                       |
| <b>Bending moment</b>                              | zul M = 5,0 kNm                        | M <sub>k</sub> = 10,9 kNm                      |
| <b>Support</b>                                     | -                                      | R <sub>h,k</sub> = 47,8 kN                     |
| <b>Section modulus <sup>1)</sup></b>               | W <sub>x</sub> = 461 cm <sup>3</sup>   |                                                |
| <b>Geometrical moment of inertia <sup>1)</sup></b> | I <sub>x</sub> = 4.613 cm <sup>4</sup> |                                                |
| <b>Modulus of elasticity</b>                       | E = 10.000 N / mm <sup>2</sup>         |                                                |
| <b>Shear modulus</b>                               | G = 600 N / mm <sup>2</sup>            |                                                |

*The values of the section modulus and the geometrical moment of inertia apply to new or used concrete formwork beams. An analogously increased factor of safety needs to be added for severely worn beams.*

|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Standard lengths</b> | 2,45 / 2,90 / 3,30 / 3,60 / 3,90 / 4,50 / 4,90 / 5,90 m / max. 10,0 m length |
|-------------------------|------------------------------------------------------------------------------|

#### Package units

Standard package  
60 pieces each



Container package  
100 pieces each



#### Packaging

The packages are delivered suitable for the construction site and protected by integrated supporting timber.

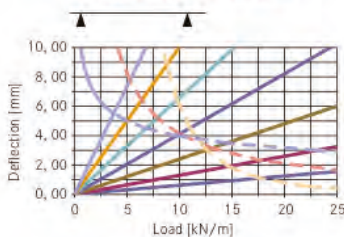


### Permissible distances between main beams and supports

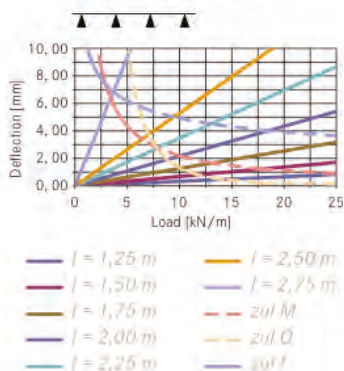
- Max. deflection:  $l / 500$
- Live load:  $1,5 \text{ kN} / \text{m}^2$  or 20 % of concrete weight
- Permissible carrying force of the supports: min. 22 kN
- Technical specifications: Permissible moment = 5,0 kNm;  
Permissible shear force  $V = 11,0 \text{ kN}$

|                 |            | Table 1: Crossbeams                                                              |       |       |      | Table 2: Main beams                                           |      |      |      |      |      |      |      |      |  |
|-----------------|------------|----------------------------------------------------------------------------------|-------|-------|------|---------------------------------------------------------------|------|------|------|------|------|------|------|------|--|
|                 |            | Distance between crossbeams (m)                                                  |       |       |      | Selected distance between the main beams (m)                  |      |      |      |      |      |      |      |      |  |
|                 |            | 0,50                                                                             | 0,625 | 0,667 | 0,75 | 1,00                                                          | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 3,00 | 3,50 |  |
| Floor thickness | Total load | Max. permissible support width of the crossbeam<br>= distance between main beams |       |       |      | Max. permissible support width<br>= distance between supports |      |      |      |      |      |      |      |      |  |
| cm              | kN / m²    |                                                                                  |       |       |      |                                                               |      |      |      |      |      |      |      |      |  |
| 10              | 4,35       | 3,67                                                                             | 3,40  | 3,33  | 3,20 | 2,91                                                          | 2,70 | 2,48 | 2,29 | 2,14 | 2,02 | 1,92 | 1,69 | 1,44 |  |
| 12              | 4,87       | 3,47                                                                             | 3,22  | 3,15  | 3,03 | 2,75                                                          | 2,55 | 2,34 | 2,17 | 2,03 | 1,91 | 1,81 | 1,51 | 1,29 |  |
| 14              | 5,39       | 3,30                                                                             | 3,07  | 3,00  | 2,89 | 2,62                                                          | 2,43 | 2,22 | 2,06 | 1,93 | 1,81 | 1,63 | 1,36 | 1,17 |  |
| 16              | 5,91       | 3,17                                                                             | 2,94  | 2,88  | 2,77 | 2,52                                                          | 2,33 | 2,12 | 1,97 | 1,84 | 1,65 | 1,49 | 1,24 | 1,06 |  |
| 18              | 6,43       | 3,05                                                                             | 2,83  | 2,77  | 2,67 | 2,42                                                          | 2,23 | 2,04 | 1,89 | 1,71 | 1,52 | 1,37 | 1,14 | 0,98 |  |
| 20              | 6,95       | 2,95                                                                             | 2,74  | 2,68  | 2,58 | 2,34                                                          | 2,15 | 1,96 | 1,81 | 1,58 | 1,41 | 1,27 | 1,06 | 0,90 |  |
| 22              | 7,47       | 2,86                                                                             | 2,66  | 2,60  | 2,50 | 2,27                                                          | 2,07 | 1,89 | 1,68 | 1,47 | 1,31 | 1,18 | 0,98 | 0,84 |  |
| 24              | 7,99       | 2,79                                                                             | 2,59  | 2,53  | 2,43 | 2,21                                                          | 2,00 | 1,83 | 1,57 | 1,38 | 1,22 | 1,10 | 0,92 | 0,79 |  |
| 26              | 8,51       | 2,72                                                                             | 2,52  | 2,47  | 2,37 | 2,16                                                          | 1,94 | 1,72 | 1,48 | 1,29 | 1,15 | 1,03 | 0,86 | 0,74 |  |
| 28              | 9,03       | 2,65                                                                             | 2,46  | 2,41  | 2,32 | 2,10                                                          | 1,88 | 1,62 | 1,39 | 1,22 | 1,08 | 0,97 | 0,81 | 0,70 |  |
| 30              | 9,61       | 2,59                                                                             | 2,41  | 2,36  | 2,27 | 2,04                                                          | 1,82 | 1,53 | 1,31 | 1,14 | 1,02 | 0,92 | 0,76 | 0,65 |  |
| 35              | 11,17      | 2,47                                                                             | 2,29  | 2,24  | 2,16 | 1,89                                                          | 1,58 | 1,31 | 1,13 | 0,98 | 0,88 | 0,79 | 0,66 | 0,56 |  |
| 40              | 12,73      | 2,36                                                                             | 2,19  | 2,15  | 2,05 | 1,73                                                          | 1,38 | 1,15 | 0,99 | 0,86 | 0,77 | 0,69 | 0,58 | 0,49 |  |
| 45              | 14,29      | 2,27                                                                             | 2,11  | 2,05  | 1,93 | 1,54                                                          | 1,23 | 1,03 | 0,88 | 0,77 | 0,68 | 0,62 | 0,51 | 0,44 |  |
| 50              | 15,85      | 2,20                                                                             | 2,01  | 1,95  | 1,83 | 1,39                                                          | 1,11 | 0,93 | 0,79 | 0,69 | 0,62 | 0,56 | 0,46 | 0,40 |  |
| 55              | 17,41      | 2,13                                                                             | 1,92  | 1,86  | 1,68 | 1,26                                                          | 1,01 | 0,84 | 0,72 | 0,63 | 0,56 | 0,51 | 0,42 | 0,36 |  |
| 60              | 18,97      | 2,05                                                                             | 1,84  | 1,74  | 1,55 | 1,16                                                          | 0,93 | 0,77 | 0,66 | 0,58 | 0,52 | 0,46 | 0,39 | 0,33 |  |
| 65              | 20,53      | 1,97                                                                             | 1,71  | 1,61  | 1,43 | 1,07                                                          | 0,86 | 0,71 | 0,61 | 0,54 | 0,48 | 0,43 | 0,36 | 0,31 |  |
| 70              | 22,09      | 1,90                                                                             | 1,59  | 1,49  | 1,33 | 1,00                                                          | 0,80 | 0,66 | 0,57 | 0,50 | 0,44 | 0,40 | 0,33 | 0,28 |  |
| 75              | 23,65      | 1,84                                                                             | 1,49  | 1,40  | 1,24 | 0,93                                                          | 0,74 | 0,62 | 0,53 | 0,47 | 0,41 | 0,37 | 0,31 | 0,27 |  |
| 80              | 25,21      | 1,75                                                                             | 1,40  | 1,31  | 1,16 | 0,87                                                          | 0,70 | 0,58 | 0,50 | 0,44 | 0,39 | 0,35 | 0,29 | 0,25 |  |
| 85              | 26,77      | 1,64                                                                             | 1,31  | 1,23  | 1,10 | 0,82                                                          | 0,66 | 0,55 | 0,47 | 0,41 | 0,37 | 0,33 | 0,27 | 0,23 |  |
| 90              | 28,33      | 1,55                                                                             | 1,24  | 1,16  | 1,04 | 0,78                                                          | 0,62 | 0,52 | 0,44 | 0,39 | 0,35 | 0,31 | 0,26 | 0,22 |  |
| 95              | 29,89      | 1,47                                                                             | 1,18  | 1,10  | 0,98 | 0,74                                                          | 0,59 | 0,49 | 0,42 | 0,37 | 0,33 | 0,29 | 0,25 | 0,21 |  |
| 100             | 31,45      | 1,40                                                                             | 1,12  | 1,05  | 0,93 | 0,70                                                          | 0,56 | 0,47 | 0,40 | 0,35 | 0,31 | 0,28 | 0,23 | 0,20 |  |

### Single span beam

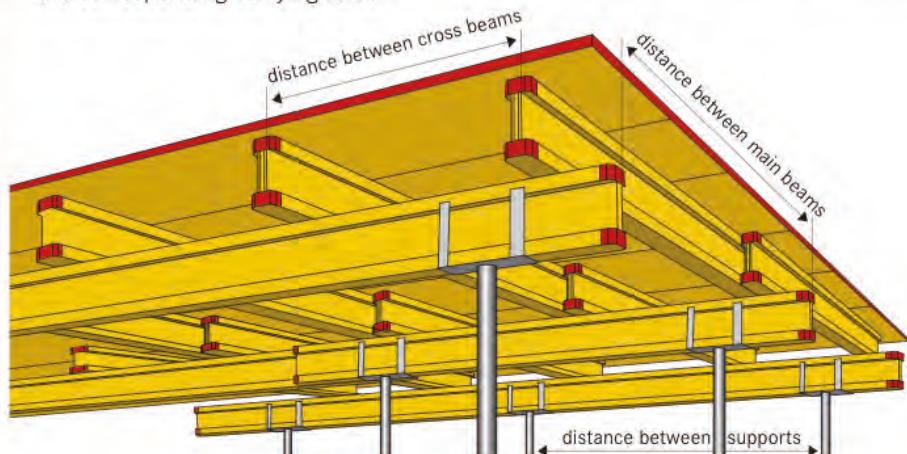


### Multispan beam



**Example of calculation:** Floor thickness: 20 cm, distance between crossbeams: 75 cm; we are looking for the distance between the main beams and the supports.

The permissible distance between main beams according to **table 1 = 2,58 m**. The identical or next smaller distance between main beams in **table 2 = 2,5 m**. Look for the permissible distance between supports in table 2, read downwards in column «2,50 m» and sideways in row «20 cm» floor thickness, the result is **1,27 m**. Caution! Examine the supports to ensure the corresponding carrying force.







## SIMPEX - SIMPLE AND FLEXIBLE FORMING APPLICATION

TMS SIMPEX is a perfect choice for walls and columns at any height and even with complicated floor plans. Residential Buildings from Condominiums to High Rises, Industrial Construction either Waste Water Treatment or Power Plants can easily be formed by SIMPEX. System can climb with TMS climbing brackets and shaft platforms.

SIMPEX is also applicable to CLIMBEX® hydraulic climbing system. What makes SIMPEX so popular is its design features;

- Very few items to worry about,
- Ease of erection, adaptability and alignment,
- Variety in panel sizes, possibility in gang forming,
- Flexibility in tie and timber beam spacing allows for higher design loads,
- Even slight curvatures are possible with it.

### SIMPEX PERDE VE KOLON KALIPLARI

#### SIMPEX İLE HIZLI VE ÇOK YÖNLÜ KALIPLAMA KOLAYLIĞI

SIMPEX Perde Kalıpları düşeyde HT20 Ahşap Kirişler ve yatayda çelik kuşaklardan oluşan geniş yüzeyli ayarlanabilir perde kalıbı sistemidir.

SIMPEX'in farklı yükseklik ve kesitlere kolay adapte edilebilir özelliği, vinç ile kullanılan sistemler arasında ayrıcalıklı bir konuma sahip olmasını sağlamıştır. Sistemi, yüksek beton basınçlarına ve beton döküm hızlarına göre, düşey KAUFMANN HT20 plus Ahşap Kirişlerin ve YK çelik kuşakların ara mesafelerini değiştirilerek dizayn etmek mümkündür.

Şekli, boyutu, tie-rod düzeni ve yüzeyi herhangi bir gereksinime göre ayarlanabilir. Yüzeyde kullanılacak plywood tipi ve boyutları proje ihtiyacına göre esnek olarak seçilebilir.

SIMPEX sistemi, esnekliği sayesinde: Villalar, Konut Projeleri, Yüksek Yapılar, Endüstriyel İnşaatlar, Yol Projeleri, Arıtma Tesisleri, Enerji Projeleri gibi birbirinden çok farklı karakterdeki yapı ve inşaatlar da kullanım kolaylığı sağlar.

Sistem TMS TRK tırmanma iskeleleri ve şaft platformları ile tırmandırılabilirdiği gibi TMS CLIMBEX hidrolik tırmanır sisteme de adapte edilebilmektedir.

SIMPEX sisteminin getireceği kolaylıklar;

- Ekonomik: Az parçayla çok iş,
- Pratik: Ön montaj, kurulum ve şakule alma kolaylığı,
- Mobil: Farklı panellerin bir araya getirilerek daha büyük panoların deplase edilebilmesi,
- Temiz Yüzey: Kamalarla sabitlenen panoların arasından beton sızmasının önlenir olması,
- Esnek: Ahşap kiriş, çelik kuşak ve saplama mesafeleri değiştirilerek istenen dayanımların elde edilebilmesi.
- Adapte edilebilir: Eğri yüzü perdelerin bile sistemle kalıplanabilir olmasıdır.







Assembling of the panels in the TMS workshop or even on the job-site.



The strong wedge design provides necessary tension through the slotted waler connectors for leak-proof joints, while simultaneously aligning the panels.



HT 20 End Clamp application provides additional rigidity at outer HT 20's on panels.

## Standard Panel Connection Procedure

- 1- Place the waler connector centrally by the use of a wedge.
- 2- On one side- preferably on the heavier panel – place the wedge to the slot nearest to the joint.
- 3- Put another wedge on the same waler to the farthest possible slot and hammer both wedges down while the centering wedge remains in place.
- 4- After securing the wedges at one side, remove the centering wedge and place it to the first slot on the other waler. This wedge should be hammered down for tight panel joints.
- 5- The final step is hammering down the four the wedge, again at the farthest possible slot for providing the locking action at the panel joints.







#### SIMPEX - SIMPLE AND FLEXIBLE FORMING APPLICATIONS

TMS SIMPEX is a perfect choice for walls and columns at any height and even with complicated floor plans. Residential Buildings from Condominiums to High Rises, Industrial Construction either Waste Water Treatment or Power Plants can easily be formed by SIMPEX. System can climb with TMS climbing brackets and shaft platforms. The applicability to CLIMBEX® Hydraulic Climbing System makes SIMPEX so popular is its design features;

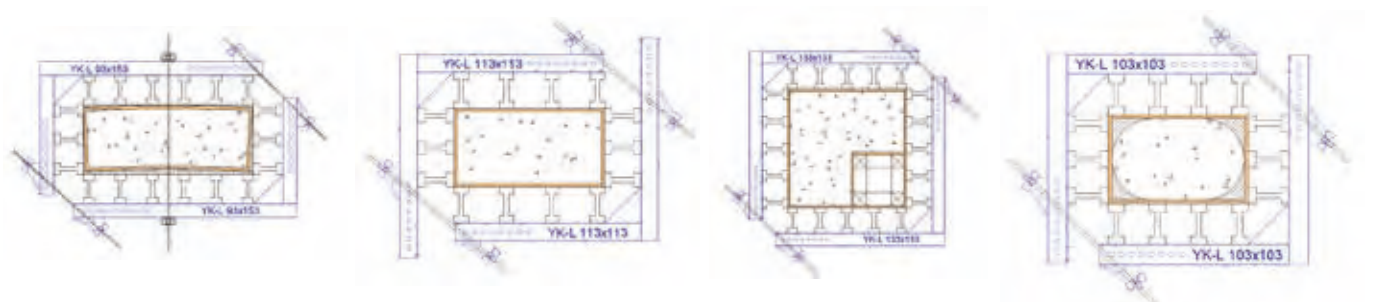
- Very few items to worry about,
- Ease of erection, adaptability and alignment,
- Variety in panel sizes, possibility in gang forming,
- Flexibility in tie and timber beam spacing allows for higher design loads.

#### SIMPEX KOLON KALIPLARI İLE HIZLI VE ÇOK YÖNLÜ KALIPLAMA KOLAYLIĞI

SIMPEX Kolon Kalıpları, düşeyde HT20 Ahşap Kirişler ve yatayda çelik kuşaklardan oluşan geniş yüzeyli ayarlanabilir perde kalıbı sistemidir. SIMPEX'in farklı yükseklik ve kesitlere kolay adapte edilebilir özelliği, vinç ile kullanılan sistemler arasında ayrıcalıklı bir konuma sahip olmasını sağlamıştır. Sistemi, yüksek beton basınçlarına ve beton döküm hızlarına göre, düşey KAUFMANN HT20 plus Ahşap Kirişlerin ve YK çelik kuşakların ara mesafelerini değiştirilerek dizayn etmek mümkündür. Şekli, boyutu ve yüzeyi herhangi bir gereksinime göre uyarlanabilir. Yüzeyde kullanılacak olan plywood tipi ve boyutları proje ihtiyacına göre esnek olarak seçilebilir. SIMPEX sistemi, esnekliği sayesinde birbirinden çok farklı karakterdeki yapı ve inşaatlarda kullanım kolaylığı sağlar. Sistem TMS TRK tırmanma iskeleleri ile tırmandırılabilir.

SIMPEX sisteminin getireceği kolaylıklar;

- Ekonomik: Az parçayla çok iş,
- Pratik: Ön montaj, kurum ve şakule alma kolaylığı,
- Esnek: Ahşap kiriş, çelik kuşak ve saplama mesafeleri değiştirilerek istenen dayanımların elde edilebilmesi,
- Adapte edilebilir: Eğri yüzlü perdelerin bile sistemle kalıplanabilir olmasıdır.





# SIMPEX® WALL & COLUMN FORM

## WALERS UU 100



| ITEM         | ITEM NO          | WEIGHT   |
|--------------|------------------|----------|
| YK-S B 95 S  | 030 050 00095 00 | 20,19 kg |
| YK-S B 120 S | 030 050 00120 00 | 25,37 kg |
| YK-S B 145 S | 030 050 00145 00 | 30,71 kg |
| YK-S B 195 S | 030 050 00195 00 | 41,39 kg |
| YK-S B 245 S | 030 050 00245 00 | 52,21 kg |
| YK-S B 295 S | 030 050 00295 00 | 62,89 kg |

## INNER CORNER WALER



| ITEM            | ITEM NO          | WEIGHT   |
|-----------------|------------------|----------|
| YK-T B 50 x50 S | 030 050 05050 00 | 19,33 kg |
| YK-T B 60x60 S  | 030 050 06060 00 | 24,08 kg |
| YK-T B 60x120 S | 030 050 60120 00 | 38,72 kg |

## WALER CONNECTOR



| ITEM         | ITEM NO          | WEIGHT   |
|--------------|------------------|----------|
| YK-B B 90 S  | 030 031 00609 00 | 8,50 kg  |
| YK-B B 100 S | 030 031 00610 00 | 9,95 kg  |
| YK-B B 120 S | 030 031 00612 00 | 10,50 kg |
| YK-B B 150 S | 030 031 00615 00 | 13,50 kg |

## ARTICULATED WALER CONNECTOR



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| YK-M B 90  | 030 031 00709 00 | 7,85 kg  |
| YK-M B 100 | 030 031 00710 00 | 9,25 kg  |
| YK-M B 120 | 030 031 00712 00 | 9,95 kg  |
| YK-M B 150 | 030 031 00715 00 | 13,00 kg |

## COLUMN WALER



| ITEM             | ITEM NO          | WEIGHT   |
|------------------|------------------|----------|
| YK-L B 93 x 93 S | 030 050 09393 00 | 37,30 kg |
| YK-L B 113x113 S | 030 050 11313 00 | 45,55 kg |
| YK-L B 133x133 S | 030 050 13333 00 | 53,49 kg |



**ROUNDEX FLEXY CURVES ALL AROUND**

TMS ROUNDEX challenges Circular Water Tanks, Silos, Car Park Ramps, Pools and even architecturally complex curvatures. Continuous adjustability provides you not only the adaptability of formwork from structure to structure, but also changing radii within the same structure is possible, thinking about helical, parabolic or even curvatures changing from convex to concave within the same structure. Panels can easily be adapted to any radii without any reassembly and panel to panel connection is simply done by panel clips. System can climb with TMS climbing brackets and shaft platforms.



**ROUNDEX AYARLANABİLİR EĞRİ YÜZLÜ KALIP SİSTEMİ İLE KALIP PANOLARINI DEĞİŞTİRMEYEN ÇAP DEĞİŞTİRME KOLAYLIĞI**  
ROUNDEX ayarlanabilir eğrisel perde kalıbı sistemidir. Küçük yarı çaplardan başlayarak sınırsız ayarlanabilir eğri yüzeyler elde etmek mümkündür. Kalıp panolarını değiştirmeden çap değiştirme kolaylığı sağlar. Aynı proje içinde farklı çaplara uyarlamayı kolaylaştırdığı gibi, kalıpların daha sonraki projelere de kolayca uyum sağlayabilir olması büyük avantajlar sağlamaktadır. ROUNDEX kalıpları; dairesel su tankları, silolar, otopark rampaları, havuzlar, karmaşık mimarili eğrisel yüzeyli yapılara kolaylıkla uygulanabilir.

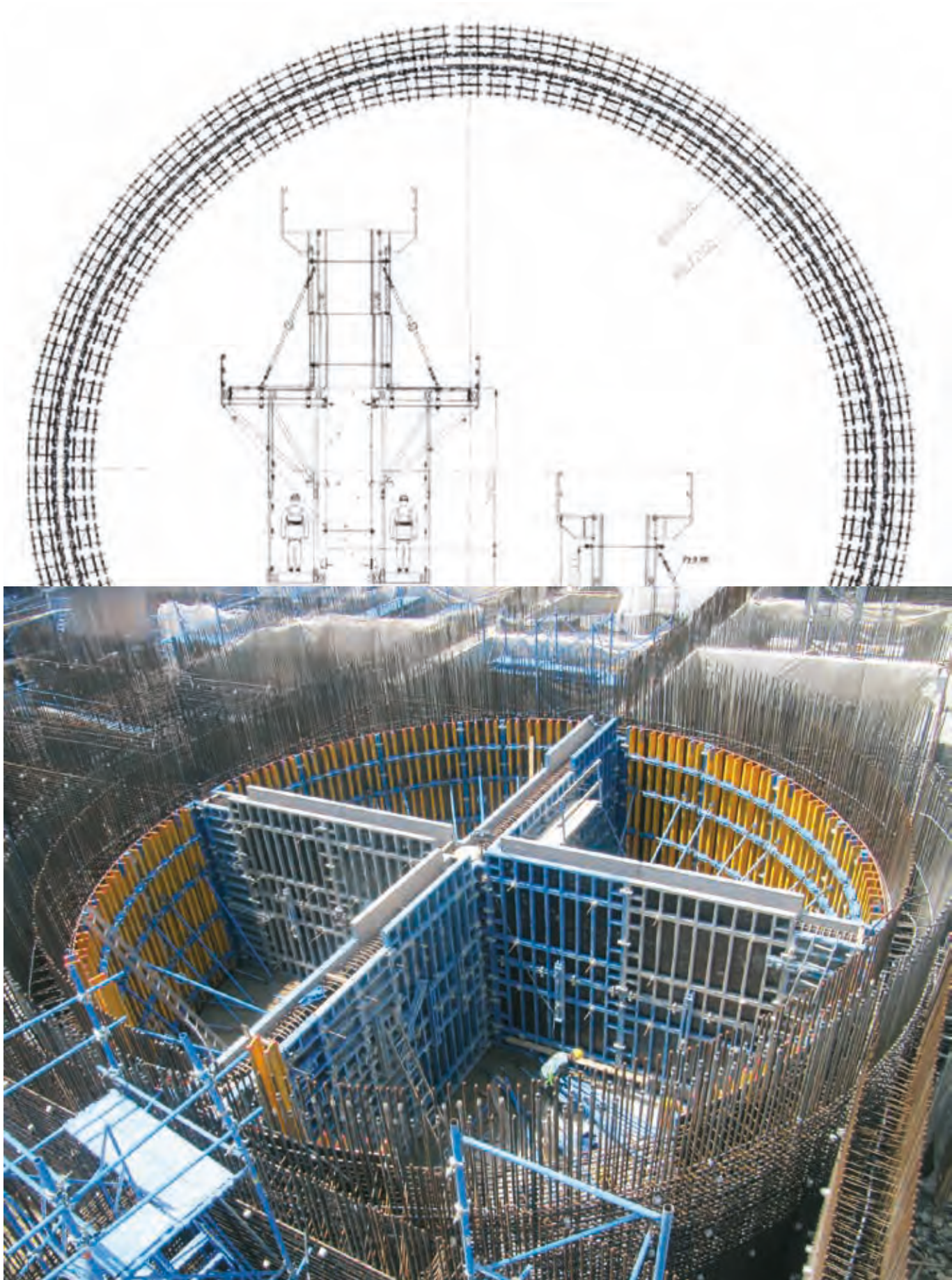


TMS ROUNDEX, an adjustable formwork system for radii larger than 1,20 m forming circular structures, especially the ones with varying radii have always been costly, if not difficult from the contractors view point.









TMS Roundex is a radially adjustable formwork system designed especially for sewage plants, water tanks, car park ramps, silos, pools and even the most complex architectural circular walls.



# ROUNDEX CIRCULAR WALL FORM

## RT-K WALER



## BRIDGING WALER



| ITEM      | ITEM NO          | WEIGHT   |
|-----------|------------------|----------|
| RT-K B 46 | 030 031 00070 00 | 6,30 kg  |
| RT-K B 80 | 030 031 00080 00 | 12,10 kg |
| YK-R B 80 | 030 031 00060 00 | 28,50 kg |

## PUSH – PULL SPINDLE



BRIDGING  
WALER PIN

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| RA-G G 25 | 004 130 00225 00 | 2,50 kg |
| RA-G G 50 | 004 130 00250 00 | 3,30 kg |
| RK-P G    | 030 131 00063 00 | 0,70 kg |

## RP-T ROUNDEX PANEL PROFILE



| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| RP-T B 245 V80 | 030 031 08245 00 | 20,80 kg |
| RP-T B 290 V80 | 030 031 08290 00 | 24,65 kg |
| RP-T B 330 V80 | 030 031 08330 00 | 28,05 kg |
| RP-T B 360 V80 | 030 031 08360 00 | 30,60 kg |
| RP-T B 390 V80 | 030 031 08390 00 | 33,15 kg |
| RP-T B 420 V80 | 030 031 08420 00 | 35,70 kg |
| RP-T B 450 V80 | 030 031 08450 00 | 38,25 kg |
| RP-T B 490 V80 | 030 031 08490 00 | 41,65 kg |

## VINC'I PANEL LOCK "TAMON 80"



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| ST-K G 80 | 004 135 00280 00 | 3,42 kg |

## PLYWOOD BOLT



## " R " PIN



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| CV-S G 6x30 | 004 107 00630 00 | 0,02 kg |
| GP-R G 450  | 004 130 01450 00 | 0,02 kg |



## HT-P 20 CRANE HOOK



HT-P 20 CRANE HOOK

HT-P 20 BEAM  
EXTENSION SPLICE PLATE

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VK-S B | 030 030 00170 00 | 4,12 kg |
| HK-V B | 030 030 00180 00 | 9,60 kg |
| HE-S B | 030 030 00110 00 | 5,58 kg |

## FILLER PANEL PRESSURE PLATE



STOP-END  
SPANNER

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| YK-P B | 030 030 00120 00 | 0,99 kg |
| YK-U B | 030 030 00130 00 | 3,31 kg |

## HT-P 20 BEAM CLAMP



HT-P 20 END CLAMP

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| HK-D G | 004 130 00010 00 | 0,85 kg |
| HB-D G | 004 130 00040 00 | 0,72 kg |

## CORNER SHOE



WEDGE "CAST"

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| KP-D G | 004 130 00060 00 | 2,70 kg |
| KA-D G | 004 130 00050 00 | 0,75 kg |

## STRIP PLATE



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| ST-P B 100 | 030 030 02100 00 | 10,65 kg |



# ACCESSORIES WALL & COLUMN FORM

## CATWALK BRACKET INTEGRATED TYPE



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BD-K B ent | 030 010 00100 00 | 6,50 kg |
| BD-B B HT  | 030 010 00120 00 | 0,85 kg |

## ACCESS LADDER W / GUARD



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PL-M B 250 | 030 028 05250 00 | 34,00 kg |
| PL-M B 300 | 030 028 05300 00 | 43,10 kg |
| PL-M B 350 | 030 028 05350 00 | 49,30 kg |
| PL-M B 400 | 030 028 05400 00 | 57,95 kg |
| PL-M B 500 | 030 028 05500 00 | 73,40 kg |

## PANEL LIFTING BEAM



| ITEM       | ITEM NO       | WEIGHT |
|------------|---------------|--------|
| VK-T B 600 | 030 030 00660 | 245 kg |

## STRIP CORNER PANEL



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| ST-C B 100 | 030 030 01100 00 | 26,15 kg |

## PLYWOOD SCREW



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| VI-D G 560 | 004 106 00560 00 | 0,05 kg |





### VINC'I 80 WALL FORMWORK

VINC'I is a steel frame formwork system composed of high strength rectangular tube profiles, which could be easily combined with TAMON 80 panel locks. The steel frame profiles are designed to be able to connect at any point with the other panel. Panel facing is the plastic coated Birch Plywood namely WISA®-Form Elephant (delivered by UPM), providing higher durability and longer life.

Panel widths are 30, 45, 60, 75, 90, 120, 240cm. whereas the heights are chosen as 330, 300, 270, 180, 150 and 120cm. The panel corners bear solid steel pieces which gives extra stiffness while also delivering strong inserts for levering and lifting holes for handling. Only the solid corner would double the panel life against similar systems.

TAMON formwork lock could be applied to any point on the frame profiles as well as transversals. The conical holes for DW15 tie-rods on panel are so positioned that formwork bears 80 kN/m<sup>2</sup> concrete pressure. The formwork system consist of VINC'I panels, Tamon locks, SAH tie-rods, VINC'I crane hooks, VINC'I type cat-walk brackets, double push-pull props and accessories.

**( WISA®-Form Elephant Facing is standard )**

### VINC'I 80 PERDE KALIBI

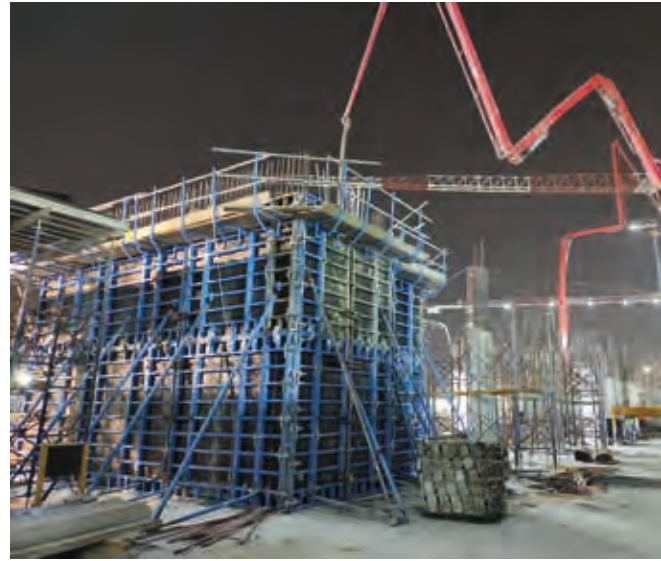
VINC'I 80 Perde Kalıpları, vinç ile kullanılan, çelik çerçeveli, plywood yüzeyli pano kalıp sistemleridir.

Panolar; özel şekillendirilmiş, burulmaya mukavim, yüksek dayanımlı çelik çerçevelidir. Enlemeler ise kutu profillerden oluşturulmuştur. Yüzeyler plywood kaplıdır. İsteğe bağlı olarak, kullanım ömrü daha yüksek olan plastik yüzeyli plywood UPM Elephant ile de kaplanabilir. Çelik çerçeve profili elemanın istenilen her çerçeve noktasında bir diğeri ile bağlantısını temin edecek şekilde tasarlanmıştır.

Pano genişlikleri 30, 45, 60, 75, 90, 120, 240 cm ve yükseklikleri ise 330, 300, 270, 180, 150, 120 cm olarak seçilmiştir.

Panoların köşeleri dolu olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye veya inşaat demiri ile yer değiştirmesini sağlamaktadır. Bunun dışında bu köşelerdeki delikler kolay ve çabuk nakliye için kullanılmaktadır. Panolarda konik olarak açılmış ankraj delikleri DW15'lik tie-rod kullanımı için uygun olup 80 kN/m<sup>2</sup>'ye kadar beton basıncını karşılamaktadır.





The VINC'I Panel Formwork is a crane set modular panel formwork system for use in civil engineering projects having a wide range of applicability in constructing of industrial, infrastructural and residential buildings.

A complete formwork set including the accessories weighs about 72 kg/m<sup>2</sup>. The admissible load bearing capacity according to DIN EN 18202 Tab. 3, Line 7 for fresh concrete pressure is of 80 kN/m<sup>2</sup>.

It should be noted that whenever used framework components are applied, the load bearing capacity and/or related deflections may deviate up to 20% from design calculations.

The high load bearing capacity of VINC'I panel formwork ensures faster concreting times. It is practically possible to concrete up to a 4.5 m/h rate of placing according to DIN EN 18218 (no retarder,  $t \geq 5^\circ\text{C}$ ).

The panels are either provided with 18 mm UPM WISA® Form Elephant –i.e. a long life all birch plywood panel with polymer facing- or 20 mm polymer panel AL PP –i.e. consisting of polypropylene and aluminum- forming face, both facing materials are fixed to the panel frames by flat-head rivets. In the frame the forming face is sealed with silicone for additional protection.

Examples shown are mostly standard applications which occur in practice most frequently. When using our products internationally, the regulations of the local professional associations of the respective country should have been observed.

It should be noted that what is shown on the following pages are assembly illustrations for demonstration purposes.

In order to express the details in the illustrations more effectively, the safety aspects may not always been taken into full consideration.

Please adhere to these technical instructions together with full safety measures when applying the VINC'I Formwork, as any deviation requires an additional static calculation and evidence.

Only flawless material should have been used, damaged items should be avoided. Please make sure to apply only original TMS spare parts for any replacement.





The VINC'I Panel Formwork is a crane set modular panel formwork system for use in civil engineering projects having a wide range of applicability in constructing of industrial, infrastructural and residential buildings.

A complete formwork set including the accessories weighs about 72 kg/m<sup>2</sup>. The admissible load bearing capacity according to DIN EN 18202 Tab. 3, Line 7 for fresh concrete pressure is of 80 kN/m<sup>2</sup>.

It should be noted that whenever used framework components are applied, the load bearing capacity and/or related deflections may deviate up to 20% from design calculations.

The high load bearing capacity of VINC'I panel formwork ensures faster concreting times. It is practically possible to concrete up to a 4.5 m/h rate of placing according to DIN EN 18218 (no retarder,  $t \geq 5^\circ\text{C}$ ).

The panels are either provided with 18 mm UPM WISA® Form Elephant –i.e. a long life all birch plywood panel with polymer facing- or 20 mm polymer panel AL PP –i.e. consisting of polypropylene and aluminum- forming face, both facing materials are fixed to the panel frames by flat-head rivets. In the frame the forming face is sealed with silicone for additional protection.

Examples shown are mostly standard applications which occur in practice most frequently. When using our products internationally, the regulations of the local professional associations of the respective country should have been observed.

It should be noted that what is shown on the following pages are assembly illustrations for demonstration purposes.

In order to express the details in the illustrations more effectively, the safety aspects may not always been taken into full consideration.

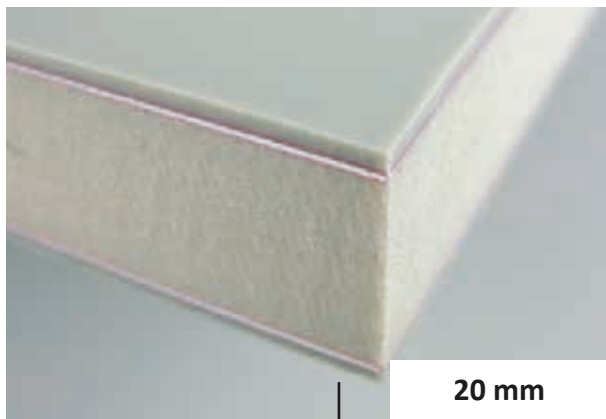
Please adhere to these technical instructions together with full safety measures when applying the VINC'I Formwork, as any deviation requires an additional static calculation and evidence.

Only flawless material should have been used, damaged items should be avoided. Please make sure to apply only original TMS spare parts for any replacement.

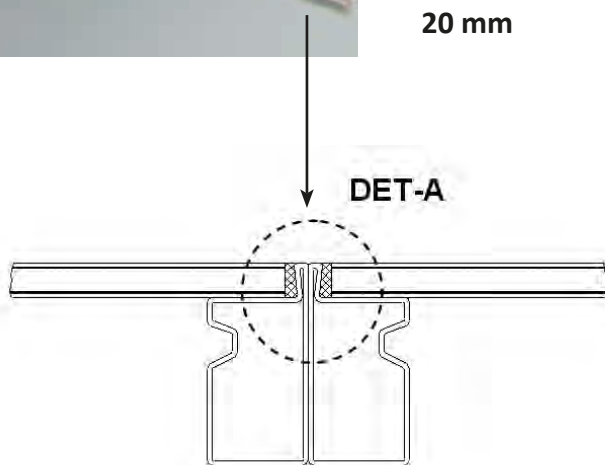


1. The steel frames are manufactured of special closed profiles which are welded together by robotic welding units. These profiles are high strength fine grain steel provided with a locking groove and an integrated protection surrounding the forming face edges.
  2. Crossbars provide three consequent holes which serve as fixing points for accessory parts on the frame.
  3. Conical steel tie-rod sleeve for easy cleaning and also serving for slanted wall applications.
  4. Unique panel connection with the TAMON assembly lock, better handling of anchors.
  5. Solid steel corners enhancing panel life and moving panels in setting.
  6. Fast and safe attachment points for accessory parts.
  7. Transportation holes on the solid corners conceived to fix the transport lifting device.
- Piled up panels can thus be moved at ground level (see p. 87) and take panels array from stock easily.

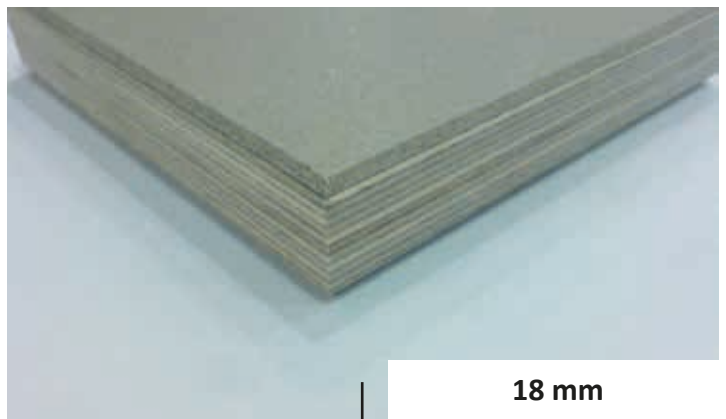
**POLYMER 20 mm**



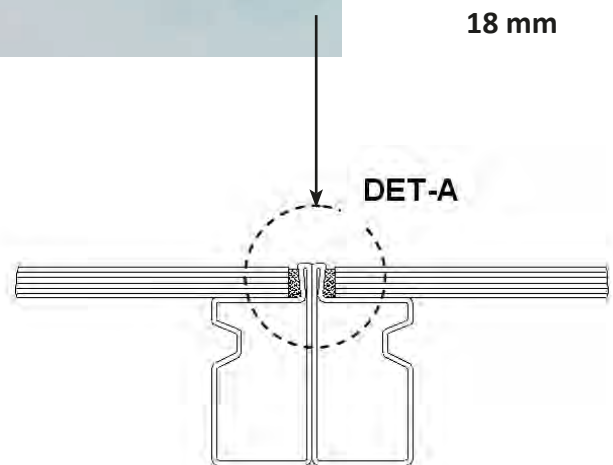
20 mm



**WISA®-FORM ELEPHANT**



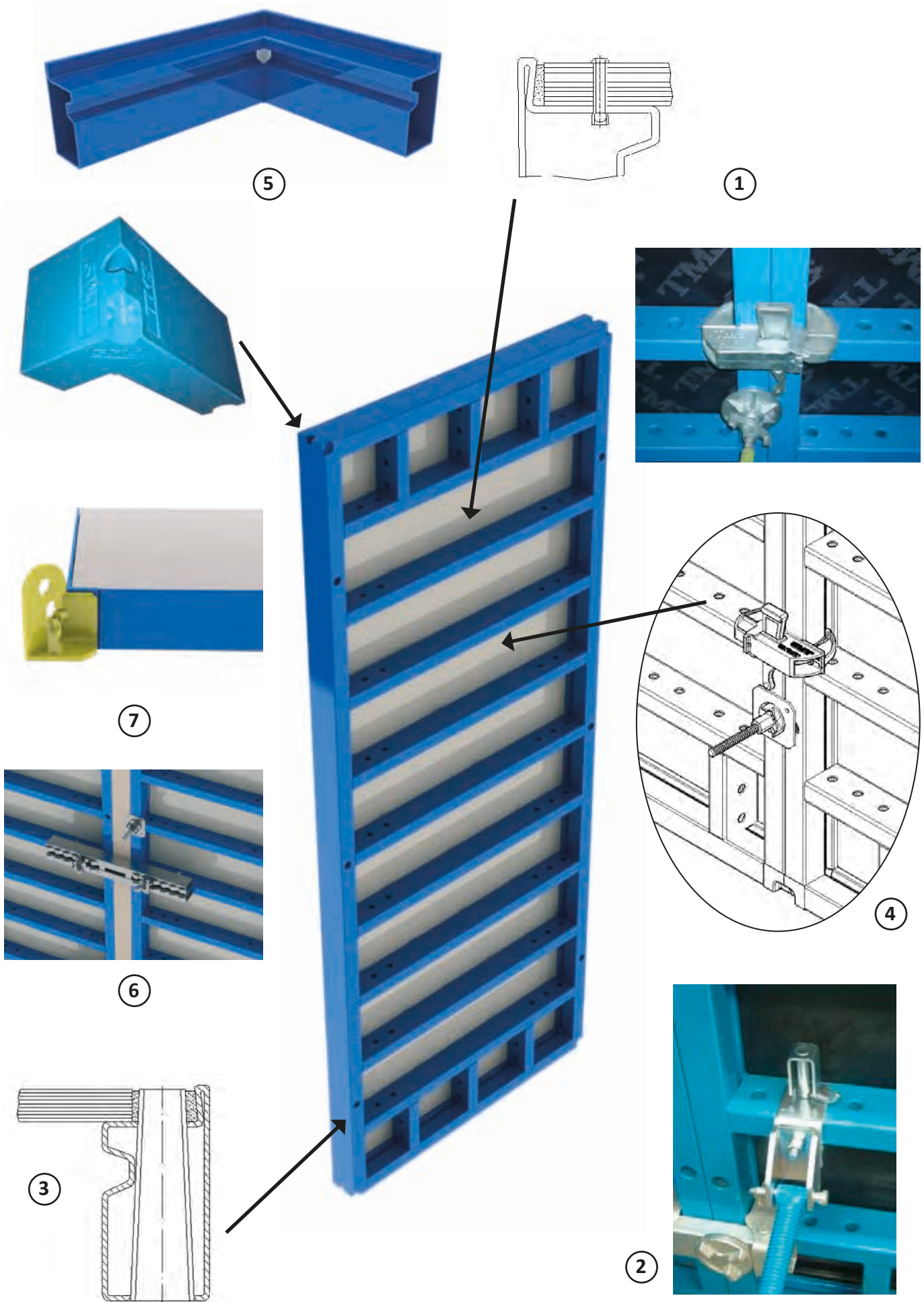
18 mm



The state of the art composite polymer form facing material which is made of polypropylene and aluminum, has proved to be superior to the regular plywood with respect to working life, load bearing capacity, nailing and repairing ability. The job-site advantages could briefly be explained as greatly reduced cleaning effort, minimum use of release agent, and high quality smooth concrete surfaces.

