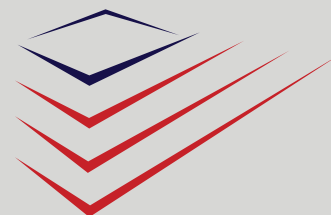




# ACROW

Formwork Technology



## Acrow Bridge Table Form System

Acrow MISR Provides Full Site Service Based On More Than 35 Years Experience In The Field

**ACROW**  
Formwork Technology







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## Introduction

Being one of the largest formwork and scaffolding companies in Egypt, we are introducing the bridge tables system. It is one of the most ideal systems to produce large concrete deck bridge areas, where the same deck bridge geometry is repeated

several times.

In addition, all elements and accessories are assembled only once at the beginning of the job site, unlike other systems, where you have to re-assemble all the shoring components each time. Moreover,

the elements could be easily moved as a whole movable unit that can be repositioned without wasting time on disassembly.

This is a quick installation and removal system which saves time and labor costs.





Acrow bridge table is one of the best solutions for any box girder bridge. Bridge deck system h20 & solidier consist of panels connected together as per bridge deck shape.

It is assembled in ground level and lifted as a one unit to its location. The shoring is either Acrow shorbrace system with high load capacity or ring system with it is modular components.

shoring also can be moved as one unit horizontally by wheel jack unit or vertically by crane.



Transportation Wheel Jack Unite



HORIZONTAL SHIFTING WITH TRANSPORTATION WHEEL JACK UNIT

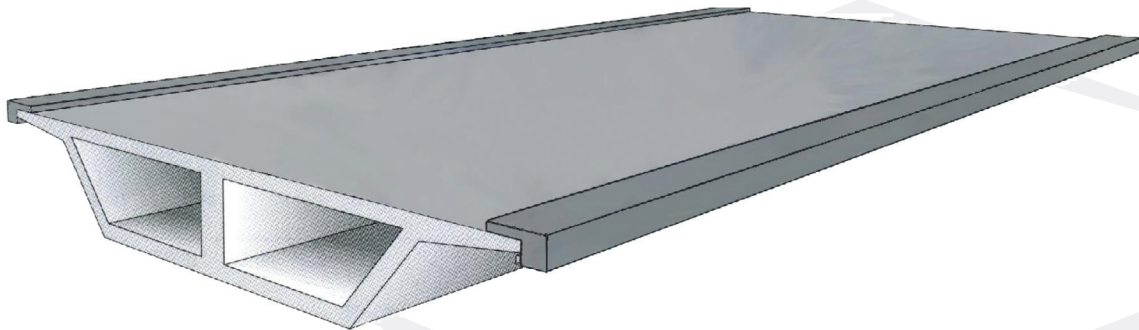


VERTICAL LIFTING BY CRANE

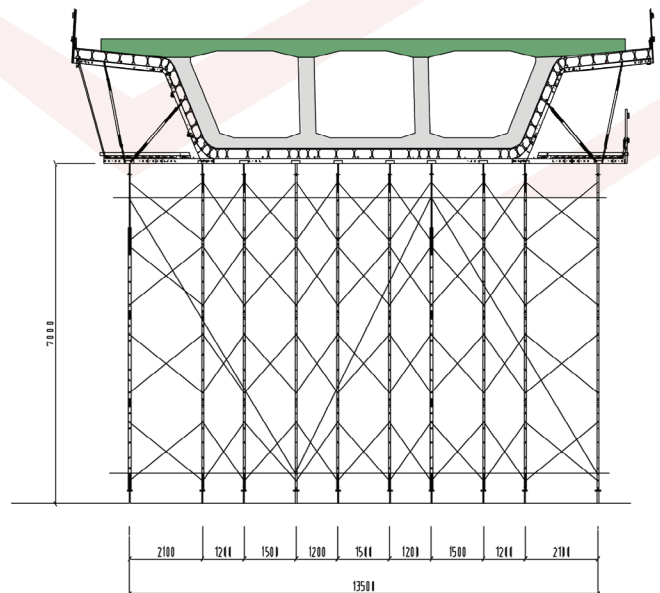
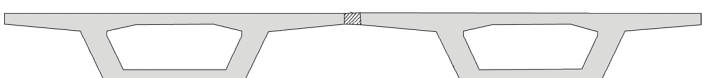
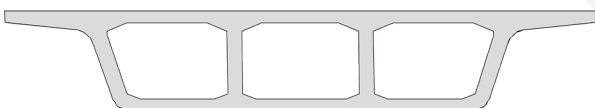


The highly efficient solution for any box girder deck bridge

- Types of cross sections for Box girder Bridge.