The ALKUS forming face could be recycled. Hence, protecting the environment. The other facing material option is an ingeniously developed form facing material namely WISA®-Form Elephant which is all birch forming plywood having a special wood impregnated polymer layer at the forming face, hence providing considerably enhanced working life and nailing ability. The job-site advantages are reduced cleaning effort and release agent, as well as high quality smooth concrete surfaces.

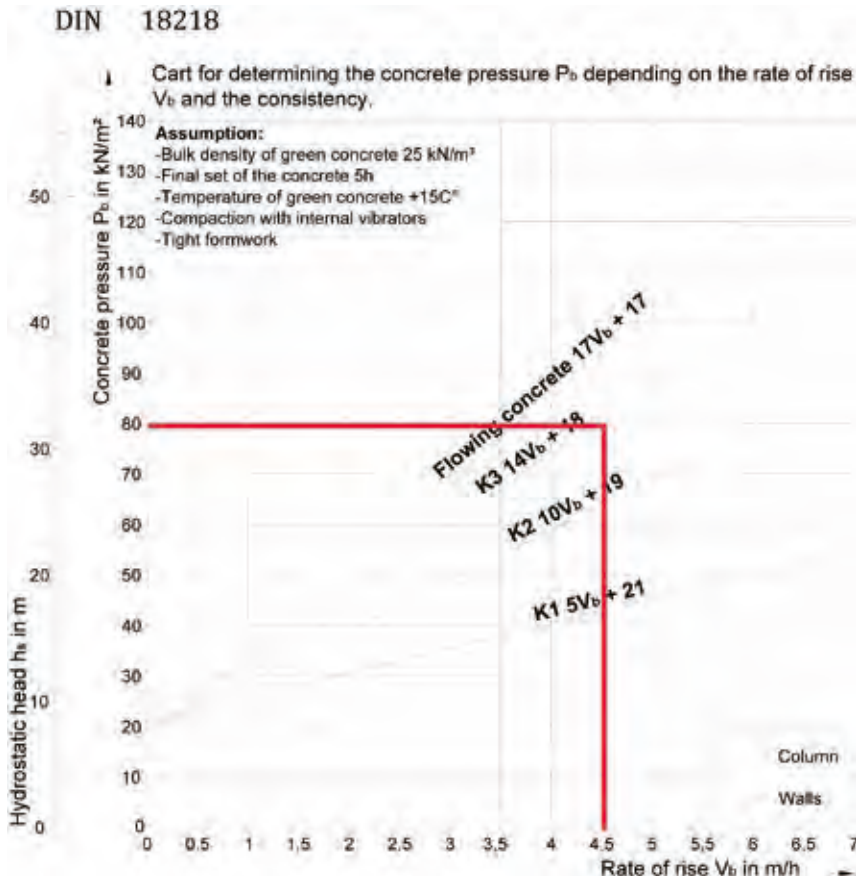






## RATE OF PLACING CONCRETE

With the VINCI Formwork concreting up to a height of 3.30 m it is possible without taking care of the rate of placing of concrete, or with the pouring rate of 4.5m/h. This is not valid for concrete > F 3 (K3)

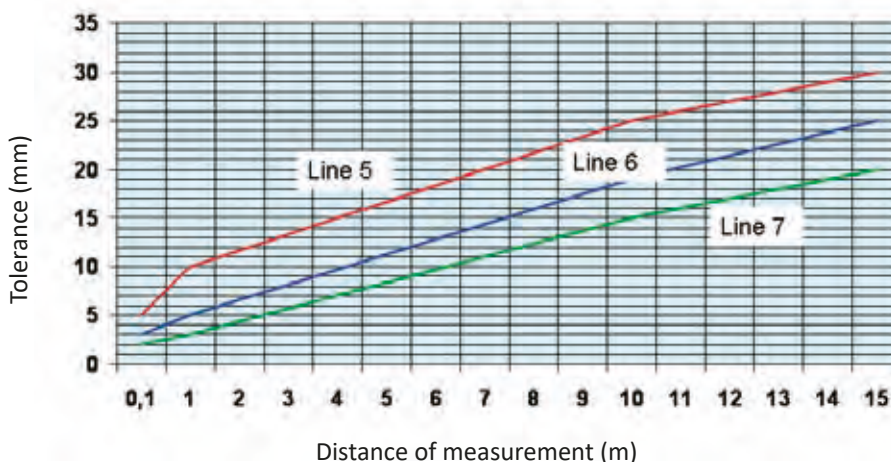


General rules for placing the concrete according to the charts as follow;

- The concrete must be placed in layers (0.50 m – 1.00 m), according to the German industrial standard DIN 4235.
- It is not allowed to place the concrete from a height greater than 1,50 m
- The concrete must be compacted in layers care must be taken so that immersion vibrator would not penetrate more than 50 cm into the underlying layer.
- A final compacting of the whole concrete depth is neither allowed nor useful, as a further compaction of the already compacted concrete can induce water bubbles (blowholes) at the concrete surface.
- Consistency KP (plastic) or KR (standard consistency).
- The basis of calculation in the accompanying chart is concrete without additives (i.e. retarding agent, flow agent).
- Outside vibrator →  $P_b = 25 \times h$  (Hydrostatical pressure distribution)
- Temperature <15° => Per °C 3% increase of the concrete pressure

## Depth of Vibration

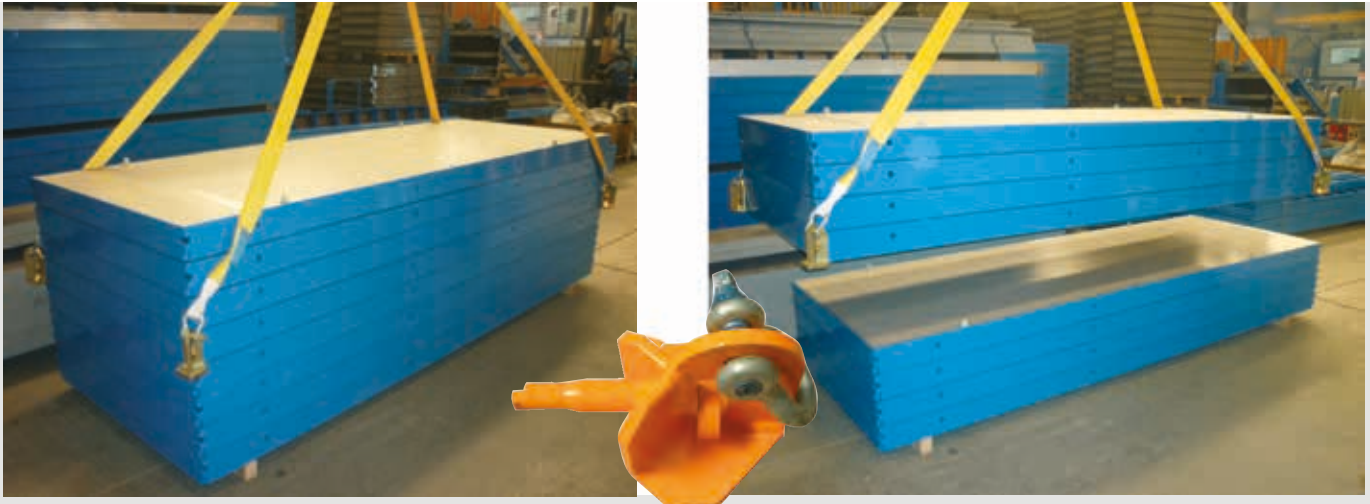
The concrete pressure obtained from the chart of Figure 1 applies for a vibration depth  $h_v$  up to the hydrostatic head  $h_s$ . If the vibration depth is intended to be greater than  $h_s$ , and the other assumptions specified on the chart remain the same, the fresh concrete pressure is to be increased to  $P_b = 25 \times h_v$ .



## Deflection

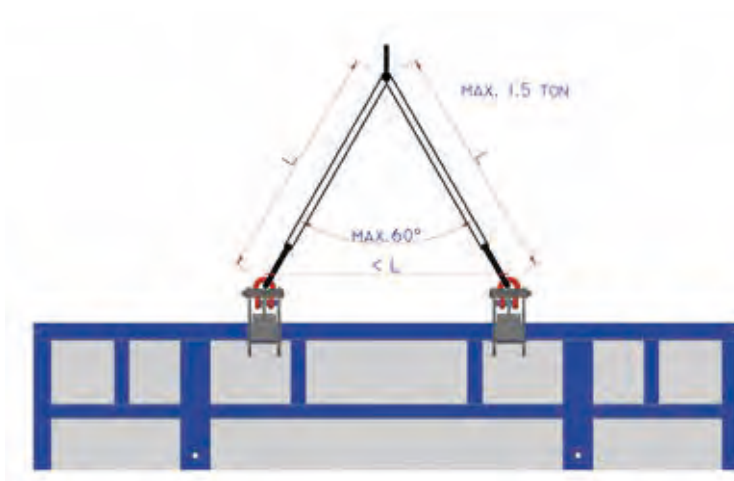
The static calculations for formwork structure of VINCI fulfills all requirements of GSV Güteschutzverband Betonschalungen according to DIN 18202 TAB. 3 Line 7 with a load bearing capacity of 80 kN/m<sup>2</sup> and **max. 3 mm** deflection. (The only exception is the 240 x 270 panel with anchor points inside the panel providing 70 kN/m<sup>2</sup>)





## TRANSPORTING OF HORIZONTALLY STACKED PANELS

When unloading the truck and/or displacing horizontally stacked panels on the construction site, take care to use the appropriate crane slings together with the special VINC'I lifting attachments.



The admissible load of a VINC'I crane hook is 15 kN.

Operating the crane hook is quite simple, open the spring loaded safety lever as far as possible. Then position the crane hook on to the panel profile until the cross bar engages completely in the profile groove, let the safety lever back in order to lock the crane hook while lifting large size panel units, take care that each crane hook is attached so that the crane hook touches an inner side profile avoiding any slipping.



**VINC'I 80 COLUMN FORMWORK**

VINC'I is a steel frame formwork system composed of high strength rectangular tube profiles, which could be easily combined with column panel locks. The steel frame profiles are designed to be able to connect at any point with the other panel. Panel facing is the plastic coated Birch Plywood namely WISA<sup>®</sup>-Form Elephant (delivered by UPM), providing higher durability and longer life. Column-panel widths are 75, 90, 105 and 120 cm where as the heights are chosen as 330, 300, 270, 180, 150 and 120 cm. The panel corners bear solid steel pieces which gives extra stiffness while also delivering strong inserts for levering and lifting holes for handling. Only the solid corner would double the panel life against similar systems.

**VINC'I 80 KOLON KALIBI**

VINC'I 80 Kolon Kalıpları, vinç ile kullanılan, çelik çerçeveli, plywood yüzeyli pano kalıp sistemleridir. Panolar; kapalı torsiyona mukavim çelik çerçevelidir. Enlemeler ise kutu profillerden yapılmıştır.

Yüzeyler plywood kaplıdır. İsteğe bağlı olarak, kullanım ömrü daha yüksek olan plastik yüzeyli plywood UPM Elephant ile de kaplanabilir.

Çelik çerçeve profil elemanı; istenilen her çerçeve noktasından bir diğeri ile bağlanabilecek şekilde tasarlanmıştır. 5 cm aralıklı yatay tie-rod delikleri, kolon kalıbının boyutunun yatayda her iki yönde beş cm'de bir ayarlanabilir olmasını sağlar.

Pano genişlikleri: 75, 90, 105, 120 cm ve yükseklikleri ise: 330, 300, 270, 180, 150, 120 cm olarak seçilmiştir.

Panoların köşeleri dolu malzeme olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye veya inşaat demiri ile yer değiştirmesini kolaylaştırmaktadır.

Kalıp kavraması TAMON her enlemeye ve çerçevenin enine boyuna herhangi bir noktasına yerleştirilebilir ve bir çekiç darbesiyle açılır veya kapatılabilir. Panolarda açılmış ankraj delikleri DW15' lik tie-rod kullanımı için uygun olup 80 KN/m<sup>2</sup>' ye kadar beton basıncını karşılamaktadır.





## VINC'I 80 STANDARD PANELS "Plywood Surface"



| ITEM                 | ITEM NO          | WEIGHT    |
|----------------------|------------------|-----------|
| VS-S B 30 x 120 ply  | 030 083 10312 00 | 29,03 kg  |
| VS-S B 45 x 120 ply  | 030 083 10412 00 | 36,15 kg  |
| VS-S B 60 x 120 ply  | 030 083 10612 00 | 46,11 kg  |
| VS-S B 75 x 120 ply  | 030 083 10712 00 | 52,97 kg  |
| VS-S B 90 x 120 ply  | 030 083 10912 00 | 62,66 kg  |
| VS-S B 120 x 120 ply | 030 083 11212 00 | 85,67 kg  |
| VS-S B 30 x 150 ply  | 030 083 10315 00 | 37,20 kg  |
| VS-S B 45 x 150 ply  | 030 083 10415 00 | 45,80 kg  |
| VS-S B 60 x 150 ply  | 030 083 10615 00 | 57,22 kg  |
| VS-S B 75 x 150 ply  | 030 083 10715 00 | 65,46 kg  |
| VS-S B 90 x 150 ply  | 030 083 10915 00 | 76,53 kg  |
| VS-S B 120 x 150 ply | 030 083 11215 00 | 103,48 kg |
| VS-S B 30 x 180 ply  | 030 083 10318 00 | 45,30 kg  |
| VS-S B 45 x 180 ply  | 030 083 10418 00 | 55,36 kg  |
| VS-S B 60 x 180 ply  | 030 083 10618 00 | 68,26 kg  |
| VS-S B 75 x 180 ply  | 030 083 10718 00 | 77,88 kg  |
| VS-S B 90 x 180 ply  | 030 083 10918 00 | 90,34 kg  |
| VS-S B 120 x 180 ply | 030 083 11218 00 | 121,23 kg |
| VS-S B 30 x 270 ply  | 030 083 10327 00 | 64,52 kg  |
| VS-S B 45 x 270 ply  | 030 083 10427 00 | 79,00 kg  |
| VS-S B 60 x 270 ply  | 030 083 10627 00 | 96,30 kg  |
| VS-S B 75 x 270 ply  | 030 083 10727 00 | 110,07 kg |
| VS-S B 90 x 270 ply  | 030 083 10927 00 | 126,67 kg |
| VS-S B 120 x 270 ply | 030 083 11227 00 | 179,54 kg |
| VS-S B 240 x 270 ply | 030 083 12427 00 | 389,47 kg |
| VS-S B 30 x 300 ply  | 030 083 10330 00 | 71,62 kg  |
| VS-S B 45 x 300 ply  | 030 083 10430 00 | 87,57 kg  |
| VS-S B 60 x 300 ply  | 030 083 10630 00 | 106,35 kg |
| VS-S B 75 x 300 ply  | 030 083 10730 00 | 121,49 kg |
| VS-S B 90 x 300 ply  | 030 083 10930 00 | 139,38 kg |
| VS-S B 120 x 300 ply | 030 083 11230 00 | 186,13 kg |
| VS-S B 240 x 300 ply | 030 083 12430 00 | 429,45 kg |
| VS-S B 30 x 330 ply  | 030 083 10333 00 | 78,26 kg  |
| VS-S B 45 x 330 ply  | 030 083 10433 00 | 95,67 kg  |
| VS-S B 60 x 330 ply  | 030 083 10633 00 | 115,93 kg |
| VS-S B 75 x 330 ply  | 030 083 10733 00 | 132,46 kg |
| VS-S B 90 x 330 ply  | 030 083 10933 00 | 151,82 kg |
| VS-S B 120 x 330 ply | 030 083 11233 00 | 214,19 kg |
| VS-S B 240 x 330 ply | 030 083 12433 00 | 468,57 kg |



## VINC'I 80 COLUMN PANELS "Plywood Surface"



| ITEM                 | ITEM NO          | WEIGHT    |
|----------------------|------------------|-----------|
| VS-K B 75 x 120 ply  | 030 082 10712 00 | 55,68 kg  |
| VS-K B 90 x 120 ply  | 030 082 10912 00 | 66,23 kg  |
| VS-K B 105 x 120 ply | 030 082 11012 00 | 75,81 kg  |
| VS-K B 120 x 120 ply | 030 082 11212 00 | 88,50 kg  |
| VS-K B 75 x 150 ply  | 030 082 10715 00 | 68,18 kg  |
| VS-K B 90 x 150 ply  | 030 082 10915 00 | 80,11 kg  |
| VS-K B 105 x 150 ply | 030 082 11015 00 | 92,08 Kg  |
| VS-K B 120 x 150 ply | 030 082 11215 00 | 106,32 kg |
| VS-K B 75 x 180 ply  | 030 082 10718 00 | 80,60 kg  |
| VS-K B 90 x 180 ply  | 030 082 10918 00 | 93,91 kg  |
| VS-K B 105 x 180 ply | 030 082 11018 00 | 108,28 kg |
| VS-K B 120 x 180 ply | 030 082 11218 00 | 124,06 kg |
| VS-K B 75 x 270 ply  | 030 082 10727 00 | 115,58 kg |
| VS-K B 90 x 270 ply  | 030 082 10927 00 | 133,98 kg |
| VS-K B 105 x 270 ply | 030 082 11027 00 | 163,78 kg |
| VS-K B 120 x 270 ply | 030 082 11227 00 | 185,50 kg |
| VS-K B 75 x 300 ply  | 030 082 10730 00 | 127,00 kg |
| VS-K B 90 x 300 ply  | 030 082 10930 00 | 146,79 kg |
| VS-K B 105 x 300 ply | 030 082 11030 00 | 169,51 kg |
| VS-K B 120 x 300 ply | 030 082 11230 00 | 192,09 kg |
| VS-K B 75 x 330 ply  | 030 082 10733 00 | 137,96 kg |
| VS-K B 90 x 330 ply  | 030 082 10933 00 | 159,13 kg |
| VS-K B 105 x 330 ply | 030 082 11033 00 | 195,34 kg |
| VS-K B 120 x 330 ply | 030 082 11233 00 | 220,15 kg |





## VINC'I 80 INNER CORNER ELEMENT



"Plywood Surface"

| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| SI-K B 120 ply | 030 085 10012 00 | 38,55 kg |
| SI-K B 150 ply | 030 085 10015 00 | 47,95 kg |
| SI-K B 180 ply | 030 085 10018 00 | 57,27 kg |
| SI-K B 270 ply | 030 085 10027 00 | 80,17 kg |
| SI-K B 300 ply | 030 085 10030 00 | 88,50 kg |
| SI-K B 330 ply | 030 085 10033 00 | 96,36 kg |

## VINC'I 80 ARTICULATED INNER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| SM-K B 120 | 030 085 04012 00 | 46,60 kg  |
| SM-K B 150 | 030 085 04015 00 | 54,63 kg  |
| SM-K B 180 | 030 085 04018 00 | 66,81 kg  |
| SM-K B 270 | 030 085 04027 00 | 98,75 kg  |
| SM-K B 300 | 030 085 04030 00 | 108,85 kg |
| SM-K B 330 | 030 085 04033 00 | 116,52 kg |

## E – Z STRIP CORNER PANEL



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| SV-K B 120 | 030 085 03012 00 | 84,39 kg  |
| SV-K B 150 | 030 085 03015 00 | 102,40 kg |
| SV-K B 180 | 030 085 03018 00 | 118,90 kg |
| SV-K B 270 | 030 085 03027 00 | 174,12 kg |
| SV-K B 300 | 030 085 03030 00 | 189,23 kg |
| SV-K B 330 | 030 085 03033 00 | 206,43 kg |







## VINC'I 80 OUTER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| VD-K B 120 | 030 087 00120 00 | 38,22 kg  |
| VD-K B 150 | 030 087 00150 00 | 46,77 kg  |
| VD-K B 180 | 030 087 00180 00 | 57,25kg   |
| VD-K B 270 | 030 087 00270 00 | 85,80 kg  |
| VD-K B 300 | 030 087 00300 00 | 94,20 kg  |
| VD-K B 330 | 030 087 00330 00 | 103,62 kg |

## VINC'I 80 STRIP PLATE



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| SS-P B 120 | 030 085 08012 00 | 15,50 kg |
| SS-P B 150 | 030 085 08015 00 | 19,38 kg |
| SS-P B 180 | 030 085 08018 00 | 23,25 kg |
| SS-P B 270 | 030 085 08027 00 | 34,87 kg |
| SS-P B 300 | 030 085 08030 00 | 38,75 kg |
| SS-P B 330 | 030 085 08033 00 | 42,63 kg |

## VINC'I WALER



VINC'I SPANNER  
ELEMENT

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-K G | 030 187 00080 00 | 9,09 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

## VINC'I 80 STOP END SPANNER



VINC'I 80  
COLUMN LOCK

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-A G | 030 187 00030 00 | 3,30 kg |
| VK-K G | 030 187 00280 00 | 2,08 kg |

## PROP HEAD PLATE



## VINC'I 80 MULTI PANEL LOCK



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| PV-S G 82 | 030 112 00082 00 | 3,20 kg |
| SM-L G    | 030 180 00290 00 | 4,15 kg |
| ST-Y G    | 030 180 00298 00 | 2,11 kg |

VINC'I 80  
SPANNER BRACKET





## VINC'I PANEL LOCK "TAMON 80"



## VINC'I PANEL LOCK "TU-T 80"

| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| ST-K G 80     | 004 135 00280 00 | 3,42kg  |
| TU-T G 80 dkm | 030 180 00130 00 | 5,30 kg |

## CRANE HOOK "VINC'I 80 TYPE"



## PANEL LIFTING DEVICE

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| SK-V G Tüv | 030 180 00155 00 | 11,46 kg |
| SY-K G     | 030 180 00303 00 | 3,15 kg  |

## CAT-WALK BRACKET INTEGRATED TYPE



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| BD-K B ent     | 030 010 00100 00 | 6,50 kg |
| BD-B B prf 100 | 030 010 00110 00 | 1,25 kg |





## VINC'I 70 WALL FORMWORK

VINC'I 70 is a Wall Formwork System for foundations, beam and basement walls composed of high strength steel frame panels having state of the art production quality and highly versatile accessories providing ease of applicability and significantly reduced labor. The main element heights are 300 cm, 270 cm, 180 cm, 150 and 120 cm.

The panel widths are 30, 45, 60, 75, 90, 120 and 240 cm where the Column - Panels ( 75 cm width ) have integrated anchor holes with 5 cm intervals. All panels have 12 cm depth. They can be connected with VINC'I 80 panels easily.

The panels consists of torsionally stiff, high strength flat profile frames with lateral closed profiles which are adding on the general stiffness of the panels. The panel facing material is either a modern and long lasting 20mm thick polypropylene plates strengthened with Aluminum sheets or a long life 18 mm UPM WISA® – Form Birch plywood. Through the frame profile it is possible to apply the lock at any required position. Either vertical or horizontal, it is possible to continuously shift the panels against each other without limiting the locking possibilities. The universally applicable innovative panel lock "TAMON" provides leak proof joints. It is possible to put the lock on any lateral profile, either vertical or horizontal at any position on the frame.

The frames are powder coated after grid-blasting against corrosion. This special coating provides ease of cleaning while avoiding adhesiveness against concrete. The static calculations for formwork structure of VINC'I 70 fulfills all requirements of GSV (Güteschutzverband Betonschalungen) according to DIN 18202 TAB.3 Line 7 with a load bearing capacity of 70 kN/m<sup>2</sup> and max. 3 mm deflection. The formwork system could be used at; foundations, walls, columns, retaining walls, containers, shafts and all other steel reinforced concrete structures.

The anchor holes are suitable to DW 15 tie-rods and have load bearing capacities of 70 kN/m<sup>2</sup>. All panels have solid steel corner pieces strengthening the panel structure and acting as strong leverage points.



## VINC'I 70 PERDE KALIBI

VINC'I 70 Perde Kalıpları, vinç ile kullanılan, çelik çerçeveli, plywood yüzeyli pano kalıp sistemleridir.

Panolar; özel şekillendirilmiş, burulmaya mukavim, yüksek dayanımlı çelik çerçevelidir. Enlemeler ise kutu profillerden oluşturulmuştur. Yüzeyler plywood kaplıdır. İsteğe bağlı olarak, kullanım ömrü daha yüksek olan plastik yüzeyli plywood UPM Elephant ile de kaplanabilir.

Çelik çerçeve profil elemanı; istenilen her çerçeve noktasından bir diğeri ile bağlanabilecek şekilde tasarlanmıştır.

Pano genişlikleri: 30, 45, 60, 75, 90, 120, 240 cm ve yükseklikleri ise: 300, 270, 180, 150, 120 cm olarak seçilmiştir.

Panoların köşeleri dolu malzeme olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye veya inşaat demiri ile yer değiştirmesini kolaylaştırmaktadır.

Kalıp kavraması TAMON her enlemeye ve çerçevenin enine boyuna herhangi bir noktasına yerleştirilebilir ve bir çekiç darbesiyle açılır veya kapatılabilir. Panolarda açılmış ankraj delikleri DW15' lik tie-rod kullanımı için uygun olup 70 KN/m<sup>2</sup>' ye kadar beton basıncını karşılamaktadır.







### VINC'I 70 COLUMN FORMWORK

VINC'I 70 is a Column Formwork composed of high strength steel frame panels having state of the art production quality and highly versatile accessories providing ease of applicability and significantly reduced labor.

The main element heights are 300 cm, 270 cm, 180 cm, 150 and 120 cm. The panel widths are 75, 90 and 105 cm where the panels have integrated anchor holes with 5 cm intervals to be connected with VINC'I 70 Column lock. All panels have 12 cm depth. The panels consists of torsionally stiff, high strength flat profile frames with lateral closed profiles which are adding on the general stiffness of the panels. The panel facing material is either a modern and long lasting 20 mm thick, polypropylene plates strengthened with Aluminum sheets or a long life 18 mm UPM WISA®-Form Birch plywood.

The frames are powder coated after grid-blasting against corrosion. This special coating provides ease of cleaning while avoiding adhesiveness against concrete. The static calculations for formwork structure of VINC'I 70 fulfills all requirements of GSV ( Güteschutzverband Betonschalungen ) according to DIN 18202 TAB.3 Line 7 All panels have solid steel corner pieces strengthening the panel structure and acting as strong leverage points.

### VINC'I 70 KOLON KALIBI

VINC'I 70 Kolon Kalıpları, vinç ile kullanılan, çelik çerçevesi, plywood yüzeyli pano kalıbı sistemleridir.

Panolar; özel şekillendirilmiş, burulmaya mukavim, yüksek dayanımlı çelik çerçevesidir. Enlemeler ise kutu profillerden oluşturulmuştur. Yüzeyler plywood kaplıdır. İsteğe bağlı olarak, kullanım ömrü daha yüksek olan plastik yüzeyli plywood UPM Elephant ile de kaplanabilir.

Çelik çerçeve profil elemanı; istenilen her çerçeve noktasından bir diğeri ile bağlanabilecek şekilde tasarlanmıştır. 5 cm aralıklı yatay tie-rod delikleri, kolon kalıbının boyutunun yatayda her iki yönde beş cm'de bir ayarlanabilir olmasını sağlar.

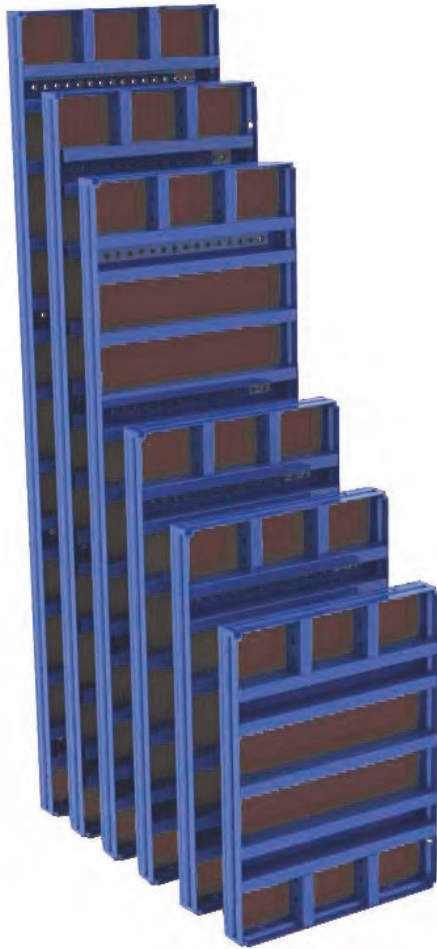
Pano genişlikleri: 75, 90, 105 cm ve yükseklikleri ise: 300, 270, 180, 150, 120 cm olarak seçilmiştir.

Panoların köşeleri dolu malzeme olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye veya inşaat demiri ile yer değiştirmesini kolaylaştırmaktadır.

Kalıp kavraması TAMON her enlemeye ve çerçevenin enine boyuna herhangi bir noktasına yerleştirilebilir ve bir çekiç darbesiyle açılır veya kapatılabilir. Panolarda açılmış ankraj delikleri DW15' lik tie-rod kullanımı için uygun olup 70 KN/m2' ye kadar beton basıncını karşılamaktadır.



## VINC'I 70 COLUMN PANELS "Plywood Surface"

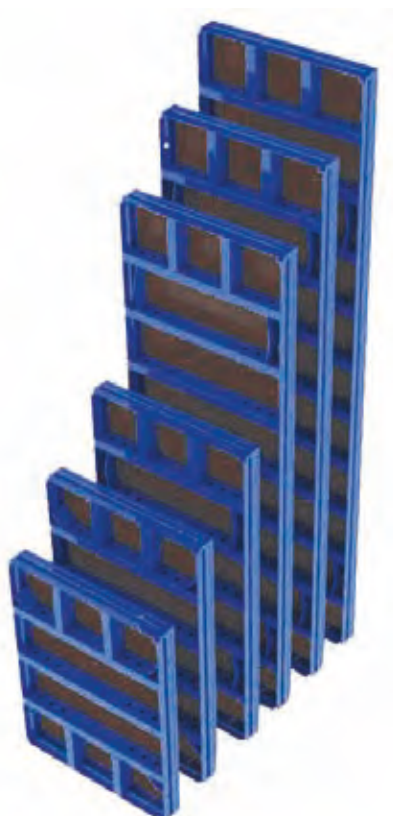
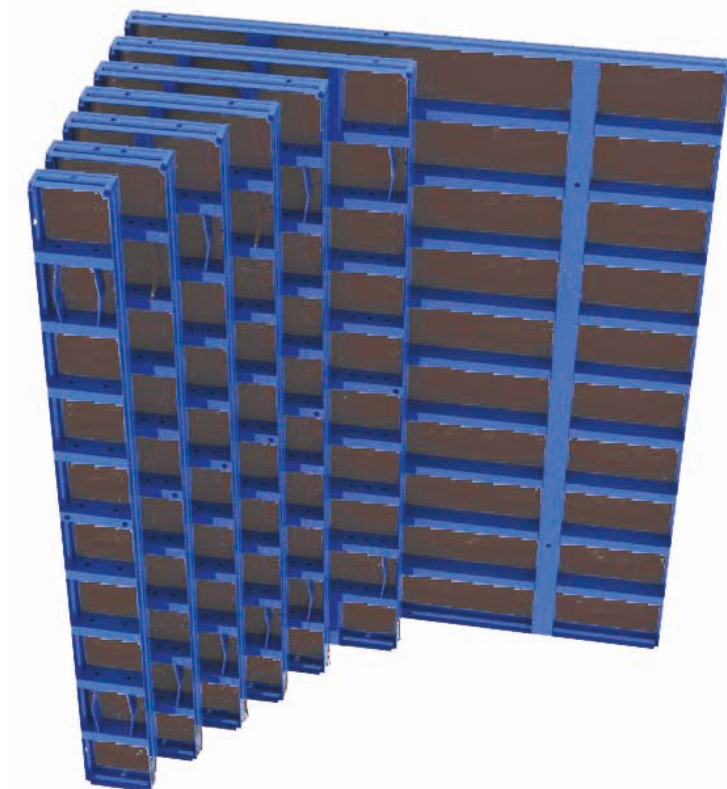


| ITEM               | ITEM NO          | WEIGHT    |
|--------------------|------------------|-----------|
| VY-K B 75x120 ply  | 030 072 10712 01 | 47,88 kg  |
| VY-K B 90x120 ply  | 030 072 10912 01 | 57,23 kg  |
| VY-K B 105x120 ply | 030 072 11012 01 | 67,98 kg  |
| VY-K B 120x120 ply | 030 072 11212 01 | 78,63 kg  |
| VY-K B 75x150 ply  | 030 072 10715 01 | 56,72 kg  |
| VY-K B 90x150 ply  | 030 072 10915 01 | 67,28 kg  |
| VY-K B 105x150 ply | 030 072 11015 01 | 81,28 kg  |
| VY-K B 120x150 ply | 030 072 11215 01 | 93,44 kg  |
| VY-K B 75x180 ply  | 030 072 10718 01 | 65,56 kg  |
| VY-K B 90x180 ply  | 030 072 10918 01 | 77,32 kg  |
| VY-K B 105x180 ply | 030 072 11018 01 | 94,57 kg  |
| VY-K B 120x180 ply | 030 072 11218 01 | 108,25 kg |
| VY-K B 75x270 ply  | 030 072 10727 01 | 97,47 kg  |
| VY-K B 90x270 ply  | 030 072 10927 01 | 114,18 kg |
| VY-K B 105x270 ply | 030 072 11027 01 | 138,28 kg |
| VY-K B 120x270 ply | 030 072 11227 01 | 157,21 kg |
| VY-K B 75x300 ply  | 030 072 10730 01 | 109,59 kg |
| VY-K B 90x300 ply  | 030 072 10930 01 | 127,50 kg |
| VY-K B 105x300 ply | 030 072 11030 01 | 154,86 kg |
| VY-K B 120x300 ply | 030 072 11230 01 | 175,30 kg |





## VINC'I 70 STANDARD PANELS "Plywood Surface"



| ITEM               | ITEM NO          | WEIGHT    |
|--------------------|------------------|-----------|
| VY-S B 30x120 ply  | 030 073 10312 01 | 24,63 kg  |
| VY-S B 45x120 ply  | 030 073 10412 01 | 30,36 kg  |
| VY-S B 60x120 ply  | 030 073 10612 01 | 38,73 kg  |
| VY-S B 75x120 ply  | 030 073 10712 01 | 44,25 kg  |
| VY-S B 90x120 ply  | 030 073 10912 01 | 52,42 kg  |
| VY-S B 120x120 ply | 030 073 11212 01 | 76,36 kg  |
| VY-S B 30x150 ply  | 030 073 10315 01 | 29,93 kg  |
| VY-S B 45x150 ply  | 030 073 10415 01 | 36,72 kg  |
| VY-S B 60x150 ply  | 030 073 10615 01 | 46,37 kg  |
| VY-S B 75x150 ply  | 030 073 10715 01 | 53,10 kg  |
| VY-S B 90x150 ply  | 030 073 10915 01 | 62,46 kg  |
| VY-S B 120x150 ply | 030 073 11215 01 | 91,16 kg  |
| VY-S B 30x180 ply  | 030 073 10318 01 | 34,82 kg  |
| VY-S B 45x180 ply  | 030 073 10418 01 | 43,09 kg  |
| VY-S B 60x180 ply  | 030 073 10618 01 | 54,01 kg  |
| VY-S B 75x180 ply  | 030 073 10718 01 | 61,93 kg  |
| VY-S B 90x180 ply  | 030 073 10918 01 | 72,51 kg  |
| VY-S B 120x180 ply | 030 073 11218 01 | 105,97 kg |
| VY-S B 30x270 ply  | 030 073 10327 01 | 52,16 kg  |
| VY-S B 45x270 ply  | 030 073 10427 01 | 64,84 kg  |
| VY-S B 60x270 ply  | 030 073 10627 01 | 79,58 kg  |
| VY-S B 75x270 ply  | 030 073 10727 01 | 91,11 kg  |
| VY-S B 90x270 ply  | 030 073 10927 01 | 108,36 kg |
| VY-S B 120x270 ply | 030 073 11227 01 | 155,91 kg |
| VY-S B 240x270 ply | 030 073 12427 01 | 354,74 kg |
| VY-S B 30x300 ply  | 030 073 10330 01 | 58,31 kg  |
| VY-S B 45x300 ply  | 030 073 10430 01 | 71,69 kg  |
| VY-S B 60x300 ply  | 030 073 10630 01 | 87,70 kg  |
| VY-S B 75x300 ply  | 030 073 10730 01 | 100,03 kg |
| VY-S B 90x300 ply  | 030 073 10930 01 | 118,88 kg |
| VY-S B 120x300 ply | 030 073 11230 01 | 171,39 kg |
| VY-S B 240x300 ply | 030 073 12430 01 | 392,94 kg |



## VINC'I 70 INNER CORNER ELEMENT



"Plywood Surface"

| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| YI-K B 120 ply | 030 075 10012 01 | 33,06 kg |
| YI-K B 150 ply | 030 075 10015 01 | 40,46 kg |
| YI-K B 180 ply | 030 075 10018 01 | 47,89 kg |
| YI-K B 270 ply | 030 075 10027 01 | 68,90 kg |
| YI-K B 300 ply | 030 075 10030 01 | 76,66 kg |

## VINC'I 70 ARTICULATED INNER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| YM-K B 120 | 030 075 04012 01 | 46,21 kg  |
| YM-K B 150 | 030 075 04015 01 | 56,26 kg  |
| YM-K B 180 | 030 075 04018 01 | 67,61 kg  |
| YM-K B 270 | 030 075 04027 01 | 99,09 kg  |
| YM-K B 300 | 030 075 04030 01 | 109,61 kg |

## E – Z STRIP CORNER



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| SV-K B 120 | 030 085 03012 00 | 84,39 kg  |
| SV-K B 150 | 030 085 03015 00 | 102,40 kg |
| SV-K B 180 | 030 085 03018 00 | 118,90 kg |
| SV-K B 270 | 030 085 03027 00 | 174,12 kg |
| SV-K B 300 | 030 085 03030 00 | 189,23 kg |
| SV-K B 330 | 030 085 03033 00 | 206,43 kg |



## VINC'I 70 OUTER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| VD-K B 120 | 030 087 00120 00 | 38,22 kg |
| VD-K B 150 | 030 087 00150 00 | 46,77 kg |
| VD-K B 180 | 030 087 00180 00 | 57,25 kg |
| VD-K B 270 | 030 087 00270 00 | 85,80 kg |
| VD-K B 300 | 030 087 00300 00 | 94,20 kg |

## VINC'I 70 STRIP PLATE



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| YS-P B 120 | 030 075 05012 01 | 12,80 kg |
| YS-P B 150 | 030 075 05015 01 | 16,00 kg |
| YS-P B 180 | 030 075 05018 01 | 19,20 kg |
| YS-P B 270 | 030 075 05027 01 | 28,80 kg |
| YS-P B 300 | 030 075 05030 01 | 32,00 kg |

## VINC'I WALER (80 cm)



VINC'I SPANNER  
ELEMENT

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-K G | 030 187 00080 00 | 9,09 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

## VINC'I 70 STOP END SPANNER



PROP HEAD PLATE



VINC'I 70  
COLUMN LOCK

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| VC-A G    | 030 187 00030 00 | 3,30 kg |
| PV-Y G 72 | 030 112 00072 00 | 3,19 kg |
| VK-K G    | 030 187 00280 00 | 2,08 kg |



# VINC'I® 70 ACCESSORIES

**VINC'I PANEL LOCK  
"TAMON 70"**



**VINC'I PANEL LOCK  
TU-T 70**



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| YT-K G 70 | 004 135 00270 01 | 2,77 kg |
| TU-T G 70 | 030 170 00110 01 | 4,17 kg |

**VINC'I 70 MULTI  
PANEL LOCK**



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| YM-L G | 030 170 00290 00 | 3,55 kg |

**CRANE HOOK "VINC'I 70 TYPE"**



**VINC'I 70 SPANNER  
BRACKET**

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| YK-V G | 030 170 00150 01 | 9,22 kg |
| YT-Y G | 030 170 00298 01 | 2,03 kg |

**CAT-WALK BRACKET  
INTEGRATED TYPE**



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| BD-K B ent     | 030 010 00100 00 | 6,50 kg |
| BD-B B prf 100 | 030 010 00110 00 | 1,25 kg |





### **HAND'I WALL FORMWORK**

HAND'I System Formwork is developed for foundations, beams and walls on lower parts of construction. The steel frame profiles are made with the latest high technology. Easy and simple connection systems allows less workmanship.

Panel widths are 30, 45, 60, 75 cm and the heights are chosen as 270, 240, 180, 150, 120cm. All corners of the elements are solid steel which protect and stiffen the frames as well as allowing the replacement of the elements with simple levers.

The frame of the elements are made of specially formed high tensile boxed flat steel which bares the formwork face at top and the TAMON lock in the middle with its special groove. Lateral beams are rectangular profile type and placed for a min. deflection of formwork facing.

### **HAND'I PERDE KALIBI**

HAND'I Temeller, kirişler, çok yüksek olmayan perdeler için geliştirilmiş bir kalıp sistemidir. En modern lazer kaynaklı üretim sistemi ile oluşturulmuş çelik çerçeveli panolar, basit ve çabuk parça bağlantı sistemi ile işçilikten önemli ölçüde tasarruf sağlamaktadır.

Pano genişlikleri 30, 45, 60, 75 cm ve yükseklikleri ise 270, 240, 180, 150, 120 cm. olarak seçilmiştir. Bütün panoların köşeleri masif olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye ile yer değiştirmesini sağlamaktadır. Panoların çerçevesi, özel bükümlü kutulaştırılmış yassı çelik profil olup, bir yandan kalıp yüzüne mesnet oluşturmakta bir yandan da özel girintisi ile çelik kavramayı tutmaktadır. Enleme profilleri özel kutu profil olup, kalıp yüzünün sehimini en iyi şekilde karşılayacak şekilde yerleştirilmiştir. Kalıp yüzeyi olarak UPM WISA<sup>®</sup> FORM plywood kullanılmıştır.



**HAND'I COLUMN FORMWORK**

HAND'I Column Formwork System is developed for smaller columns. The steel frame profiles are made with the latest high technology. Easy and simple connection system allows for less workman ship.

Panel width is 75 cm and the heights are chosen as 240, 180, 150, 120 cm. All corners of the elements are solid steel which protect and stiffen the frames as well as allowing the replacement of the elements with simple levers.

The frame of the elements are made of specially formed high tensile boxed flat steel which bares the formwork face at top and the TAMON lock in the middle with its special groove. Lateral beams are rectangular profile type and placed for a min. deflection of formwork facing.

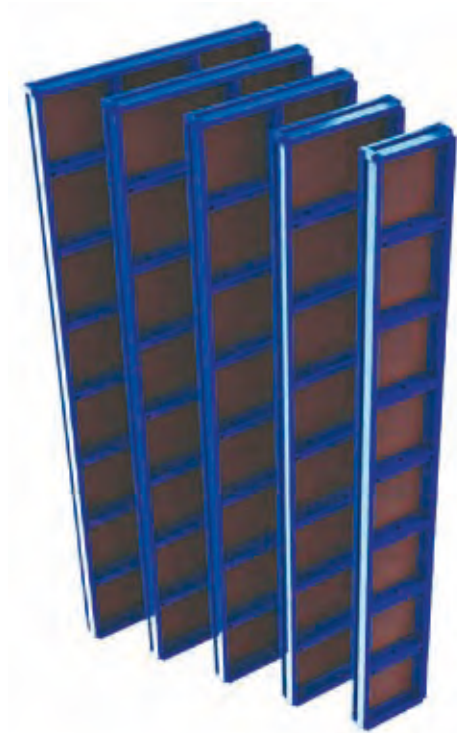
**HAND'I KOLON KALIBI**

HAND'I Kolon Kalıbı çok yüksek olmayan kolonlar için geliştirilmiş bir kalıp sistemidir. En modern lazer kaynaklı üretim sistemi ile oluşturulmuş çelik çerçevesi panolar, basit ve çabuk parça bağlantı sistemi ile işçilikten önemli ölçüde tasarruf sağlamaktadır. Pano genişliği 75 cm ve yükseklikleri ise 240, 180, 150, 120 cm. olarak seçilmiştir. Bütün panoların köşeleri masif olup bir yandan çerçeveyi sağlamlaştırmakta ve diğer yandan da panonun, bir levye ile yer değiştirmesini sağlamaktadır. Panoların çerçevesi, özel bükümlü kutulaştırılmış yassı çelik profil olup, bir yandan kalıp yüzüne mesnet oluşturmakta bir yandan da özel girintisi ile çelik kavramayı tutmaktadır. Enleme profilleri özel kutu profil olup, kalıp yüzünün sehimini en iyi şekilde karşılayacak şekilde yerleştirilmiştir. Kalıp yüzeyi olarak UPM WISA®-Form plywood kullanılmıştır.





## HAND'I STANDARD PANELS "Plywood Surface"



| ITEM              | ITEM NO          | WEIGHT   |
|-------------------|------------------|----------|
| HA-S B 30x120 ply | 030 063 10312 00 | 19,03 kg |
| HA-S B 45x120 ply | 030 063 10412 00 | 23,82 kg |
| HA-S B 60x120 ply | 030 063 10612 00 | 30,78 kg |
| HA-S B 75x120 ply | 030 063 10712 00 | 35,42 kg |
| HA-S B 30x150 ply | 030 063 10315 00 | 23,27 kg |
| HA-S B 45x150 ply | 030 063 10415 00 | 29,12 kg |
| HA-S B 60x150 ply | 030 063 10615 00 | 37,14 kg |
| HA-S B 75x150 ply | 030 063 10715 00 | 42,80 kg |
| HA-S B 30x180 ply | 030 063 10318 00 | 27,50 kg |
| HA-S B 45x180 ply | 030 063 10418 00 | 34,42 kg |
| HA-S B 60x180 ply | 030 063 10618 00 | 43,50 kg |
| HA-S B 75x180 ply | 030 063 10718 00 | 50,17 kg |
| HA-S B 30x240 ply | 030 063 10324 00 | 36,03 kg |
| HA-S B 45x240 ply | 030 063 10424 00 | 45,17 kg |
| HA-S B 60x240 ply | 030 063 10624 00 | 56,39 kg |
| HA-S B 75x240 ply | 030 063 10724 00 | 65,09 kg |
| HA-S B 30x270 ply | 030 063 10327 00 | 39,89 kg |
| HA-S B 45x270 ply | 030 063 10427 00 | 50,00 kg |
| HA-S B 60x270 ply | 030 063 10627 00 | 62,28 kg |
| HA-S B 75x270 ply | 030 063 10727 00 | 72,00 kg |

## HAND'I COLUMN PANELS "Plywood Surface"



| ITEM              | ITEM NO          | WEIGHT   |
|-------------------|------------------|----------|
| HA-K B 75x120 ply | 030 062 10712 00 | 43,80 kg |
| HA-K B 75x150 ply | 030 062 10715 00 | 51,18 kg |
| HA-K B 75x180 ply | 030 062 10718 00 | 58,55 kg |
| HA-K B 75x240 ply | 030 062 10724 00 | 77,83 kg |
| HA-K B 75x270 ply | 030 062 10727 00 | 85,21 kg |

## HAND'I INNER CORNER ELEMENT



"Plywood Surface"

| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| HI-K B 120 ply | 030 065 10012 00 | 26,44 kg |
| HI-K B 150 ply | 030 065 10015 00 | 32,19 kg |
| HI-K B 180 ply | 030 065 10018 00 | 37,95 kg |
| HI-K B 240 ply | 030 065 10024 00 | 49,45 kg |
| HI-K B 270 ply | 030 065 10027 00 | 55,20 kg |



## HAND'I OUTER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| HD-K B 120 | 030 065 02012 00 | 12,02 kg |
| HD-K B 150 | 030 065 02015 00 | 15,28 kg |
| HD-K B 180 | 030 065 02018 00 | 18,44 kg |
| HD-K B 240 | 030 065 02024 00 | 24,63 kg |
| HD-K B 270 | 030 065 02027 00 | 27, 73kg |

## HAND'I STRIP PLATE



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| HS-P B 120 | 030 065 08012 00 | 11,02 kg |
| HS-P B 150 | 030 065 08015 00 | 13,78 kg |
| HS-P B 180 | 030 065 08018 00 | 16,53 kg |
| HS-P B 240 | 030 065 08024 00 | 22,04 kg |
| HS-P B 270 | 030 065 08027 00 | 24,80 kg |

## HAND'I WALER



SPANNER  
ELEMENT

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-K G | 030 187 00080 00 | 9,09 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

## HAND'I PANEL LOCK "TAMON "



## HAND'I PANEL LOCK "TU-T "



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| AT-K G    | 004 135 00260 00 | 1,50 kg |
| TU-T G 60 | 030 060 00110 00 | 3,50 kg |

## CRANE HOOK" HAND'I TYPE"



PROP HEAD PLATE



HAND'I  
COLUMN LOCK

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| AK-V G    | 030 160 00150 00 | 5,80 kg |
| PH-A G 62 | 030 112 00062 00 | 1,65 kg |
| AK-K G    | 030 160 00280 00 | 1,95 kg |

## CAT-WALK BRACKET INTEGRATED TYPE



| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| BD-K B ent    | 030 010 00100 00 | 6,50 kg |
| BD-B B prf 60 | 030 010 00112 00 | 1,30 kg |





## MOPA WALL FORMWORK

The MOPA modular panel formwork is a crane set modular panel formwork system for use in civil engineering projects having a wide range of applicability in constructing of industrial, infrastructural and residential buildings. MOPA has a steel frame formwork system composed of rectangular hollow profiles bolted at both ends providing assembly on jobsite according to the project needs. MOPA external frame edge profiles are designed with the same shape and strength of the VINC'I 80 profiles, so they can be easily combined with VINC'I 80 panel locks. The steel frame profiles are designed to connect at any point with the adjacent panels. MOPA panels are sized varying in width and height, enabling combination of different modular panels to form various wall sizes. One of the main advantages of MOPA is that vertical steel walers are used in any necessary distance against the panel joist beams so that special double face panel connections can be made easily at the T and L corners as the tierod holes are not in a fixed position. The admissible load bearing capacity according to DIN EN 18202 Tab. 3, Line 7 for fresh concrete pressure is of 80 kN/m<sup>2</sup>. The high load bearing capacity of MOPA panel formwork ensures faster concreting times. It is practically possible to concrete up to a 4.5 m/h rate of placing according to DIN EN 18218 (no retarder, t ≥ 5 °)

## MOPA PERDE KALIBI

MOPA modüler panel kalıbı, endüstriyel, altyapı ve konut yapılarının inşasında geniş bir uygulama yelpazesine sahip inşaat mühendisliği projelerinde kullanılmak üzere tasarlanmış vinç takımı modüler panel kalıp sistemidir. MOPA, her iki uçta cıvatalı dikdörtgen kutu profillerden oluşan ve proje ihtiyaçlarına göre şantiyede montajı sağlanabilen çelik çerçeve sistemine sahiptir. MOPA dış çerçeve kenar profilleri VINC'I 80 profilleri ile aynı şekle sahip ve aynı mukavemette tasarlanmıştır, bu nedenle VINC'I 80 panel kilitleriyle kolayca birleştirilebilir. Çelik çerçeve profilleri, bitişik panellerle herhangi bir noktadan kolayca bağlanacak şekilde tasarlanmıştır. MOPA panelleri genişlik ve yükseklik bakımından çeşitli boyutlarda olup farklı duvar ebatları için değişik kombinasyondaki modüler panellerin birleşimini sağlar. MOPA'nın ana avantajlarından biri, dikey çelik kuşakların panellerin ızgara dizilişli kutu kirişlerine destek olacak şekilde gereken aralıklarda serbestçe kullanılabilmesidir. Özel çift yüzeyli kalıp bağlantıları T ve L köşelerinde kolaylıkla yapılabilir, çünkü gergi delikleri sabit bir konumda değildir. Taze beton basıncı taşıma kapasitesi DIN EN 18202 Tab. 3, taze beton basıncı için 7. hat 80 kN/m<sup>2</sup>'dir. MOPA panel kalıbının yüksek yük taşıma kapasitesi, daha kısa betonlama süreleri sağlar. DIN EN 18218'e göre (geciktirici yok ise, t ≥ 5 ° C) beton 4.5 m/h'e kadar pratik olarak yerleştirilebilir. Panel kaplaması ya WISA® Form Birch Plywood veya WISA® Form Elephant olarak kullanılabilir.

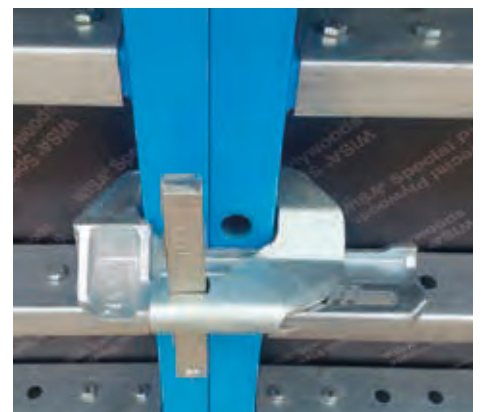




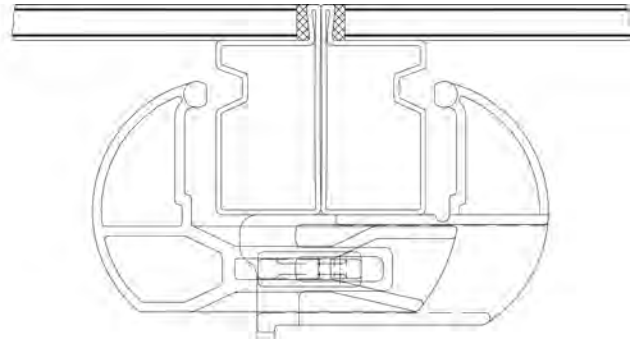
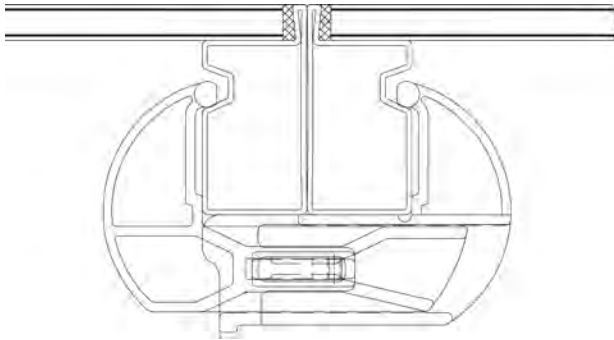
Examples shown are mostly standard applications which occur in practice most frequently. When using our products internationally, the regulations of the local professional associations of the respective country should have been observed. It should be noted that what is shown on the following pages are assembly illustrations for demonstration purposes. In order to express the details in the illustrations more effectively, the safety aspects may not always have been taken into full consideration. Please adhere to these technical instructions together with full safety measures when applying the MOPA Formwork, as any deviation requires an additional static calculation and evidence. Only flawless material should have been used, damaged items should be avoided. Please make sure to apply only original TMS spare parts for any replacement.



NOTE: The panel locks should never be lubricated.

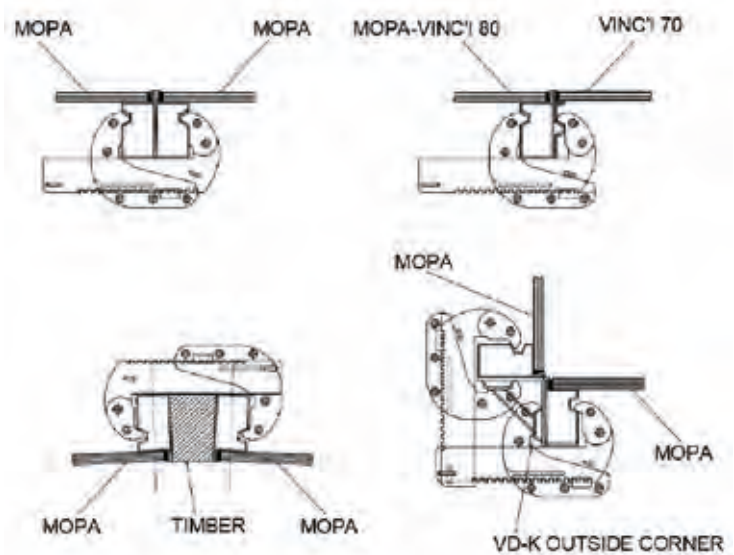






TAMON 80 assembly lock allows the easy connection of two panels while simultaneously aligning the formwork and can be attached tightly on the frame at any position required. The TAMON lock pulls together the panels while aligning them with only a couple of hammer blows. TAMON lock could be easily attached with one hand, and as for standard application only two assembly locks are required for panel height below 3m. For panels above 3m, more locks are required.

TU-T 80 locks are used to adjust the length of formwork by adding timber between the frame edge profiles as shown in the following figures. Extension up to 12cm between the edge profiles can be provided with the lock's clamping ability of the 24cm span length.

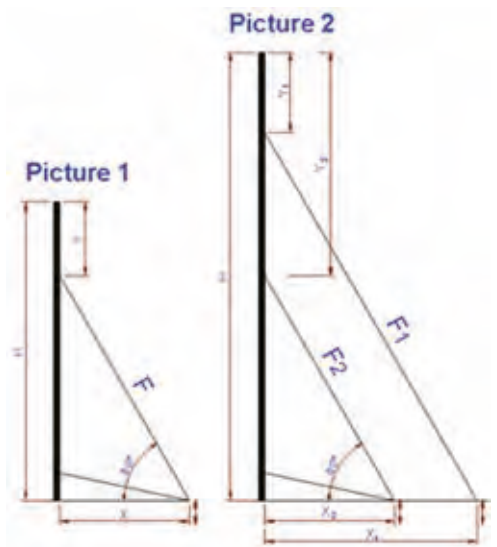


Clamping span max.24cm

Extension up to max. 12 cm



| Formwork height h [m]                              | picture 1 |      |      |      |      |      |       | picture 2 |      |
|----------------------------------------------------|-----------|------|------|------|------|------|-------|-----------|------|
|                                                    | 3         | 4    | 5    | 6    | 7    | 8    |       | 9         | 10   |
| Allowable prop spacing [m]                         | 3,53      | 2,73 | 2,19 | 1,82 | 1,58 | 1,42 |       | 1,32      | 1,15 |
| Actual prop load at [kN]                           | 9,7       | 9,7  | 9,8  | 9,8  | 9,8  | 9,6  | $F_1$ | 6,4       | 7,8  |
| maximum prop spacing                               |           |      |      |      |      |      | $F_2$ | 6,5       | 5,9  |
| Actual kicker load at [kN]                         | 2,1       | 2,3  | 2,2  | 2,2  | 2,3  | 2,6  |       | 1,8       | 1,6  |
| maximum prop spacing                               |           |      |      |      |      |      |       |           |      |
| y = Top connection point from top of formwork [m]  | 1         | 1,2  | 1,5  | 1,8  | 2    | 2    | $y_1$ | 1,5       | 1,8  |
|                                                    |           |      |      |      |      |      | $y_2$ | 4,5       | 5,5  |
| x = Dist. of base plate from front of formwork [m] | 1,15      | 1,62 | 2,02 | 2,42 | 2,89 | 3,46 | $x_1$ | 4,3       | 4,73 |
|                                                    |           |      |      |      |      |      | $x_2$ | 2,6       | 2,6  |



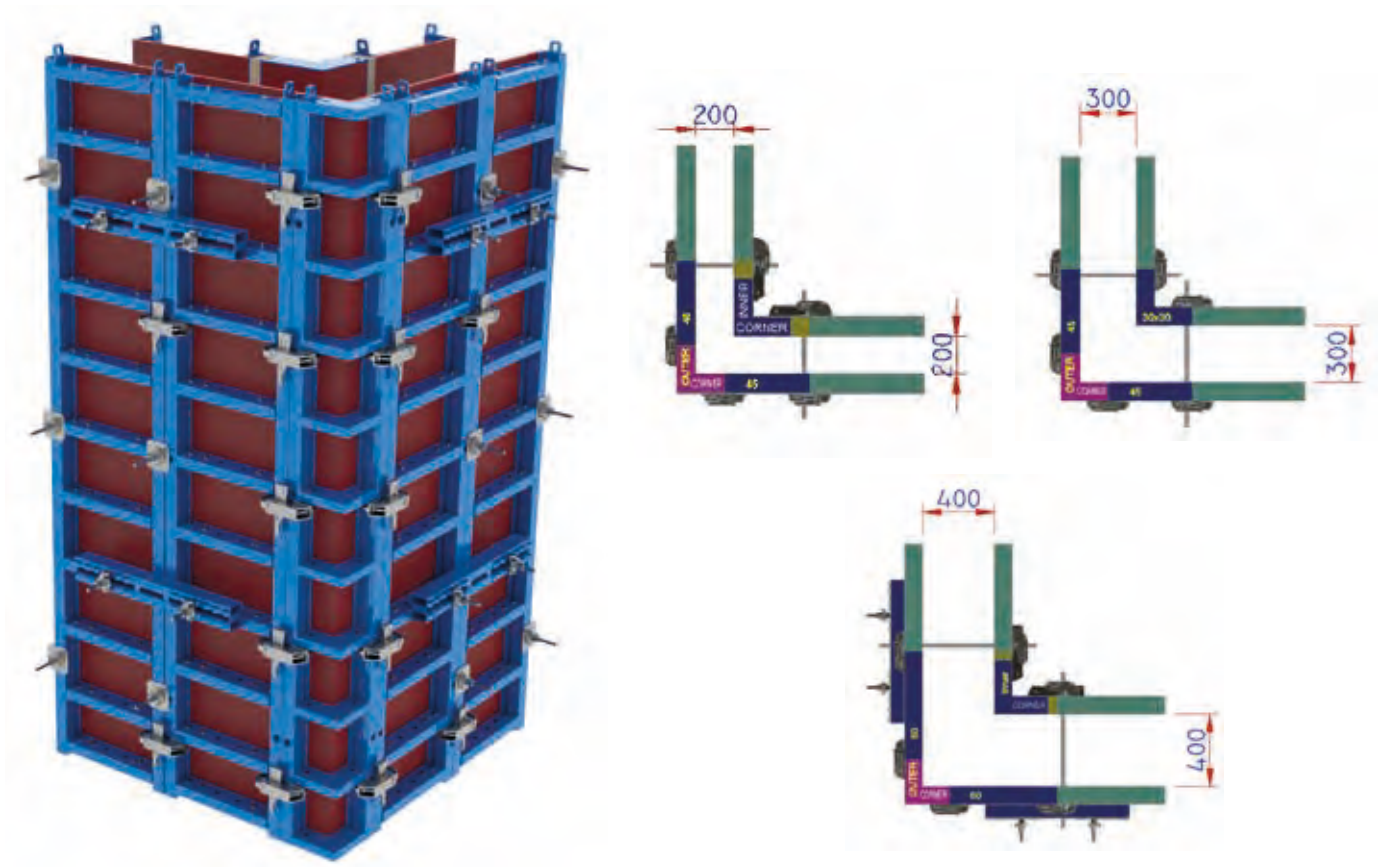
## Applying Push-Pull Props

The push-pull props could be attached to the panels at the vertical waler profiles to the web holes directly with the pins without the need of a special prop head. However, prop heads are necessary only for the narrow panels which do not have vertical walers. Upper and lower push-pull props are fixed together to the double acting foot plate. Allowable distances between push pull props for alignment of formwork can be seen from the above table, in order to resist wind loads.

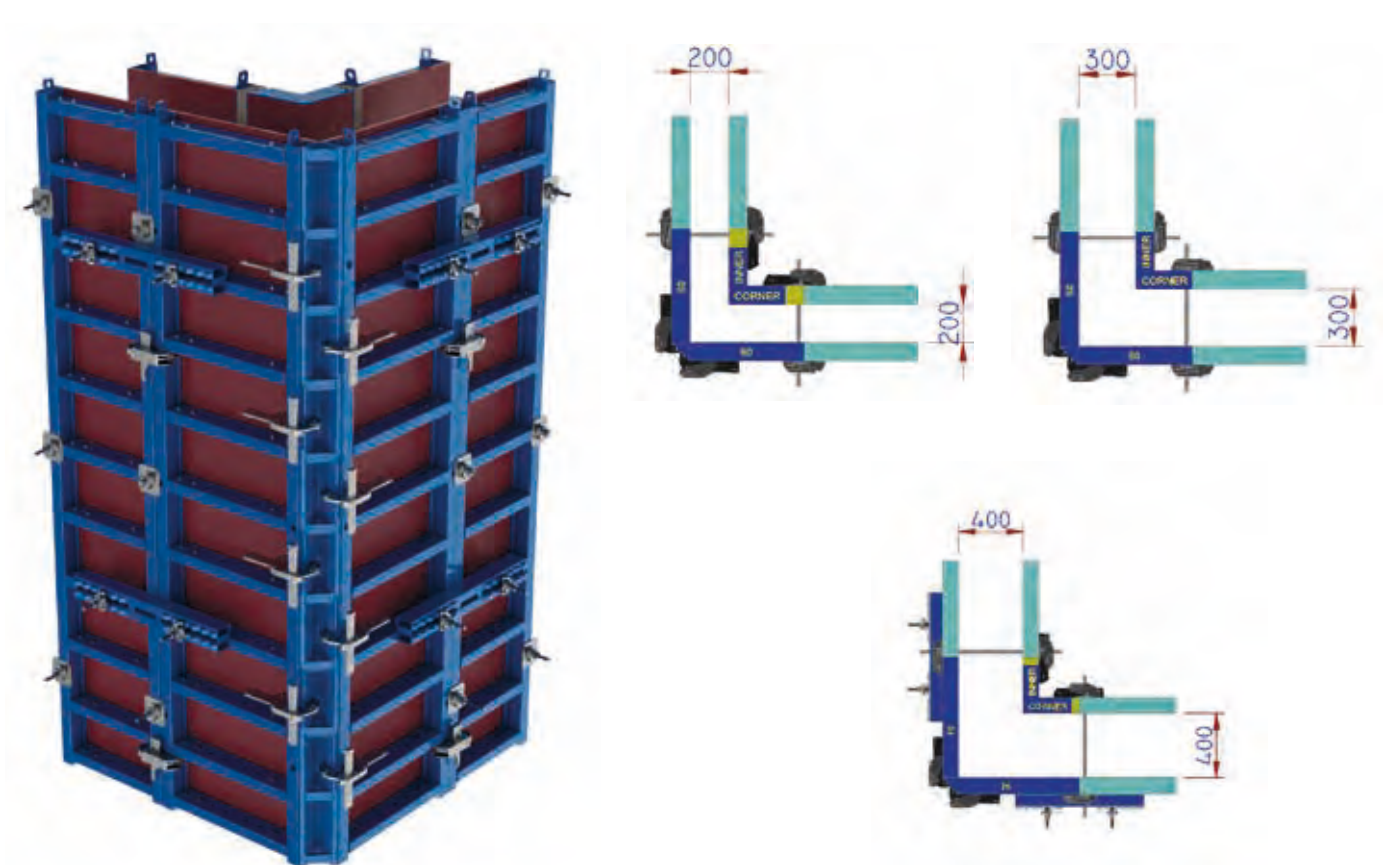




# STANDARD CORNER DETAIL - 1

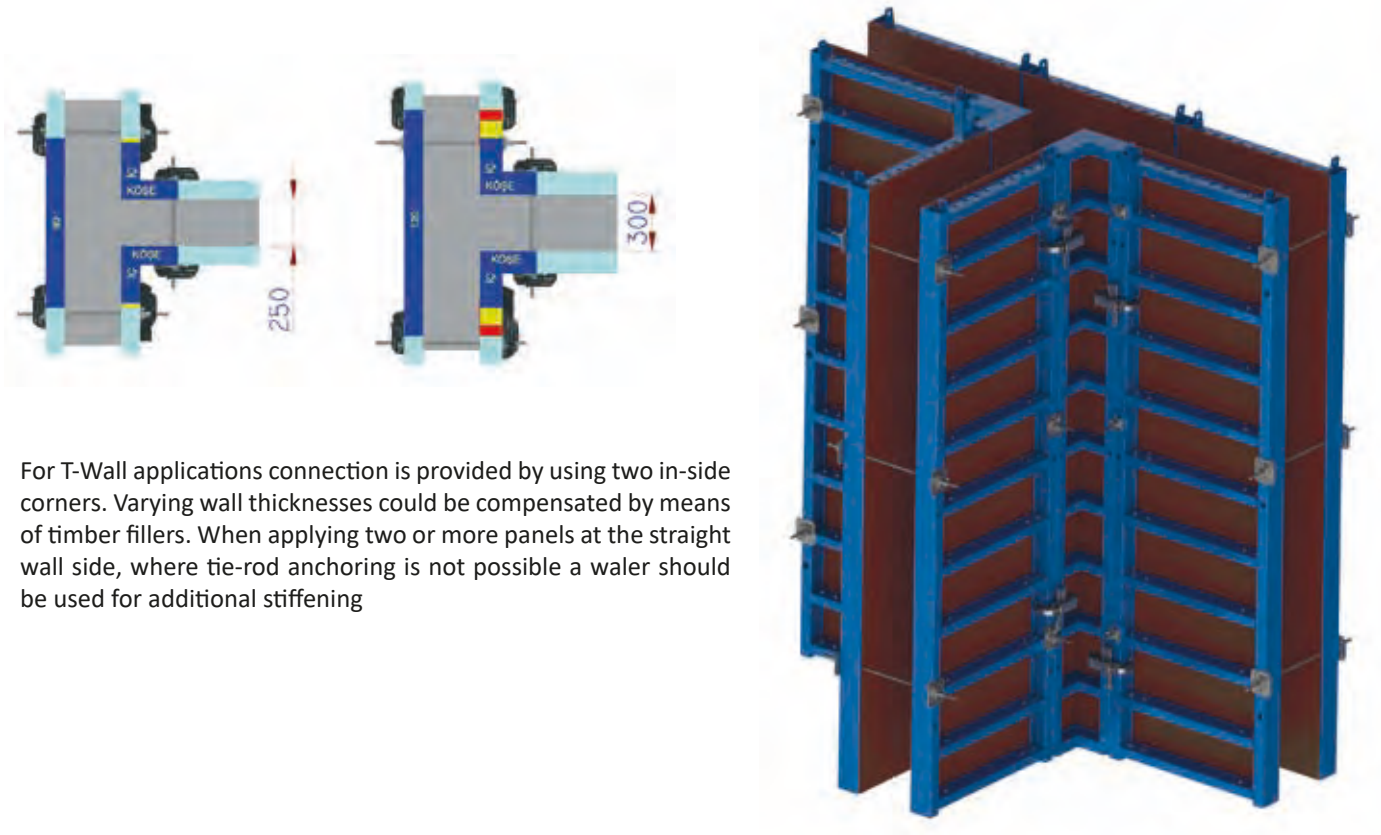


# STANDARD CORNER DETAIL - 2



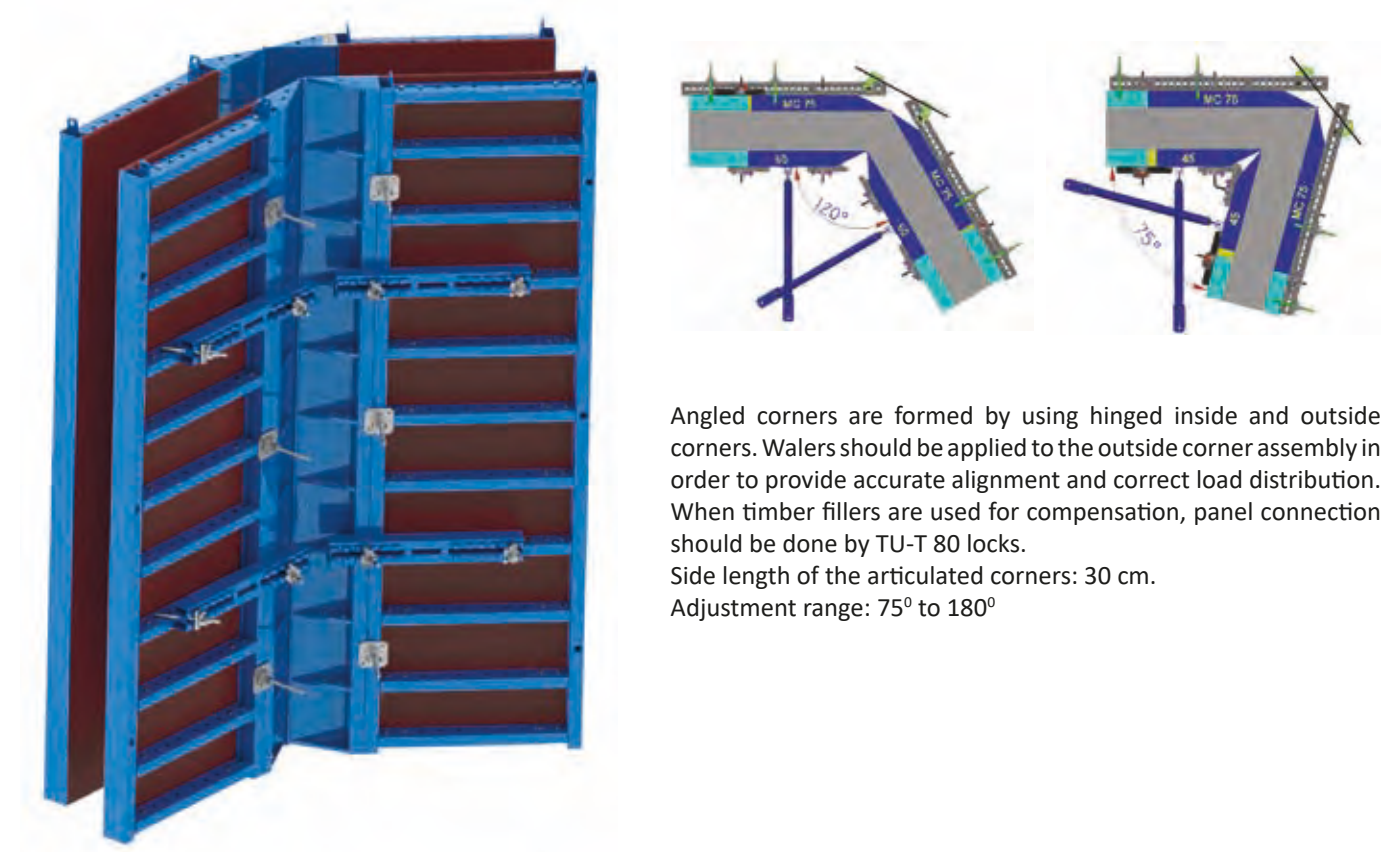


## "T" WALL CONNECTION DETAIL



For T-Wall applications connection is provided by using two in-side corners. Varying wall thicknesses could be compensated by means of timber fillers. When applying two or more panels at the straight wall side, where tie-rod anchoring is not possible a waler should be used for additional stiffening

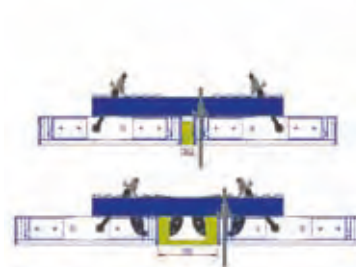
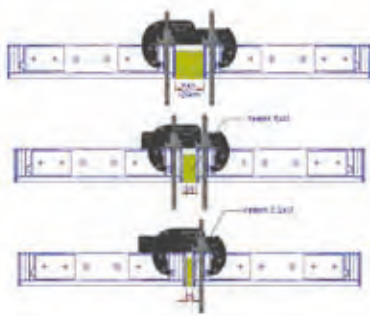
## ARTICULATED CORNER DETAIL



Angled corners are formed by using hinged inside and outside corners. Walers should be applied to the outside corner assembly in order to provide accurate alignment and correct load distribution. When timber fillers are used for compensation, panel connection should be done by TU-T 80 locks. Side length of the articulated corners: 30 cm. Adjustment range: 75° to 180°



## TIMBER FILLER



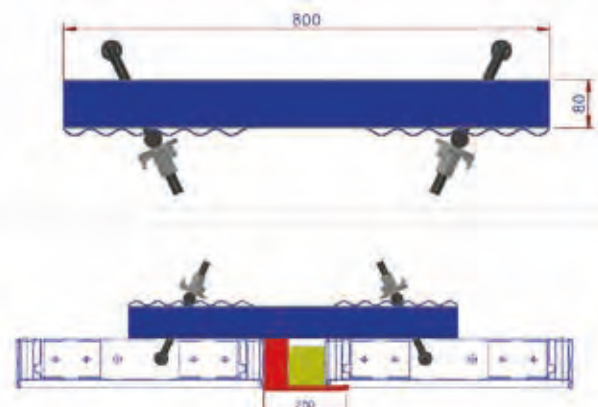
### Timber fillers

The compensation of gaps up to 12 cm is made with timber fillers together with the adjustable TUT-80 locks. If necessary, the strengthening of these areas must be made with additional steel special walers having rectangular hollow section.

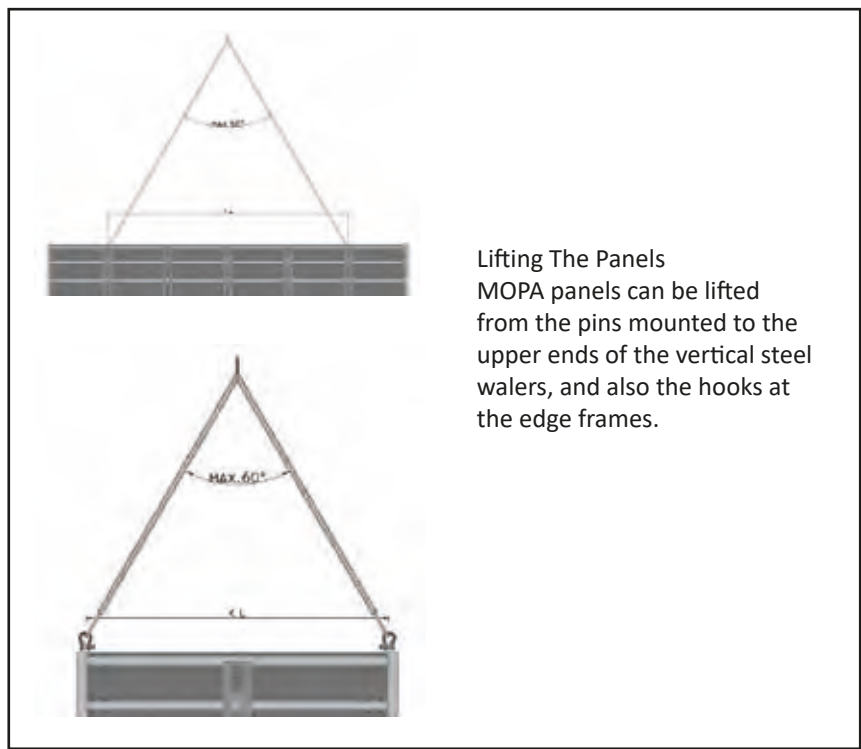
### Temporary Timber Panel Applications

Regular 5x10cm timber beams could be applied together with a forming facing to compensate different dimensions and/or irregular shaped problem areas. A forming face should be cut to the exact size and the timber profiles should be fixed to the periphery, if necessary intermediate cross timbers could be applied in order to strengthen the forming face. These temporary timber bracket panels are connected to the adjacent panels either by TAMON or TU-T 80 locks. When compensating such length differences in the vicinity of the outside corners or stop ends the horizontal tensile force has always to be taken into consideration.

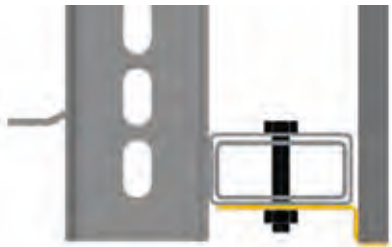
## STEEL PLATE FILLER





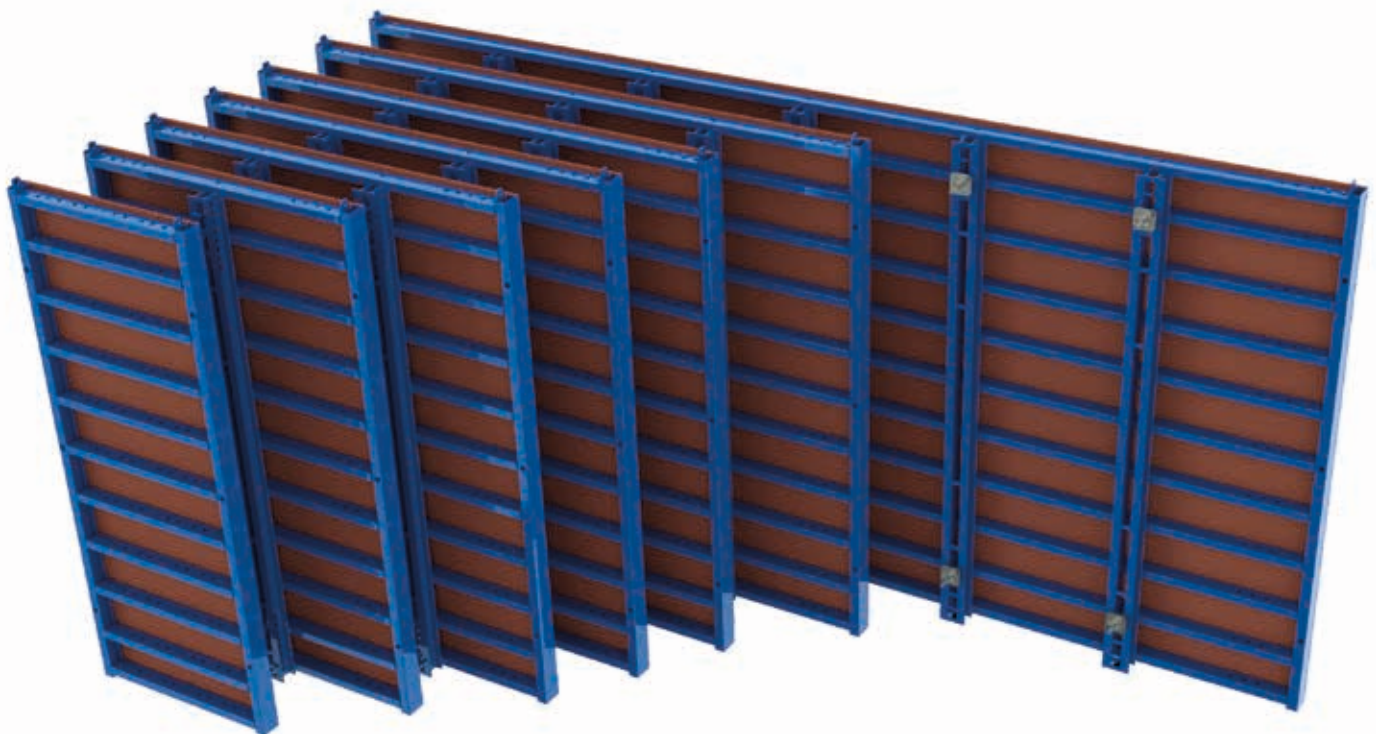


**Lifting The Panels**  
MOPA panels can be lifted from the pins mounted to the upper ends of the vertical steel walers, and also the hooks at the edge frames.



At the bottom of the lowest profile there is a cold formed plate used to protect the panel edge against impacts as seen in the figure on the left.





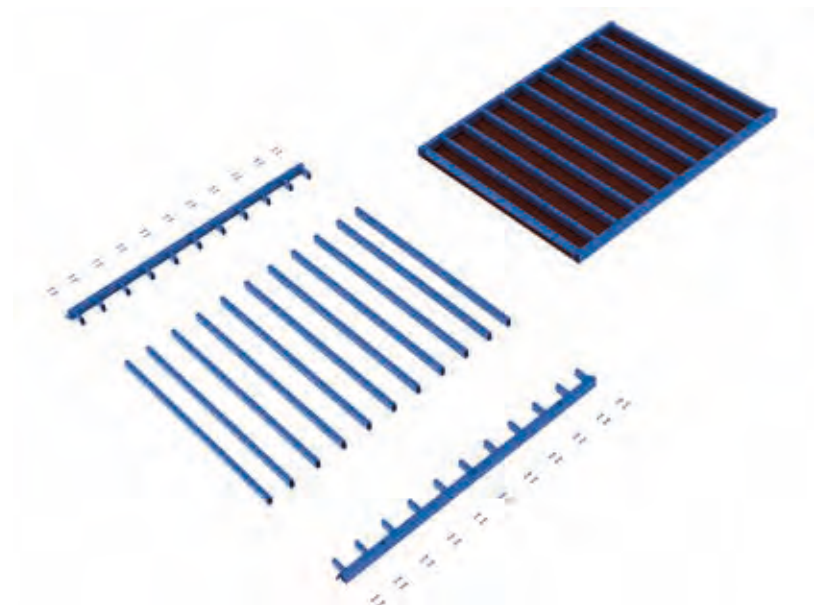


| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| VM-P B 120x120 | 030 090 01212 00 | 64,70 kg  |
| VM-P B 120x150 | 030 090 01215 00 | 77,94 kg  |
| VM-P B 120x200 | 030 090 01220 00 | 102,72 kg |
| VM-P B 120x300 | 030 090 01230 00 | 144,15 kg |
| VM-P B 120x400 | 030 090 01240 00 | 185,58 kg |
| VM-P B 120x500 | 030 090 01250 00 | 235,15 kg |
| VM-P B 120x600 | 030 090 01260 00 | 276,58 kg |
| VM-P B 150x120 | 030 090 01512 00 | 73,88 kg  |
| VM-P B 150x150 | 030 090 01515 00 | 88,83 kg  |
| VM-P B 150x200 | 030 090 01520 00 | 117,03 kg |
| VM-P B 150x300 | 030 090 01530 00 | 163,57 kg |
| VM-P B 150x400 | 030 090 01540 00 | 210,12 kg |
| VM-P B 150x500 | 030 090 01550 00 | 266,52 kg |
| VM-P B 150x600 | 030 090 01560 00 | 313,07 kg |
| VM-P B 180x120 | 030 090 01812 00 | 83,06 kg  |
| VM-P B 180x150 | 030 090 01815 00 | 99,71 kg  |
| VM-P B 180x200 | 030 090 01820 00 | 131,33 kg |
| VM-P B 180x300 | 030 090 01830 00 | 183,00 kg |
| VM-P B 180x400 | 030 090 01840 00 | 234,66 kg |
| VM-P B 180x500 | 030 090 01850 00 | 297,89 kg |
| VM-P B 180x600 | 030 090 01860 00 | 349,56 kg |
| VM-P B 200x120 | 030 090 02012 00 | 89,18 kg  |
| VM-P B 200x150 | 030 090 02015 00 | 106,97 kg |
| VM-P B 200x200 | 030 090 02020 00 | 140,86 kg |
| VM-P B 200x300 | 030 090 02030 00 | 195,94 kg |
| VM-P B 200x400 | 030 090 02040 00 | 251,03 kg |
| VM-P B 200x500 | 030 090 02050 00 | 318,80 kg |
| VM-P B 200x600 | 030 090 02060 00 | 373,89 kg |
| VM-P B 240x120 | 030 090 02412 00 | 101,42 kg |
| VM-P B 240x150 | 030 090 02415 00 | 121,49 kg |
| VM-P B 240x200 | 030 090 02420 00 | 159,93 kg |
| VM-P B 240x300 | 030 090 02430 00 | 221,84 kg |
| VM-P B 240x400 | 030 090 02440 00 | 283,75 kg |
| VM-P B 240x500 | 030 090 02450 00 | 360,63 kg |
| VM-P B 240x600 | 030 090 02460 00 | 422,54 kg |
| VM-P B 300x120 | 030 090 03012 00 | 119,78 kg |
| VM-P B 300x150 | 030 090 03015 00 | 143,26 kg |
| VM-P B 300x200 | 030 090 03020 00 | 188,53 kg |
| VM-P B 300x300 | 030 090 03030 00 | 260,68 kg |

**MOPA PANELS**  
Weight does not include plywood.

| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| VM-P B 300x400 | 030 090 03040 00 | 332,84 kg |
| VM-P B 300x500 | 030 090 03050 00 | 423,37 kg |
| VM-P B 300x600 | 030 090 03060 00 | 495,53 kg |
| VM-P B 400x120 | 030 090 04012 00 | 150,38 kg |
| VM-P B 400x150 | 030 090 04015 00 | 179,55 kg |
| VM-P B 400x200 | 030 090 04020 00 | 236,20 kg |
| VM-P B 400x300 | 030 090 04030 00 | 325,42 kg |
| VM-P B 400x400 | 030 090 04040 00 | 414,65 kg |
| VM-P B 400x500 | 030 090 04050 00 | 527,94 kg |
| VM-P B 400x600 | 030 090 04060 00 | 617,17 kg |
| VM-P B 500x120 | 030 090 05012 00 | 180,98 kg |
| VM-P B 500x150 | 030 090 05015 00 | 215,84 kg |
| VM-P B 500x200 | 030 090 05020 00 | 283,87 kg |
| VM-P B 500x300 | 030 090 05030 00 | 390,16 kg |
| VM-P B 500x400 | 030 090 05040 00 | 496,46 kg |
| VM-P B 500x500 | 030 090 05050 00 | 632,51 kg |
| VM-P B 500x600 | 030 090 05060 00 | 738,81 kg |
| VM-P B 600x120 | 030 090 06012 00 | 211,58 kg |
| VM-P B 600x150 | 030 090 06015 00 | 252,13 kg |
| VM-P B 600x200 | 030 090 06020 00 | 331,54 kg |
| VM-P B 600x300 | 030 090 06030 00 | 454,90 kg |
| VM-P B 600x400 | 030 090 06040 00 | 578,27 kg |
| VM-P B 600x500 | 030 090 06050 00 | 737,08 kg |
| VM-P B 600x600 | 030 090 06060 00 | 860,45 kg |

**MOPA PANELS**  
Weight does not include plywood.





## VINC'I 80 OUTER CORNER ELEMENT



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| VD-K B 120 | 030 087 00120 00 | 38,22 kg  |
| VD-K B 150 | 030 087 00150 00 | 46,77 kg  |
| VD-K B 180 | 030 087 00180 00 | 57,25kg   |
| VD-K B 270 | 030 087 00270 00 | 85,80 kg  |
| VD-K B 300 | 030 087 00300 00 | 94,20 kg  |
| VD-K B 330 | 030 087 00330 00 | 103,62 kg |

## VINC'I 80 STRIP PLATE



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| SS-P B 120 | 030 085 08012 00 | 15,50 kg |
| SS-P B 150 | 030 085 08015 00 | 19,38 kg |
| SS-P B 180 | 030 085 08018 00 | 23,25 kg |
| SS-P B 270 | 030 085 08027 00 | 34,87 kg |
| SS-P B 300 | 030 085 08030 00 | 38,75 kg |
| SS-P B 330 | 030 085 08033 00 | 42,63 kg |

## VINC'I WALER



VINC'I SPANNER  
ELEMENT

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-K G | 030 187 00080 00 | 9,09 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

## VINC'I 80 STOP END SPANNER



VINC'I 80  
COLUMN LOCK

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-A G | 030 187 00030 00 | 3,30 kg |
| VK-K G | 030 180 00280 00 | 2,08 kg |



**PROP HEAD PLATE  
PV-S 82**



**VINC'I 80 MULTI  
PANEL LOCK**



**VINC'I 80  
SPANNER BRACKET**



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| PV-V G | 030 087 08070 00 | 2,20 kg |
| SM-L G | 030 180 00290 00 | 4,15 kg |
| ST-Y G | 030 180 00298 00 | 2,11 kg |

**VINC'I PANEL LOCK  
"TAMON 80"**



**VINC'I PANEL LOCK  
"TU-T 80 "**

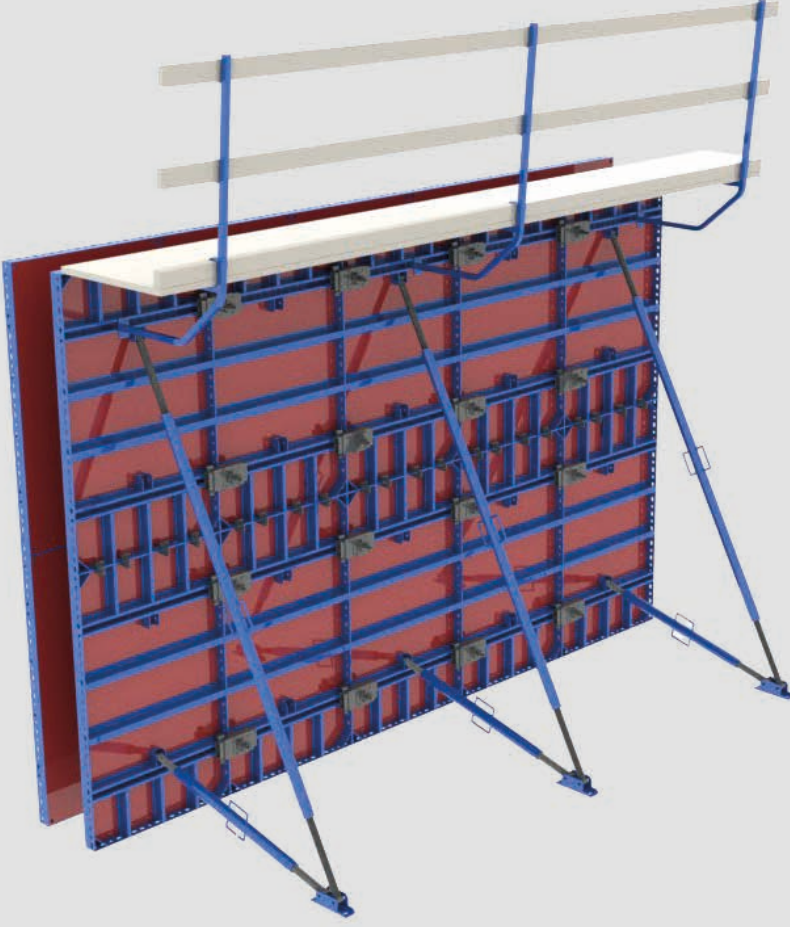
| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| ST-K G 80     | 004 135 00280 00 | 3,42 kg |
| TU-T G 80 dkm | 030 180 00130 00 | 5,30 kg |

**CAT-WALK BRACKET  
INTEGRATED TYPE**



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| BD-K B ent     | 030 010 00100 00 | 6,50 kg |
| BD-B B prf 100 | 030 010 00110 00 | 1,25 kg |





#### TMS COMBI PRO PERDE KOLON KALIBI

Combi Pro, temeller, kolonlar ve perde duvarları aynı paneller ile yapabilecek şekilde tasarlanmış, hafif olması dolayısı ile elle taşınabilen ve sahada kullanımı kolay olan modüler panel kalıp sistemidir.