- cross section for double cell box girder bridge





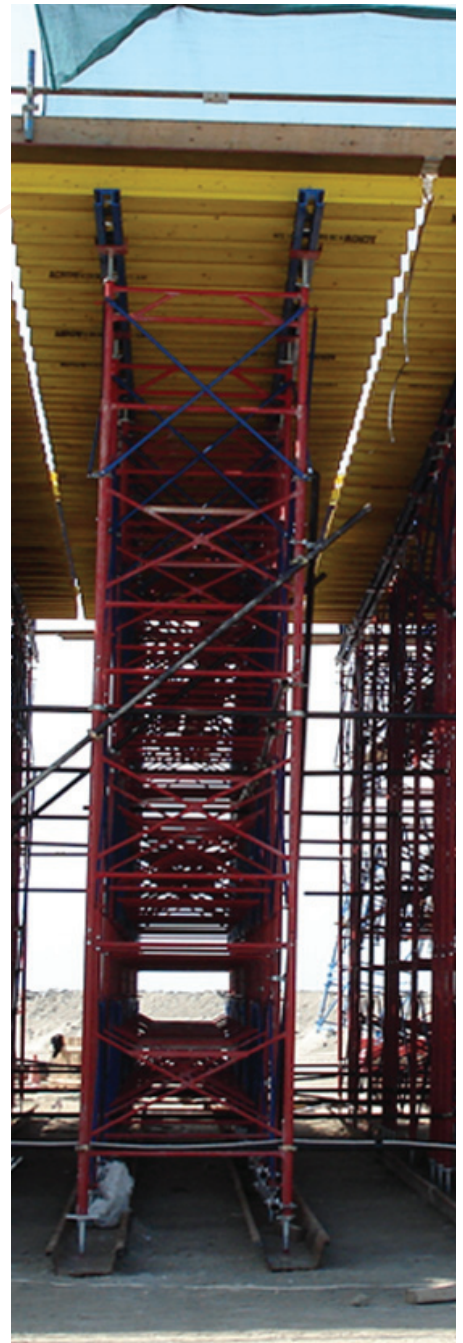
## System Components

•**The shoring system:** is either tower which can be moved horizontally by means of wheel jack units, and vertically by crane. Moreover, it may be shorebrace frame with our standard frame 1.20\*1.80m with or without telescopic frame at top of tower. In this case, there is only one frame

size, It also ensures fast adjusting through the telescopic frame (52cm to 142.5cm) each 30cm increment. Lastly, Final adjustment could be reached through the (P.H.J) and (U.H.J.).

In addition, ring system can be used for shoring. In this case, the tower

dimension is chosen according to the load and bridge geometry. Also, the required height can be achieved from the various modular vertical lengths. Finally, fine adjustment could be reached through (P.H.J) and (U.H.J.).