Duvar kalıbı olarak  $60\text{kN/m}^2$ , kolon kalıbı olarak  $75\text{kN/m}^2$  taze beton basıncına dayanım göstermektedir. Düzgün bir yüzey elde etmek amacı ile, özel kilitleri sayesinde duvar kalıbı olarak kullanımında kendi kendini hizaya alma özelliği bulunmaktadır. 12mm kalınlıktaki plywood ile kullanılmaktadır.

Kalıp montajı için gerekli olan payandaların kolayca bağlanabilmesi için ve ilave pabuç & pim gereksinimini ortadan kaldıracak şekilde tasarlanmış panele entegre bağlantı plakası bulunmaktadır.

#### TMS COMBI PRO MODULAR FORM

Combi Pro is a modular panel formwork system designed to build foundations, columns and shear walls by utilizing from the same panels. Combi wall formworks are resistant to  $60\text{kN/m}^2$  fresh concrete pressure, whereas columns are  $75\text{kN/m}^2$ . In order to obtain a smooth surface, it has a self-aligning feature enabled by its special locks, when used as a wall formwork. It is used with 12mm thick plywood. Integrated connection plates of the panels are designed to easily connect the props which eliminates the need for additional shoes & pins.

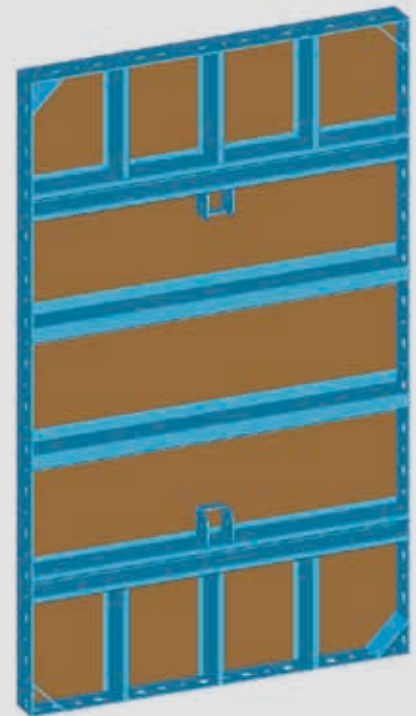
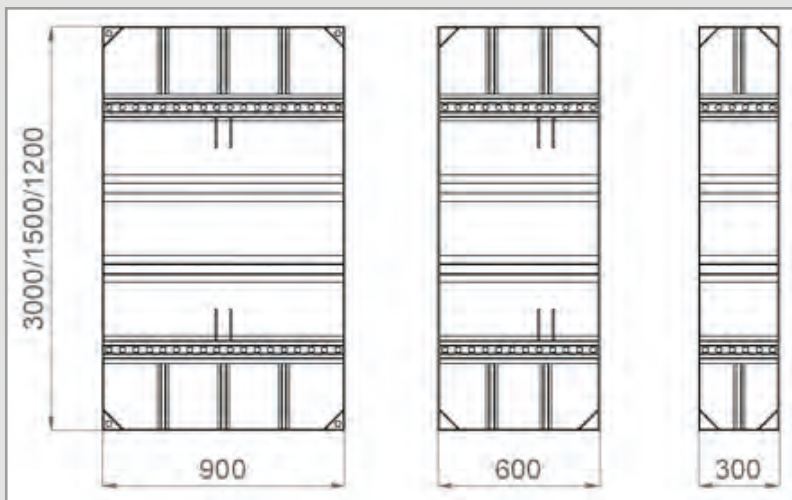




# COMBI PRO MODULAR FORM

COMBI PRO allows for columns and walls to be assembled using the same panels.

- Panels are designed for concrete pressure up to
  - \* 60kN/m<sup>2</sup> for walls,
  - \* 75 kN/m<sup>2</sup> for columns (up to 600mm x 600mm) and
  - \* 60 kN/m<sup>2</sup> for columns (from 650mm x 650mm to 900mm x 900mm)
  - \* Plywood thickness is 12mm
- Panel Sizes
  - \* Widths: 300, 600, 900mm
  - \* Heights: 1200, 1500, 3000mm



| Panel weight with 12mm ply (kg) |             |      |      |      |
|---------------------------------|-------------|------|------|------|
| Width (cm)                      | Height (cm) |      |      |      |
|                                 |             | 120  | 150  | 300  |
|                                 | 30          | 19,2 | 22,7 | 41,7 |
|                                 | 60          | 29,9 | 35,3 | 64,7 |
|                                 | 90          | 40,6 | 47,8 | 87,8 |



## COMBI OUTER CORNER



FILLER PLATE PROFILE

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| CD-K B 100 | 030 023 00010 00 | 5,87 kg |
| CD-K B 120 | 030 023 00012 00 | 7,06 kg |
| CD-K B 150 | 030 023 00015 00 | 8,80 kg |

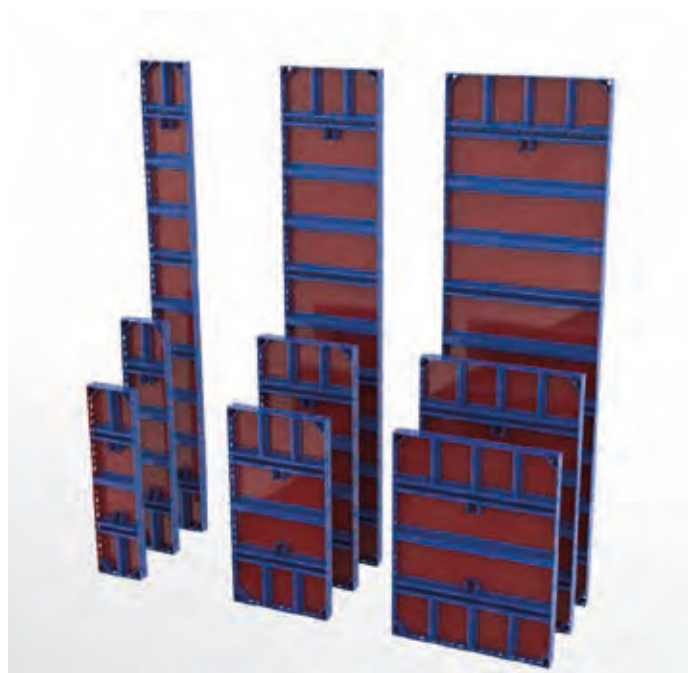
| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| PT-L B 15x100 | 030 028 91510 00 | 4,80 kg |
| PT-L B 15x120 | 030 028 91512 00 | 5,76 kg |
| PT-L B 15x150 | 030 028 91515 00 | 7,20 kg |
| PT-L B 18x100 | 030 028 91810 00 | 4,80 kg |
| PT-L B 18x120 | 030 028 91812 00 | 5,76 kg |
| PT-L B 18x150 | 030 028 91815 00 | 7,20 kg |
| PT-L B 21x100 | 030 028 92110 00 | 4,80 kg |
| PT-L B 21x120 | 030 028 92112 00 | 5,76 kg |
| PT-L B 21x150 | 030 028 92115 00 | 7,20 kg |

## STOP – END PANEL



| ITEM          | ITEM NO          | WEIGHT   |
|---------------|------------------|----------|
| CA-E B 20x120 | 030 023 00212 00 | 16,35 kg |
| CA-E B 20x150 | 030 023 00215 00 | 20,44 kg |
| CA-E B 25x120 | 030 023 00252 00 | 18,61 kg |
| CA-E B 25x150 | 030 023 00255 00 | 23,26 kg |
| CA-E B 30x120 | 030 023 00312 00 | 20,88 kg |
| CA-E B 30x150 | 030 023 00315 00 | 26,10 kg |

## COMBI PRO PANELS “Plywood Surface”



| ITEM              | ITEM NO          | WEIGHT   |
|-------------------|------------------|----------|
| CP-S B 30x120 Pro | 030 023 13012 02 | 34,48 kg |
| CP-S B 30x150 Pro | 030 023 13015 02 | 42,75 kg |
| CP-S B 30x300 Pro | 030 023 13030 02 | 61,10 kg |
| CP-S B 60x120 Pro | 030 023 16012 02 | 40,56 kg |
| CP-S B 60x150 Pro | 030 023 16015 02 | 49,89 kg |
| CP-S B 60x300 Pro | 030 023 16030 02 | 75,09 kg |
| CP-S B 90x120 Pro | 030 023 19012 02 | 48,52 kg |
| CP-S B 90x150 Pro | 030 023 19015 02 | 58,91 kg |
| CP-S B 90x300 Pro | 030 023 19030 02 | 90,96 kg |



# COMBI PRO MODULAR FORM

**PANEL LOCK  
"CAST"**



**PIN & WEDGE  
LOCK**

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| PK-D G 10 | 004 131 00010 00 | 0,54 kg |
| PK-P G    | 004 131 00020 00 | 0,17 kg |

**SPANNER  
BOLT**



**CRANE HOOK  
"Panel Type"**

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| PC-B B | 030 010 01110 00 | 1,55 kg |
| VK-P B | 030 010 01150 00 | 1,07 kg |

**SUPPORTING  
BRACE**



**CAT WALK BRACKET  
INTEGRATED TYPE**



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| GP-T B 60  | 030 013 00806 00 | 6,68 kg  |
| GP-T B 80  | 030 013 00808 00 | 8,50 kg  |
| GP-T B 100 | 030 013 00810 00 | 14,79 kg |
| GP-T B 120 | 030 013 00812 00 | 15,66 kg |

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BD-K B ent | 030 010 00100 00 | 6,50 kg |
| BD-B B sac | 030 010 00130 00 | 1,25 kg |

**COMBI PRO PANEL  
LOCK TAMON PRO**



**COMBI PRO PANEL  
LOCK TU-T PRO**



**COMBI PRO  
COLUMN LOCK**

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| CT-K G Pro | 004 135 00290 02 | 4,47 kg |
| TU-T G Pro | 030 190 00110 02 | 4,77 kg |
| CK-K G Pro | 030 190 00280 02 | 2,08 kg |

**PIN**



**" R " PIN**



You may find the following items in  
formwork accessories section





**CIREX - LONG LASTING STEEL FACED CIRCULAR COLUMN FORMWORK FOR REPETITIVE USES**

CIREX is a steel faced circular column formwork system composed of high strength rectangular tube VINCI 70 profiles, which could be easily combined with panel locks. The steel frame profiles are designed to be able to connect at any point with the other panel, depending on the height of the column and respective concrete pressure the quantity of the locks could be dialed in. The upper and lower flanges are laser cut plates, providing a state of the art surface finish. Panel facing is steel providing higher durability and longer life. CIREX could be easily combined to VINCI Wall and Column Systems for concreting piers or similar round ended columns. Various diameters and heights and even custom sizes are available for the system.







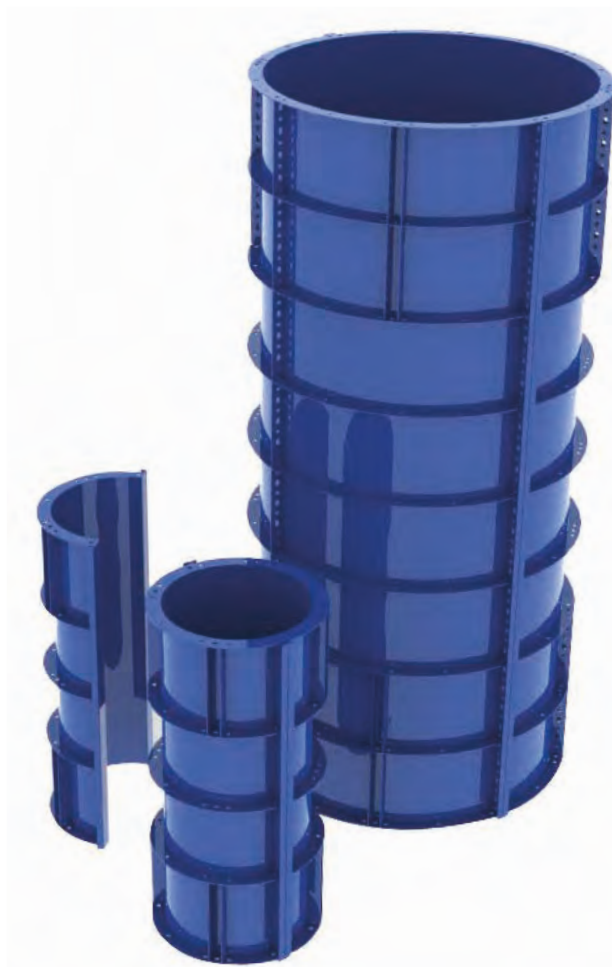
## CIREX - DAİRESEL KOLON KALIBI DAYANIKLI ÇELİK YÜZEY İLE YÜKSEK TEKRAR SAYILARI

CIREX Dairesel Kolon Sistemi panoları düşeyde burulmaya mukavim VINC'İ 70 çelik profillerden oluşmuş olup, kalıp alt ve üst flanşları lazer kesimli saçlardan meydana gelmektedir. CIREX panolar çelik yüzeyli olup uzun ömürlüdür. Düşey çelik çerçeve profili elemanın istenilen her çerçeve noktasında bir diğeri ile bağlantısını temin edecek şekilde tasarlanmıştır. Kalıp yüksekliği ve beton basıncına uygun olarak kilit sayısının artırılması mümkündür. CIREX dairesel panoları yuvarlak kenarlı perde kolonlar oluşturulabilmesi için VINC'İ perde kolon sistemi ile birebir uyumludur. Muhtelif kesit ve ebatlarda ve hatta özel imalat panolar mevcuttur.





## CIRCULAR COLUMN FORMWORK



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| DK-K B Ø40x50  | 030 028 70405 00 | 46,95 kg  |
| DK-K B Ø40x100 | 030 028 70410 00 | 87,70 kg  |
| DK-K B Ø40x125 | 030 028 70412 00 | 102,70 kg |
| DK-K B Ø40x150 | 030 028 70415 00 | 121,50 kg |
| DK-K B Ø40x200 | 030 028 70420 00 | 152,80 kg |
| DK-K B Ø40x250 | 030 028 70425 00 | 201,10 kg |
| DK-K B Ø40x300 | 030 028 70430 00 | 232,40 kg |
| DK-K B Ø50x50  | 030 028 70505 00 | 52,75 kg  |
| DK-K B Ø50x100 | 030 028 70510 00 | 98,20 kg  |
| DK-K B Ø50x125 | 030 028 70512 00 | 116,20 kg |
| DK-K B Ø50x150 | 030 028 70515 00 | 137,90 kg |
| DK-K B Ø50x200 | 030 028 70520 00 | 173,90 kg |
| DK-K B Ø50x250 | 030 028 70525 00 | 226,00 kg |
| DK-K B Ø50x300 | 030 028 70530 00 | 262,00 kg |
| DK-K B Ø60x50  | 030 028 70605 00 | 59,00 kg  |
| DK-K B Ø60x100 | 030 028 70610 00 | 109,40 kg |

| ITEM            | ITEM NO          | WEIGHT    |
|-----------------|------------------|-----------|
| DK-K B Ø60x125  | 030 028 70612 00 | 130,50 kg |
| DK-K B Ø60x150  | 030 028 70615 00 | 155,20 kg |
| DK-K B Ø60x200  | 030 028 70620 00 | 197,20 kg |
| DK-K B Ø60x250  | 030 028 70625 00 | 253,20 kg |
| DK-K B Ø60x300  | 030 028 70630 00 | 294,20 kg |
| DK-K B Ø70x50   | 030 028 70705 00 | 73,30 kg  |
| DK-K B Ø70x100  | 030 028 70710 00 | 134,40 kg |
| DK-K B Ø70x125  | 030 028 70712 00 | 159,35 kg |
| DK-K B Ø70x150  | 030 028 70715 00 | 189,80 kg |
| DK-K B Ø70x200  | 030 028 70720 00 | 238,25 kg |
| DK-K B Ø70x250  | 030 028 70725 00 | 308,60 kg |
| DK-K B Ø70x300  | 030 028 70730 00 | 357,05 kg |
| DK-K B Ø80x50   | 030 028 70805 01 | 79,80 kg  |
| DK-K B Ø80x100  | 030 028 70810 01 | 146,15 kg |
| DK-K B Ø80x125  | 030 028 70812 01 | 174,95 kg |
| DK-K B Ø80x150  | 030 028 70815 01 | 208,80 kg |
| DK-K B Ø80x200  | 030 028 70820 01 | 262,60 kg |
| DK-K B Ø80x250  | 030 028 70825 01 | 338,20 kg |
| DK-K B Ø80x300  | 030 028 70830 01 | 392,00 kg |
| DK-K B Ø100x50  | 030 028 71005 01 | 100,50 kg |
| DK-K B Ø100x100 | 030 028 71010 01 | 181,90 kg |
| DK-K B Ø100x125 | 030 028 71012 01 | 219,75 kg |
| DK-K B Ø100x150 | 030 028 71015 01 | 262,70 kg |
| DK-K B Ø100x200 | 030 028 71020 01 | 331,50 kg |
| DK-K B Ø100x250 | 030 028 71025 01 | 421,80 kg |
| DK-K B Ø100x300 | 030 028 71030 01 | 490,70 kg |
| DK-K B Ø120x50  | 030 028 71205 01 | 132,25 kg |
| DK-K B Ø120x100 | 030 028 71210 01 | 242,00 kg |
| DK-K B Ø120x125 | 030 028 71212 01 | 295,70 kg |
| DK-K B Ø120x150 | 030 028 71215 01 | 354,45 kg |
| DK-K B Ø120x200 | 030 028 71220 01 | 451,80 kg |
| DK-K B Ø120x250 | 030 028 71225 01 | 570,65 kg |
| DK-K B Ø120x300 | 030 028 71230 01 | 668,00 kg |



VINC'I PANEL LOCK  
"TAMON 70"



VINC'I PANEL LOCK  
"TAMON 80"



PIN & WEDGE  
LOCK

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| YT-K G 70 | 004 135 00270 00 | 1,99 kg |
| ST-K G 80 | 004 135 00280 00 | 3,42 kg |
| PK-P G    | 004 131 00020 00 | 0,17 kg |

CRANE HOOK  
"Panel Type"



EYE - BOLT

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| VK-P B    | 030 010 01150 00 | 1,07 kg |
| VK-M G 16 | 004 130 00395 00 | 0,32 kg |

CAT WALK BRACKET  
INTEGRATED TYPE



ACCESS LADDER  
W / GUARD

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BD-K B ent | 030 010 00100 00 | 6,50 kg |
| BD-B B sac | 030 010 00130 00 | 1,25 kg |

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PL-M B 250 | 030 028 05250 00 | 34,00 kg |
| PL-M B 300 | 030 028 05300 00 | 43,10 kg |
| PL-M B 350 | 030 028 05350 00 | 49,30 kg |
| PL-M B 400 | 030 028 05400 00 | 57,95 kg |
| PL-M B 500 | 030 028 05500 00 | 73,40 kg |

CONCRETING  
PLATFORM



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| PL-C B 200x200 | 030 028 05020 00 | 173,00 kg |
| PL-C B 220x220 | 030 028 05022 00 | 185,30 kg |
| PL-C B 240x240 | 030 028 05024 00 | 199,50 kg |
| PL-C B 260x260 | 030 028 05026 00 | 223,20 kg |

PIN



" R " PIN



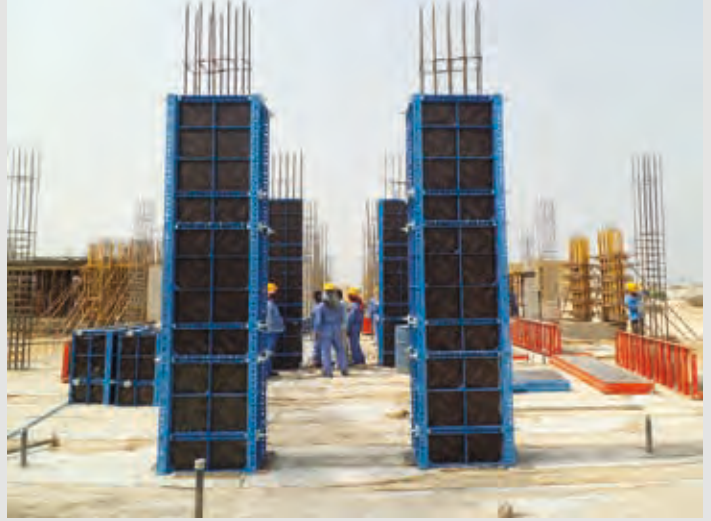
You may find the following items in  
formwork accessories section



**COMBINATION OF THE STRENGTH OF STEEL AND THE FAIR FACING OF PLYWOOD**

COMBI is a hand set panel formwork having the plywood facing embedded in steel frame. Panels are lightweight for manual handling, but can be ganged to each other for crane handling. Panel connections are easy with panelclips. Panel sides have every 5cm interchangeable holes and slots for clip connections, providing continuous adjustability for panels especially useful at irregular ground conditions. Up to 40 kN/m<sup>2</sup> system can be used without any walers.

COMBI is perfect for foundation works, small housing projects, retaining walls etc. especially where cranes are not available or are out of reach. System can climb with TMS climbing brackets and shaft platforms.

**COMBI HAFİF PANO SİSTEMİ  
ÇELİK ÇERÇEVELİ PLYWOOD YÜZEYLİ PANO SİSTEMİ**

COMBI elle kullanılabilir, modüler, hafif pano sistemidir. Çelik çerçevesi sistemin yüzeyi plywood kaplıdır. COMBI panolar bir araya getirilerek vinç kullanımına uygun büyük panolar halinde de deplase edilebilir. Panolar kolay kullanılabilir, pano kilitleri ile bir araya getirilmektedir. Pano kenarlarında her 5 cm'de bir sırasıyla yuvarlak ve uzun delikler yer almaktadır. Delikler sayesinde panolar olası zemin bozukluklarından etkilenmeden kolayca bir araya getirilir. COMBI sistemler, vinç kullanımının düşünülmediği villa, konut projeleri, temel ve istinat duvarı işlerinde verimliliği artırır. Sistem TMS Tırmanma Konsolları ve Şaft Platformları ile uyum içinde tırmandırılabilir.





#### **TMS GLOBAL PROVES THE STRENGTH OF STEEL UNDER REPETITIVE USE AND ABUSE**

GLOBAL is a lightweight steel faced handset panel formwork system. Panels can be ganged to each other for crane handling. Panel connections are easy with panel clips. Panel sides have every 5 cm interchangeable holes and slots for clip connections, providing continuous adjustability for panels especially useful at irregular ground conditions. System can be used with walers and soldiers, for higher walls and design loads up to 50 kN/m<sup>2</sup>. GLOBAL is highly appreciated at foundation works, small housing projects, retaining walls etc. specifically where repetitive uses are common and crane handling not available. System can climb with TMS climbing brackets and shaft platforms.



#### **GLOBAL HAFİF PANO SİSTEMİ ÇELİK YÜZEYLİ PANOLAR**

GLOBAL elle kullanılabilir, modüler, hafif pano sistemidir. Çelik çerçeveli sistemin yüzeyi de çeliktir. GLOBAL panolar bir araya getirilerek vinç kullanımına uygun büyük panolar halinde de deplase edilebilir. Panolar kolay kullanılabilir, pano kilitleri ile bir araya getirilmektedir. Pano kenarlarında her 5 cm'de bir sırasıyla yuvarlak ve uzun delikler yer almaktadır. Delikler sayesinde panolar olası zemin bozukluklarından etkilenmeden kolayca bir araya getirilir. GLOBAL sistemler, vinç kullanımının düşünülmediği villa, konut projeleri, temel ve istinat duvarı işlerinde verimliliği artırır. Sistem TMS Tırmanma Konsolları ve Şaft Platformları ile uyum içinde tırmandırılabilir.



## COMBI PANELS "Plywood Surface"



| ITEM              | ITEM NO          | WEIGHT   |
|-------------------|------------------|----------|
| CP-S B 30x100 new | 030 023 13010 01 | 13,43 kg |
| CP-S B 30x120 new | 030 023 13012 01 | 16,30 kg |
| CP-S B 30x150 new | 030 023 13015 01 | 20,03 kg |
| CP-S B 40x100 new | 030 023 14010 01 | 15,84 kg |
| CP-S B 40x120 new | 030 023 14012 01 | 20,41 kg |
| CP-S B 40x150 new | 030 023 14015 01 | 23,41 kg |
| CP-S B 50x100 new | 030 023 15010 01 | 19,83 kg |
| CP-S B 50x120 new | 030 023 15012 01 | 25,01 kg |
| CP-S B 50x150 new | 030 023 15015 01 | 28,61 kg |
| CP-S B 60x100 new | 030 023 16010 01 | 22,56 kg |
| CP-S B 60x120 new | 030 023 16012 01 | 28,09 kg |
| CP-S B 60x150 new | 030 023 16015 01 | 32,06 kg |
| CP-S B 70x100 new | 030 023 17010 01 | 24,66 kg |
| CP-S B 70x120 new | 030 023 17012 01 | 30,11 kg |
| CP-S B 70x150 new | 030 023 17015 01 | 35,21 kg |

## COMBI INNER CORNER "Plywood Surface"



| ITEM             | ITEM NO          | WEIGHT   |
|------------------|------------------|----------|
| CI-K B 25x20x100 | 030 023 19110 01 | 15,15 kg |
| CI-K B 25x20x120 | 030 023 19112 01 | 18,32 kg |
| CI-K B 25x20x150 | 030 023 19115 01 | 22,81 kg |
| CI-K B 25x25x100 | 030 023 19210 01 | 16,30 kg |
| CI-K B 25x25x120 | 030 023 19212 01 | 19,73 kg |
| CI-K B 25x25x150 | 030 023 19215 01 | 24,54 kg |
| CI-K B 30x25x100 | 030 023 19410 01 | 17,45 kg |
| CI-K B 30x25x120 | 030 023 19412 01 | 21,14 kg |
| CI-K B 30x25x150 | 030 023 19415 01 | 26,26 kg |
| CI-K B 30x30x100 | 030 023 19510 01 | 18,61 kg |
| CI-K B 30x30x120 | 030 023 19512 01 | 22,55 kg |
| CI-K B 30x30x150 | 030 023 19515 01 | 27,98 kg |
| CI-K B 40x25x100 | 030 023 19710 01 | 19,75 kg |
| CI-K B 40x25x120 | 030 023 19712 01 | 23,95 kg |
| CI-K B 40x25x150 | 030 023 19715 01 | 29,71 kg |



## GLOBAL PANEL "Heavy Duty Type"



| ITEM          | ITEM NO          | WEIGHT   |
|---------------|------------------|----------|
| GP-A B 30x100 | 030 021 03010 00 | 15,45 kg |
| GP-A B 30x120 | 030 021 03012 00 | 18,60 kg |
| GP-A B 30x150 | 030 021 03015 00 | 23,00 kg |
| GP-A B 40x100 | 030 021 04010 00 | 21,90 kg |
| GP-A B 40x120 | 030 021 04012 00 | 26,25 kg |
| GP-A B 40x150 | 030 021 04015 00 | 32,65 kg |
| GP-A B 50x100 | 030 021 05010 00 | 25,00 kg |
| GP-A B 50x120 | 030 021 05012 00 | 29,95 kg |
| GP-A B 50x150 | 030 021 05015 00 | 37,25 kg |
| GP-A B 60x100 | 030 021 06010 00 | 28,10 kg |
| GP-A B 60x120 | 030 021 06012 00 | 33,70 kg |
| GP-A B 60x150 | 030 021 06015 00 | 41,80 kg |
| GP-A B 70x100 | 030 021 07010 00 | 31,20 kg |
| GP-A B 70x120 | 030 021 07012 00 | 37,45 kg |
| GP-A B 70x150 | 030 021 07015 00 | 46,40 kg |

## GLOBAL INNER CORNER "Heavy Duty Type"



| ITEM             | ITEM NO          | WEIGHT   |
|------------------|------------------|----------|
| GI-A B 25x20x100 | 030 021 09110 00 | 18,80 kg |
| GI-A B 25x20x120 | 030 021 09112 00 | 22,45 kg |
| GI-A B 25x20x150 | 030 021 09115 00 | 27,50 kg |
| GI-A B 25x25x100 | 030 021 09210 00 | 21,85 kg |
| GI-A B 25x25x120 | 030 021 09212 00 | 26,10 kg |
| GI-A B 25x25x150 | 030 021 09215 00 | 31,80 kg |
| GI-A B 30x25x100 | 030 021 09410 00 | 22,15 kg |
| GI-A B 30x25x120 | 030 021 09412 00 | 26,45 kg |
| GI-A B 30x25x150 | 030 021 09415 00 | 32,35 kg |
| GI-A B 30x30x100 | 030 021 09510 00 | 23,80 kg |
| GI-A B 30x30x120 | 030 021 09512 00 | 28,45 kg |
| GI-A B 30x30x150 | 030 021 09515 00 | 34,75 kg |
| GI-A B 40x25x100 | 030 021 09710 00 | 27,95 kg |
| GI-A B 40x25x120 | 030 021 09712 00 | 33,45 kg |
| GI-A B 40x25x150 | 030 021 09715 00 | 40,90 kg |



## COMBI OUTER CORNER



FILLER PLATE  
PROFILE

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| CD-K B 100 | 030 023 00010 00 | 5,87 kg |
| CD-K B 120 | 030 023 00012 00 | 7,06 kg |
| CD-K B 150 | 030 023 00015 00 | 8,80 kg |

| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| PT-L B 15x100 | 030 028 91510 00 | 4,80 kg |
| PT-L B 15x120 | 030 028 91512 00 | 5,76 kg |
| PT-L B 15x150 | 030 028 91515 00 | 7,20 kg |
| PT-L B 18x100 | 030 028 91810 00 | 4,80 kg |
| PT-L B 18x120 | 030 028 91812 00 | 5,76 kg |
| PT-L B 18x150 | 030 028 91815 00 | 7,20 kg |
| PT-L B 21x100 | 030 028 92110 00 | 4,80 kg |
| PT-L B 21x120 | 030 028 92112 00 | 5,76 kg |
| PT-L B 21x150 | 030 028 92115 00 | 7,20 kg |

## STOP – END PANEL



| ITEM          | ITEM NO          | WEIGHT   |
|---------------|------------------|----------|
| CA-E B 20x120 | 030 023 00212 00 | 16,35 kg |
| CA-E B 20x150 | 030 023 00215 00 | 20,44 kg |
| CA-E B 25x120 | 030 023 00252 00 | 18,61 kg |
| CA-E B 25x150 | 030 023 00255 00 | 23,26kg  |
| CA-E B 30x120 | 030 023 00312 00 | 20,88 kg |
| CA-E B 30x150 | 030 023 00315 00 | 26,10 kg |

## WALER



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| CK-P B 100 | 030 025 00010 00 | 9,52 kg  |
| CK-P B 120 | 030 025 00012 00 | 11,36 kg |
| CK-P B 150 | 030 025 00015 00 | 14,22 kg |
| CK-P B 200 | 030 025 00020 00 | 18,93 kg |
| CK-P B 250 | 030 025 00025 00 | 23,64 kg |



# COMBI & GLOBAL MODULAR FORM

## PANEL LOCK "CAST"



PIN & WEDGE  
LOCK

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| PK-D G 10 | 004 131 00010 00 | 0,54 kg |
| PK-P G    | 004 131 00020 00 | 0,17 kg |

## SPANNER BOLT



CRANE HOOK  
"Panel Type"

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| PC-B B | 030 010 01110 00 | 1,55 kg |
| VK-P B | 030 010 01150 00 | 1,07 kg |

## SUPPORTING BRACE



CAT WALK BRACKET  
INTEGRATED TYPE

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| GP-T B 60  | 030 013 00806 00 | 6,68 kg  |
| GP-T B 80  | 030 013 00808 00 | 8,50 kg  |
| GP-T B 100 | 030 013 00810 00 | 14,79 kg |
| GP-T B 120 | 030 013 00812 00 | 15,66 kg |

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BD-K B ent | 030 010 00100 00 | 6,50 kg |
| BD-B B sac | 030 010 00130 00 | 1,25 kg |

## PIN

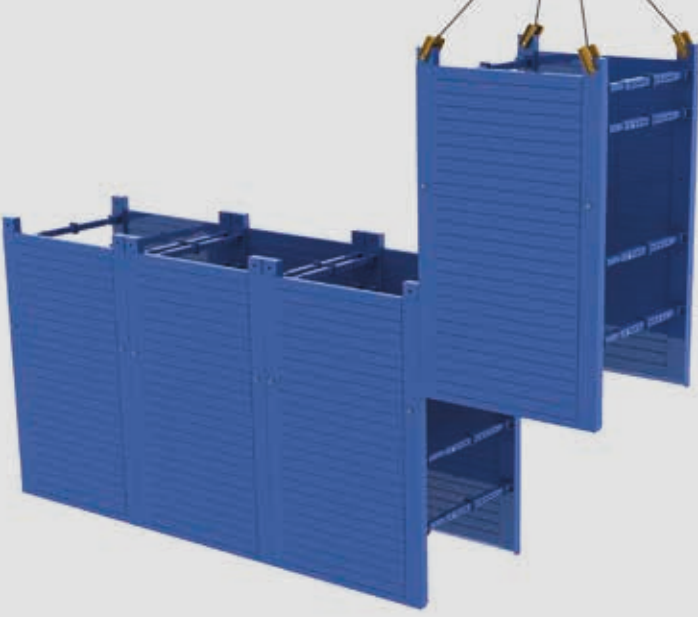


## " R " PIN



You may find the following items in  
formwork accessories section





#### **TMS TRENCH BOX**

Trench boxes are panel structures which helps to protect utility workers while performing their duties within a trench and avoid cave-ins. TMS Trench Panels comes with various sizes enabling to cover different heights & widths by using adjustable telescopic props. The panels can be lifted up by their specially-designed-crane hooks, piled on top of each other and transported together after being locked by pinning from the connection points. Likewise, at the end of the work, the panels can be lifted by using crane hooks and can be disassembled from the ground.



#### **TMS İKSA KALIBI**

İksa kalıpları (Trench Box), kazılan hendek içindeki toprağın yanal basıncına karşı direnerek şevin akmasını engelleyen, kazı içinde çalışmakta olan işçileri zemin göçmesine karşı koruyan çelik panel sistemlerdir. Çeşitli ölçülerdeki TMS trench panelleri, ayarlanabilir teleskopik payandalar ile birlikte kullanılarak değişken kazı genişlik ve yüksekliklerine adapte olabilmektedir. Paneller özel tasarım vinç kulpları ile kaldırılarak üst üste konulabilmekte, bağlantı noktalarından pimlenerek kilitlenmekte ve birlikte taşınabilmektedir. Aynı şekilde işin bitiminde panellerin topraktan sökülmesi için ve vinç kulpları kullanılarak demontaj yapılabilmektedir.