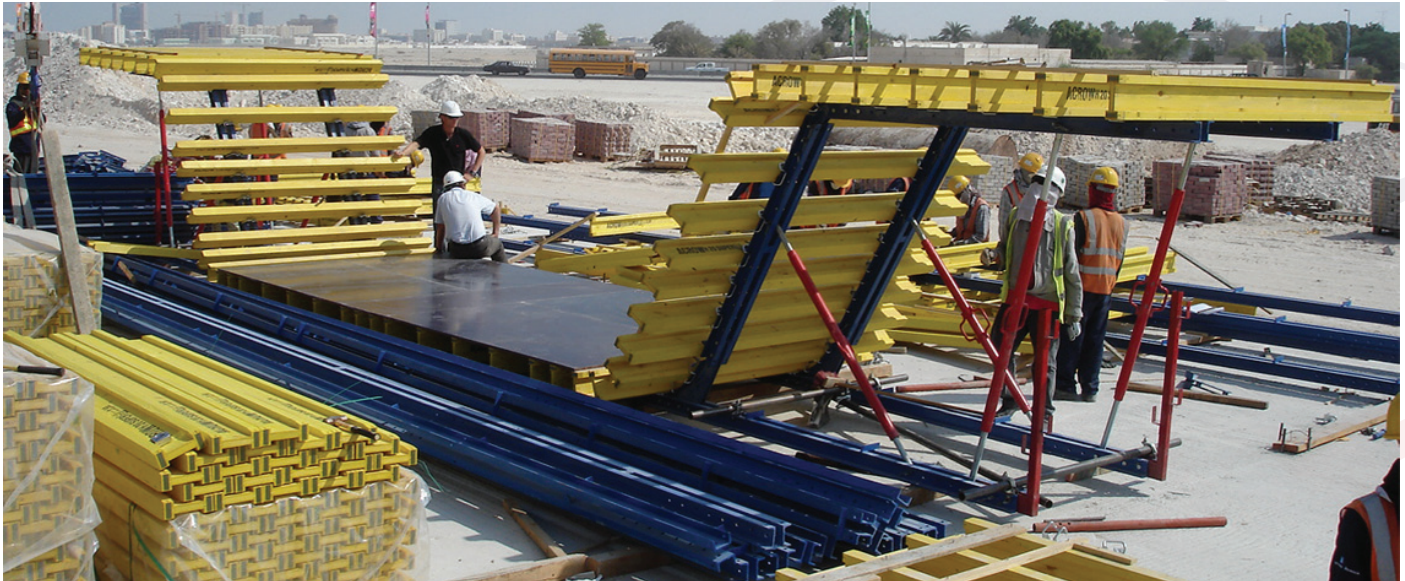


## System Components

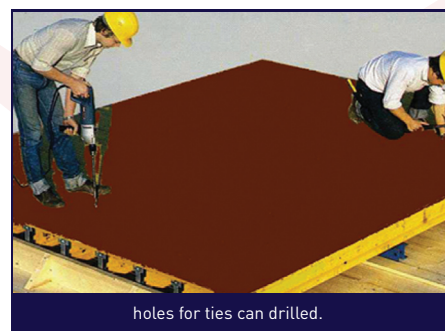
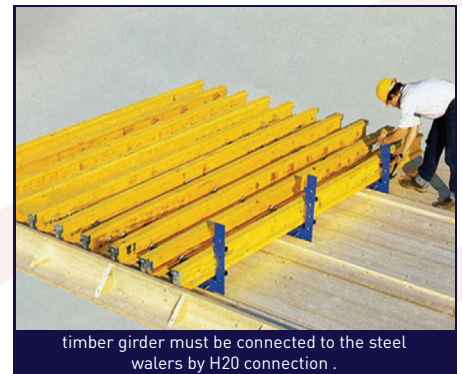
•**Panels:** The whole decking consists of series of (H20 & Soldier) panels' independent to each other. The panel dimensions are chosen according to the shoring system and the bridge

geometry. The length of panel is usually 2.5m for curved bridge zones and can be up to 5.00 m in case of straight bridge layout only.

•**Adjustment** of the external formwork is reached simply by using turn bukles (for external side formwork and for cantilever formwork).



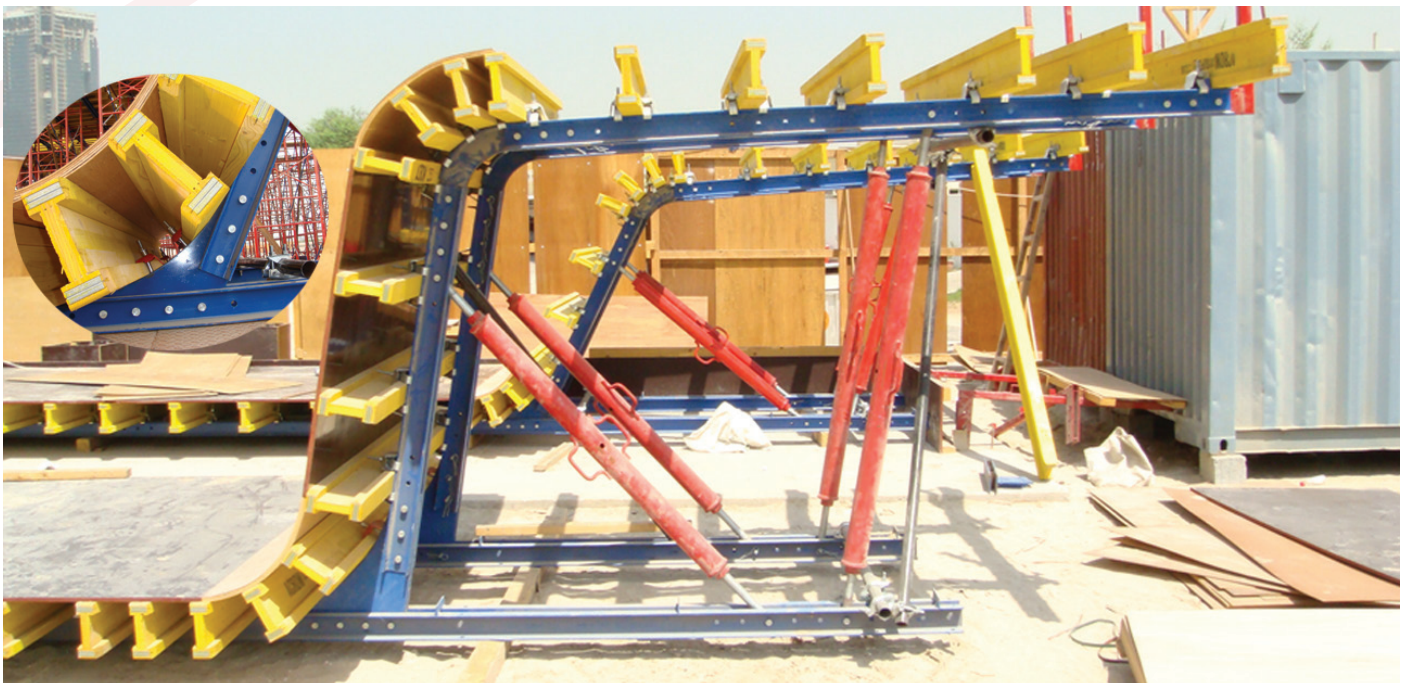
## Panel assembly





## Panel Assembly

- The tables are assembled on the ground on a flat surface.  
A plan is marked on the ground to aid in placing the Soldier and H20 timber beam.
- One the central part (bottom slab shuttering )has been assembled and the outer side shutter preassembly .  
You can erect the side shutter and fix it with splices and adjust it by push pull props.
- Erection of the cantilever part and fixed with the side shutter by splices and adjustment the level by push pull prop.





## Panel Assembly





## Top Slab System

**Shoring:** The shoring may be special Acrow frame or sp. props according to the loads and the allowable decking opening.

**Decking:** The main Decking is H20 timber beam & the secondary is timber by site, which has the shape of the top slab ends.





## Formwork Dismantling

- Connect the external formwork to the bridge box girder using Acrow tie rod.
- Use Acrow Notched plate and Hex Nut instead on ordinary steel washer and wing nut.
- Lower the shoring and start moving it using Acrow transportation wheel jack unit.
- Connect the vertical tie to the lowering device machine using the Acrow chain rod coupler.
- Loose the Hex nut and remove the notched plate.
- Start the two Acrow lowering machines to lower the panels.
- Move the panel to its' new desired location using the trailer.
- Lift the panel to its' new location vertically using a crane.
- Acrow bridge table form is safe, fast, easy and economical.



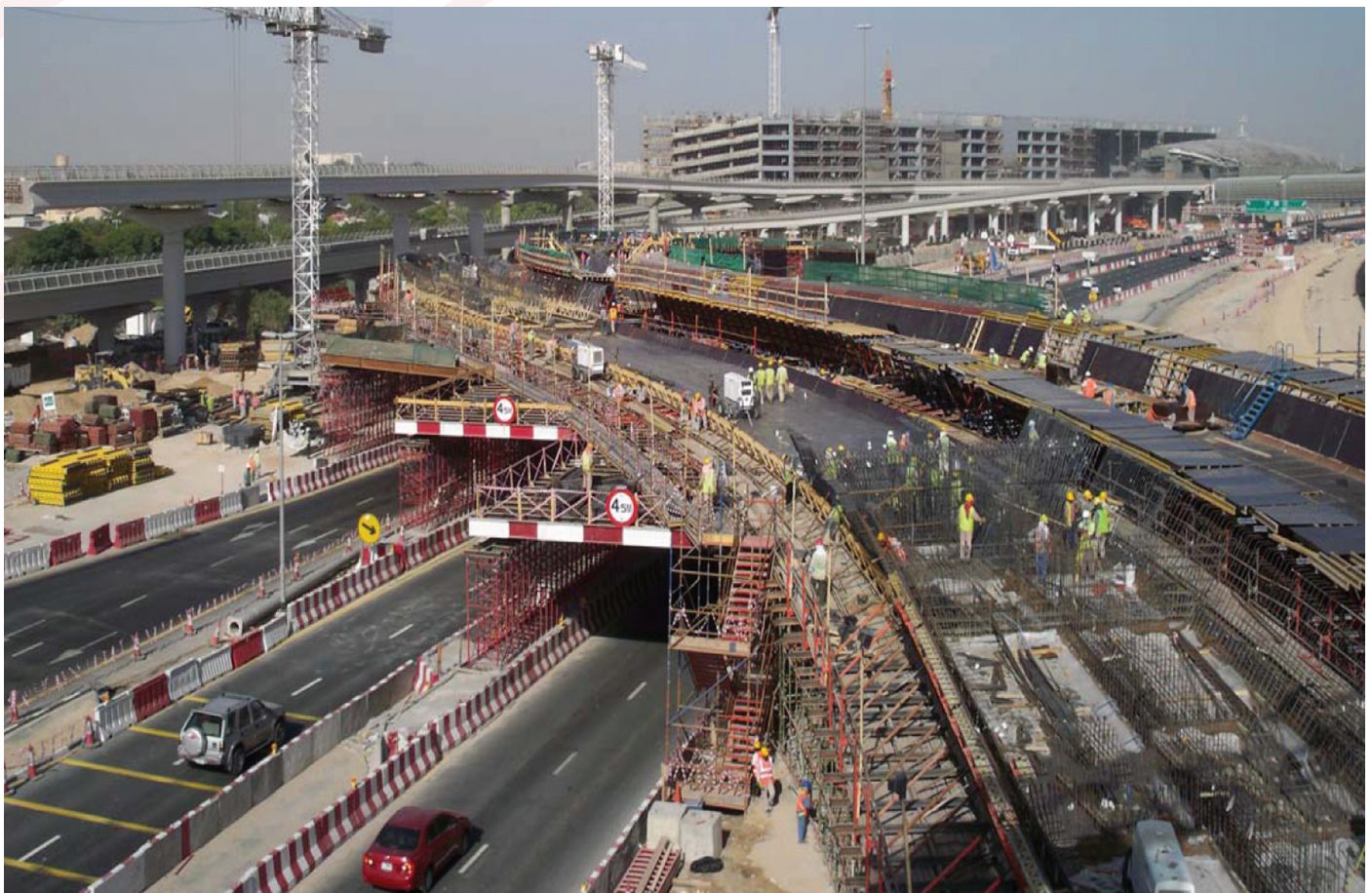


## Falsework Opening

•**Technical Description:** False work opening can be used during the construction in new bridges in case of any intersection with:

- Existing road.      • Small River.
- Another bridge.   • Railway

Therefore, by the application of false work opening, the loads of the bridge are transferred by the steel beams to the shoring and then directly to the soil.