## TRENCH FORMWORK BASE PANEL



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| TF-P B 250x250 | 030 099 02525 00 | 562,00 kg |

## TRENCH FORMWORK TOP PANEL



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| TF-P B 250x150 | 030 099 02515 00 | 362,00 kg |

## TELESCOPIC PUSH-PULL PROP



| ITEM     | ITEM NO          | WEIGHT   |
|----------|------------------|----------|
| TP-P B T | 030 099 03700 00 | 46,00 kg |

## CRANE HOOK



| ITEM     | ITEM NO          | WEIGHT  |
|----------|------------------|---------|
| VK-P B T | 030 099 01150 00 | 8,25 kg |



## "1" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | TUBE DIA. (mm) | TUBE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|----------------|------------------|-------------------|
| PY-S B 131 | 8,51       | 930             | 1.600        | Ø48 x 2,5      | 850              | Ø35 x 400         |
| PY-S B 161 | 9,36       | 1.230           | 1.900        | Ø48 x 2,5      | 1.150            | Ø35 x 400         |
| PY-S B 201 | 11,63      | 1.580           | 2.450        | Ø48 x 2,5      | 1.500            | Ø35 x 500         |
| PY-S B 251 | 13,06      | 2.080           | 2.950        | Ø48 x 2,5      | 2.000            | Ø35 x 500         |
| PY-S B 301 | 14,49      | 2.580           | 3.450        | Ø48 x 2,5      | 2.500            | Ø35 x 500         |
| PY-S B 351 | 15,92      | 3.080           | 3.950        | Ø48 x 2,5      | 3.000            | Ø35 x 500         |

## "2" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | TUBE DIA. (mm) | TUBE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|----------------|------------------|-------------------|
| PY-S B 132 | 9,61       | 930             | 1.600        | Ø60 x 2,5      | 850              | Ø35 x 400         |
| PY-S B 162 | 10,69      | 1.230           | 1.900        | Ø60 x 2,5      | 1.150            | Ø35 x 400         |
| PY-S B 202 | 13,21      | 1.580           | 2.450        | Ø60 x 2,5      | 1.500            | Ø35 x 500         |
| PY-S B 252 | 15,01      | 2.080           | 2.950        | Ø60 x 2,5      | 2.000            | Ø35 x 500         |
| PY-S B 302 | 16,81      | 2.580           | 3.450        | Ø60 x 2,5      | 2.500            | Ø35 x 500         |
| PY-S B 352 | 18,61      | 3.080           | 3.950        | Ø60 x 2,5      | 3.000            | Ø35 x 500         |
| PY-S B 402 | 20,41      | 3.580           | 4.450        | Ø60 x 2,5      | 3.500            | Ø35 x 500         |

## "3" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | TUBE DIA. (mm) | TUBE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|----------------|------------------|-------------------|
| PY-S B 133 | 12,91      | 930             | 1.600        | Ø76 x 3,0      | 850              | Ø38 x 400         |
| PY-S B 163 | 14,55      | 1.230           | 1.900        | Ø76 x 3,0      | 1.150            | Ø38 x 400         |
| PY-S B 203 | 17,98      | 1.580           | 2.450        | Ø76 x 3,0      | 1.500            | Ø38 x 500         |
| PY-S B 253 | 20,71      | 2.080           | 2.950        | Ø76 x 3,0      | 2.000            | Ø38 x 500         |
| PY-S B 303 | 23,45      | 2.580           | 3.450        | Ø76 x 3,0      | 2.500            | Ø38 x 500         |
| PY-S B 353 | 26,18      | 3.080           | 3.950        | Ø76 x 3,0      | 3.000            | Ø38 x 500         |
| PY-S B 403 | 28,92      | 3.580           | 4.450        | Ø76 x 3,0      | 3.500            | Ø38 x 500         |

## "4" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | TUBE DIA. (mm) | TUBE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|----------------|------------------|-------------------|
| PY-S B 134 | 18,46      | 930             | 1.600        | Ø89 x 4,0      | 850              | Ø42 x 400         |
| PY-S B 164 | 21,00      | 1.230           | 1.900        | Ø89 x 4,0      | 1.150            | Ø42 x 400         |
| PY-S B 204 | 25,94      | 1.580           | 2.450        | Ø89 x 4,0      | 1.500            | Ø42 x 500         |
| PY-S B 254 | 30,17      | 2.080           | 2.950        | Ø89 x 4,0      | 2.000            | Ø42 x 500         |
| PY-S B 304 | 34,41      | 2.580           | 3.450        | Ø89 x 4,0      | 2.500            | Ø42 x 500         |
| PY-S B 354 | 38,64      | 3.080           | 3.950        | Ø89 x 4,0      | 3.000            | Ø42 x 500         |
| PY-S B 404 | 42,88      | 3.580           | 4.450        | Ø89 x 4,0      | 3.500            | Ø42 x 500         |



## "5" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | PROFILE (mm) | PROFILE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|--------------|---------------------|-------------------|
| PY-S B 135 | 22,01      | 930             | 1.600        | Ø102x 4,0    | 850                 | Ø42 x 400         |
| PY-S B 165 | 24,93      | 1.230           | 1.900        | Ø102 x 4,0   | 1.150               | Ø42 x 400         |
| PY-S B 205 | 30,53      | 1.580           | 2.450        | Ø102 x 4,0   | 1.500               | Ø42 x 500         |
| PY-S B 255 | 35,41      | 2.080           | 2.950        | Ø102 x 4,0   | 2.000               | Ø42 x 500         |
| PY-S B 305 | 40,29      | 2.580           | 3.450        | Ø102 x 4,0   | 2.500               | Ø42 x 500         |
| PY-S B 355 | 45,17      | 3.080           | 3.950        | Ø102 x 4,0   | 3.000               | Ø42 x 500         |

## "6" SERIES

| PROP CODE  | WIGHT (kg) | WORKING min. mm | RANGE max.mm | PROFILE (mm) | PROFILE LENGHT (mm) | SPINDLE DIA. (mm) |
|------------|------------|-----------------|--------------|--------------|---------------------|-------------------|
| PY-S B 136 | 27,50      | 930             | 1.600        | Ø114 x 5,0   | 850                 | Ø48 x 400         |
| PY-S B 166 | 31,57      | 1.230           | 1.900        | Ø114 x 5,0   | 1.150               | Ø48 x 400         |
| PY-S B 206 | 38,81      | 1.580           | 2.450        | Ø114 x 5,0   | 1.500               | Ø48 x 500         |
| PY-S B 256 | 45,59      | 2.080           | 2.950        | Ø114 x 5,0   | 2.000               | Ø48 x 500         |
| PY-S B 306 | 52,36      | 2.580           | 3.450        | Ø114 x 5,0   | 2.500               | Ø48 x 500         |
| PY-S B 356 | 59,14      | 3.080           | 3.950        | Ø114 x 5,0   | 3.000               | Ø48 x 500         |
| PY-S B 406 | 65,91      | 3.580           | 4.450        | Ø114 x 5,0   | 3.500               | Ø48 x 500         |

## TELESCOPIC PROPS

| PROP CODE   | WIGHT (kg) | WORKING min. mm | RANGE max.mm | TUBE DIA. (mm) | TUBE LENGHT (mm) | SPINDLE DIA. (mm) |
|-------------|------------|-----------------|--------------|----------------|------------------|-------------------|
| PY-T B 600  | 52,09      | 4.200           | 6.250        | Ø76 x 4,0      | 2 x 1500         | Ø38 x 400         |
|             |            |                 |              | Ø89 x 3,0      | 3.000            |                   |
| PY-T B 900  | 104,72     | 6.500           | 9.000        | Ø89 x 5,0      | 2 x 1500         | Ø42 x 400         |
|             |            |                 |              | Ø102 x 4,0     | 6.000            |                   |
| PY-T B 1200 | 197,79     | 8.300           | 12.000       | Ø114 x 5,0     | 2 x 3000         | Ø48 x 400         |
|             |            |                 |              | Ø127 x 4,0     | 6.000            |                   |
| PY-T B 1400 | 219,47     | 8.400           | 14.000       | Ø114 x 5,0     | 2 x 4000         | Ø48 x 400         |
|             |            |                 |              | Ø127 x 4,0     | 6.000            |                   |





### STD.PUSH-PULL PROP "Ø48mm 1 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 131 | 030 012 01131 00 | 8,51 kg  |
| PY-S B 161 | 030 012 01161 00 | 9,36 kg  |
| PY-S B 201 | 030 012 01201 00 | 11,63 kg |
| PY-S B 251 | 030 012 01251 00 | 13,06 kg |
| PY-S B 301 | 030 012 01301 00 | 14,49 kg |
| PY-S B 351 | 030 012 01351 00 | 15,92 kg |

### STD.PUSH-PULL PROP "Ø60mm 2 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 132 | 030 012 01132 00 | 9,61 kg  |
| PY-S B 162 | 030 012 01162 00 | 10,69 kg |
| PY-S B 202 | 030 012 01202 00 | 13,21 kg |
| PY-S B 252 | 030 012 01252 00 | 15,01 kg |
| PY-S B 302 | 030 012 01302 00 | 16,81 kg |
| PY-S B 352 | 030 012 01352 00 | 18,61 kg |
| PY-S B 402 | 030 012 01402 00 | 20,41 kg |

### STD.PUSH-PULL PROP "Ø76mm 3 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 133 | 030 012 01133 00 | 12,91 kg |
| PY-S B 163 | 030 012 01163 00 | 14,55 kg |
| PY-S B 203 | 030 012 01203 00 | 17,98 kg |
| PY-S B 253 | 030 012 01253 00 | 20,71 kg |
| PY-S B 303 | 030 012 01303 00 | 23,45 kg |
| PY-S B 353 | 030 012 01353 00 | 26,18 kg |
| PY-S B 403 | 030 012 01403 00 | 28,92 kg |

### STD.PUSH-PULL PROP "Ø89mm 4 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 134 | 030 012 01134 00 | 18,46kg  |
| PY-S B 164 | 030 012 01164 00 | 21,00 kg |
| PY-S B 204 | 030 012 01204 00 | 25,94 kg |
| PY-S B 254 | 030 012 01254 00 | 30,17 kg |
| PY-S B 304 | 030 012 01304 00 | 34,41 kg |
| PY-S B 354 | 030 012 01354 00 | 38,64 kg |
| PY-S B 404 | 030 012 01404 00 | 42,88 kg |



# PUSH - PULL PROPS FOR ALL SYSTEMS

**STD. PUSH-PULL PROP**  
"Ø102 mm 5 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 135 | 030 012 01135 00 | 22,01 kg |
| PY-S B 165 | 030 012 01165 00 | 24,93 kg |
| PY-S B 205 | 030 012 01205 00 | 30,53 kg |
| PY-S B 255 | 030 012 01255 00 | 35,41 kg |
| PY-S B 305 | 030 012 01306 00 | 40,29 kg |
| PY-S B 355 | 030 012 01355 00 | 45,17 kg |

**STD. PUSH-PULL PROP**  
"Ø114 mm 6 Series"



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| PY-S B 136 | 030 012 01136 00 | 27,50 kg |
| PY-S B 166 | 030 012 01166 00 | 31,57 kg |
| PY-S B 206 | 030 012 01206 00 | 38,81 kg |
| PY-S B 256 | 030 012 01256 00 | 45,59 kg |
| PY-S B 306 | 030 012 01306 00 | 52,36 kg |
| PY-S B 356 | 030 012 01356 00 | 59,14 kg |
| PY-S B 406 | 030 012 01406 00 | 65,91 kg |

**TELESCOPIC PROPS**



| ITEM        | ITEM NO          | WEIGHT    |
|-------------|------------------|-----------|
| PY-T B 600  | 030 012 03706 00 | 52,09 kg  |
| PY-T B 900  | 030 012 03709 00 | 104,72 kg |
| PY-T B 1200 | 030 012 03712 00 | 197,79 kg |
| PY-T B 1400 | 030 012 03714 00 | 219,47 kg |

**PROP BASE PLATE**  
"YK-S Type"



**PROP BASE PLATE**  
"Std. Type"

| ITEM         | ITEM NO          | WEIGHT  |
|--------------|------------------|---------|
| PP-Y B U 100 | 030 012 10016 00 | 1,54 kg |
| PP-S B       | 030 012 00002 00 | 1,91 kg |

**PROP HEAD PLATE**  
"HT-P Type"



**PROP HEAD PLATE**  
"PANEL Type"



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| PP-H B | 030 012 00018 00 | 1,10 kg |
| PP-P B | 030 012 00010 00 | 1,20 kg |

**PROP HEAD PLATE**



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| PV-S G 82 | 030 112 00082 00 | 3,20 kg |
| PV-Y G 72 | 030 112 00072 00 | 3,19 kg |
| PH-A G 62 | 030 112 00062 00 | 1,65 kg |

**PIN**

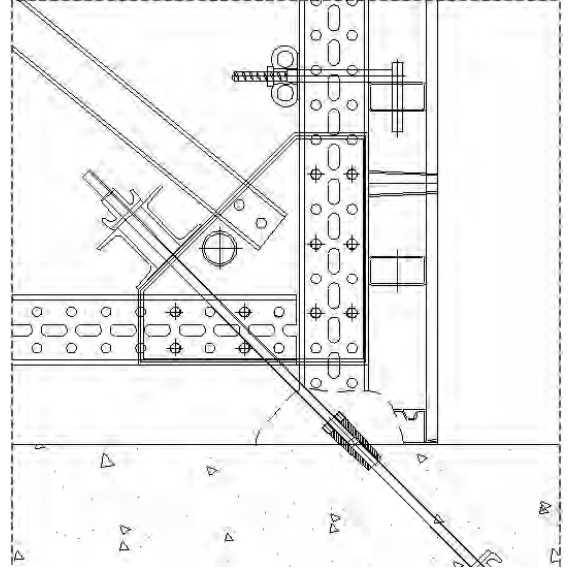


**" R " PIN**



You may find the following items in  
formwork accessories section





#### RAM SINGLE SIDED SUPPORT FRAMES

RAM frames provide a strong backing when concrete has to be poured against an existing wall or when a single sided formwork is required. The VINC'I and SIMPEX Wall Formwork could also be applied together with the RAM single sided support frames. Walls of up to 3.50 m can be formed with the support frame RAM 300 and walls of up to 10 m can be realized with the support frame RAM 300 and related height extensions.



#### RAM TEK YÜZ GÖNİYE PAYANDA SİSTEMİ

Tek yüz perde dökümünde RAM Gönye Payanda Sistemi zeminden destek olarak gerekli dayanımı sağlamaktadır.

RAM, SIMPEX ve VINC'I sistemlerimizle birlikte kullanılabilen olup RAM 300 ile 3.5m, RAM 300 ve eklentileri ile 10m yüksekliğe kadar tek yüzlü beton dökümü yapılabilmektedir.



# RAM SINGLE SIDED BRACE FRAME

## BRACE FRAME RA-M 303



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| RA-M B 303 üst | 030 013 03303 00 | 375,59 kg |
| RA-M B 153 üst | 030 013 03153 00 | 170,58 kg |



BRACE FRAME  
RA-M 153

## BRACE FRAME RA-M 203 HD



| ITEM           | ITEM NO          | WEIGHT    |
|----------------|------------------|-----------|
| RA-M B 203 hd  | 030 013 03213 00 | 639,14 kg |
| RA-M B 203 ort | 030 013 03203 00 | 465,96 kg |



BRACE FRAME  
RA-M 203

## "T" SPANNER



WALER ADAPTER

## VINC'I SPANNER ELEMENT



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| TT-K G | 030 110 01315 00 | 2,39 kg |
| KB-E B | 030 013 03560 00 | 0,60 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

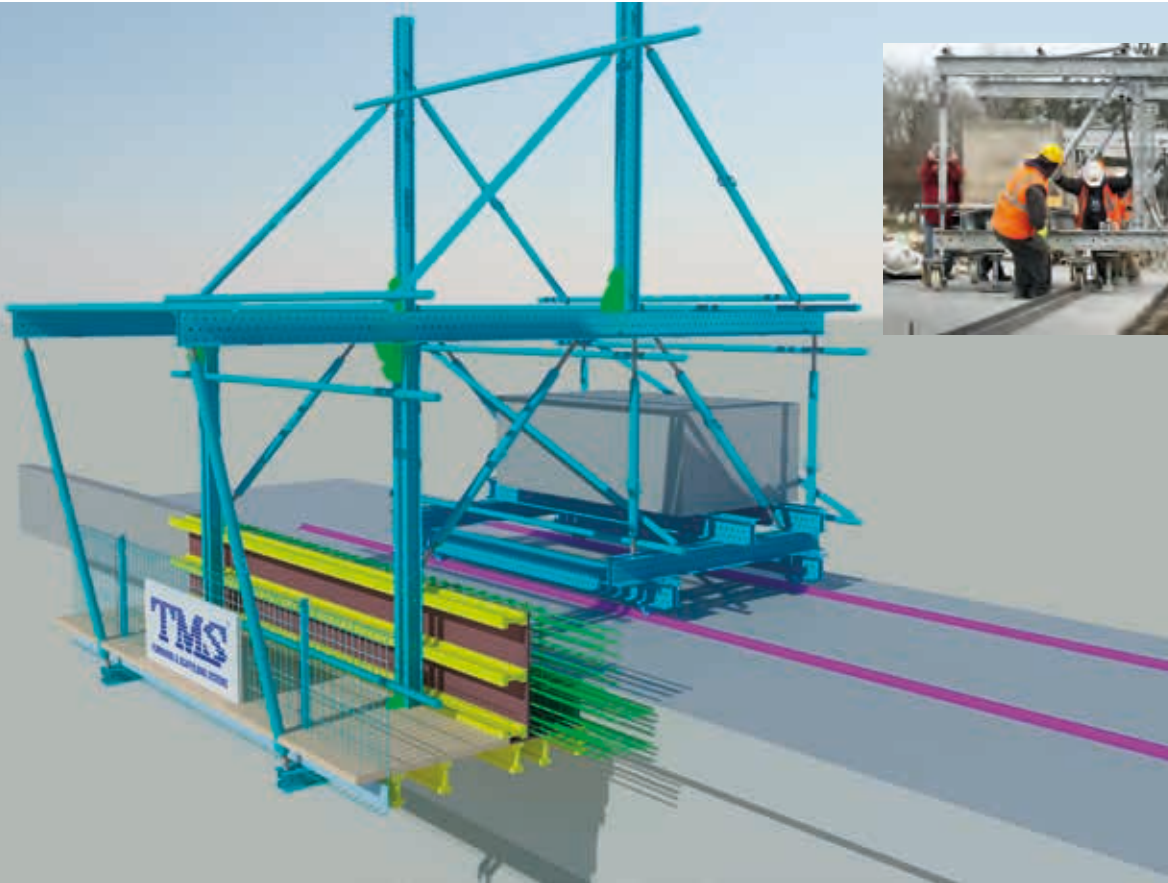
## RA-M ANCHOR BAR



SPANNER "HD"

| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| PC-M G    | 030 013 03550 00 | 7,70 kg |
| HT-K B 17 | 030 010 01325 00 | 4,40 kg |
| HT-K B 20 | 030 010 01326 00 | 5,50 kg |





#### MULTIX KIT

The Multix Kit is a multi-purpose system composed of U profiles with specially drilled hole patterns combined together with specially designed connection elements that can be used to assemble towers, trusses and support systems for heavy loads and formwork systems. It mainly consists of two design groups named as Multix 120 and Multix 200.

While Multix Kit allows assembly of tower and truss solutions for vertical or lateral heavy loads, the same Multix elements can be used as walers or single sided support systems for wall formwork, or used as bridge head traverse, push-pull type props and telescopic props or used as elements in tunnel formwork and hydro-mechanical systems. The Multix Kit is available as a package of special walers, connecting pins / bolts and special fasteners designed according to the place of use. When necessary, system elements can be produced in desired special dimensions. The 4 legged heavy duty tower assembled from Multix 120 elements can carry a load of up to 1400kN (140tonf) and the 4 legged heavy duty tower assembled from Multix 200 can carry a load of up to 3200 kN (320 tonf).

Multix Kit is a modular system consisting of standardized elements that can be applied to any kind of project without the need of additional special elements. Thanks to its high load capacity, it saves time and labor, since it requires fewer elements.





## MULTIX KIT

Multix Kit, özel çap ve aralıklarda delinerek üretilmiş U profillerin özel olarak dizayn edilmiş bağlantı elemanları ile birleştirilmesi sonucu oluşturulan, farklı bağlantı parçalarıyla birçok kalıp ve iskele çözümünün gerçekleştirilebilmesini sağlayan çok amaçlı kullanıma yönelik bir sistemdir. Multix 120 ve Multix 200 olarak iki ana dizayn grubundan oluşmaktadır.

Multix Kit kullanılarak düşey ya da yatay ağır yükler için kule ya da makas çözümleri yapabilir, aynı Multix elemanları perde yatay kuşağı, tek yüz perde dayaması, köprü başlık traversi, itme-çekme tipi payanda ve teleskop olarak ya da tünel kalıbı ve hidro-mekanik sistemlerde eleman olarak kullanılabilir. Multix Kit, özel kuşakları, bağlantı pimleri/cıvataları ve kullanılacağı yere göre hazırlanmış bağlantı parçalarıyla paket olarak sunulmaktadır. Gerekli olduğu durumlarda sistem eleman boyutları istenilen ölçülerde üretilebilmektedir. Multix 120 ile oluşturulmuş 4 ayaklı ağır yük kulesi 1400kN (140tonf) kadar, Multix 200 ile üretilmiş 4 ayaklı ağır yük kulesi 3200 kN (320 tonf) kadar düşey yük taşıyabilmektedir.

Multix Kit her türlü projeye uygulanabilecek şekilde standartlaştırılmış olduğu için, farklı projelerde farklı tip sistemler gerektirmeyen modüler bir sistemdir. Yük taşıma kapasitelerinin yüksek oluşu sayesinde daha az eleman gerektirdiği için zamandan ve işçilikten tasarruf sağlar.





## MULTIX WALER 200



| ITEM            | ITEM NO          | WEIGHT    |
|-----------------|------------------|-----------|
| MK-S B 150 U200 | 030 034 20150 00 | 37,95 kg  |
| MK-S B 300 U200 | 030 034 20300 00 | 75,90 kg  |
| MK-S B 400 U200 | 030 034 20400 00 | 101,20 kg |
| MK-S B 500 U200 | 030 034 20500 00 | 126,50 kg |

## MULTIX WALER 120



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| MK-S B 100 | 030 034 12100 00 | 13,30 kg |
| MK-S B 245 | 030 034 12245 00 | 32,60 kg |
| MK-S B 295 | 030 034 12295 00 | 39,25 kg |
| MK-S B 600 | 030 034 12600 00 | 79,80 kg |

## MULTIX 120 PRIMARY AXIS CONNECTOR NP-U 120



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MK-B B U120 | 030 034 10120 00 | 13,8 kg |

## MULTIX 120 PRIMARY AXIS ADD-ON CONNECTOR NP-U 120



| ITEM        | ITEM NO          | WEIGHT |
|-------------|------------------|--------|
| MK-A B U120 | 030 034 11120 00 | 8,8 kg |



## MULTIX 200 PRIMARY AXIS CONNECTOR NP-U 200

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MK-B B U200 | 030 034 10200 00 | 15,6 kg |



## MULTIX 200 PRIMARY AXIS ADD-ON CONNECTOR NP-U 200

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MK-A B U200 | 030 034 11200 00 | 9,50 kg |



## MULTIX 120 SECONDARY AXIS BRACING ADAPTER NP-U 120

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MS-A B U120 | 030 034 13120 00 | 8,35 kg |



## MULTIX 200 SECONDARY AXIS BRACING ADAPTER NP-U 200

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MS-A B U200 | 030 034 13200 00 | 5,95 kg |





## MULTIX 200 ORTHOGONAL CONNECTOR NP-U 200

| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| MK-J B U200 | 030 034 14200 00 | 11,10 kg |



## MULTIX 120 ANGULAR ADAPTER NP-U 120

| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| MK-J B U120 | 030 034 14120 00 | 10.85 kg |



## MULTIX TRANSITION ADAPTER

| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| MK-G B | 030 034 15000 00 | 3,05 kgg |



## MULTIX COUPLER ADAPTER

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MK-O B | 030 034 15010 00 | 1,90 kg |





## HAND RAIL POST ADAPTER MK TYPE



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| GE-S B 8000 MK | 030 097 20480 00 | 4,85 kg |

## MULTIX 200 BASE PLATE



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MK-T B U200 | 030 034 16200 00 | 38,5 kg |

## MULTIX 120 BASE PLATE



| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| MK-T B U120 | 030 034 16120 00 | 34,95 kg |

## MULTIX JACK



| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| MH-S B | 030 034 17000 00 | 52,10 kg |

## MULTIX PIN



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| MK-P G 1120 | 004 132 12020 00 | 0,28 kg |





#### **TRK 160-240 CLIMBING SCAFFOLDS**

In order to form higher walls, pillars, piers, stair and lift shafts the climbing scaffold TRK 160 or TRK 240 could be safely used together with our formwork systems such as, the VINC'I, SIMPEX, MULTIX, HAND'I, MOPA, MATTEX etc. The formwork could be placed easily on both systems. Both systems bear wind connection, lower level platforms etc. The TRK 240 system provides extra solution for retracting the formwork with its chart system and lateral and/or vertical fine adjustment is possible with additional accessories. For further info, please refer to the relevant technical literature.

#### **TRK 250 D MULTIX SINGLE SIDED CLIMBING SCAFFOLDS**

This system consists of MULTIX main items together with specialized accessories for anchoring, vertical and lateral fine adjustment, inclined climbing etc. Please refer to detailed manuals for further info.

#### **TRK 160-240 TIRMANMA KONSOLLARI**

Yüksek perde, kolon, şaft v.b. yapılarda kullanılan, vinçle tırmanır konsol sistemidir.

TRK 160 ve TRK 240 tırmanma konsolları; VINC'I, SIMPEX, MULTIX, HAND'I, MOPA, MATTEX v.b. kalıp sistemleri ile birlikte güvenle kullanılabilir. Her iki sistemde de rüzgar bağlantısı, alt sepet v.b. uygulamalar mümkündür.

TRK 240 tırmanma konsolu kolay hareket ettirilen araba sistemi, yatay ve düşey hassas ayar mekanizması gibi opsiyonel özelliklere de sahiptir.

#### **TRK 250 D BARAJ TİPİ TIRMANMA GRUBU**

Tek taraflı kalıplanacak yapılarda kullanılan, vinçle tırmanır konsol sistemidir.

Tek taraflı Tırmanma Konsolu sisteminde, TRK 250D ana elemanı baraj tipi, TR-B 250 DS başlığı, TR-P 250 özel pimi, TRK korkuluğu, TR-S 250 D sepeti, TR-C 250 D itme-çekme sistemi, TK-I 250 ince ayar sistemi, KA-E 420 konik ankraj elemanı, KA-E 250 konik ankraj elemanı, MULTIX özel asker elemanı, MULTIX asker bağlantı pabucu, rüzgâr gergi halatı ve bağlantı elemanları, T-tipi çektirme, bağlantı boruları, boru kelepçesi kapsam dâhilindedir.



CLIMBING SCAFFOLD 160



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TR-K B 100 | 030 016 01000 00 | 26,23 kg |
| TR-K B 120 | 030 016 01200 00 | 27,42 kg |
| TR-K B 160 | 030 016 01600 00 | 35,50 kg |



CLIMBING SCAFFOLD 100/120

CLIMBING SCAFFOLD 240



| ITEM       | ITEM NO          | WEIGHT    |
|------------|------------------|-----------|
| TR-K B 240 | 030 016 02400 00 | 92,65 kg  |
| TR-K B 250 | 030 016 02500 00 | 139,45 kg |



CLIMBING SCAFFOLD 250  
SINGLE - SIDED



## FORMWORK PUSH PULL CARRIER 240



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TI-C B 240 | 030 016 02405 00 | 48,80 kg |

## FORMWORK PUSH PULL CARRIER 250



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TI-C B 250 | 030 016 02505 00 | 40,93 kg |

## CLIMBING SCAFFOLD SUSPENSION HEAD 160



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| TK-B B 160 | 030 016 01603 00 | 3,62 kg |
| TK-P G 160 | 030 116 01609 00 | 0,40 kg |

## CLIMBING SCAFFOLD SUSPENSION HEAD 240



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| TK-B G 240 | 030 116 02403 00 | 3,00 kg |

## CLIMBING SCAFFOLD 250



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| TK-B G 250 | 030 016 02503 00 | 3,00 kg |

## VERTICAL FINE ADJUSTMENT



SOLDIER  
BRACKET

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| TK-I B 240 | 030 016 02407 00 | 4,35 kg |
| AB-P B 250 | 030 016 02508 00 | 8,80 kg |



CLIMBING SCAFFOLD 160



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TK-S B 160 | 030 016 01606 00 | 21,20 kg |
| TK-S B 240 | 030 016 02406 00 | 20,70 kg |
| TK-S B 250 | 030 016 02506 00 | 42,63 kg |



SUSPENDED PLATFORM 250

CARRIER



SOLDIER  
PIN

PROP  
PIN



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| TK-P G 250     | 030 116 02509 00 | 0,40 kg |
| TK-P G 250 ask | 030 116 02510 00 | 0,91 kg |
| TK-P G 250 pyd | 030 116 02511 00 | 0,45 kg |

CATWALK  
BRACKET



CATWALK  
TILT BRACKET

| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BD-K B 250 | 030 016 02518 00 | 9,65 kg |
| CT-E B 250 | 030 016 02520 00 | 9,28 kg |

PROP  
SHOE



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| PP-M B 250 | 030 016 02530 00 | 3,40 kg |



## SOLDIER



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| AS-S B 100 | 030 031 00810 00 | 22,55kg  |
| AS-S B 200 | 030 031 00820 00 | 43,65 kg |
| AS-S B 250 | 030 031 00825 00 | 54,26 kg |
| AS-S B 300 | 030 031 00830 00 | 64,95kg  |
| AS-S B 400 | 030 031 00840 00 | 85,78 kg |

## HAND RAIL POST



HAND RAIL POST STD.

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| CT-K B 250  | 030 016 02522 00 | 4,35 kg |
| GA-S B 8012 | 030 197 08012 00 | 4,60 kg |

## TR-K GUY WIRE SPANNER ITEMS



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TK-G B 300 | 030 016 02550 00 | 11,30 kg |

## REMOVABLE CONICAL ANCHOR



## CONICAL ANCHOR CONENCTION PLATE



## ANCHOR KEY



## CONICAL ANCHOR CONENCTION PLATE KEY



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| KA-E Y 140 | 004 025 00114 00 | 0,85 kg |
| KA-E Y 200 | 004 025 00120 00 | 1,20 kg |
| KA-E Y 250 | 004 025 00125 00 | 1,45 kg |
| KA-E Y 280 | 004 025 00128 00 | 1,80 kg |
| KA-E Y 320 | 004 025 00132 00 | 4,30 kg |
| KA-E Y 360 | 004 025 00136 00 | 4,65 kg |
| KA-E Y 430 | 004 025 00143 00 | 5,35 kg |
| AT-P G 24  | 004 125 01324 00 | 0,40 kg |
| AT-P G 36  | 004 125 01336 00 | 0,65 kg |
| KA-A B 24  | 004 025 01124 00 | 5,15 kg |
| KA-A B 36  | 004 025 01136 00 | 4,20 kg |
| AT-A Y 10  | 004 025 02374 00 | 0,18 kg |
| AT-A Y 12  | 004 025 01376 00 | 0,25 kg |



## "T" SPANNER



## WALER ADAPTER

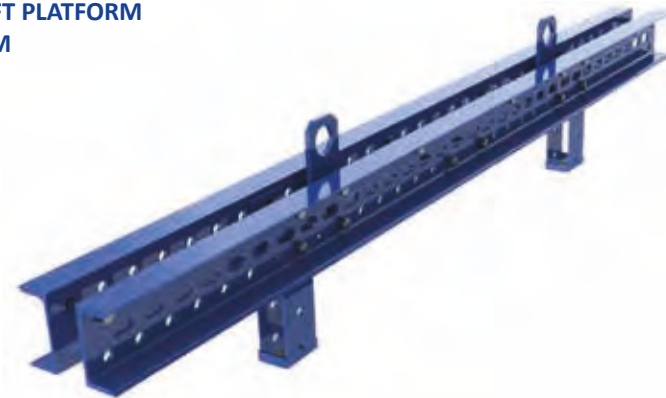


## VINC'I SPANNER ELEMENT



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| TT-K G | 030 110 01315 00 | 2,39 kg |
| KB-E B | 030 013 03560 00 | 0,60 kg |
| SC-E G | 030 180 00257 00 | 2,03 kg |

## SHAFT PLATFORM BEAM



| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| SP-K B 120x100 | 030 016 12100 00 | 29,50 kg |
| SP-K B 140x100 | 030 016 14100 00 | 32,20 kg |

## PAWL PIN



## MULTIX CONNECTOR

## SHAFT PLATFORM PAWL



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| SP-P G 2025 | 030 131 20255 00 | 0,35 kg |
| SP-P G 1615 | 030 131 20265 00 | 0,30 kg |
| SP-B B      | 030 031 20150 00 | 7,35 kg |

## BOX-OUT



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| SP-R B | 030 031 20220 00 | 2,15 kg |

## SUSPENDED PLATFORM



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| SP-S B 150 | 030 031 20315 00 | 51,11kg  |
| SP-S B 200 | 030 031 20320 00 | 54,52 kg |
| SP-S B 250 | 030 031 20325 00 | 58,42 kg |
| SP-S B 300 | 030 031 20330 00 | 61,33 kg |



### TMS - SELF CLIMBING SYSTEM CLIMBEX

The TMS Self climbing System CLIMBEX 50 is a hydromechanically driven lifting appliance. In conjunction with special scaffolds connected to it, it can be used for lifting formwork or other loads, as well as wind protection shield. One of the biggest advantages is the independence of a crane, through the use of hydromechanical components.

Further advantages are:

- The system is guided to the construction during the climbing process.
- Secured climbing up to a wind speed of about 72 km/h.
- Big platforms, variably adjustable in its size and shape according to the building geometry.
- Arbitrary height of the pouring sections up to 5.5 m.
- Refinishing of the concrete surfaces can be made easily from the suspended platforms.

### CALCULATED WIND LOADS

max. 165 km/h (CLIMBEX fixed to the structure)

max. 72 km/h during climbing process

Live loads:

- 200 kg/m<sup>2</sup> for platform level +1
- 200 kg/m<sup>2</sup> for platform level 0
- 50 kg/m<sup>2</sup> for platform level -1
- 50 kg/m<sup>2</sup> for platform level -2
- When performing the structural design calculations for the CLIMBEX hydraulic system two different load situations must be considered on the construction site.
- The loads in the statically anchored state, in which all the actual building operations are carried out.
- The loads occurring during climbing (especially the max. allowable wind load of about 72 km/h).

### CLIMBEX HİDROLİK TIRMANIR SİSTEMLER CLIMBEX 50

CLIMBEX hidrolik tırmanma sistemleri yüksek yapılarda kalıbın vinçten bağımsız olarak hareket etmesini sağlayan hidromekanik bir yükseltme uygulamasıdır. Çok geniş bir kullanım yelpazesine sahip olan CLIMBEX Hidrolik Tırmanır Sisteminin avantajları:

- Yüksek güvenli hızlı çalışma sağlar, verimli maliyet sunar.
- 72 km/saat rüzgar hızına kadar güvenli tırmanma yapabilir.
- Sistem tırmanma sırasında binaya kılavuzludur.
- Büyük platformların şekil ve boyutları binanın geometrisine göre ayarlanabilir.
- Sistem duvar daralmalarına ve eğimlerine uygundur.
- 5,5 m yüksekliğe kadar döküm yüksekliği olabilir.





# CLIMBEX®50 HYDRAULIC CLIMBING













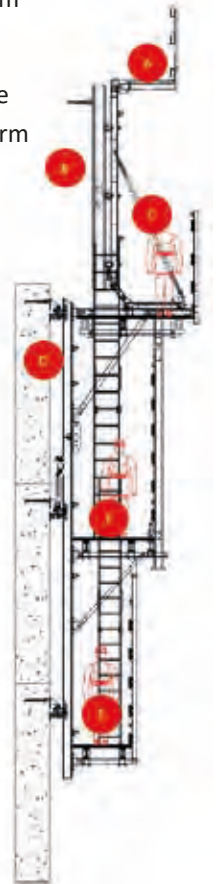




# CLIMBEX®50 HYDRAULIC CLIMBING



- A-Pouring platform
- B-Formwork
- C-Main platform
- D-Climbing profile
- E-Finishing platform



**Assembly of mobile  
hydraulic Cylinders**



**Hydraulic  
Climbing**



**System ready at next pouring  
stage**





### TMS - SELF CLIMBING SYSTEM CLIMBEX

The TMS self climbing system CLIMBEX 60 is a hydromechanically driven rail guided lifting appliance. In conjunction with special scaffolds connected to it, it can be used for lifting the formwork or other loads, as well as the wind protection shield.

The biggest advantage is the independence from a crane, through the use of hydro mechanical components.

Further advantages are:

- The system is guided by a rail which is connected to the structure during the climbing process.

- Secured climbing up to a wind speed of about 72 km/hour.

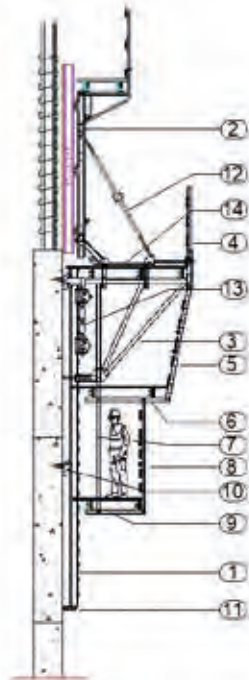
- Big platforms, variably adjustable in size and shape according to the building geometry.

- Arbitrary height of the pouring sections up to 5.5 m.

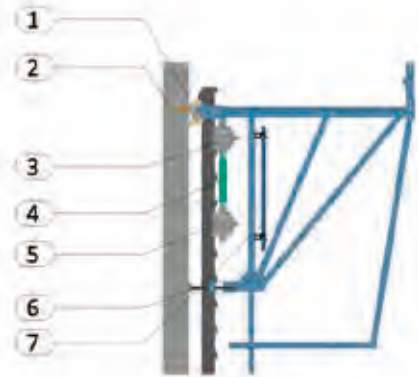
- Refinishing of the concrete surfaces can be made easily from the suspended platforms.



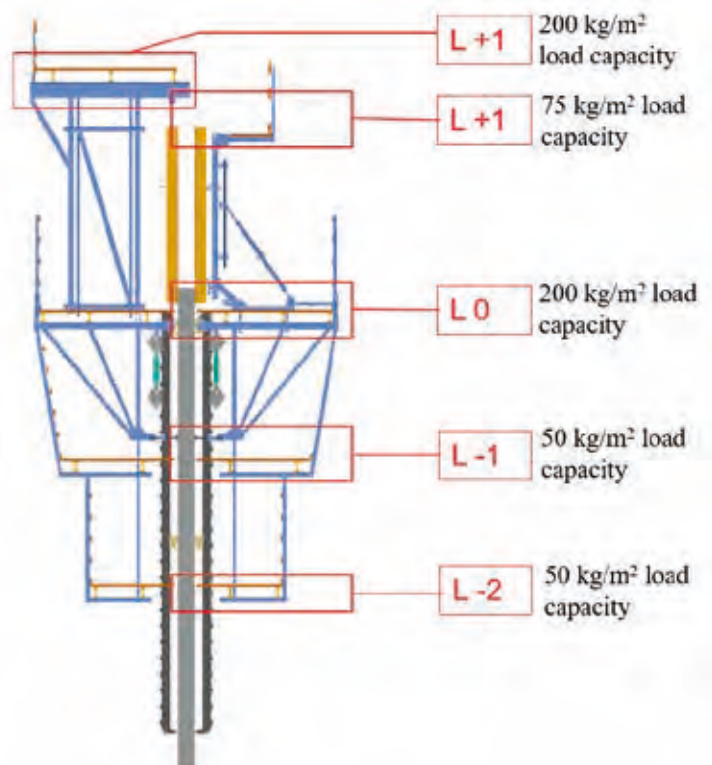
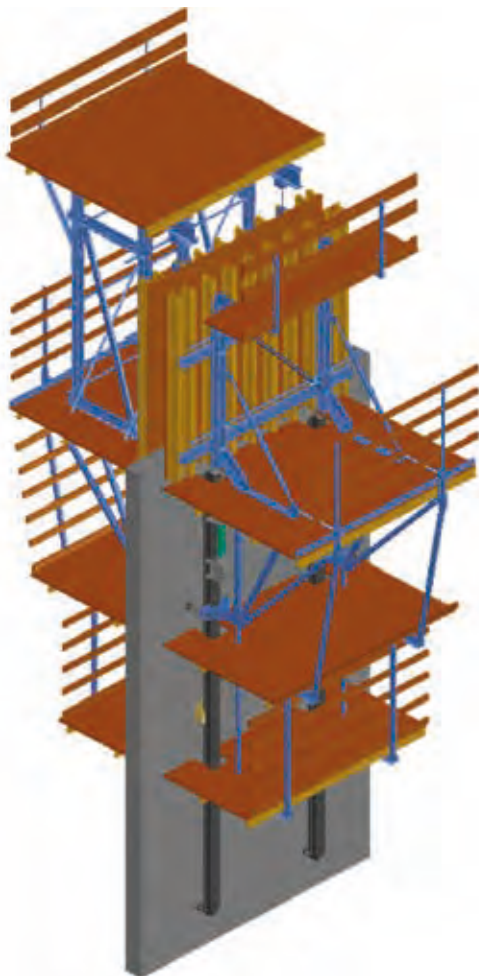




- 1-Climbing Rail
- 2-Formwork Soldier
- 3-Climbex 60 Main Bracket
- 4- Upper Platform Handrail Post
- 5-Level -1 Platform Back Profile
- 6-Level -1 Platform Horizontal Profile
- 7- Level-2 Platform Front Profile
- 8- Level -2 Platform Back Profile
- 9- Level -2 Platform Horizontal Profile.
- 10- Suspension Shoe
- 11- Rail Shoe
- 12- Push-Pull Prop
- 13- Hydraulic Cylinder
- 14-Push-pull Carrier



- 1. Suspension Shoe
- 2. Plate Anchor
- 3. Upper Lifting Head
- 4. Hydraulic Cylinder
- 5. Lower Lifting Head
- 6. Spindle
- 7. Connecting Pipe





### TMS - SELF CLIMBING SYSTEM CLIMBEX

The TMS self climbing system CLIMBEX 100 is a hydromechanically driven rail guided lifting appliance. In conjunction with special scaffolds connected to it, it can be used for lifting the formwork or other loads, as well as the wind protection shield. The biggest advantage is the independence from a crane, through the use of hydro mechanical components.

Further advantages are:

The system is guided by a rail which is connected to the structure during the climbing process. Secured climbing up to a wind speed of about 72 km/hour.

Big platforms, variably adjustable in size and shape according to the building geometry.

Arbitrary height of the pouring sections up to 5.5 m. Refinishing of the concrete surfaces can be made easily from the suspended platforms.





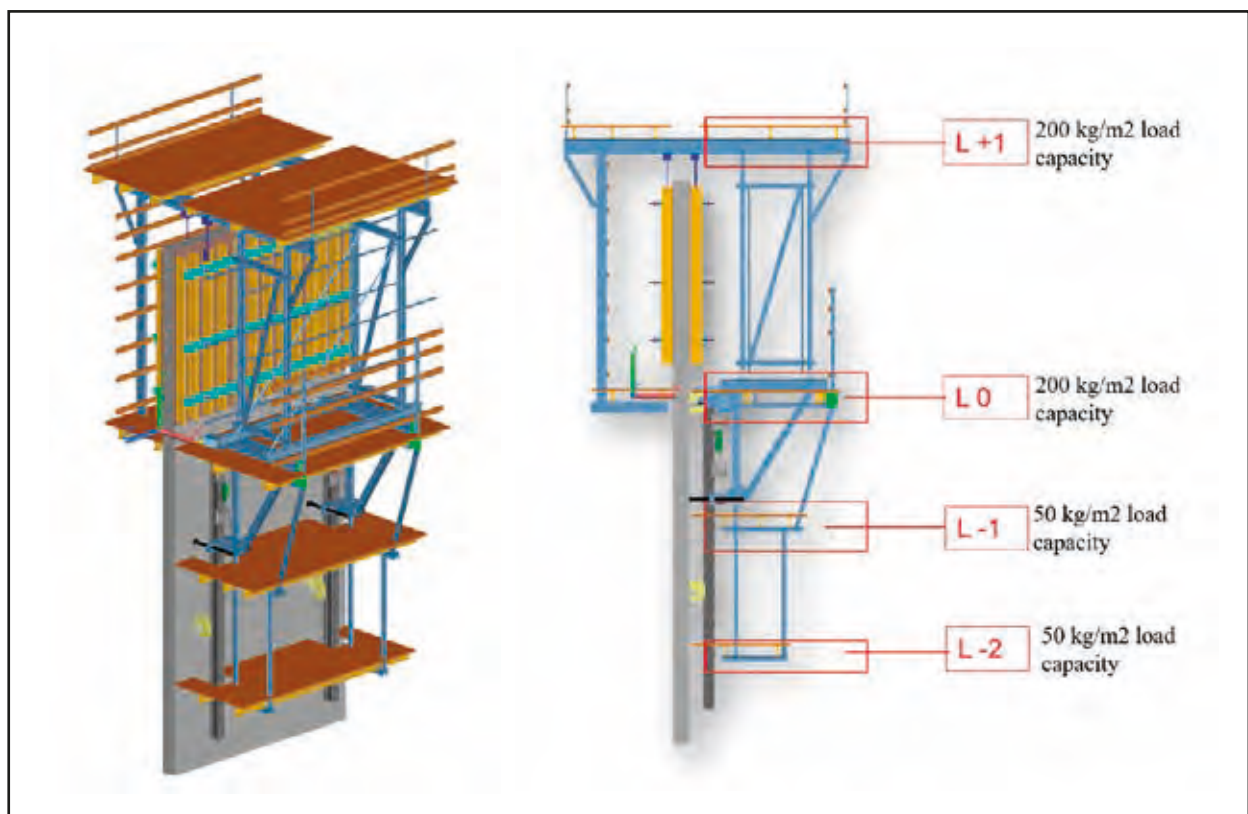
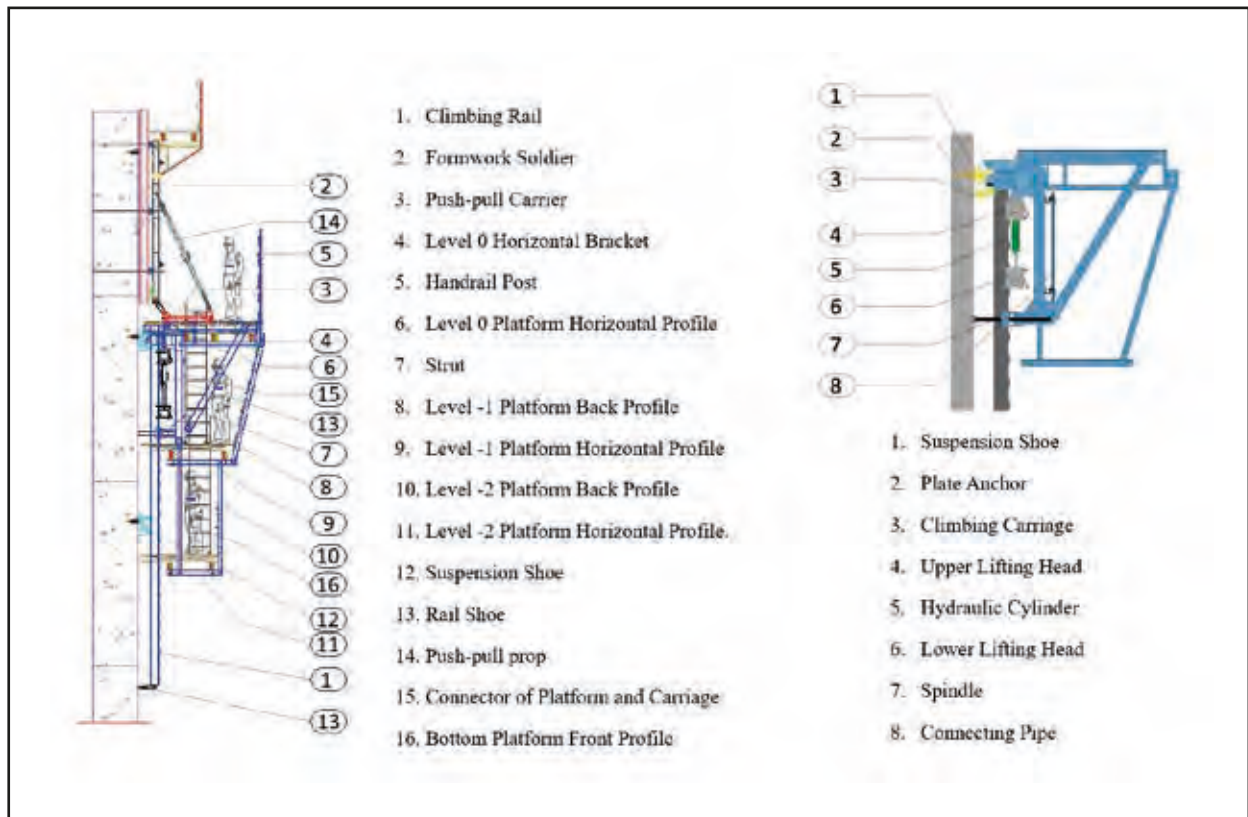
# CLIMBEX®100 HYDRAULIC CLIMBING















Citygate, Austria / Vienna

#### CLIMBEX HİDROLİK RÜZGAR PERDESİ ve KORUMA SİSTEMİ

Climbex Rüzgar Perdesi ve Koruma Sistemi, yüksek yapılarda inşaat işlerinin yüksek güvenlikle yapılmasını sağlayan; raylar, yatay elemanlar, döşeme bağlantıları ve yüzey kaplamasından oluşan bir koruma sistemidir.