## Falsework Opening

### System advantage:

- Heavy Duty shoring system (Shorebrace) providing a maximum working load of 54.88 KN per leg.
- Simple and easily erected shoring system.
- Different heights can be applied for the system using the shorebrace frame.
- Standard and cheap steel beam decking which can be supplied to the site.
- Acrow bridge system can be used for both a one and two lane traffic where the maximum span doesn't exceed 12 m.
- Easily connection between the false work and the main bridge systems because of using the same system.
- Easily dismantling process.
- Safe, fast, easy and economical bridge system.

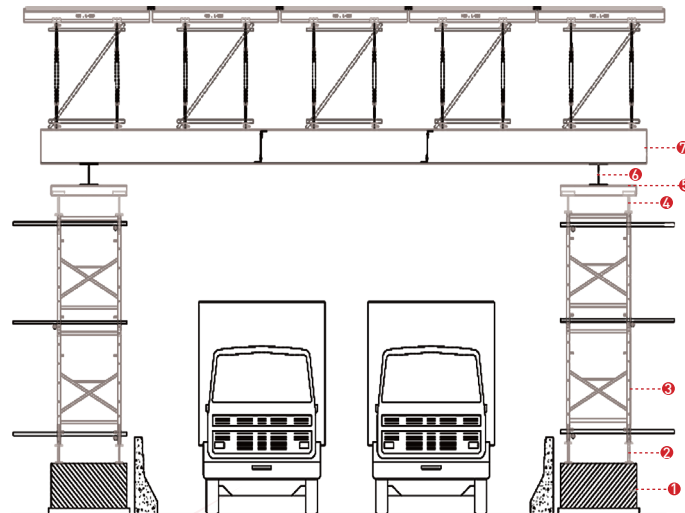




## Falsework Opening

### Erection system:

- 1-Concrete footing.
- 2-Post head jack.
- 3-Shorebrace frame.
- 4-U-Head jack.
- 5-Secondary Steel beam.
- 6-Main girder steel beam (1).
- 7-Main girder steel beam (2).



Falsework Opening For Tow Lane

Main Girder (1)



Shoring and Secondary beams



Main Girder (2)





## Falsework Opening With Acrow H.D.P

False work opening can be also done with Acrow heavy duty prop instead of shore brace system. Both steel beams

and the foundation system will be designed according to loads and prop positions of the Acrow bridge system

for both outer and inner decking. Finally, Tilt up shores may be used for some conditions.





## Applications





## Application





## Application





## Application



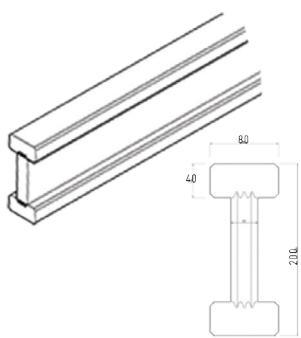


## Application



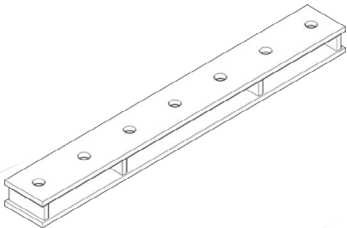
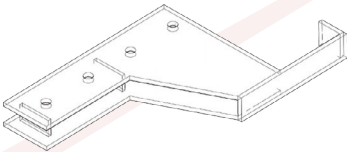
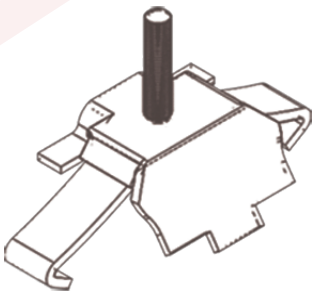