Climbex Rüzgar Perdesi ve Koruma Sistemi yüksek yapılarda çalışanları rüzgar ve düşme riskine karşı korumak için kullanılır ve iş verimini artırır. Tüm kapalı koruma sistemi, Kule vinç yardımıyla, ya da projeye göre tasarlanmış TMS hidrolik sistemi ile kattan kata taşınarak hareket ettirilir.





# CLIMBEX® HYDRAULIC WIND SHIELD SYSTEM



**Climbex® Windshield System** is used in “high rise” buildings to protect the workers against wind and also as a safeguard not to fall down. This situation increase the productivity on the job-site a lot!





## THE FLEXIBLE SOLUTION FOR SLABS

SLABFLEX is highly versatile with its capability to be designed for every floor plan and slab thickness.

The system consists of very few items; KAUFMANN HT 20 Plus Timber Beams, Props, Forkheads and Tripods. Timber Beams are light, easy to handle, yet capable for extensive spans.

TMS Props are available for various heights and load bearing capacities. The Forkheads provides the continuously variable adaptability, while safely holding one or two HT 20 Plus timber beams in place.

Since the Tripods support the formwork system to be self standing during set-up and stripping, they reduce the labor required during erection and dismantling.



## SLABFLEX ÇOK YÖNLÜ, KULLANIŞLI DÖŞEME KALIBI

SLABFLEX; teleskopik dikmeler, HT 20 ahşap kiriş, üçayak ve dört yollu başlıktan oluşan çok yönlü ve kullanışlı bir döşeme kalıbı sistemidir. Hemen her projede döşeme planına kolayca uygulanabilecek, değişen döşeme kalınlığı ve yüklere göre mahya, ızgara aralıkları ve teleskobik dikme sıklığı ayarlanabilir ve son derece esnek. EN-D ve EN-E dikmeler 250 cm'den 600 cm'ye kadar farklı açınım boylarına ve farklı dizayn yüklerine göre taşıma kapasitesine sahiptir.

Dikme üstlerine yerleştirilen dört yollu başlıklar HT 20'leri özellikle bindirme noktalarında güvenli bir şekilde tutmaktadır. Üçayaklar ise sistem elemanlarının gerek kurum gerekse söküm aşamalarında, kendi kendini ayakta tutmasını sağladıklarından bu aşamalarda işgücü ihtiyacını azaltmakta, projeye hız ve ekonomi getirmektedir.



## TELESCOPIC PROPS



### Euronorm Class "D" = 20 kN

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| EN-D B 302 | 010 015 03020 00 | 17,07kg  |
| EN-D B 352 | 010 015 03520 00 | 22,81 kg |
| EN-D B 402 | 010 015 04020 00 | 27,93 kg |

### Euronorm Class "E" = 30 kN

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| EN-E B 303 | 010 015 03030 00 | 20,45 kg |
| EN-E B 353 | 010 015 03530 00 | 25,46 kg |

## FORK HEAD



"U" HEAD Beam Type

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DY-B B | 010 015 03400 00 | 3,40 kg |
| DU-B B | 010 015 00114 00 | 2,40 kg |

## TRI-POD



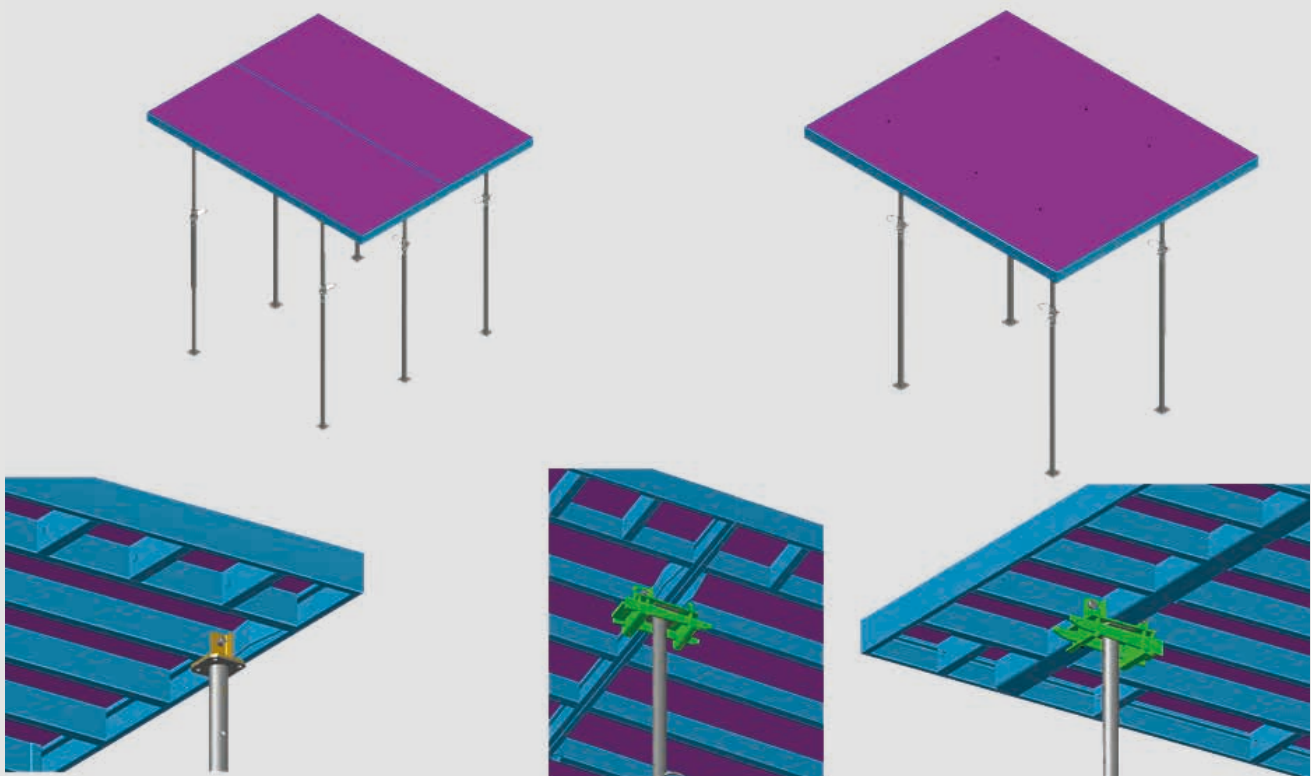
| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| TD-P B bru | 010 015 00130 00 | 8,79 kg  |
| TD-P B prf | 010 015 00135 00 | 11,50 kg |



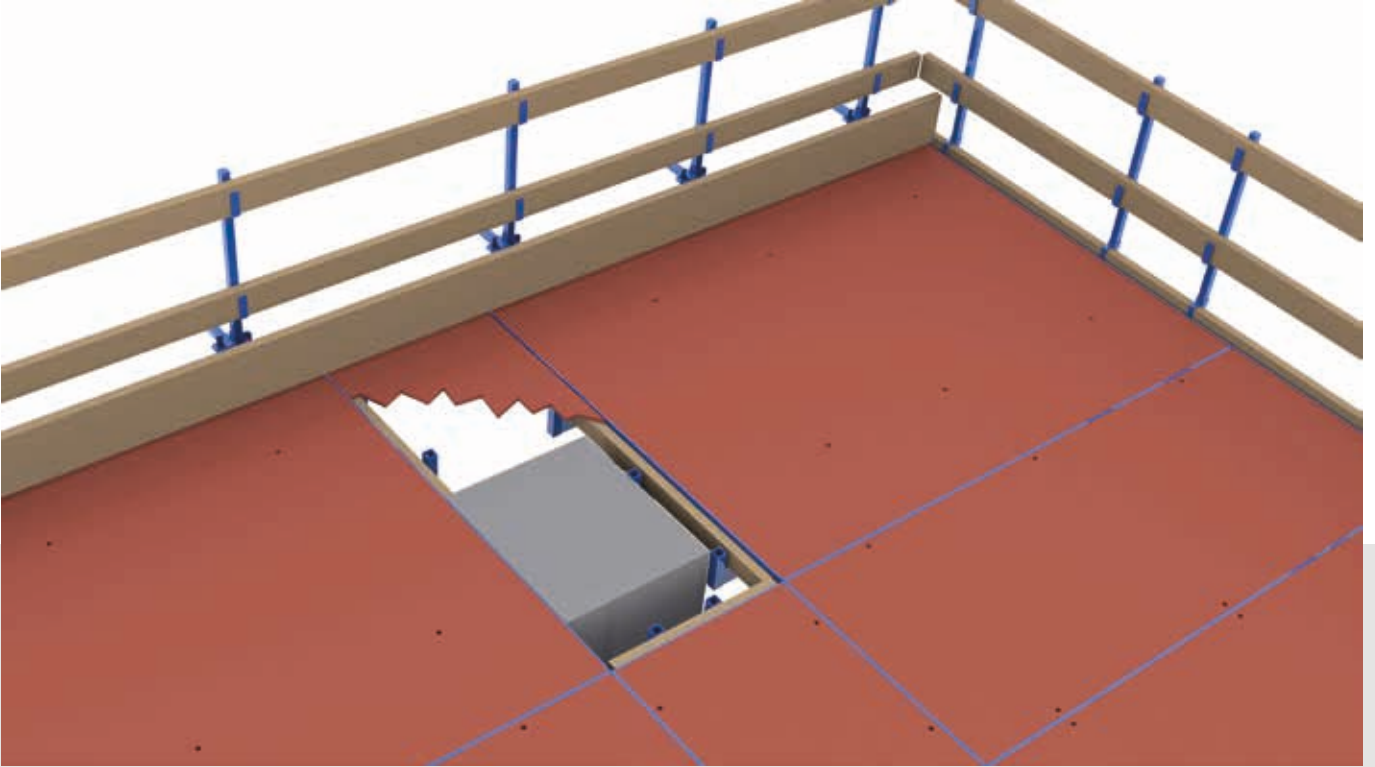




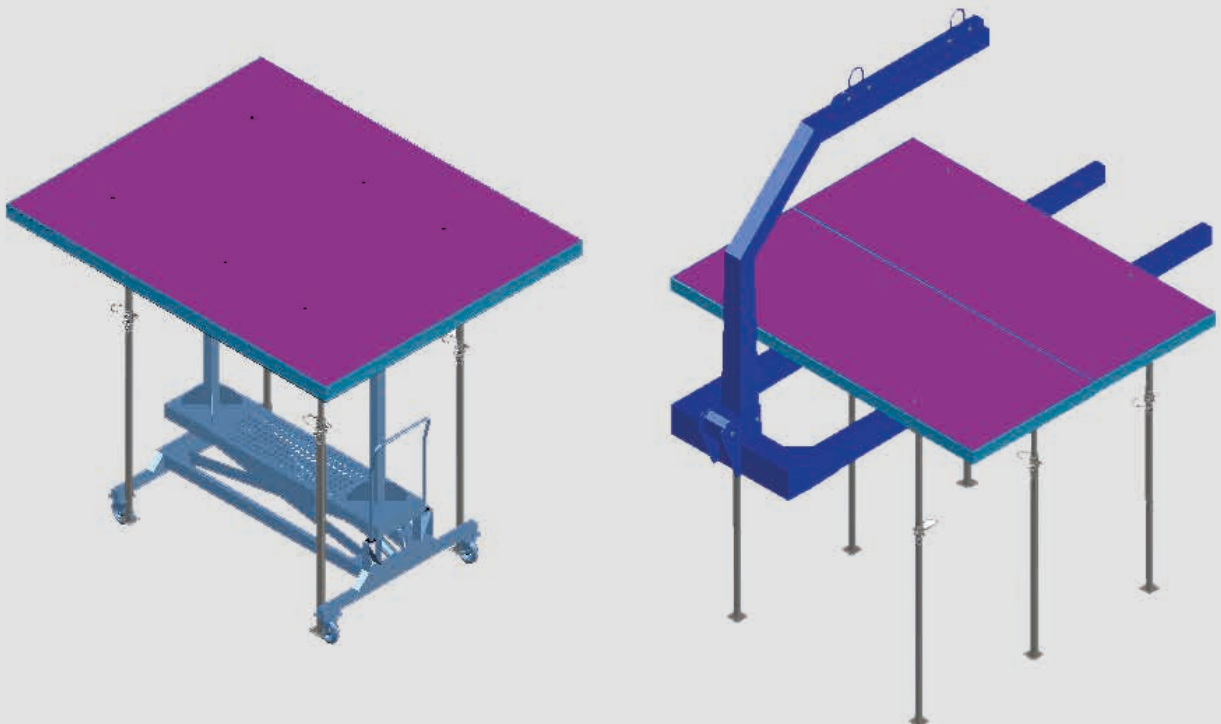
The VINCI DECK system is a specially designed slab formwork system to provide alternative solutions. The system aims to use TMS's VINCI 70 steel panel formwork in reinforced concrete flooring systems, up to a certain thickness, by using specially designed multifunctional adapters and telescopic props. VINCI 70 wall formwork panels are designed to withstand  $70\text{kN/m}^2$  of fresh concrete pressure. Telescopic props can be locked under these panels by a simple hammer and the help of special wedge heads. There are also special adapters to connect the props near the wall edges. Thanks to the multi-adapter, it is possible to connect the guard rail posts on the slab foreheads, support the stop end formwork, and adjust the formwork distance. By using the extension adapter, a work platform can be erected, on which workers can walk around and store low loads for a short time during operations to be carried out on the slab edges. At the same time, with the help of this part, it is possible to carry the concrete load by supporting formwork in places where the formwork panel cannot fully fit.







VINC'I DECK sistemi, TMS'nin betonarme duvarlar için tasarlanmış olan VINC'I 70 çelik panel kalıplarının teleskobik dikmeler yardımıyla belli bir kalınlığa kadar olan betonarme döşeme sistemlerinde de kullanılabilmesini sağlayan, özel tasarım çok işlevli adaptör parçaları kullanarak farklı çözümler sunan bir döşeme sistemidir. VINC'I 70 duvar kalıp panelleri  $70\text{kN/m}^2$  taze beton basıncına dayanacak şekilde tasarlanmıştır. Teleskobik dikmeler, kamalı özel başlıklar yardımı ile bu panellerin altına basit çekiç darbesi ile kilitlenebilmektedir. Duvar kenarlarında da dikme bağlanabilmesi için de özel adaptör başlıklar bulunmaktadır. Çoklu adaptör sayesinde döşeme alınlarında korkuluk dikmesini bağlamak ve aynı zamanda beton kalıbını desteklemek ve kalıp mesafe ayarını yapmak mümkündür. Uzatma adaptörü kullanarak döşeme kenarlarında yapılacak işlemlerde işçilerin üzerinde dolaşabildiği, kısa süreli düşük yükler depolayabildiği çalışma platformu oluşturulabilmektedir. Aynı zamanda bu parça ile kalıp panelinin tam olarak yerleşemediği yerlerde kalıp montajını sağlayarak beton yükünü karşılamak mümkündür.





## VINC'I DECK STOP - END SUPPORT

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DA-T B | 030 098 99001 00 | 3,42 kg |



## VINC'I DECK EDGE HEAD

## VINC'I DECK HEAD

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VK-B B | 030 098 99002 00 | 1,24 kg |
| VD-B B | 030 098 99003 00 | 4,85 kg |



## VINC'I DECK EXTENSION BEAM

| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| VU-K B | 030 098 99004 00 | 10,75 kg |



## VINC'I DECK MULTI ADAPTER

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VM-A B | 030 098 99005 00 | 4,83 kg |





# VINC'I 70 DECK ACCESSORIES

**VINC'I PANEL LOCK  
"TAMON 70"**



**VINC'I PANEL LOCK  
TU-T 70**



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| YT-K G 70 | 004 135 00270 01 | 2,77 kg |
| TU-T G 70 | 030 170 00110 01 | 4,17 kg |

**VINC'I WALER (80 cm)**



**VINC'I SPANNER  
ELEMENT**

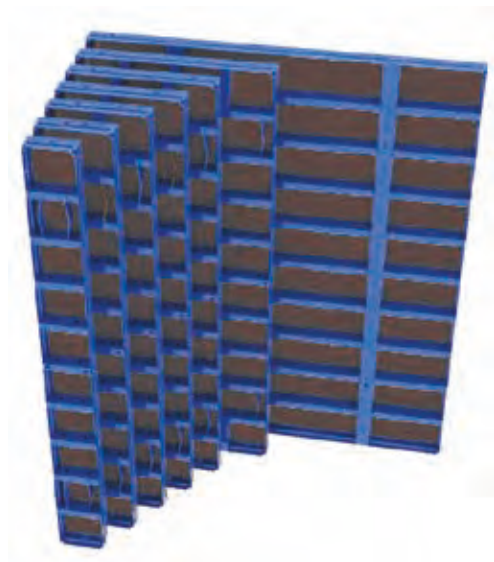
| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| VC-K G | 030 187 00080 00 | 9,09 kg |
| VC-E G | 030 187 00032 00 | 2,25 kg |

**CRANE HOOK "VINC'I 70 TYPE"**



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| YK-V G | 030 170 00150 01 | 9,22 kg |

**VINC'I 70 STANDART PANELS  
"Plywood Surface"**



| ITEM               | ITEM NO          | WEIGHT    |
|--------------------|------------------|-----------|
| VY-S B 90x300 ply  | 030 073 10930 01 | 118,88 kg |
| VY-S B 120x300 ply | 030 073 11230 01 | 171,39 kg |
| VY-S B 240x300 ply | 030 073 12430 01 | 392,94 kg |





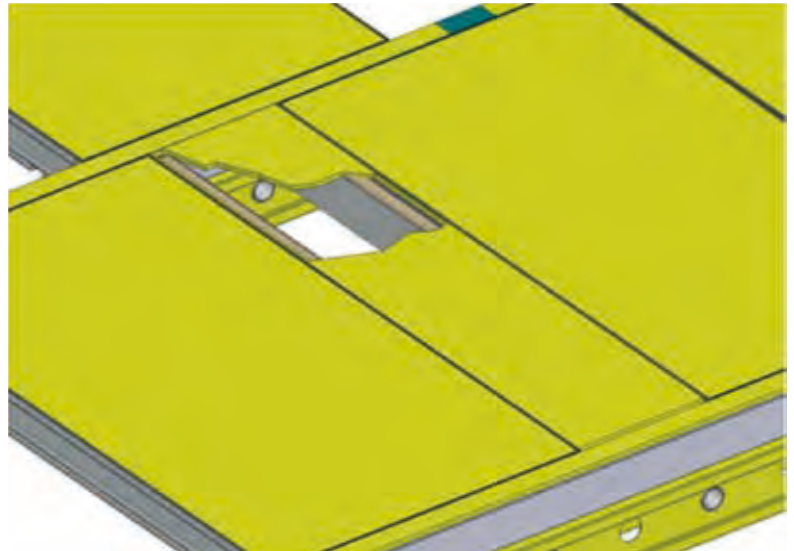
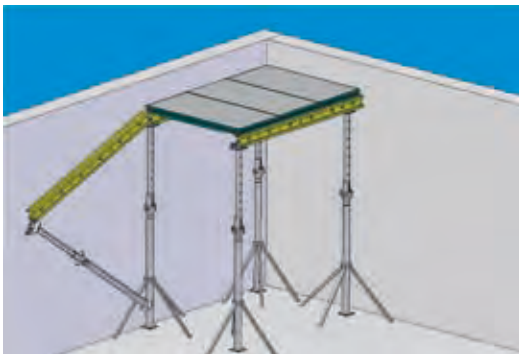
#### TMS SLAB DEX

The system allows with only few parts a wide range of different slab formwork systems, to adapt optimally to the construction site, e.g. for each construction project and any floor plan the most appropriate and economical method whether residential or large areas.

The design of the entire system has been carried out so that up to 30 cm thick slabs can be formed with the standard parts in compliance with the deflections to DIN 18202 line 7.

For this system the **prop load** is always less than **20 kN**. For the beginning of the setting of the formwork in a corner and for the compensation ranges no additional support is required. The panels consists of special steel profiles with a 10 mm thick polypropylene plate, **60 x 120 panel <16 kg**.

**TMS DEX Döşeme Kalıbı Sistemi;** çerçevesi özel çelik profillerden oluşan, yüzeyi polipropilen ile kaplanan kirişsiz elle kullanılabilen bir panel döşeme kalıbı sistemidir. Sistem az sayıda parça kullanarak çok çeşitli döşeme kalıbı uygulamalarına olanak sağlar. Her türlü proje ve kat planına göre, şantiyeye uyum sağlayarak, uygun ve ekonomik çözümler üretmek mümkündür. Sistem, DIN 18202 normlarına uygun olarak, 30 cm döşeme kalınlığını karşılayabilecek şekilde, standart parçalarla oluşturulabilecek şekilde tasarlanmıştır. Bu sistem için dikme yükü her zaman 20 kN'dan azdır. Sistem kurulumunun köşeden başlangıcı ve ileriki safhalarda ilave destek ihtiyacı yoktur. Panolar; özel çelik profiller ve 10 mm kalınlığında polipropilen yüzeyden oluşmaktadır. 60x120 pano < 16 kg'dır.





### DEX SLAB PANELS "Laminaex Surface"



| ITEM          | ITEM NO          | WEIGHT   |
|---------------|------------------|----------|
| DD-P B 30x60  | 030 019 30306 00 | 5,90 kg  |
| DD-P B 30x120 | 030 019 30312 00 | 10,15 kg |
| DD-P B 60x120 | 030 019 30612 00 | 15,25 kg |

### DEX BEAMS "STANDARD"



DEX BEAMS "DROP HEAD"

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| DM-M B 120 | 030 019 01120 00 | 11,60 kg |
| DM-D B 120 | 030 019 02120 00 | 12,10 kg |

### BEAM HEAD



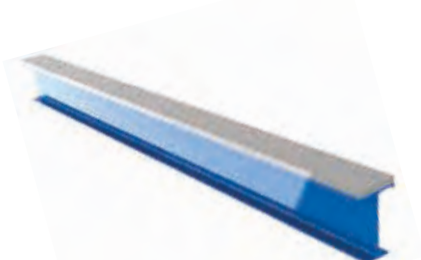
DROP HEAD



DEX CROWN

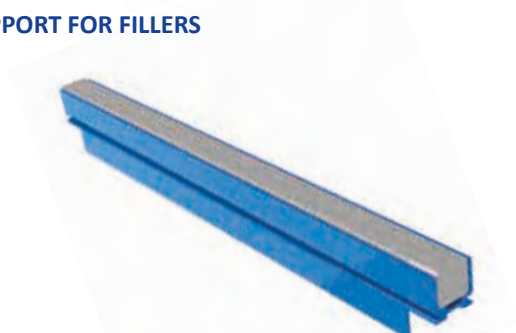
| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DM-B B | 030 019 00040 00 | 1,60 kg |
| DB-D B | 010 029 00050 00 | 4,05 kg |
| DP-B G | 004 132 00818 00 | 2,50 kg |

### SPACER



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| DS-E B 100 | 030 019 05100 00 | 3,40 kg |

### PLY SUPPORT FOR FILLERS



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| DP-E B 100 | 030 019 06100 00 | 4,05 kg |





#### **FLEXDECK TABLE FORMS**

FLEX DECK is a very versatile and flexible system with easy adaptability to changing slab requirements. Formwork facing is freely placed plywood, while primary and secondary girders are HT20 timber beams. Shoring system consist of TD-EN series adjustable props with special FLEX DECK heads which will be connected to the main beams of the table with help of its wedge and can be dismantled with one hammer chop. For squeezed openings such as beams and parapets a tiltable head version is also available.

#### **FLEXDECK MASA KALIBI**

FLEX DECK Masa Kalıbı; teleskopik dikmeler ve özel dikme başlıklar ile HT20 ahşap kirişlerden oluşan dikmeli masa kalıbı sistemidir. Ana ve tali mahyalarda HT 20 kullanılır, mahyalar ise kendi aralarında özel elemanlarla sabitlenir. Ana mahyaları dikmelere bağlayan özel başlıklar sayesinde, sistem güvenle kullanılır.

Kiriş ve parapet arasına sıkışmış dar açıklıklardan masaları çıkartabilmek için özel katlanır başlıklar da mevcuttur.

4,9 m yüksekliğe kadar olan döşemelerde oldukça kullanışlı ve hızlı bir sistemdir.





## FIXED PROP HEAD STD.



## FIXED PROP HEAD HD.



| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| FL-B B STD  | 010 015 00505 00 | 10,30 kg |
| FL-B B HD 1 | 010 015 00510 00 | 18,65 kg |

## FOLDABLE PROP HEAD HD.



| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| FL-B B HD 2 | 010 015 00515 00 | 24,95 kg |

## JOIST BRACGIRDER



## LIFTING ROD



## RAFTER PLATE

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| FL-J B      | 010 015 00530 00 | 6,15 kg |
| MI-S G HT20 | 010 015 03550 00 | 0,15 kg |
| VA-M B      | 010 015 03545 00 | 0,70 kg |

## FLEXDECK TROLLEY



| ITEM   | ITEM NO          | WEIGHT    |
|--------|------------------|-----------|
| FL-A B | 010 015 00555 00 | 365,00 kg |





**THE MKH SYSTEM BEARS TABLE FORMS  
HEAVY DUTY SHORING TOWERS and  
ACCESS STAIR TOWERS ALL IN ONE**

The MKH System provides, fast stripping and relocating times especially for large area slabs, high load bearing capacities even at very high slabs, main structural items for safe access stair towers.

Unlimited variations in table sizes, floor plans and load bearing capacities are possible with only a few system components.

Assembly is quick and straight forward with easy to use snap locks. System can be crane handled for faster relocating.







## **MKH SİSTEM ELEMANLARI İLE MASA KALIBI, AĞIR YÜK İSKELESİ ve MERDİVEN KULESİ OLUŞTURULABİLMEKTEDİR**

MKH Sistemi; iskele ayakları, çapraz bağlantı elemanları, ayarlı ayak ve ayarlı başlıklar ile HT20 ahşap kirişlerden oluşan, masa döşeme kalıbı, ağır yük iskelesi veya merdiven kulesi olarak kullanılabilen çok yönlü bir iskele sistemidir. MKH sistem elemanları ile, 'masa kalıbı', 'ağır yük iskelesi' ve 'merdiven kulesi' oluşturabilmektedir.

Masa Kalıbı olarak kurulduğunda, hızlı devir periyotları sağlayarak işçilikten ve vinç kullanımından tasarruf sağlar. Müstakil taşıyıcı kule veya mütamadi döşeme iskelesi olarak kullanıldığında ise, yüksek taşıma kapasitesi ile (60 kN/ayak), yüksek ve ağır döşeme kalıbı ihtiyaçlarına cevap verir.

MKH sistem elemanları ile çok farklı boyutlarda masa kalıbı oluşturmak; değişken döşeme alanlarına ve taşıma kapasitelerine uygun dizaynlar yapmak mümkündür. MKH sistemi, ayrıca son derece emniyetli 'Merdiven Kulesi' sisteminin de ana elemanlarını oluşturmaktadır. Geniş uygulama yelpazesi ile köprü yapıları, yüksek binalar ve endüstriyel yapılarda güvenle kullanılır.



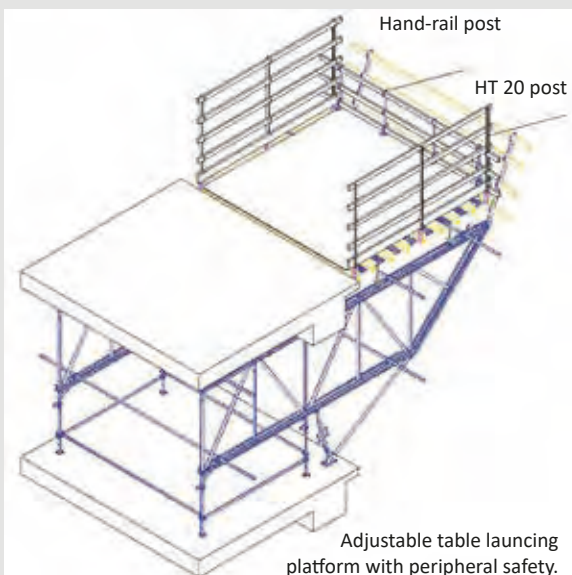
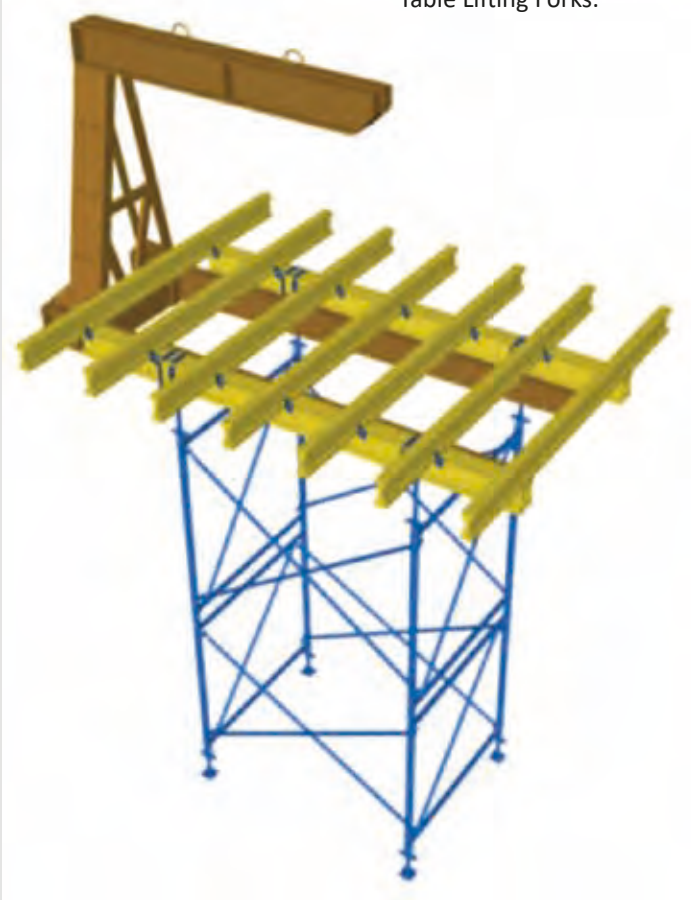






# MKH SHORING SYSTEM

Table Lifting Forks.





## MK-H SHORING FRAME



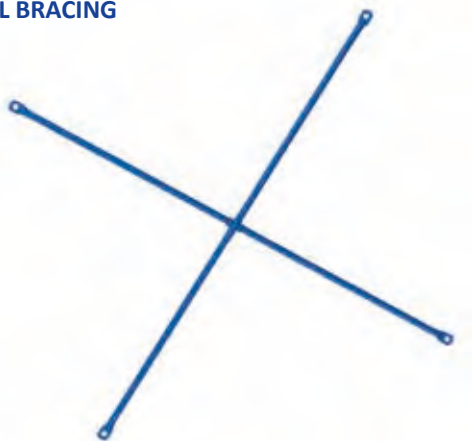
| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| MK-H B 150x120 | 010 015 01512 00 | 22,25 kg |
| MK-H B 150x150 | 010 015 01515 00 | 25,50 kg |
| MK-H B 150x180 | 010 015 01518 00 | 28,25 kg |
| MK-H B 150x200 | 010 015 01520 00 | 30,50 kg |

## MK-H SHORING FRAME W / ACCESS LADDER



| ITEM             | ITEM NO          | WEIGHT   |
|------------------|------------------|----------|
| MK-H B 150x120 M | 010 015 01612 00 | 22,35 kg |
| MK-H B 150x150 M | 010 015 01615 00 | 26,05 kg |
| MK-H B 150x200 M | 010 015 01620 00 | 32,45 kg |

## SET OF DIAGONAL BRACING



| ITEM             | ITEM NO          | WEIGHT     |
|------------------|------------------|------------|
| MK-C B 150 x 120 | 010 015 11512 00 | 3,43 kg/ad |
| MK-C B 150 x 150 | 010 015 11515 00 | 3,74 kg/ad |
| MK-C B 150 x 200 | 010 015 11520 00 | 4,28 kg/ad |
| MK-C B 200 x 120 | 010 015 12012 00 | 4,32 kg/ad |
| MK-C B 200 x 150 | 010 015 12015 00 | 4,57 kg/ad |
| MK-C B 200 x 200 | 010 015 12020 00 | 5,11 kg/ad |
| MK-C B 250 x 120 | 010 015 12512 00 | 5,25 kg/ad |
| MK-C B 250 x 150 | 010 015 12515 00 | 5,45 kg/ad |
| MK-C B 250 x 200 | 010 015 12520 00 | 5,77 kg/ad |

## HORIZONTAL BRACING



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| MK-Y B 150 | 010 015 02015 00 | 2,83 kg |
| MK-Y B 200 | 010 015 02020 00 | 3,74 kg |
| MK-Y B 250 | 010 015 02025 00 | 4,63 kg |

## MK-H FRAME CONNECTOR



MK-H BASE PLATE

## MK-H TABLE SHIFTING WHEEL



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MK-E B | 010 015 01600 00 | 0,48 kg |
| MA-T B | 010 015 03350 00 | 1,10 kg |
| MY-S B | 010 015 03570 00 | 7,25 kg |



## FORK HEAD STD.



ARTICULATED  
FORK HEAD

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DY-B B | 010 015 03400 00 | 3,40 kg |
| DY-M B | 010 015 03410 00 | 4,20 kg |

## HT-P 20 CLAMPING PLATE w / LIFTING NUT



## LIFTING ROD



GIRDER RAFTER PLATE

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| HT-S B      | 010 015 03500 00 | 1,15 kg |
| VA-M B      | 010 015 03545 00 | 0,70 kg |
| MI-S G HT20 | 010 115 03550 01 | 0,15 kg |

## MK-H SPINDLE



SPINDLE LIFTING HOOK

## MK-H SPINDLE NUT



| ITEM            | ITEM NO          | WEIGHT  |
|-----------------|------------------|---------|
| MA-M G Ø48x750  | 004 113 48075 00 | 3,98 kg |
| MA-M G Ø48x1000 | 004 113 48100 00 | 5,30 kg |
| MA-M G Ø48x1200 | 004 113 48120 00 | 6,35 kg |
| MA-M G Ø48x1500 | 004 113 48150 00 | 7,95 kg |
| MM-A G          | 010 115 03450 00 | 0,25 kg |
| MA-S G Ø48      | 004 113 05048 00 | 1,15 kg |

## MK-H TABLE LIFTING FORK



TABLE TROLLEY

| ITEM     | ITEM NO          | WEIGHT    |
|----------|------------------|-----------|
| MT-K std | 010 015 03601 00 | 375,00 kg |
| MT-K byk | 010 015 03603 00 | 625,00 kg |
| MT-A B   | 010 015 03585 00 | 160,00 kg |

## PIN



## " R " PIN



You may find the following items in  
formwork accessories section





#### SAFE ACCESS TO ANY HEIGHT

TMS offers the MKH system as for the basis for medium to heavy duty Stair Tower applications. MKH type stair towers are extremely strong and stable for access stair needs to high structures. The stairs and platforms are from specially perforated steel for slip free and safe usage. All staircase and landing platforms are double guardrailed, together with toe-boards at the outer circumference of the platforms. There are also Stair Tower applications for KUP'A, KAM'A and Facade Scaffolding systems. Please always keep in mind that tying and bracing of the stair towers affects the permissible height to which a tower can be erected.

#### MERDİVEN KULELERİ YÜKSEKLERE GÜVENLE ERİŞMEK

TMS Merdiven Kule Sistemleri; yüksek mesafelere güvenle erişmek için, TMS MKH, KUP'A, veya Cephe iskele sistemleri için inşa edilen merdiven kuleleridir. Sistem esas itibarıyla, çok amaçlılığı kanıtlanmış TMS MKH iskele sistemini baz olarak kullanmaktadır. MKH Merdiven Kuleleri; güçlü ve dengeli yapıları sayesinde; ister viyadük gibi yüksek bir yapıya çıkmak, isterse derin bir metro shaftına inmek için uluslararası kabul görmüş standartlarda güvenle kullanımı mümkün kılar. Bütün basamak ve sahanlıklar özel olarak perfore edilmiş sacdan kaymaz bir yüzey sunmaktadır. Her konumda çift sıra güvenlik korkulukları ve tekmelik mevcuttur.

KUP'A, ve Cephe İskelesi sistemleri ile birlikte kullanılabilen merdiven uygulamaları da mevcuttur.





## MK-H STAIR



HAND-RAIL

| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| KL-M B | 010 015 03820 00 | 54,92 kg |
| KM-K B | 010 015 03840 00 | 6,14 kg  |

## LANDING PLATFORM



LANDING PLATFORM  
HAND-RAIL

| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| KU-P B | 010 015 03825 00 | 20,33 kg |
| KU-K B | 010 015 03845 00 | 5,10 kg  |

## DIAGONAL BRACING "DOUBLE"



DIAGONAL BRACING "SINGLE"

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KC-C B 270 | 010 015 03855 00 | 12,50 kg |
| KC-T B 270 | 010 015 03850 00 | 6,22 kg  |

## HORIZONTAL BRACING



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| KY-E B270 | 010 015 03860 00 | 5,44 kg |
| KY-E B150 | 010 015 03865 00 | 3,06 kg |

## UPPER LIFTING STANDARD



## UPPER LANDING POST



## HAND- RAIL POST



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| UK-A B | 010 015 03885 00 | 3,05 kg |
| UK-D B | 010 015 03880 00 | 5,23 kg |
| KK-K B | 010 015 03830 00 | 5,09 kg |

## CUSTOM COUPLER



| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| KL-O B      | 010 015 03889 00 | 0,48 kg  |
| PI-M G 1610 | 004 132 01610 00 | 0,18 kg  |
| GP-R G 325  | 004 132 01325 00 | 0,001 kg |





## MK-X SHORING SYSTEM

MK-X System is a versatile scaffolding system which consists of standards, cross bracing, adjustable spindles at the base & top and HT20 timber beams which can be used as formwork scaffolding, table form, temporary supports for heavy loads, etc.

It saves from labor and crane usage by providing fast cycle periods when used as table formwork. When it's used as single or continuous tower scaffolding, it satisfies the need of high and heavy slab formwork with its high load capacity.

With MK-X system components, it is possible to create table forms with various dimensions and load capacities.

MK-X system can be used with confidence in bridge constructions, high-rise buildings and industrial buildings due to its wide implementation area.

1. MK-X system is designed to be able to transfer loads acting on the top to the base with a solid foundation or to a system that is strong enough to carry the loads. The difference of MK-X from the other load bearing systems is that it can be used for heavier weights as it consists of larger profiles than the other systems.

2. MK-X system consists of two types of ledgers which have flange and frame connections, and the main difference between these two types are the connection details of ledgers. In the framed type, ledger as a single frame unit with its vertical tubes at the ends is mounted to the standards only by holding up on and drop down, while in flanged type the joint, as can be understood by the name, has a flange that a wedge can be placed on. TMS's KAM'A ledger can be placed on this flange with a small touch of hammering.

3. After a suitable platform is formed on the ground, the mounting on this platform can be done easily.

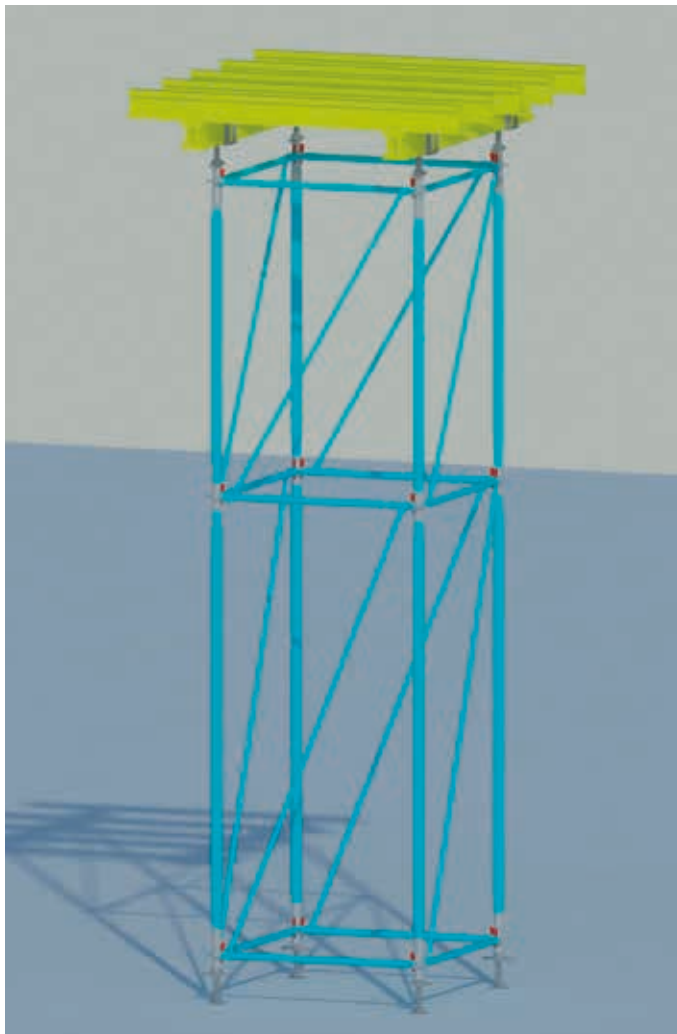
4. Safety rails are available on the edge zones and wide gallery spaces.

5. It's easy to assemble & dismantle in order to form table modules of different dimensions, and easy to store and transfer.

6. MK-X towers that are joined by table form bracing MK-C rise so that it ensures its own stability. MK-X standards are assembled by joining each other with the help of splice elements. The dimensions of the splice elements are designed as per TS EN 12812 regulations, produced with 20 cm length to prevent unwittingly dismantling. Connection elements such as bolts, pins with R-pins can be supplied if necessary.

7. MK-X can become one piece with the help of framed type ledgers. It can be shifted without dismantling, by means of tower crane or table shifting vehicle which speeds up the work.

8. MK-X system can be assembled from components of various dimensions and sizes. Thus, towers and table forms of various dimensions and heights can be succeeded by approved statical calculations.





## MK-X İSKELE DİKME SİSTEMİ

MK-X Sistemi; iskele dikmeleri, çapraz bağlantı elemanları, ayarlı taban ve başlık plaka ve milleri ile HT20 ahşap kirişlerden oluşan, betonarme döşeme altı masa tipi kalıp iskelesi, sök tak iskele, ağır yük iskelesi vb. olarak kullanılabilen çok yönlü bir iskele sistemidir.

Masa Kalıbı olarak kurulduğunda, hızlı devir periyotları sağlayarak işçilikten ve vinç kullanımından tasarruf sağlar. Müstakil taşıyıcı kule veya mütemadi döşeme iskelesi olarak kullanıldığında ise, yüksek taşıma kapasitesi ile, yüksek ve ağır döşeme kalıbı ihtiyaçlarına cevap verir.

MK-X sistem elemanları ile çok farklı boyutlarda masa kalıbı oluşturmak; değişken döşeme alanlarına ve taşıma kapasitelerine uygun dizaynlar yapmak mümkündür. MK-X sistemi geniş uygulama yelpazesi ile köprü yapıları, yüksek binalar ve endüstriyel yapılarda güvenle kullanılır.

1.MK-X sistemi üzerine etki eden tüm yükleri tabanındaki beton temele veya sağlam zemine, veya yük taşıma özelliği olan alternatif rijit sistemlere iletilecek şekilde tasarlanmıştır. MK-X diğer taşıyıcı sistemlerden farklı olarak daha kalın profillerden oluştuğu için daha büyük yükler altında kullanılabilir.

2.MK-X sistemi, Halterli Tip ve Flanşlı Tip olmak üzere iki farklı tipten oluşmaktadır. Bu iki tip arasındaki fark, yatay ve çapraz elemanlarının birleşim detaylarından oluşmaktadır. Halterli Tip’de yatay elemanlı ekleme elemanı, sadece taşıyıcı ayaklarının üstüne kaldırılıp bırakılarak birleştirilirken, Flanşlı Tip’de ekleme elemanı, isminden anlaşıldığı gibi üzerinde kama takılabilecek flanş vardır ve TMS’nin KAM’A yatay elemanı bu flanşa küçük bir çekiç darbesiyle takılabilmektedir.

3.Kurulum için, uygun bir zeminde düz bir platform oluşturulduktan sonra o platform üzerinde montaj rahatlıkla yapılabilmektedir.

4.Kullanıma yönelik olarak, iskele üstündeki panellerin kenar bölgelerinde ve geniş galeri boşlukları etrafında güvenlik amaçlı korkuluk kullanımı mevcuttur.

5.Çeşitli ebatlarda masa modülleri oluşturmak için kolay kurulum ve söküm, kolay istifleme ve sevkiyat düşünülerek tasarlanmıştır.

6.Masa kalıbı çaprazı olan MK-C’ler ile bağlanan MK-X elemanları, kendi içlerinde stabiliteyi sağlayarak yükselmekte olduğu için güvenli kurulum avantajı bulunmaktadır. MK-X taşıyıcı elemanları birbirine ekleme elemanlarıyla bağlanarak yükselmektedir. Birleştirme elemanları boyutları TS EN 12812 yönetmeliğine uygun biçimde tasarlanmıştır ve 20cm boyunda üretildiği için farkında olmadan ayrılmalara karşı güvenlidir. Farklı etkiler altında uygun görülmesi halinde ekleme elemanları için gopilya, pin, cıvata vb. gibi birleşim elemanı tedarik edilmektedir.

7.MK-X kuleler, halterli tip birleştirme parçaları sayesinde tek parça haline gelebilir. Sökme işlemi yapılmadan kule vinç veya tedarik edilen masa taşıma arabası sayesinde iş hızını arttıracak şekilde yer değiştirilebilir.

8.MK-X sistemi, çeşitli büyüklüklerdeki masa kalıbı taşıyıcı elemanlarından ve bileşenlerinden meydana getirilebilmekte olduğu için, uygun statik hesaplar doğrultusunda farklı yüksekliklerde ve ebatlarda kule ve masa kalıbı oluşturulması mümkündür.





## MK-X STANDARTS



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| MK-X B 150 | 010 019 40150 00 | 8,50 kg  |
| MK-X B 200 | 010 019 40200 00 | 11,34 kg |
| MK-X B 300 | 010 019 40300 00 | 17,01 kg |

## MK-X BOTTOM-TOP CONNECTION ELEMENT ( BARBELL TYPE )



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| MH-A B 150 | 010 019 10150 00 | 10,27 kg |
| MH-A B 175 | 010 019 10175 00 | 11,00 kg |
| MH-A B 200 | 010 019 10200 00 | 11,74 kg |
| MH-A B 250 | 010 019 10250 00 | 13,47 kg |
| MH-A B 300 | 010 019 10300 00 | 14,66 kg |

## MK-X CONNECTION ELEMENT ( BARBELL TYPE )

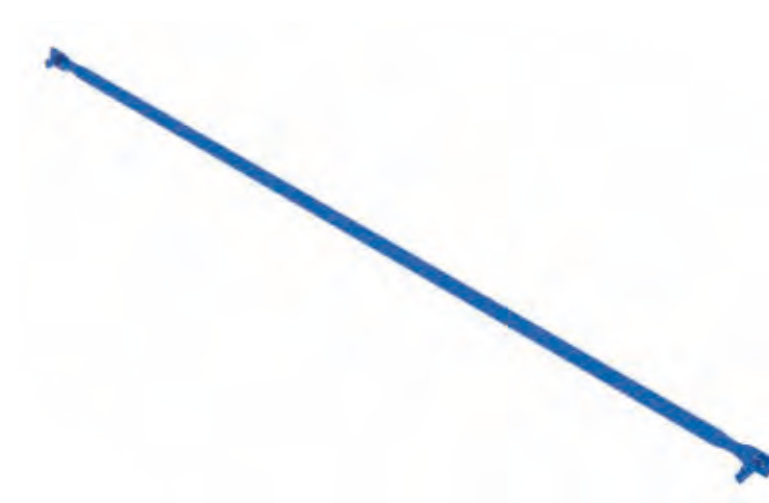


| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| MH-E B 150 | 010 019 11150 00 | 7,25 kg  |
| MH-E B 175 | 010 019 11175 00 | 7,81 kg  |
| MH-E B 200 | 010 019 11200 00 | 8,90 kg  |
| MH-E B 250 | 010 019 11250 00 | 10,37 kg |
| MH-E B 300 | 010 019 11300 00 | 11,83 kg |



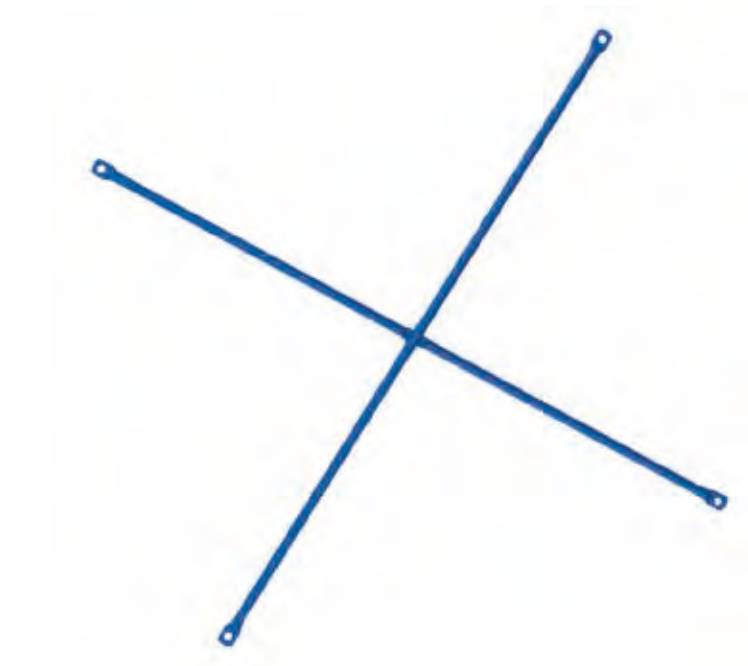
# MK-X SHORING TOWER

## MK-X DIAGONAL BRACINGS SINGLE (BARBELL T.)



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| MH-T B 150X150 | 010 019 11515 00 | 4,31 kg |
| MH-T B 150X200 | 010 019 11520 00 | 5,13 kg |
| MH-T B 150X300 | 010 019 11530 00 | 6,93 kg |
| MH-T B 175X150 | 010 019 11715 00 | 4,65 kg |
| MH-T B 175X200 | 010 019 11720 00 | 5,41 kg |
| MH-T B 175X300 | 010 019 11730 00 | 7,14 kg |
| MH-T B 200X150 | 010 019 12015 00 | 5,04 kg |
| MH-T B 200X200 | 010 019 12020 00 | 5,73 kg |
| MH-T B 200X300 | 010 019 12030 00 | 7,46 kg |
| MH-T B 250X150 | 010 019 12515 00 | 5,82 kg |
| MH-T B 250X200 | 010 019 12520 00 | 6,40 kg |
| MH-T B 250X300 | 010 019 12530 00 | 7,93 kg |

## MK-X DIAGONAL BRACINGS DOUBLE (BARBELL T.)



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| MH-C B 85X150  | 010 019 28515 00 | 3,65 kg |
| MH-C B 100X150 | 010 019 21015 00 | 3,80 kg |
| MH-C B 150X150 | 010 019 21515 00 | 4,44 kg |
| MH-C B 175X150 | 010 019 21715 00 | 4,82 kg |
| MH-C B 200X150 | 010 019 22015 00 | 5,21 kg |
| MH-C B 250X150 | 010 019 22515 00 | 6,05 kg |
| MH-C B 300X150 | 010 019 23015 00 | 6,93 kg |
| MH-C B 100X200 | 010 019 21020 00 | 4,67 kg |
| MH-C B 150X200 | 010 019 21520 00 | 5,21 kg |
| MH-C B 175X200 | 010 019 21720 00 | 5,52 kg |
| MH-C B 200X200 | 010 019 22020 00 | 5,87 kg |
| MH-C B 250X200 | 010 019 22520 00 | 6,63 kg |
| MH-C B 300X200 | 010 019 23020 00 | 7,43 kg |
| MH-C B 150X300 | 010 019 21530 00 | 6,93 kg |
| MH-C B 175X300 | 010 019 21730 00 | 7,17 kg |
| MH-C B 200X300 | 010 019 22030 00 | 7,42 kg |
| MH-C B 250X300 | 010 019 22530 00 | 8,04 kg |
| MH-C B 300X300 | 010 019 23030 00 | 8,73 kg |

## MK-X BOTTOM-TOP CONNECTION ELEMENT ( WEDGE TYPE )



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MX-A B | 010 019 00010 00 | 3,15 kg |



## MK-X CONECTION ELEMENT ( WEDGE TYPE )



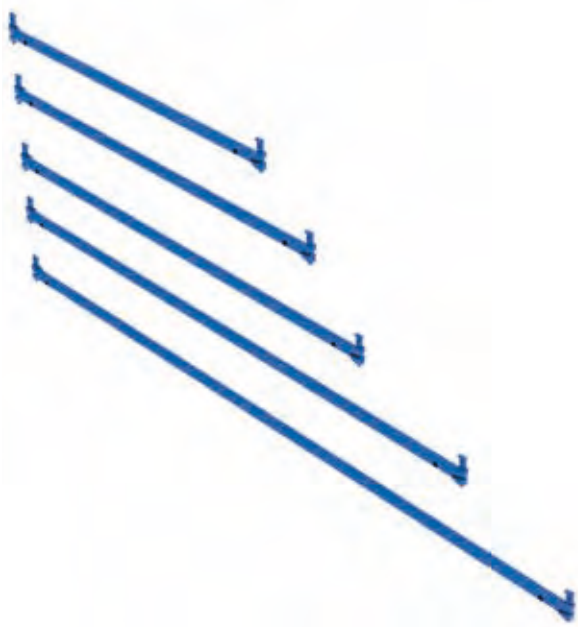
| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MX-E B | 010 019 00020 00 | 3,05 kg |

## MK-X DIAGONALS (WEDGE TYPE)



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| MX-C B 150X150 | 010 019 01515 00 | 4,58 kg |
| MX-C B 150X200 | 010 019 01520 00 | 5,43 kg |
| MX-C B 150X300 | 010 019 01530 00 | 7,27 kg |
| MX-C B 175X150 | 010 019 01715 00 | 4,88 kg |
| MX-C B 175X200 | 010 019 01720 00 | 5,70 kg |
| MX-C B 175X300 | 010 019 01730 00 | 7,47 kg |
| MX-C B 200X150 | 010 019 02015 00 | 5,23 kg |
| MX-C B 200X200 | 010 019 02020 00 | 5,99 kg |
| MX-C B 200X300 | 010 019 02030 00 | 7,69 kg |
| MX-C B 250X150 | 010 019 02515 00 | 5,99 kg |
| MX-C B 250X200 | 010 019 02520 00 | 6,66 kg |
| MX-C B 250X300 | 010 019 02530 00 | 8,22 kg |
| MX-C B 300X150 | 010 019 03015 00 | 6,82 kg |
| MX-C B 300X200 | 010 019 03020 00 | 7,40 kg |
| MX-C B 300X300 | 010 019 03030 00 | 8,83 kg |

## MK-X LEDGER & TRANSOMS ( WEDGE TYPE )



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| MX-Y B 150 | 010 019 01150 00 | 5,55 kg |
| MX-Y B 175 | 010 019 01175 00 | 6,31 kg |
| MX-Y B 200 | 010 019 01200 00 | 7,08 kg |
| MX-Y B 250 | 010 019 01250 00 | 8,61 kg |
| MX-Y B 300 | 010 019 01300 00 | 8,65 kg |



# MK-X SHORING TOWER

## FORK HEAD STD.



ARTICULATED  
FORK HEAD

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DY-B B | 010 015 03400 00 | 3,40 kg |
| DY-M B | 010 015 03410 00 | 4,20 kg |

## HT-P 20 CLAMPING PLATE w / LIFTING NUT



## LIFTING ROD



GIRDER RAFTER PLATE

| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| HT-S B      | 010 015 03500 00 | 1,15 kg |
| VA-M B      | 010 015 03545 00 | 0,70 kg |
| MI-S G HT20 | 010 115 03550 00 | 0,15 kg |

## MK-H SPINDLE



SPINDLE LIFTING HOOK

## MK-H SPINDLE NUT



| ITEM            | ITEM NO          | WEIGHT  |
|-----------------|------------------|---------|
| MA-M G Ø48x750  | 004 113 48075 00 | 3,98 kg |
| MA-M G Ø48x1000 | 004 113 48100 00 | 5,30 kg |
| MA-M G Ø48x1200 | 004 113 48120 00 | 6,35 kg |
| MA-M G Ø48x1500 | 004 113 48150 00 | 7,95 kg |
| MM-A G          | 010 115 03450 00 | 0,25 kg |
| MA-S G Ø48      | 004 113 05048 00 | 1,15 kg |

## MK-H TABLE LIFTING FORK



TABLE TROLLEY

| ITEM     | ITEM NO          | WEIGHT    |
|----------|------------------|-----------|
| MT-K std | 010 015 03601 00 | 375,00 kg |
| MT-K byk | 010 015 03603 00 | 625,00 kg |
| MT-A B   | 010 015 03585 00 | 160,00 kg |

## PIN



## " R " PIN



You may find the following items in  
formwork accessories section

## MK-H FRAME CONNECTOR



MK-H BASE PLATE

## MK-H TABLE SHIFTING WHEEL



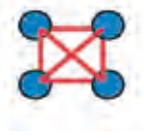
| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MK-E B | 010 015 01600 00 | 0,48 kg |
| MA-T B | 010 015 03350 00 | 1,10 kg |
| MY-S B | 010 015 03570 00 | 7,25 kg |



## DEV-Shore

An innovated system for shoring, which is independent of the project type, cost effective for a very wide range of engineering applications, at all heights. Very few and compact parts makes it very easy to erect and transport. The DEV-Shore system can be used for;

- Single Prop,
- Deck-Tables,
- Shoring Towers at different configurations,
- Heavy Duty solutions for concentrated loads,
- 3-dimensional flexibility at shoring,



**Means: one system like a KIT for all types of shoring !**

→ *instead of 4 to 5 different systems as usual,*

→ *high versatility brings higher usability!*

- The heaviest part of the system weighs less than 12 kg, so the assembling and handling of the system parts are possible without using the crane.
- The horizontal ledger is only necessary every 2 m's since the section of the vertical legs are 60.3 mm tubes in special steel. This also means a free walking space is possible between the platform levels, providing fast and safe erection.
- Since the distance of the verticals could be directly adjusted according to load taken, saving a lot of material, time and labor cost.



## DEV-Shore Kalıp İskelesi

Farklı yükseklik ve çok çeşitli uygulamalarda etkin bir şekilde kullanılabilecek çok yönlü taşıyıcı iskele sistemidir. Az sayıda ve kompakt elemanlar kurulumu ve nakliyei kolaylaştırmaktadır.

DEV-Shore uygulama alanları;

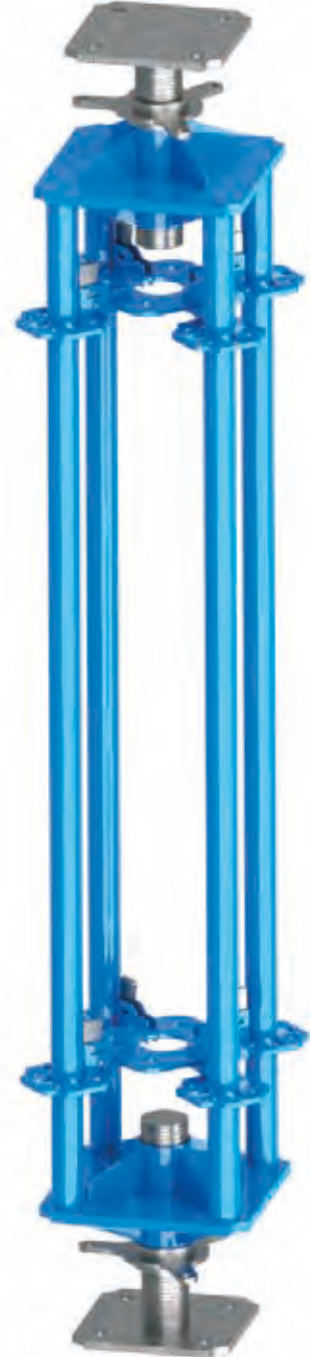
- Tekil Dikme,
- Masa Kalıbı,
- Taşıyıcı Kule İskelesi,
- Ağır Tip Döşeme İskelesi,
- 3 boyutlu değişkenlik gerektiren endüstriyel döşeme kalıp iskelesi, olarak gösterilebilir.

**DEV-Shore: Her türlü projeye uyarlanabilir modüler KIT sistemidir.**

→ *Farklı projeler için farklı sistemler gerektirmez.*

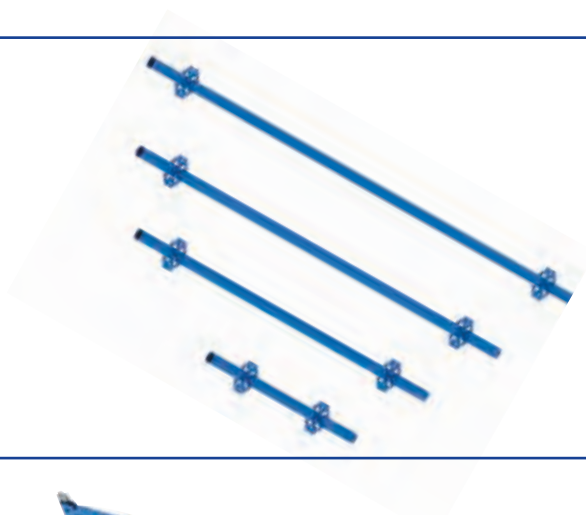
→ *Çok yönlülük farklı projelerde daha çok kullanılabilirlik sağlamaktadır.*

- En ağır parçanın 12 kg olması vinç gerektirmeden kolay kullanım sağlamaktadır.
- Yüksek mukavemetli 60.3 mm borudan imal edilen taşıyıcı elemanlar sayesinde sadece 2m'de bir yatay bağlantı gerektirmektedir. Bu sayede platform oluşturularak serbest dolaşım ve kurulum yapılabileceğinden hızlı ve güvenli bir sistemdir.
- Taşıyıcı ayak araları döşeme yüküne göre ayarlanabildiğinden, malzemenin, zamandan ve işçilikten tasarruf sağlar.





## DEV STANDARDS



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| DV-A B 150 | 010 016 00150 00 | 8,50 kg  |
| DV-A B 200 | 010 016 00200 00 | 10,50 kg |
| DV-A B 250 | 010 016 00250 00 | 12,70 kg |

## DEV LEDGER & TRANSOM



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| DV-Y B 120 | 010 016 01120 00 | 4,60kg  |
| DV-Y B 150 | 010 016 01150 00 | 5,50 kg |
| DV-Y B 200 | 010 016 01200 00 | 6,95 kg |

## DIAGONAL BRACING



| ITEM           | ITEM NO          | WEIGHT |
|----------------|------------------|--------|
| DV-C B 120x150 | 010 016 01215 00 | 5,10kg |
| DV-C B 150x150 | 010 016 01515 00 | 5,80kg |
| DV-C B 200x150 | 010 016 02015 00 | 7,05kg |
| DV-C B 120x200 | 010 016 01220 00 | 6,15kg |
| DV-C B 150x200 | 010 016 01520 00 | 6,75kg |
| DV-C B 200x200 | 010 016 02020 00 | 7,85kg |
| DV-C B 120x250 | 010 016 01225 00 | 7,35kg |
| DV-C B 150x250 | 010 016 01525 00 | 7,85kg |
| DV-C B 200x250 | 010 016 02025 00 | 8,80kg |

## MK-H FRAME CONNECTOR



MK-H BASE PLATE

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MK-E B | 010 015 01600 00 | 0,48 kg |
| MA-T B | 010 015 03350 00 | 1,10 kg |

## FORK HEAD STD.



ARTICULATED  
FORK HEAD

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DY-B B | 010 015 03400 00 | 3,40 kg |
| DY-M B | 010 015 03410 00 | 3,55 kg |

## MK-H SPINDLE



## MK-H SPINDLE NUT



| ITEM            | ITEM NO          | WEIGHT  |
|-----------------|------------------|---------|
| MA-M G Ø48x750  | 004 113 48075 00 | 3,98 kg |
| MA-M G Ø48x1000 | 004 113 48100 00 | 5,30 kg |
| MA-M G Ø48x1200 | 004 113 48120 00 | 6,35 kg |
| MA-M G Ø48x1500 | 004 113 48150 00 | 7,95 kg |
| MA-S G Ø48      | 004 113 05048 00 | 1,15 kg |





## BEAM BRACKETS

Laterally and vertically adjustable Beam Brackets are available within TMS product line. Beam Bracket HD is a heavy duty system with adjustable chassis developed for rather heavy and sizeable beams.

HT 20 Beam Side Bracket is also a sturdy solution for beams. Prop Type Beam Bracket is for relatively smaller beams.

Slab Stop Ends are a fast solution for slab peripheries. Easy and simple connection details allows for reduced workmanship and fast erection periods.



## AYARLANABİLİR KİRİŞ KALIBI

Kesitte ayarlanabilir kiriş kelepçeleri özellikle çok tekrarlanan farklı ebat ve tiplerdeki kirişlerin kalıplanmasını kolaylaştırmaktadır.

Beam Bracket HD şasei yapısı ile büyük kirişler için ideal bir çözümdür. HT 20 Beam Side Bracket ise HT20'ye kolayca geçiyor olması ile şase gerektirmeden kolay kullanım özellikleri sunmaktadır. Döşeme alınlılarının kolay ve hızlı kalıplanmasını sağlayan Stop End sistemi ise işçilikten önemli ölçüde tasarruf sağlamaktadır.





## BEAM BRACKET HD.



| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| AK-T B | 010 015 08200 00 | 19,60 kg |

## H20 BEAM SIDE BRACKET



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| AK-F B | 010 015 08080 00 | 8,90 kg |

## BEAM STRUT



| ITEM         | ITEM NO          | WEIGHT  |
|--------------|------------------|---------|
| AK-P B       | 010 015 08410 00 | 4,90 kg |
| AK-B B 35x30 | 010 015 08130 00 | 4,35 kg |

## SLAB STOP END







## KAM'A SCAFFOLDING

TMS KAM'A flanged type (ring lock) scaffolding & shoring systems are built to be one of the most reliable and efficient scaffolding systems by complying with BS EN 12810, 12811, 12812, 12813 codes.

Safe and convenient, our KAM'A System includes multiple standards, ledgers, bracings, spindles, toe boards, clamps, guardrails, connectors, platforms and stairs.

Facade scaffolding design meets the load class 4 which is equal to a uniform distributed load of  $3.00\text{KN/m}^2$ . Assembly height is 24.5m for the standard model which has the TSE certificate to be used without additional calculations.

Mobile scaffolding and platforms may also be assembled from KAM'A elements.

KAM'A 73/105 system is very flexible as it has standards (scaffold legs) with 5 different lengths varying from 1m to 3m. Cantilever platforms may be used to increase the width in order to accommodate special type of applications.

KAM'A scaffolding is suitable for long time usage as all of the steel parts are either hot-dip galvanized and all the timber elements are insulated from severe weather conditions.

Many accessories and parts of KAM'A System is compatible with other types of scaffolding systems & elements within the TMS product range.





## KAM'A İSKELE SİSTEMİ

KAM'A İskele Sistemi; flanşlı/kamalı bağlantı noktaları ve ihtiyaca göre sıklığı ayarlanabilir yatay bağlantı detayları ile gerek cephe iskelesi, gerekse kalıp iskelesi olarak kullanılabilen, çok yönlü, yüksek güvenli, örme iskele sistemidir.

TMS KAM'A, BS EN 12810, 12811, 12812, 12813 standartlarına uygun üretilmektedir.

Cephe iskelesi olarak kullanıldığında BS EN 12811 deki yük sınıflarından 4. sınıf ( $300 \text{ kg/m}^2$ ) iş iskelesi standartlarını güvenle karşılar. Kurma yüksekliği standart modelde 24,5m.dir ve TSE sertifikasına sahiptir.

Mobil iskele ve platformlar da KAM'A elemanları kullanılarak kurulabilir.

KAM'A Sistemi: 1,00m den 3,00m ye kadar 5 farklı ölçüde dikmeye sahip olduğundan, çok esnektir. İskelenin genişliği akstan aksa KAM'A 73'de 0,73m ve KAM'A 105 de 1.05m'dir. İskele konsolları kullanılarak genişlik artırılabilen ve böylece özel uygulamalara cevap verilebilmektedir.

TMS KAM'A'nın bütün çelik elemanları daldırma galvanizlidir. Aynı zamanda, tüm ahşap elemanlar hava şartlarından korunmalı kaplamaya sahiptir. Bu sayede, yüksek emniyet standartlarına uygun olarak, güvenle, uzun süreli kullanıma imkan verir.

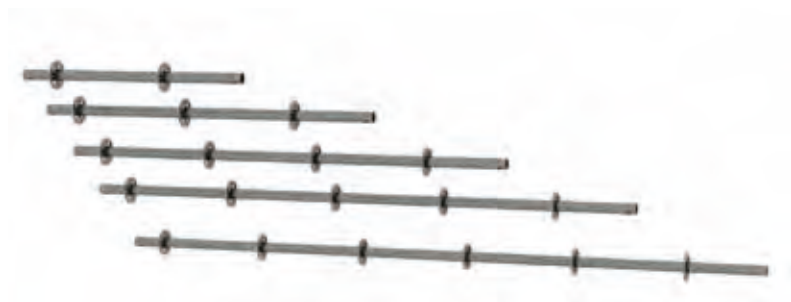
KAM'A sistemi, düşer başlıklı döşeme kalıplarının, çalışma platformlarının, merdiven kulelerinin, gezer iskelelerin, seyirci tribünlerinin de alt iskelesi olarak kullanılabilir.

KAM'A sisteminin bir çok eleman ve aksesuarı TMS in diğer iskele sistemi ile ortak kullanım avantajına sahiptir.





## KAM'A STANDARDS



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KI-A G 100 | 010 118 00100 00 | 4,46 kg  |
| KI-A G 150 | 010 118 00150 00 | 6,69 kg  |
| KI-A G 200 | 010 118 00200 00 | 8,92 kg  |
| KI-A G 250 | 010 118 00250 00 | 11,15 kg |
| KI-A G 300 | 010 118 00300 00 | 13,38 kg |

## KAM'A LEDGER & TRANSOM



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| KI-Y G 73  | 010 118 01073 00 | 2,62 kg |
| KI-Y G 105 | 010 118 01105 00 | 3,54 kg |
| KI-Y G 120 | 010 118 01120 00 | 3,97 kg |
| KI-Y G 150 | 010 118 01150 00 | 4,82 kg |
| KI-Y G 200 | 010 118 01200 00 | 6,23 kg |
| KI-Y G 250 | 010 118 01250 00 | 7,64 kg |
| KI-Y G 300 | 010 118 01300 00 | 9,06 kg |

## LEDGER (HEAVY DUTY)



| ITEM          | ITEM NO          | WEIGHT  |
|---------------|------------------|---------|
| KI-Y G 105 HD | 010 118 01106 00 | 4,71 kg |

## TRANSOM



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| KI-G G 73  | 010 118 02073 00 | 3,80 kg |
| KI-G G 105 | 010 118 02105 00 | 4,23 kg |



# KAM'A SHORING & SCAFFOLDING

## DIAGONAL BRACING



| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| KI-C G 150x200 | 010 118 03150 00 | 8,56 kg  |
| KI-C G 200x200 | 010 118 03200 00 | 9,44 kg  |
| KI-C G 250x200 | 010 118 03250 00 | 10,47 kg |

## HOOK TYPE TIE EQUIPMENT



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| SF-B G 100 | 010 122 02667 00 | 4,92 kg |

## PARAPET-TIE EQUIPMENT



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| IS-B G | 010 122 00132 00 | 3,73 kg |

## KAM'A STANDARD CONNECTOR



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| KP-E G 01 | 010 117 01680 01 | 0,57 kg |

## TOE BOARD (STEEL)



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| IT-C G 73  | 010 120 30073 00 | 1,91 kg |
| IT-C G 105 | 010 120 30105 00 | 2,75 kg |
| IT-C G 200 | 010 120 30200 00 | 5,26 kg |
| IT-C G 250 | 010 120 30250 00 | 6,58 kg |

## KICKER HOLDER



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| SF-T G 75 | 010 122 02679 00 | 0,18 kg |



## BAND PLATFORM



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| BP-B G 112 | 010 120 31312 00 | 2,21 kg |
| BP-B G 115 | 010 120 31315 00 | 2,69 kg |
| BP-B G 120 | 010 120 31320 00 | 3,50 kg |
| BP-B G 125 | 010 120 31325 00 | 4,30 kg |
| BP-B G 130 | 010 120 31330 00 | 5,10 kg |

## FACADE SCAFFOLD STAIR



| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| KP-M G | 010 117 01690 00 | 51,23 kg |

## STEEL PLATFORM



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KL-C G 312 | 010 120 33012 00 | 10,80 kg |
| KL-C G 315 | 010 120 33015 00 | 12,50 kg |
| KL-C G 320 | 010 120 33020 00 | 15,90 kg |
| KL-C G 325 | 010 120 33025 00 | 19,30 kg |

## ACCESS DECK w / LADDER



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| MP-C G 625 | 010 120 36025 00 | 60,21 kg |



## RIGHT ANGLE COUPLER



| ITEM                  | ITEM NO          | WEIGHT  |
|-----------------------|------------------|---------|
| BK-D G 1515 sbt. YD.A | 004 121 21516 00 | 0,90 kg |

## SWIVEL COUPLER



| ITEM                  | ITEM NO          | WEIGHT  |
|-----------------------|------------------|---------|
| BK-D G 1515 dnr. YD.A | 004 121 21515 00 | 0,95 kg |

## ATTACHMENT TUBE Ø48x3.20mm L=1000mm



| ITEM            | ITEM NO          | WEIGHT  |
|-----------------|------------------|---------|
| BB-O G 4832x100 | 010 148 03210 00 | 3,56 kg |

## ATTACHMENT TUBE Ø48x3.20mm L=1500mm



| ITEM            | ITEM NO          | WEIGHT  |
|-----------------|------------------|---------|
| BB-O G 4832x150 | 010 148 03215 00 | 5,34 kg |

## ADJUSTABLE BASE SPINDLE



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| MA-A G Ø38x750 | 010 013 03807 00 | 3,69 kg |

## PLATFORM BRACKET



| ITEM      | ITEM NO          | WEIGHT  |
|-----------|------------------|---------|
| KI-K G 30 | 010 118 01660 00 | 6,99 kg |





#### STRONG NODES WITH CAPTIVE ROTATING CUPS

KUP'A is a birdcage type scaffolding for medium duty scaffolding and shoring requirements. Captive rotating cups secure the transoms and ledgers i.e. up to four components per node firmly by hammering. Vertical connections are made by means of spigots i.e. fixed spigots in access scaffolding, removable ones in shoring applications incorporating provisions for locking pins if required.

System would also provide a firm basis for applications such as Drop-Head Shoring System, Access Platforms, Ladder Towers, Mobile Platforms, and Spectator Tribunes etc.







## KUP'A İSKELE GÜÇLÜ DÜĞÜM NOKTALARI OLAN BİR İSKELE SİSTEMİ

TMS KUP'A güçlü düğüm noktaları ve ihtiyaca göre sıklığı ayarlanabilir yatay bağlantı detayları ile gerek cephe iskelesi gerekse kalıp iskelesi olarak şantiyenizde güvenle kullanılabilecek çok yönlü örme iskele sistemidir. Döner kavrayıcı kupalar (çanaklar) kısa ve uzun yatay kolları küçük bir çekiş darbesi ile moment alabilecek şekilde sıkıca bağlanmaktadır. Düşey eklemeler sökülebilir, kolay geçen ve pimlenmeden de yerinde durabilen eklemeler elemanları ile sağlanmaktadır. KUP'A sistemi, düşer başlıklı döşeme kalıplarının, Çalışma Platformlarının, Merdiven kulelerinin, Gezer iskelelerin, seyirci tribünlerinin de alt iskelesi olarak kullanılabilmektedir.





## KUP'A STANDARDS



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KP-A B 100 | 010 017 00100 00 | 4,75 kg  |
| KP-A B 150 | 010 017 00150 00 | 7,12 kg  |
| KP-A B 200 | 010 017 00200 00 | 9,49 kg  |
| KP-A B 250 | 010 017 00250 00 | 11,86 kg |
| KP-A B 300 | 010 017 00300 00 | 14,24 kg |

## KUP'A LEDGER & TRANSOM



| ITEM         | ITEM NO          | WEIGHT  |
|--------------|------------------|---------|
| KP-K B 25 hd | 010 017 01525 00 | 7,10 kg |
| KP-K B 50 hd | 010 017 01550 00 | 8,76 kg |
| KP-Y B 80    | 010 017 01080 00 | 2,72 kg |
| KP-Y B 100   | 010 017 01100 00 | 3,29 kg |
| KP-Y B 120   | 010 017 01120 00 | 3,86 kg |
| KP-Y B 150   | 010 017 01150 00 | 4,72 kg |
| KP-Y B 200   | 010 017 01200 00 | 6,15 kg |
| KP-Y B 250   | 010 017 01250 00 | 7,58 kg |
| KP-Y B 300   | 010 017 01300 00 | 9,01 kg |

## KUP'A BEAM BRACKET

## KUP'A STANDARD CONNECTOR



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| KP-E B | 010 017 01680 01 | 0,57 kg |

## BASE SPINDLE



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| MA-A G Ø38x750 | 010 113 03807 00 | 3,69 kg |

## FORK- HEAD SPINDLE



## "U" HEAD SPINDLE

| ITEM             | ITEM NO          | WEIGHT  |
|------------------|------------------|---------|
| MA-D G Ø38x500   | 010 012 23805 00 | 6,18 kg |
| MA-D G Ø38x750   | 010 012 23807 00 | 7,04 kg |
| MA-U G Ø38x500 d | 010 012 13805 00 | 5,00 kg |
| MA-U G Ø38x750 d | 010 012 03807 00 | 6,90 kg |
| MA-U G Ø38x500   | 010 013 13805 00 | 2,91 kg |
| MA-U G Ø38x750   | 010 013 13807 00 | 3,78 kg |



# KUP'A SHORING & SCAFFOLDING

## TENSION EQUIPMENT



COMPRESSION EQUIPMENT  
( SPACER) 25 cm

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| IS-B B | 010 022 00132 00 | 3,73 kg |
| KB-D B | 010 017 01670 00 | 1,93 kg |

## COUPLER



| ITEM                  | ITEM NO          | WEIGHT  |
|-----------------------|------------------|---------|
| BK-D G 1515 sbt. YD.A | 004 121 21516 00 | 0,90 kg |
| BK-D G 1515 dnr. YD.A | 004 121 21515 00 | 0,95 kg |

## DROP HEAD



KICKER HOLDER

| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| DB-I B | 010 029 00050 00 | 4,10 kg |
| SF-T B | 010 022 02679 00 | 0,18 kg |

## DROP HEAD PRIMARY BEAM



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| DB-K B 100 | 010 029 00110 00 | 9,90 kg  |
| DB-K B 120 | 010 029 00112 00 | 12,00 kg |
| DB-K B 150 | 010 029 00115 00 | 14,20 kg |
| DB-K B 180 | 010 029 00118 00 | 17,00 kg |
| DB-K B 200 | 010 029 00120 00 | 18,45 kg |

## DROP HEAD SECONDARY BEAM



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| DB-M B 100 | 010 029 00210 00 | 3,75 kg |
| DB-M B 120 | 010 029 00212 00 | 4,40 kg |
| DB-M B 150 | 010 029 00215 00 | 5,35 kg |
| DB-M B 170 | 010 029 00217 00 | 6,00 kg |

## STEEL PLATFORM



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KL-C B 312 | 010 120 33012 00 | 10,80 kg |
| KL-C B 315 | 010 120 33015 00 | 11,70 kg |
| KL-C B 320 | 010 120 33020 00 | 15,40 kg |
| KL-C B 325 | 010 120 33025 00 | 18,70 kg |





## SCAFFAST®

The frame type scaffold SCAFFAST 75/100 by **TMS** complies with BS EN 12810, as well as BS EN 12811. The standard model SCAFFAST 75/100 scaffold can be used as a work scaffold within the load category 3 per BS EN 12811 (200 kg/m<sup>2</sup>). The erection height for the standard model is 24.5 m. For scaffolds higher than 24.5 m a static calculation could be supplied, if necessary. Mobile scaffold and platforms could also be erected.

The **most important product feature** for SCAFFAST 75/100 scaffolding is the innovative design details providing the highest possible safe erection conditions for users. **SCAFFAST 75/100 ensures ledger frames, toe - guards and platforms to be placed from the lower platform level by means of special tools.** So that, a safely workable platform complete with side protection prior to begin working on the upper level has been provided, without any special erection instruments and the possible risk of failing in safety harness applications has been considerably reduced.

Having four different bay lengths, ranging from 1.25 to 3 m, the SCAFFAST 75/100 scaffold system is very flexible. The scaffold width from axis to axis is 0.75 m and 1.00 m respectively for SCAFFAST 75 and SCAFFAST 100. By the use of scaffold brackets, the scaffold width can be increased and adjusted to meet different requirements for specific applications. All steel components are hot-dip galvanized and/or powder coated while all timber items are weather treated, ensuring a long life together with high safety standards. Many components and accessories are common with SCAFFAST 75/100 and other TMS scaffolds.



It is strictly suggested to keep this instruction manual available on job-sites where SCAFFAST 75/100 scaffolds are being used and to be studied thoroughly before erection.

Only qualified and/or certified personnel, who is familiar to the SCAFFAST 75/100 erection manual may assemble, modify, dismantle and use the scaffold.



**SCAFFAST® CEPHE İSKELESİ**

SCAFFAST İskele Sistemi; özel modüler çerçeveler, platform ve tekmeliklerden oluşan, hızlı kurulum avantajı sağlayan, yüksek güvenli bir çalışma iskelesidir. Sistem, standart olarak çalışma genişliği 75 veya 100 cm olabilecek şekilde üretilmektedir.

SCAFFAST 75/100 çerçeve tipi iskeleler; BS EN 12810 ve BS EN 12811 ile uyumludur. Standart modeli yük kategorisi 3, BS EN 12811 (200kg/m<sup>2</sup>) standartlarını karşılayan çalışma iskelesi olarak kullanılabilir. Standart modelin kurma yüksekliği: 24,5m'dir, statik hesap yapılarak 24,5m'den daha yüksek iskele kurumu mümkündür.

SCAFFAST 75/100'un en önemli ürün özelliği; yenilikçi tasarım detayı ile kullanıcılar için mümkün olan en yüksek güvenli kurulum şartlarını sağlamasıdır.

Bir üst seviyenin her iki korkuluğu, tekmelik ve platformları, bir aşağı seviyeden herhangi bir özel ekipman kullanmadan emniyetle kurulabilir. Böylece, alttan kurulan üst yan korkulukların sağlayacağı güvenlik ile bir üst seviyede çalışmaya başlamadan önce, gerekli emniyet garanti edilmiş olacaktır.

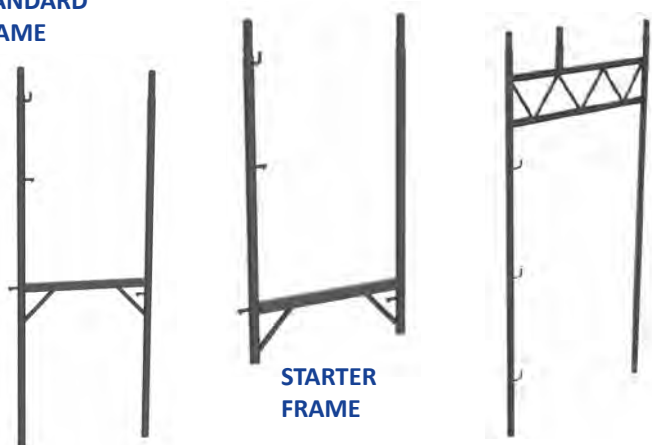
SCAFFAST 75/100 Sistemi; 1,25m'den 3m'ye dört farklı dikme uzunluğuyla yükseklik ayarı için ihtiyaç duyulabilecek esnekliği sağlar. Genişlik ise, iskele konsolları kullanımı ile arttırabilir ve farklı gereksinimleri karşılamak için ayarlanabilir.

Tüm çelik elemanlar sıcak daldırma galvaniz ile kaplanmıştır.





## STANDARD FRAME

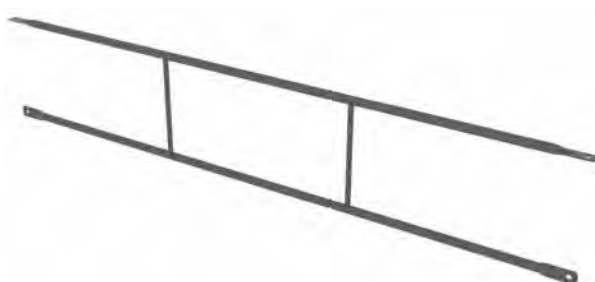


STARTER FRAME

PEDESTRIAN ACCESS FRAME

| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| SF-A G 75      | 010 122 00720 00 | 18,50 kg |
| SF-A G 75 yrm  | 010 122 00713 00 | 13,50 kg |
| SF-A G 100     | 010 122 01020 00 | 18,48 kg |
| SF-A G 100 yrm | 010 122 01013 00 | 13,80 kg |
| SF-A G         | 010 122 01220 00 | 26,80 kg |

## HORIZONTAL LEDGER FRAME "Double"



| ITEM           | ITEM NO          | WEIGHT  |
|----------------|------------------|---------|
| SF-Y G 125 dbl | 010 122 01126 00 | 4,42 kg |
| SF-Y G 150 dbl | 010 122 01151 00 | 5,24 kg |
| SF-Y G 200 dbl | 010 122 01201 00 | 6,63 kg |
| SF-Y G 250 dbl | 010 122 01251 00 | 7,92 kg |
| SF-Y G 300 dbl | 010 122 01301 00 | 9,28 kg |

## HORIZONTAL LEDGER



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| SF-Y G 125 | 010 122 01125 00 | 2,08 kg |
| SF-Y G 150 | 010 122 01150 00 | 2,49 kg |
| SF-Y G 200 | 010 122 01200 00 | 3,20 kg |
| SF-Y G 250 | 010 122 01250 00 | 4,10 kg |
| SF-Y G 300 | 010 122 01300 00 | 4,78 kg |

## DIAGONAL BRACING



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| SF-C G 125 | 010 122 02125 00 | 3,67 kg |
| SF-C G 150 | 010 122 02150 00 | 3,88 kg |
| SF-C G 200 | 010 122 02200 00 | 4,40 kg |
| SF-C G 250 | 010 122 02250 00 | 4,96 kg |
| SF-C G 300 | 010 122 02300 00 | 5,57 kg |

## HOOK TYPE TIE EQUIPMENT



PARAPET-TIE EQUIPMENT

## COMPRESSION EQUIPMENT (SPACER 25 cm)



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| SF-B G 75  | 010 122 02665 00 | 4,07 kg |
| SF-B G 100 | 010 122 02667 00 | 4,92 kg |
| IS-B G     | 010 122 00132 00 | 3,73 kg |
| KB-D G     | 010 122 01670 00 | 2,05 kg |

## SCAFFOLDING FIXING TUBE



| ITEM            | ITEM NO          | WEIGHT   |
|-----------------|------------------|----------|
| BB-O G 4832X600 | 010 148 03260 00 | 21,36 kg |



## NARROW SIDE GUARDRAIL



## TOEBOARD FRAME CONNECTOR



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| SF-K G 75  | 010 122 02675 00 | 4,10 kg |
| SF-K G 100 | 010 122 02677 00 | 4,94 kg |
| SF-T G     | 010 122 02679 00 | 0,18 kg |

## ADJUSTABLE BASE SPINDLE



## SWIVEL COUPLER

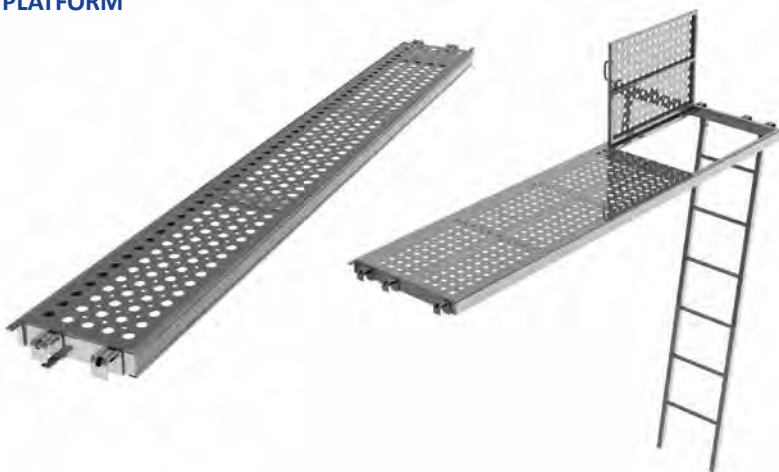


## RIGHT ANGLE COUPLER



| ITEM                  | ITEM NO          | WEIGHT  |
|-----------------------|------------------|---------|
| MA-A G Ø38x750        | 010 113 03807 00 | 3,69 kg |
| BK-D G 1515 sbt. YD.A | 004 121 21516 00 | 0,90 kg |
| BK-D G 1515 dnr. YD.A | 004 121 21515 00 | 0,95 kg |

## STEEL PLATFORM



## ACCESS DECK w / LADDER

| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KL-C G 312 | 010 120 33012 00 | 10,80 kg |
| KL-C G 315 | 010 120 33015 00 | 12,50 kg |
| KL-C G 320 | 010 120 33020 00 | 15,90 kg |
| KL-C G 325 | 010 120 33025 00 | 19,30 kg |
| MP-C G 625 | 010 120 36025 00 | 60,21 kg |

## FACADE SCAFFOLD STAIR



## INNER STAIR GUARD



## OUTER STAIR GUARD



| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| SF-M G | 010 122 02691 00 | 49,50 kg |
| MI-K G | 010 122 02695 00 | 8,75 kg  |
| MD-K G | 010 122 02696 00 | 13,50 kg |





Detachable safety guards for ladders and mobile platforms are available.