## Components

Item	Description	Code no.	Weight (kg)
 <p>Permissible bending Moment = 5.0 KNm Permissible shear force = 11.0 KN Approx. weight = 5.0 Kg/m</p>	Timber H20 Beam		
	Timber H20 ,L= 2.50 M	6221177024062	12.50
	Timber H20 ,L= 2.90 M	6221177024079	14.50
	Timber H20 ,L= 3.30 M	6221177024093	16.50
	Timber H20 ,L= 3.60 M	6221177024109	18.00
	Timber H20 ,L= 3.90 M	6221177024116	19.50
	Timber H20 ,L= 4.50 M	6221177024130	22.50
	Timber H20 ,L= 4.90 M	6221177024147	24.50
	Timber H20 ,L= 5.90 M	6221177024154	29.50
	Soldier I[ 10 ( Holes)		
	Soldier I[ 10 75 cm (Holes)	6221177020613	15.60
	Soldier I[ 10 100 cm (Holes)	6221177020620	21.20
	Soldier I[ 10 125 cm (Holes)	6221177020637	26.50
	Soldier I[ 10 150 cm (Holes)	6221177020644	31.80
	Soldier I[ 10 175 cm (Holes)	6221177020651	37.10
	Soldier I[ 10 200 cm (Holes)	6221177020668	42.40
	Soldier I[ 10 225 cm (Holes)	6221177020675	47.40
	Soldier I[ 10 250 cm (Holes)	6221177020682	53.00
	Soldier I[ 10 275 cm (Holes)	6221177020699	58.30
	Soldier I[ 10 300 cm (Holes)	6221177020705	63.60
	Soldier I[ 10 350 cm (Holes)	6221177020729	74.20
	Soldier I[ 10 400 cm (Holes)	6221177020736	84.80
	Soldier I[ 10 450 cm (Holes)	6221177020743	95.40
	Soldier I[ 10 500 cm (Holes)	6221177020750	106.00
	Soldier I[ 10 550 cm (Holes)	6221177020767	116.60
	Soldier I[ 10 600 cm (Holes)	6221177020774	127.20
	Soldier I[ 12 (slotted & Holes)		
	L= 1.17 m (slotted & Holes)	6221177020941	31.60
	L= 1.47 m (slotted & Holes)	6221177020958	39.70
	L= 1.78 m (slotted & Holes)	6221177020965	48.10
	L= 2.39 m (slotted & Holes)	6221177020972	64.50
	L= 3.00 m (slotted & Holes)	6221177033026	81.00
	L= 3.61 m (slotted & Holes)	6221177020989	97.50
	L= 4.22 m (slotted & Holes)	6221177020996	113.95
	L= 4.83 m (slotted & Holes)	6221177021009	130.45
	L= 5.44 m (slotted & Holes)	6221177021016	146.35
	L= 6.05 m (slotted & Holes)	6221177021023	163.35

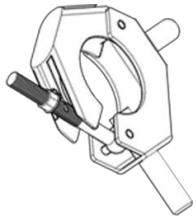
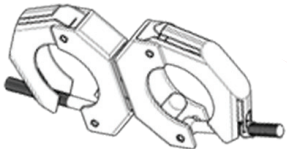
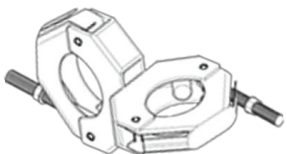



Components

Item	Description	Code no.	Weight (kg)
	splice 60 cm (for bridge)	6221177032555	7.00
	Diphram splice	6221177022105	7.10
	H20 Connection	6221177006891	0.70

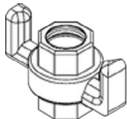
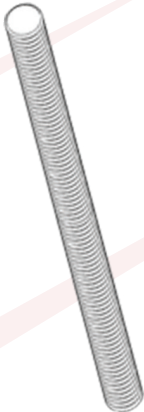




## Components

Item	Description	Code no.	Weight (kg)
	Shorbrace Coupler	6221177007010	0.85
	pressed Prop double Coupler 1.5''x 2.0''	6221177006969	1.15
	presed Prop swivel Coupler 1.5''x 2.0''	6221177006976	1.25
	Scaffolding Tube ,L=1.00 m Scaffolding Tube,L=1.50 m Scaffolding Tube,L=2.00 m Scaffolding Tube,L=2.50 m	6221177017354 6221177017385 6221177017392 6221177017408	2.72 4.08 5.44 6.80

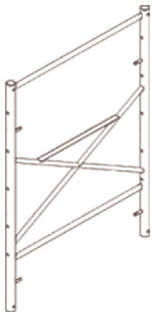

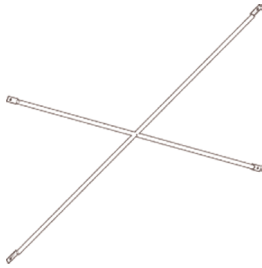
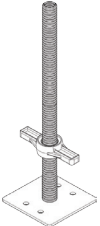


Components

Item	Description	Code no.	Weight (kg)
	Wing Nut DVD	6221177011383	0.45
	Wing Nut 19mm	6221177011390	0.55
	16mm diameter - safe working load 9.0 tons tension.		
	L=0.75 mm	6221177023270	1.12
	L=1.00 mm	6221177023294	1.50
	L=1.25 mm	6221177023300	1.86
	L=1.50 mm	6221177023317	2.24
	L=1.75 mm	6221177023324	2.61
	L=2.00 mm	6221177023331	2.98
	L=2.50 mm	6221177023355	3.73
	L=3.00 mm	6221177023362	4.48
	L=3.50 mm	6221177023379	5.22
	L=4.00 mm	6221177023386	5.97
	L=5.00 mm	6221177023409	7.46
	L=6.00 mm	6221177023423	8.95
	Tie Rod Coupler DVD	6221177007041	0.25
	Steel Washer	6221177027513	1.10
	Shorebrace Frame Connector	6221177006341	0.50

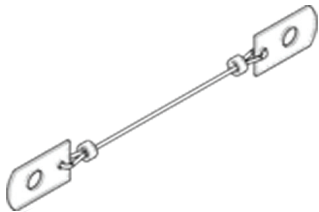
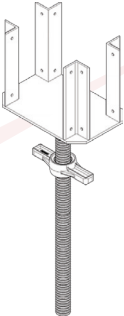
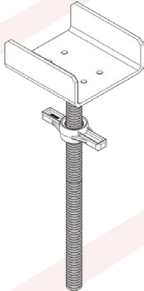
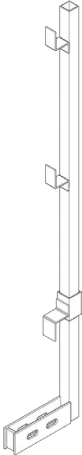
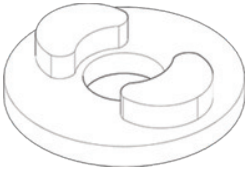


## Components

Item	Description	Code no.	Weight (kg)
	Shorbrace frame 120 cm x 180 cm	6221177009359	29.0
	Shorbrace telescopic frame 120 cm * 165 cm	6221177009458	20.0
	CROSS BRACE (L x 1.20m) 0.90x1.20m 1.20x1.20m 1.50x1.20m 1.80x1.20m 2.10x1.20m 2.40x1.20m 2.70x1.20m 3.00x1.20m	6221177008062 6221177008079 6221177008086 6221177008093 6221177008109 6221177008116 6221177008123 6221177008130	3.35 3.80 4.70 5.20 5.80 6.40 7.15 7.70
	Post Head Jack Solid 34mm (L) 2"	6221177013110	7.10

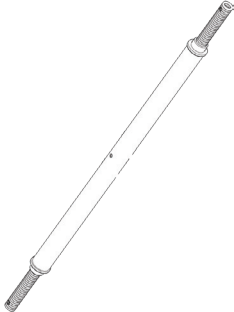


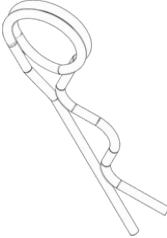


Components

Item	Description	Code no.	Weight (kg)
	Safty Strap (Wire With 2-Plate)	6221177028282	0.18
	U-Head Jack Angle Type (For H20)	6221177025892	8.70
	U-Head Jack Solid-34mm, W=18 Cm , 2"	6221177025939	7.40
	HANDRAIL ( for soldier ) (slotted)	6221177032586	9.35
	COMPENSATION WASHER	6221177033200	0.126



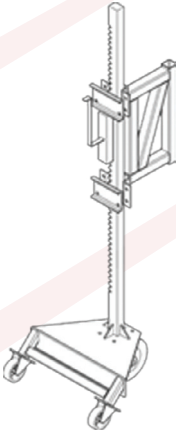
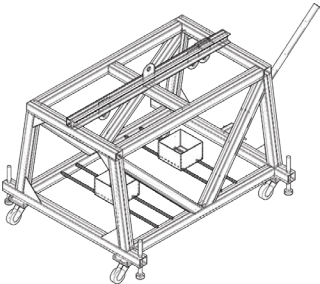


## Components

Item	Description	Code no.	weight(kg)
	Turn Buckle		
	Push Pull PPS 131	6221177014254	9.00
	Push Pull PPS 132	6221177014261	11.40
	Push Pull PPS 161	6221177014278	9.83
	Push Pull PPS 162	6221177014285	12.43
	Push Pull PPS 201	6221177014292	13.14
	Push Pull PPS 202	6221177014308	14.00
	Push Pull PPS 252	6221177014315	15.70
	Push Pull PPS 302	6221177014322	19.00
	Push Pull PPS 352	6221177014339	23.10
	Big Wedge	6221177027629	0.85
	Rivet Pin 12.5mm	6221177012298	0.20
	Rivet Pin 7.50mm	6221177012281	0.12
	spring clip (large)	6221177022617	0.03
	spring clip (small)	6221177022624	0.01



Components

Item	Description	Code no.	weight(kg)
	bolt m 20x100	2012060027925	0.17
	nut m20	2012180029649	0.03
	Wheel Jack Unit transportation wheel jack ( 70 cm)	6221177027896	52.00
	Lowering Chair (W = 1.20M) ( without motors)	6221177011239	705.00



# ACROW

Formwork Technology



Acrow H20 & solidor



Acrow One shutter solidor



Acrow V.M.C



Acrow Tech-Form



Acrow Cuplock



Acrow Bridge table form



Acrow Circular column



Acrow climbing system



Acrow shorbrace Table form



Acrow Big steel panel



Acrow European prop



Acrow Vari form



Acrow Prop table form



Acrow frame



Acrow early striking system



Acrow Ring lock

[www.acrow.co](http://www.acrow.co)



# 20 OFFICE

## AFRICA

### EGYPT

#### Head Quarter

Factory: Wady Houf, Helwan

**Tel.:** [+202] 23690 616 / 23690 739

[+202] 23695 700 / 23699 976

**Fax:** [+202] 23695 260

**E-mail:** info@acrow.co

#### Alexandria Branch

27 Dr. mahmoud Daoud st.

**Tel.:** [+203] 4200 289

**E-mail:** acrowalex@acrow.co

### MOROCCO

221 BVD Zerkouni , 3ème et 4ème

etage - B.N. 06/08, Casablanca

20100, Morocco

**Tel. :** [+212] 522 945 912

**Mob. :** [+212] 660 675 640

**E-mail:** acrowmorocco@acrow.co

### ALGERIA

Siege Social, cité des travailleurs lot. 09

groupe 02 Dar El beida, Algiers

**Tel.:** +213 (0) 23 74 74 37

**Tel.:** +213 (0) 23 74 74 35

**Fax:** +213 (0) 23 74 74 37

**E-mail:** acrow-dz@acrow.co

### NIGERIA

Block D, Plot 23, Water Corporation  
drive, VI, Lagos.