#### SAFE MOBILITY AT HIGH PLATFORMS

TMS has a wide range of mobile platforms depending on loading and height considerations. Platforms are mostly based on proven systems such as MKH, KUP'A or light duty items. Working platform can be formed using either a scaffolding board or batten type decking.

Stairs or ladders are available for most applications. The maximum height of free standing mobile towers used internally is 3 ½ times the minimum base dimension. For free standing towers used externally, the maximum height must not exceed 3 times the minimum base dimension.

For heights greater than the free standing maximum, stabilizers are available for certain applications. Weighing the base of the tower or tying the tower to a rigid structure is also possible, but should be done carefully. Please always lock the castor wheels before use and never move the tower with men and/or material on it.

#### GEZER İSKELE GÜVENLE HAREKET ETTİRİLEN ÇALIŞMA PLATFORMLARIDIR

TMS Mobil Platformları; güvenli hareket ettirilebilen, yüksek emniyetli çalışma iskeleleridir. Gezer İskeleler, sağlamlığı ve güvenilirliği kanıtlanmış; MKH, KUP'A gibi standart ürün temellerine oturtulmuştur. Her ihtiyaca cevap verecek, farklı yükseklik ve çalışma şartlarına göre kurulabilen, geniş bir ürün yelpazesi mevcuttur. Yüksek kurulumlar için denge artırıcı kollar sisteme eklenebilmektedir.

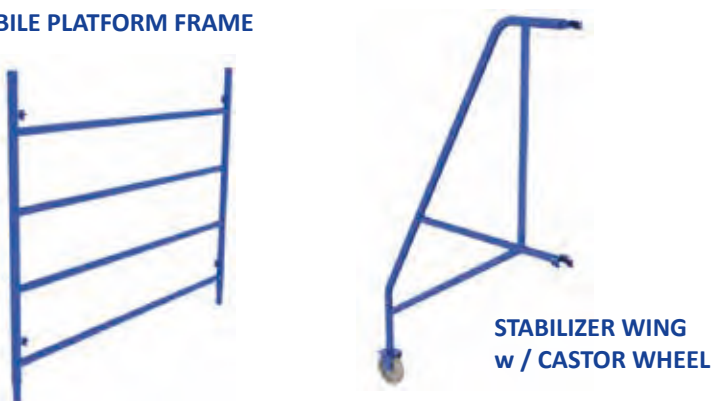


According to BS 5973 the height of a mobile platform cannot exceed 3 times the minimum base width at open air, in closed areas the maximum height could be 3,5 times the min. width of the base.



# MOBILE PLATFORM

## MOBILE PLATFORM FRAME



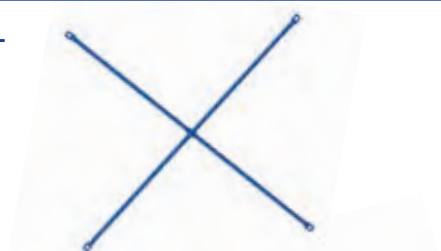
| ITEM           | ITEM NO          | WEIGHT   |
|----------------|------------------|----------|
| MP-T B 150x150 | 010 020 07515 00 | 22,50 kg |
| MP-T B 200x150 | 010 020 07520 00 | 30,63 kg |
| MP-D B 100     | 010 020 07580 00 | 18,22 kg |
| MP-D B 125     | 010 020 07582 00 | 22,16 kg |
| MP-D B 150     | 010 020 07585 00 | 24,95 kg |

## MOBILE PLATFORM CHASSIS



| ITEM   | ITEM NO          | WEIGHT   |
|--------|------------------|----------|
| MP-S B | 010 020 07530 00 | 75,20 kg |

## SET OF DIAGONAL BRACING



| ITEM       | ITEM NO          | WEIGHT     |
|------------|------------------|------------|
| MP-C B 150 | 010 020 07535 00 | 3,75 kg/pc |
| MP-C B 200 | 010 020 07540 00 | 4,15 kg/pc |
| MP-C B 250 | 010 020 07545 00 | 5,25 kg/pc |

## HORIZONTAL BRACING



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| MP-K B 150 | 010 020 07565 00 | 3,03 kg |
| MP-K B 200 | 010 020 07570 00 | 3,88 kg |
| MP-K B 250 | 010 020 07575 00 | 4,85 kg |

## HAND-RAIL POST



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| MP-R B | 010 020 07560 00 | 3,35 kg |

## STEEL PLATFORM



| ITEM       | ITEM NO          | WEIGHT   |
|------------|------------------|----------|
| KL-C B 312 | 010 120 33012 00 | 10,80 kg |
| KL-C B 315 | 010 120 33015 00 | 11,70 kg |
| KL-C B 320 | 010 120 33020 00 | 15,40 kg |
| KL-C B 325 | 010 120 33025 00 | 18,70 kg |





### SAFEGUARD®

The SAFEGUARD Fall Protection Net Fan system absorbs the fall energy and retains the falling materials or men within the system by design.

The Fall Protection Net Fans provide not only an effective fall-arrest system for the workforce, but also protect the pedestrians and workers underneath from falling objects and debris.

The Fall Protection Net Fan system consists of two nets with different spec's; the 10 x 10 cm energy absorbing net acts for fall arresting, while the fine mesh net catches the small particles and debris from falling.

The system is available in two standard lengths, 4 m and 6 m, with a projection of 3-4 m from the building.







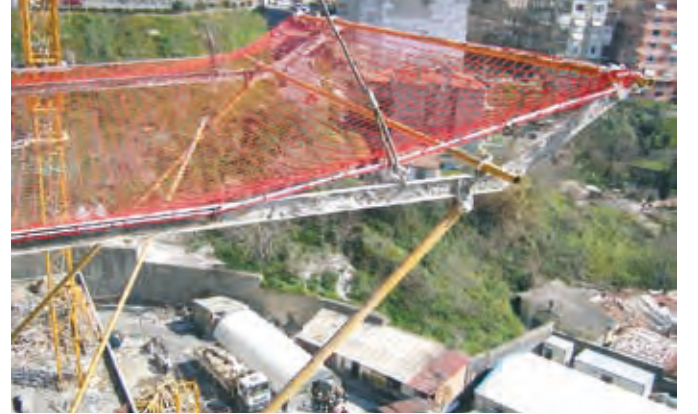
#### SAFEGUARD®

SAFEGUARD Çevre Güvenlik Ağ Sistemi; düşme enerjisini absorbe ederek, düşen cisim ve insanları sistemin içinde emniyetle tutacak şekilde tasarlanmış ağ sistemidir. Sistem sadece şantiyede yüksekte çalışanlarının iş güvenliği etkin bir şekilde korumakla kalmaz, düşen küçük cisimleri veya inşaat artıklarını da tutarak bina altında çalışanların veya yayaaların da güvenliğini sağlar.

Koruma sistemi farklı özelliklerde iki ağ içerir; 10 x 10 cm gözlü enerji emici ağ yakalama görevini yerine getirirken, ince gözlü file ağ küçük parçaları ve inşaat artıklarını tutar. Sistem 4 ve 6 m boylarda, 3 ve 4 m çıkma mesafelerinde standart elemanlardan oluşur.



While nets with larger diameter ropes and larger meshes serves for fall-protection, another layer with thin but tight meshes could stop falling tools, debris etc.





## SAFE GUARD FOLDABLE MODULE



| ITEM         | ITEM NO          | WEIGHT    |
|--------------|------------------|-----------|
| GT-S B 6x3,3 | 030 197 24070 00 | 189,00 kg |
| GT-S B 6x4   | 030 197 24070 01 | 192,91 kg |

## HAND-RAIL POST



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| GA-S B 4810 | 030 097 04810 00 | 3,73 kg |
| GA-S B 4811 | 030 097 04811 00 | 3,95 kg |
| GA-S B 4812 | 030 097 04812 00 | 4,18 kg |
| GA-S B 4815 | 030 097 04815 00 | 5,85 kg |

## HAND-RAIL POST



## HAND-RAIL POST w / BASE PLATE



| ITEM        | ITEM NO          | WEIGHT  |
|-------------|------------------|---------|
| GA-S B 8012 | 030 097 08012 00 | 4,60 kg |
| GA-S B 8015 | 030 097 08015 00 | 5,20 kg |
| GA-S B 8020 | 030 097 08020 00 | 7,60 kg |
| GA-D B 4810 | 030 097 14810 00 | 4,82 kg |
| GA-D B 4811 | 030 097 14811 00 | 5,16 kg |
| GA-D B 4812 | 030 097 14812 00 | 5,44 kg |

## HAND RAIL POST BASE Ø 48 HT-P STD. TYPE



HAND RAIL POST BASE  
80 HT-P DD TYPE



HAND RAIL POST BASE  
80 YK DD TYPE

| ITEM              | ITEM NO          | WEIGHT  |
|-------------------|------------------|---------|
| GE-S B 4800       | 030 097 20148 00 | 2,45 kg |
| GE-S B 8000 HT DD | 030 097 20180 00 | 2,00 kg |
| GE-S B 8000 YK DD | 030 097 20280 00 | 2,40 kg |



ATTACHMENT TUBE  
(Ø60x3,6mm)



| ITEM            | ITEM NO          | WEIGHT   |
|-----------------|------------------|----------|
| BB-O G 4832X600 | 010 148 03260 00 | 21,36 kg |

COUPLER



You may find the following items in  
formwork accessories section

PIN



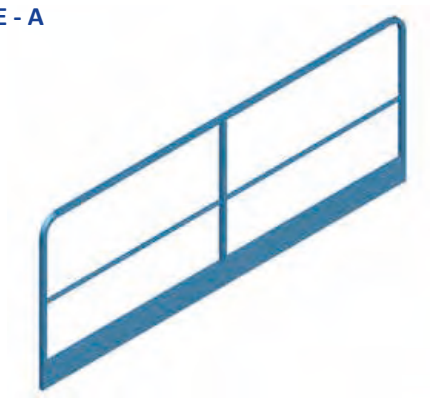
“ R ” PIN



You may find the following items in  
formwork accessories section

SITE PERIPHERAL PANELS

TYPE - A

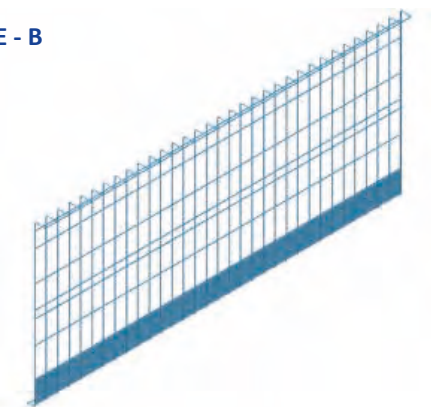


POST TYPE - A



| ITEM        | ITEM NO          | WEIGHT   |
|-------------|------------------|----------|
| GK-A B 1025 | 030 097 31025 00 | 16,45 kg |
| GS-A B      | 030 097 30060 00 | 3,56 kg  |

TYPE - B



POST TYPE - B



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| GK- B 1024 | 030 097 41025 00 | 19,6 kg |
| GS-B B     | 030 097 40060 00 | 3,3 kg  |





#### PIPE-RACK SCAFFOLDING

Having more than 40 years of experience in formwork and scaffolding business, TMS provides intelligent system solutions, creative ideas with convincing details and highly efficient products. Our industrial scaffolding solutions assure competitive measures, hence success to our clients. You can count on TMS as a reliable partner even for your most complicated scaffolding problems, while still keeping the systems as simple and economical as possible. Bearing ISO 9001:2008 in design and production and providing certified materials and equipment, we can guarantee the reliable safety for your specific jobs.

Pipe-Rack suspended scaffolding is one of the scopes where we excell in safe and reliable, yet economical systems solutions. Tube & Coupler solutions according to EN 12810 or equivalent with EN74 Class A or B couplers are as simple as it gets. You can also choose from the variety of more productive and systemized standard production items for Scaffolding, Stair Towers, Mobile Platforms, Fall Protection and Safety items.



Stair towers provide a safe access with their stable platform and anti-slip stairs.



# PIPE-RACK SCAFFOLDING (INDUSTRIAL)



## PIPE-RACK ASMA İSKELE SİSTEMİ

PIPE-RACK Asma İskele Sistemi; makas, boru ve bağlantı kelepçelerinden oluşan, zeminden ulaşımın mümkün olmadığı durumlarda kullanılan asma iskele sistemidir. Özellikle endüstriyel yapılarda, karmaşık iskele ihtiyaçlarının basit, ekonomik ve güvenli çözümünde uygulanır.

Pipe-Rack asma iskele sistemi; güvenlik ve güvenilirlik konusunda TMS'nin başarılı olduğu alanlardan biridir. EN 12810 standartlarına uygun boru ve kelepçe çözümleri ile, EN74 Class A ya da B sertifikalı kelepçeler oldukça pratiktir.

Ayrıca iskele, merdiven kulesi, mobil platform, koruyucu güvenlik sistemleri gibi TMS ürünlerinden oluşturulan çözümler ile sistem desteklenebilir.





Swivel Coupler  
(Forged)



Right Angle Coupler



Unit Beams & Scaff Tubes



Grav-Lock Coupler

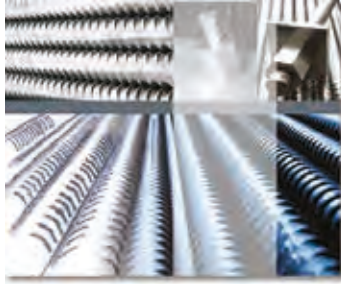


Safety Wire Holder





## TIE-ROD



| ITEM                | ITEM NO          | WEIGHT  |
|---------------------|------------------|---------|
| TR-I Y Ø17x1000 SAH | 004 017 03100 00 | 1,44 kg |
| TR-I Y Ø17x1500 SAH | 004 017 03150 00 | 2,16 kg |

## TIE-ROD NUT



## TIE-ROD WASHER



| ITEM              | ITEM NO          | WEIGHT  |
|-------------------|------------------|---------|
| TR-S G Ø17x70 SAH | 004 117 03007 00 | 0,46 kg |
| PU-L B 812 20     | 030 010 00812 00 | 0,85 kg |

## WATER STOP FLANGE TYPE



| ITEM   | ITEM NO          | WEIGHT  |
|--------|------------------|---------|
| ST-F Y | 004 113 00070 00 | 0,50 kg |

## PIN



## " R " PIN



| ITEM       | ITEM NO          | WEIGHT  |
|------------|------------------|---------|
| PI-M 1610  | 004 132 01610 00 | 0,18 kg |
| GP-R G 325 | 004 132 01325 00 | 0,01 kg |

## COUPLER



| ITEM                  | ITEM NO          | WEIGHT  |
|-----------------------|------------------|---------|
| BK-D G 1515 dnr. YD.A | 004 121 21515 00 | 0,95 kg |
| BK-D G 1515 sbt. YD.A | 004 121 21516 00 | 0,90 kg |
| BK-D G 1520 dnr. YD.A | 004 121 21521 00 | 1,05 kg |





**JUST EXPRESS YOUR NEEDS, WE WILL BE THERE WITH OUR FORMWORK ENGINEERING TEAM TO SUPPORT YOU**

Concreting extra ordinary structures, challenging buildings, architectural imaginations, they can only come true if you have the right formwork for them. Free up your imaginations, don't worry we will be there to form them. Today's Architectural design's bring variety and complexity in details, TMS project team is ready to provide all you need as special formwork.

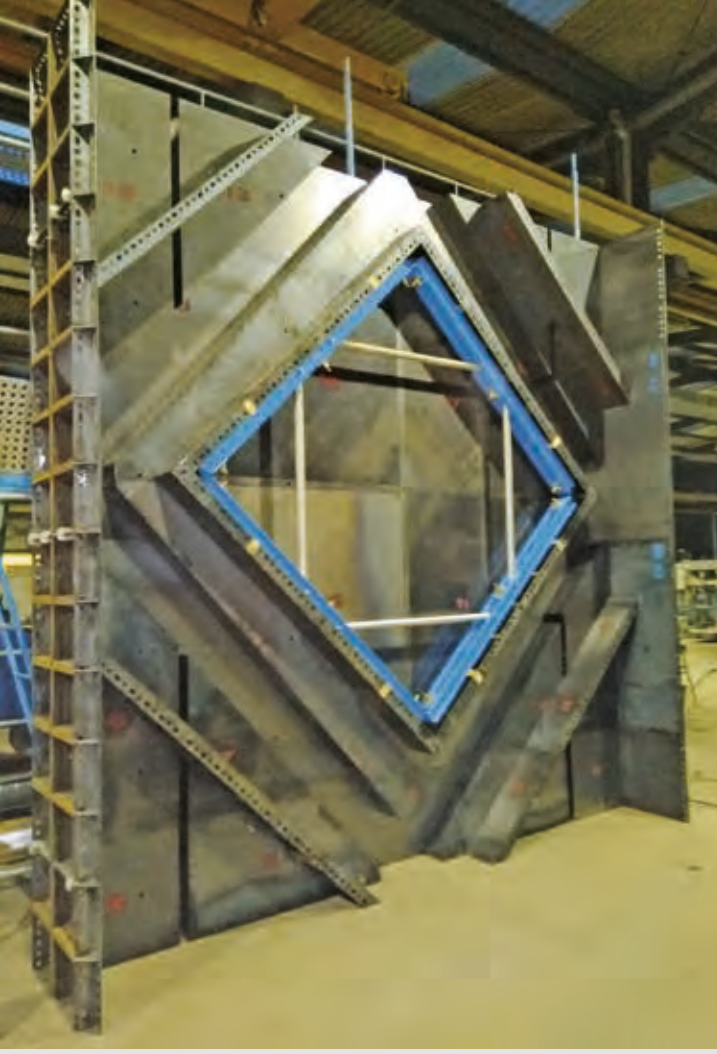




## ÖZEL KALIPLAR

### İHTİYAÇLARINIZA ÖZEL TASARLANMIŞ KALIPLAR

Proje ihtiyacına uygun özel tasarlanmış kalıplardır. Sıra dışı yapılar, iddialı binalar, zorlayıcı mimariler; ancak mühendisliği çözülmüş doğru kalıplarla hayat bulabilir. İster endüstriyel bir projenin karmaşık detaylar içeren teknik yapısı olsun, isterse sıra dışı mimari çizgileri olan bir bina projesi, tasarım grubu sizlere en iyi ve en ekonomik çözümleri bulmak için hazırdır.















### SIZE AND SHAPE DOES NOT MATTER

Even if it is a large span pre-stressed bridge beam or a complicated radial stair, any size or any architecturally challenging structure is possible with our pre-cast forms.

All projects will be custom tailored for project requirements, and client needs.

### PREKAST KALIPLARI BOYUT VE ŞEKİL SINIRLAMASI OLMASIZIN HEMEN HER PREKAST ELEMANI ÜRETEBİLECEK KALIPLARDIR

Prekast Eleman Kalıpları; boyut ve şekil sınırlaması olmaksızın hemen hemen her prekast elemanı güvenle üretebilecek kalıp sistemleridir.

Büyük açıklıklı ön-germeli köprü kirişleri ve büyük ebatlı kutu menfezlerden başlayarak, karmaşık yapılı döner merdivenlere, hassas dokulu dekoratif elemanlara kadar her prekast eleman için tasarlanabilir.

Yüksek tekrar sayılarına dayanabilecek şekilde, proje ihtiyaçlarına göre üretim mümkündür.



### Prestressed concrete beam Formwork











**EITHER TO BE A HIGHWAY UNDERPASS OR AN INJECTION TUNNEL FOR A DAM PROJECT, BOX CULVERT FORMS ARE BEING WIDELY USED IN TODAY'S INFRASTRUCTURAL CONSTRUCTIONS**

Depending on the project requirements, type of usage, repetitive cycles, and variations in dimensions etc. the formwork designs may change, but in every case the target is to reach fast and economical concreting, since such structures play a critical role in following phases of the project in general. The facing material can either be plywood or steel, and even the formwork can be for in-situ usage or precast concreting.

**KUTU MENFEZ KALIPLARI OTOYOL MENFEZLERİNDEN BARAJ ENJEKSİYON TÜNELLERİNE KADAR ÇOK FARKLI BOYUT VE KESİTLERDE KUTU MENFEZLER İÇİN KALIPLAR**

Kutu Menfez Kalıpları; otoyol menfezlerinden baraj enjeksiyon tünellerine kadar çok farklı boyut ve kesitlerde kutu menfezler için kullanılan kalıp sistemleridir.

Proje şartlarına bağlı olarak, kullanım şekli, tekrar sayıları, değişen kesit ve boyutlar, tekli veya çoklu döküm ihtiyaçları gibi faktörler dikkate alınarak; kalıp tipi, yüzey malzemesi, mekanik veya hidrolik deplasman unsurları, işi hızlandırıcı erken söküm olanakları, tasarım aşamasında çözülmektedir.



Custom Box-Culvert formwork by using standard formwork elements, highly adjustable, highly flexible and still re-usable for other forming purposes.















# WISA®-Form Birch

WISA-Form Birch is a coated special plywood for use in concrete formwork where high requirements are set on the concrete surface and the number of reuses.

## Base board

Birch plywood made solely from birch (hardwood) veneers bonded together in a cross-banded construction.

## Bonding

Phenolic resin/cross-banded weather resistant glueing according to EN 314-2/class 3.

## Surface and edges

Face and reverse: Dark brown phenolic film 120 g/m<sup>2</sup> or 220 g/m<sup>2</sup>

Edge sealing: Water resistant paint.

## Constructions and thicknesses

| Nominal thickness<br>(mm) | Number<br>of plies | Thickness<br>(mm) |      | Weight<br>kg/m <sup>2</sup> |
|---------------------------|--------------------|-------------------|------|-----------------------------|
|                           |                    | Min               | Max  |                             |
| 6.5                       | 5                  | 6.1               | 6.9  | 4.6                         |
| 9                         | 7                  | 8.8               | 9.5  | 6.3                         |
| 12                        | 9                  | 11.5              | 12.5 | 8.4                         |
| 15                        | 11                 | 14.3              | 15.3 | 10.5                        |
| 18                        | 13                 | 17.1              | 18.1 | 12.6                        |
| 21                        | 15                 | 20.0              | 20.9 | 14.7                        |
| 24                        | 17                 | 22.9              | 23.7 | 16.8                        |
| 27                        | 19                 | 25.2              | 26.8 | 18.9                        |
| 30                        | 21                 | 28.1              | 29.9 | 20.9                        |

Moisture content 8-12 %.

## Panel size

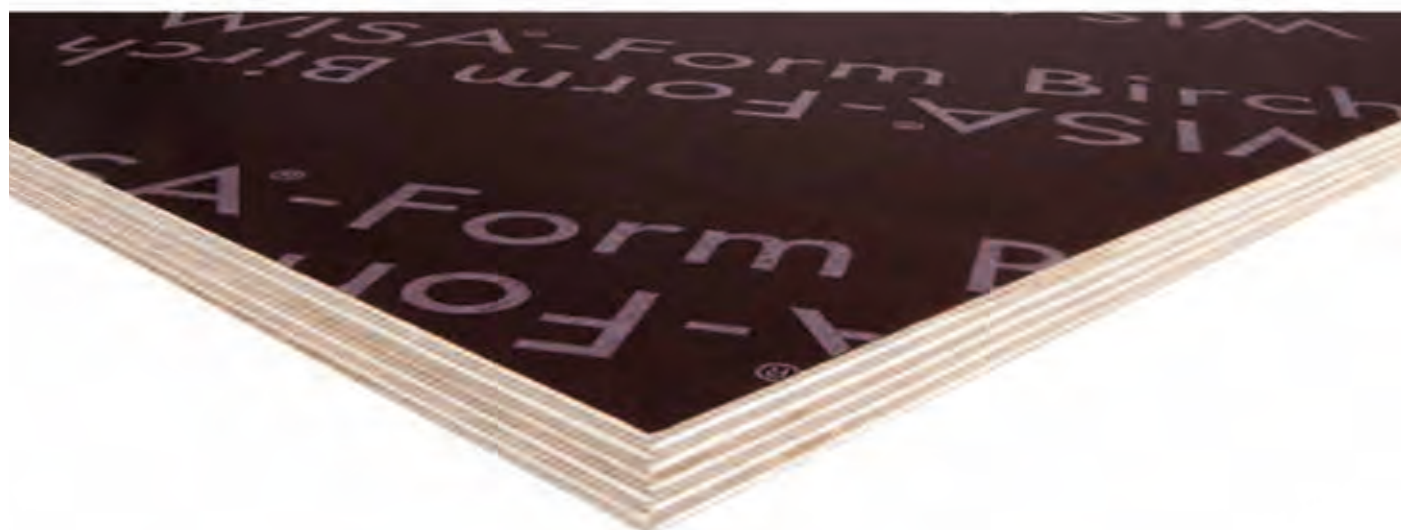
1000 x 2000/2500/3000 mm

1200/1220/1250/1500/1525 x 2400/2440/2500/2700/3000/3050/3600/3660 mm

Cut sizes at customer's request

Size tolerance (length/width)  $\pm 1$  mm per metre

Squareness tolerance  $\pm 1$  mm per metre length of diagonal







## Reuses

Typical number of reuses is likely to be in the range of 20 – 80 times. However, this will vary according to many different factors including good site practice, required concrete finish, amount of core taken when compacting the concrete, handling and storage of the forms, type and quality of release agent.

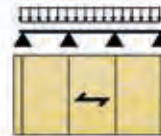
## Design Data

Mechanical properties of WISA-Form Birch, in standard thicknesses, moisture content  $10 \pm 2\%$

| Nominal thickness<br>(mm) | Mean modulus of elasticity bending<br>(N/mm <sup>2</sup> ) |      | Characteristic strength bending<br>(N/mm <sup>2</sup> ) |      |
|---------------------------|------------------------------------------------------------|------|---------------------------------------------------------|------|
|                           | Em11                                                       | Em1  | fml                                                     | fml  |
| 18                        | 10048                                                      | 7452 | 40.2                                                    | 34.1 |
| 21                        | 9858                                                       | 7642 | 39.4                                                    | 34.3 |

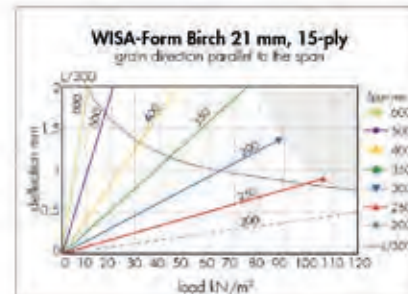
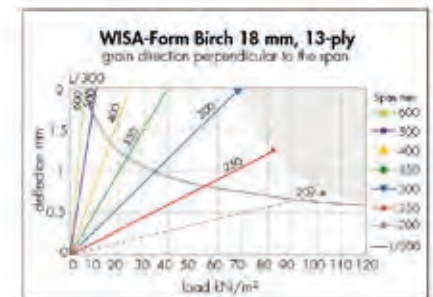
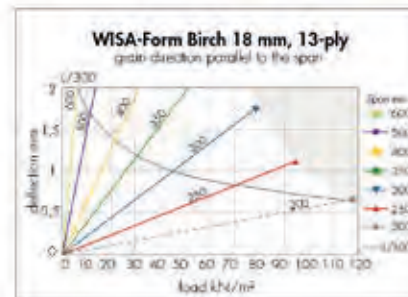
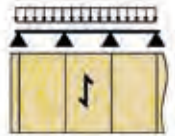
Face grain  
parallel  
to the span (11)

← grain direction of  
surface veneers



Face grain  
perpendicular  
to the span (1-)

← grain direction of  
surface veneers



Moisture content 27 %, short time loading

Partial safety factor for the material is 1.3. Partial safety factor for the loads is 1.2 (according to the Handbook of Finnish Plywood, 2004).

Deflection limit  $L/300$  of the span

Support width is not taken into account in calculations

## Instructions for use

See "Guide to Good Site Practice" available from UPM.

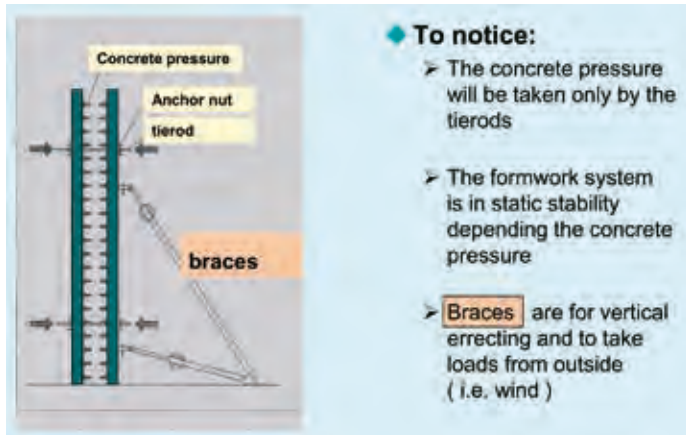




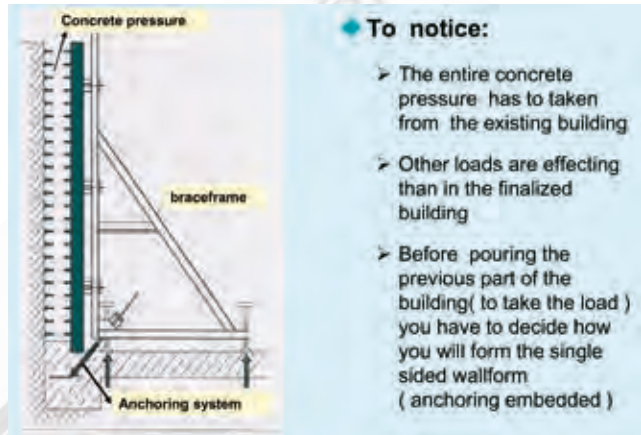
## UNDERSTANDING CONCRETE PRESSURES AND LOADS ON FORMWORK

Designing and producing formwork - but even in using - effectively requires a basic understanding of how concrete behaves as it exerts pressure on formwork. Lateral concrete pressure is affected by:

### Double sided and tied wallform



### Single sided wallform



#### • Height of pour:

Before concrete hardens, it acts like a liquid and pushes against the forms the way water presses against the walls of a storage tank. The amount of pressure at any point on the form is directly determined by the height and weight of concrete above it. means hydrostatic pressure  $p = \gamma \times h$  [kN / m<sup>2</sup>] as max. pressure. Pressure is not affected by the thickness of the wall!

• **Weight of Concrete:** Pressure exerted against the forms is directly proportional to the unit weight of concrete. Light weight concrete will exert less pressure than normal weight concrete.

#### • Pouring rate ( speed of filling up the wallform )

Concrete pressure at any point on the form is directly proportional to the height of liquid concrete above it, but more important is the speed which the wallform is filled up. The following diagrams shows the expected pressure depending to this pouring rate.

• **Concrete Slump:** When concrete has very low slump, it acts less like a liquid and will transmit less pressure.

The following diagrams shows the second main factor of influence to the concrete pressure - the consistency of the concrete F1 ( very dry) up to F6 (full liquid)

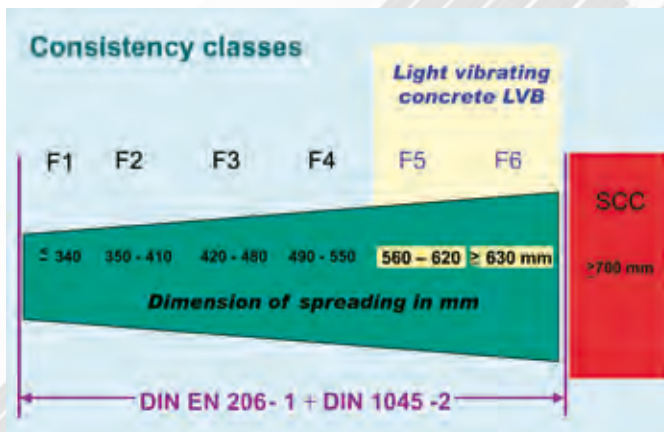
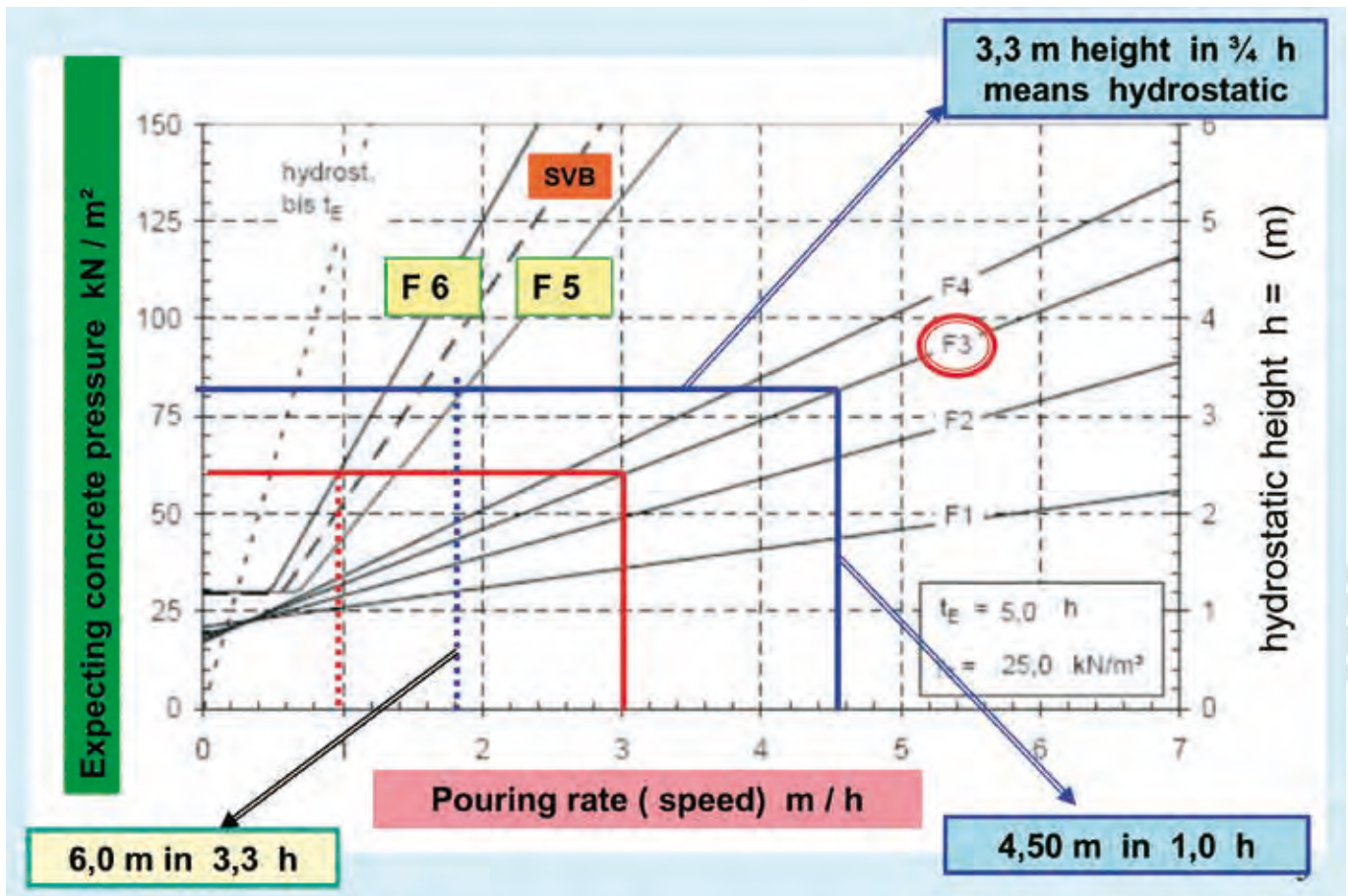
• **Temperature:** The higher the temperature of the concrete, the quicker it will harden. The following diagram can be used if the temperature of the concrete has 15° Celsius. Every 1 °C less than 15°C increases the concrete pressure about 3 %.

• **Vibration:** Internal vibration consolidates concrete and causes it to behave like the pure liquid previously discussed. Requirement is the pouring in slides of about 50 -60 cm and use only in this concrete the vibrator. External vibration results in higher loads and has to be very carefully controlled !.

• **Type of Cement:** The cement type will influence the rate at which concrete hardens. The diagram is for cement which will be hardened after 5 hours, lower harden cement effects higher concrete pressure

• **Chemical additives:** When using chemical additives – i.e. retarders, plasticizers, etc. – make sure to refer to the vendors application data. It will all increase the pressure!





| consistency  | Concrete slump cm | Klasse DIN EN 206-1/ DIN 1045 | Compression factor |
|--------------|-------------------|-------------------------------|--------------------|
| Very stiff   |                   |                               | C0 : > 1,46        |
| stiff        | < 340             | F1                            | C1 : 1,45 – 1,26   |
| plastizised  | 350 – 410         | F2                            | C2 : 1,25 – 1,11   |
| weak         | 420 – 480         | F3                            | C3 : 1,10 – 1,04   |
| Very weak    | 490 – 550         | F4                            | C4 : < 1,04        |
| liquide      | 560 – 620         | F5                            |                    |
| Very liquide | 630 bis 700       | F6                            |                    |

## How you can find the consistency respective the concrete slump?

Fill up the conical container on a movable platform - regarding to the DIN -pull the container away and pull the platform 20 times to the stopper – drop it down. After this take the diameter of the concrete. This will be the concrete slump !





## TMS' s Word About Safety

High productivity depends on safety; an accident, no matter how minor, causes job delays and inefficiency, running up costs. That's why TMS, in the design of its systems and products, makes, as one of its primary concerns, the safety of those people who will be working with and near the equipment. Every product is designed with safety in mind, and is subjected to testing to be certain that it will perform as intended with appropriate safety allowances. Factory-built systems, such as these, provide predictable strengths, thereby minimizing the uncertainty that often surrounds "handmade", "job-shop" and "job-built" equipment. As a result, when used properly, TMS products are your best assurance of a safe operation. To insure proper use, we have published product application guides. We recommend that all construction personnel who will be involved, directly or indirectly, with the use of this product, be familiar with the contents of this guide. As a concerned participant in the construction industry, TMS Corporation also recommends that regular safety meetings be held, prior to starting the forming operation, and regularly throughout the concrete placement and form stripping and erection operations. TMS personnel will be happy to assist in these meetings, with discussions of safe use of the equipment, and other formal safety information.

In addition to the above meetings, all persons involved with the construction should be familiar, and in compliance, with the applicable government regulations, codes and ordinances, as well as the industry safety standards developed and published. Since field conditions vary, and are beyond the knowledge and control of TMS, safe and proper use of this product is, and must be, the responsibility of the user.

### Job Safety Analysis and Method Statements

Job safety analyses detail the sequence of work, the equipment to be used at each stage, the hazards to be controlled, the precautions to be taken and the responsibilities of persons involved. Job safety analyses are a basis for and form part of the method statements for the work. They shall be communicated to everyone involved in the activity at the kick-off meeting, and they shall be used to supervise and monitor the work itself. Changes or problems which occur during the work itself should be continuously assessed by the work supervisor and work teams, e.g. by applying the Three Whats;

- ~ What can go wrong ?
- ~ What can cause it to go wrong ?
- ~ What can be done to prevent it going wrong

### Ladders and movable platforms

Ladders higher than 2,5m will have surrounding cages. In case of hatchway covering is not available, ladders will protrude min. 1m to the upper decking. All ladders shall be properly maintained. They shall be inspected before use and any observed defect remedied at once. Ladders which are found in an unsafe condition shall immediately be destroyed. Movable work platforms used in construction include Rolling Towers, Lift Platforms, Cradles and Man Baskets. They shall be maintained to industry standards. They shall only be operated by competent qualified operators.

### Scaffolds

The Contractor shall manage the safe erection, inspection and use of scaffolds, in line with the provided method statements and application guides. He shall appoint a scaffolding supervisor to ensure materials are to the correct standard, that subcontractor scaffolding personnel are competent, to inspect scaffolds on-site and to monitor implementation of the system. The Contractor shall also ensure that rolling and tower scaffolds are well controlled. In particular scaffolds with a height greater than three times the minimum base dimension shall be braced with outriggers or tied off while being used. Castor brakes shall be locked when not in motion and towers shall be free of men, material and equipment before being moved. Only authorised scaffolders shall erect all scaffolds. Unauthorised modification of scaffolds, removal of bracing - toe boards and similar from scaffolds are prohibited. Scaffolding materials (poles / planks / clamps / etc. ) shall be inspected before and after use and any observed defect remedied at once. Any material in an unsafe condition shall be destroyed immediately.

### Fall protection

Falls from height are the most common fatal accidents in construction. The risk of falls can be reduced by careful planning of work at height, including provision of safe access and fall protection. All work areas, walkways and platforms which are more than 1 metre above ground level or the platform below will be provided with solid guard rails –i.e 5x10 timber or dia 48mm tubes-both upper and intermediate. In most cases a toe-board would be delivered with the system. When working outside complete platforms a safety harness and lanyard shall be worn and clipped on. Safety belts are insufficient as falls can cause abdominal injuries. This applies to scaffolders formwork team, and steel erectors in particular. The Contractor shall set up a procedure to control the modification of scaffolds and the removal of grating from staircases and platforms

### Guard rails, platforms and barricades

Signs and barricades shall be provided to protect all workers and the public from injury. All work areas, walkways, platforms, etc. elevated 1 m. or more, whether permanent or temporary, are to encompassed by an approved guard-rail (with upper + intermediate rail + toe board) securely fastened and are to provide safe, sturdy surfaces maintaining the approved load. Floor openings shall be temporarily securely covered rather than identified by guard rails or ropes/wires. With steel deckings –i.e. scaffold steel deckings, gratings etc.- a hatchway cover will come as part of the systems. Special attention is required to the temporary removal and subsequent installation of permanent ladders, grating and handrails.

### False work

False work is any temporary structure used to support a permanent structure during its erection. A qualified engineer shall be nominated who co-ordinates all major temporary work schemes. Design briefs including material inspection, foundation and erection checklists shall be arranged.

### Work on or over water

- Life jackets or buoyancy aids, as detailed below, shall be worn for all work on, over or near water where there is a significant risk of a fall into water.
- . For work on complete platforms a buoyancy aid shall be worn
- . For construction of platforms or work on incomplete platforms over water, an inherently buoyant or self-inflating life jacket shall be worn
- . Life jackets shall be designed to turn and support a floating unconscious wearer face-up.

### Lifting operations

Crane operation, banking, slinging and signalling shall be performed by competent persons, who have been assessed and authorised by the Contractor. Crane banksmen, riggers and signallers shall wear distinctively coloured safety helmets or clothing.

### Lifting gear

Lifting gear consists of wire or webbing slings, chains, lifting lugs, shackles etc. The Contractor shall set up a procedure for inspecting all lifting gear when it is brought onto site and periodically afterwards. It shall include identification of each item with its safe working load, colour coding and maintaining records of inspections.









## TMS TUFEKCIOGLU ENGINEERING INDUSTRY & TRADE INC

Head Office : Şerifali Mah. Kızkalesi Sk. No.16  
34775 Ümraniye - İSTANBUL / TURKEY  
Tel: +90.216. 313 96 66 Fax: +90.216. 313 71 51

E-mail: [tms@tms.tc](mailto:tms@tms.tc) Web: [www.tms.tc](http://www.tms.tc) 44 44 TMS



[facebook.com/tmsformwork](https://facebook.com/tmsformwork)



[twitter.com/tmskalipiskele](https://twitter.com/tmskalipiskele)



[instagram.com/tms\\_formwork](https://instagram.com/tms_formwork)



[linkedin.com/company/tms\\_3](https://linkedin.com/company/tms_3)



[youtube.com/tmskalip](https://youtube.com/tmskalip)