**Tel. :** [+234] 818 0000 295

**Mob. :** [+234] 6061 7290 99

**Email :** acrownigeria@acrow.co

### KENYA

#### Nairobi

Kiungani Rd, off Mombasa Rd,

Nairobi, Kenya

**Tel. :** [+254] 772324535

**E-mail:** acrowkenya@acrow.co

### TANZANIA

#### Dar EsSalam

Oyster Bay Masaki, Dar EsSalam

**Tel. :** [+255] 768 696 314

**E-mail:** acrowtanzania@acrow.co

# 14 BRANCH

## ASIA

### KSA

#### Riyadh Office

Office No. 13A- Sultan Business Building

- Almaathar Ash shamali district - Sultan

Ben Abdulaziz Street - Riyadh

**Tel. :** [+966] 11 216 0504

**Fax :** [+966] 11 216 0503

**Mob. :** [+966] 55 001 2693

**E-mail:** acrowriyadh@acrow.co

#### Jeddah Office

Office No. 15 - 4th Floor - Zahid

Building - Alsalamah district - Mohamed

Ibrahim Masoud Street - Jeddah

**Tel. :** [+966] 12 691 7941

**Fax :** [+966] 12 275 1037

**Mob. :** [+966] 50 001 3206

**E-mail:** acrowjeddah@acrow.co

#### Dammam Office

Office 2, Alsalam Building, Madinat

Alummal Dist., King Fahd Road

**Tel. :** [+966] 13 805 4151

**Fax :** [+966] 11 216 0503

**Mob. :** [+966] 55 468 7057

**E-mail:** dammam@acrow.co

#### Madinah Al Munawwarah

Office 6, First Floor, Ghos Building, In

Front Of Saudi Post, Sultanah Street,

Almadinah

**Tel. :** [+966] 11 216 0504

**Fax :** [+966] 11 216 0503

**Mob. :** [+966] 55 775 8197

**E-mail:** almadinah@acrow.co

#### Tabuk City

Al Muruj District

Prince Mamdouh Bin Abdul Aziz Street

Building Name : Tabuk Business Center

Building No.2786

PO.Box : 47312

Second Floor , Office No.203

**Tel. :** [+966] 11 216 0504

**Fax :** [+966] 11 216 0503

**Mob. :** [+966] 55 001 2693

**E-mail:** acrowriyadh@acrow.co

### UAE

#### Dubai

Office 1002, The Onyx Tower 2- The  
greens - Dubai.

**Tel. :** [+971] 43439498

**Fax :** [+971] 43439598

**Mob. :** [+971] 528228811

**E-mail:** acrowgulf@acrow.co

#### Abu Dhabi

Office 816, Al Junaibi Tower, Al Muroor  
Road - Abu Dhabi.

**Mob. :** [+971] 588113383

**E-mail:** acrowad@acrow.co





## EUROPE

### ROMANIA

#### Acrow SRL

Strada Intrarea Panduri 4, Rudeni 077046,  
Romania

**Mob. :** [+40] 721 297 342

**E-mail:** acrow.romania@acrow.co

### KUWAIT

Al Aridiyah , Block 2 , Building 92,  
Kuwait Khalid Ali Al Kharafi &  
Bros.Co.W.LL

**Tel.:** [+965] 22083000 – Ext [240]

**Fax:** [+965] 22083001

**E-mail:** acrowkuwait@acrow.co

### BAHRAIN

#### Acrow Bahrain Co. W.L.L

Office 1718, building 1260, Road 2421  
Block 324 , Juffair, Manama , Kingdom of Bahrain

**Mob. :** [+973] 35 176 860

**E-mail:** acrowbahrain@acrow.co

### QATAR

#### Acrow Qatar

Salwa Road, Red Tag building,  
1st floor, Doha  
P.O. Box No.: 15104

**Tel.:** [+974] 44582357

**Fax:** [+974] 44582376

**E-mail:** acrowqatar@acrow.co

### OMAN

#### Acrow LLC

Office 23, Bin Hayl 2 Building , Bawshar  
St ,Muscat , Sultanate of Oman

**Tel. :** [+968] 24 112 791

**Mob. :** [+968] 92 543 734

**E-mail:** acrowmuscat@acrow.co

### JORDAN

Jordan - Amman - Al Jandawil - Hosni  
Subar Str - Building no 05 - Third Floor

**Mob. :** [+962] 797 603 936

**E-mail:** acrow.jordan@acrow.co