MOUNTING INSTRUCTIONS
JUMBO 4MM FACADE SCAFFOLD

JUMBO
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SP
Typkontrollerad
SPCR 064
enligt Arbetsmiljö-verkets krav
AFS 1990:12

Type control no:
35 37 03

Scaffold class 3
Max. load: **200 kg/m²**

We thank you for your choice of a JUMBO product. We are convinced that the scaffold should be most useful in the future and look forward to advising you on other scaffolding solutions.

It is very important to read this instruction manual thoroughly before using the facede scaffold. The intention is to achieve sufficient security during building and use

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1. Terms

JUMBO Stillads A/S does not assume or undertake any responsibility for the content of this booklet or for the application of the booklet's content in any way not described in this booklet.
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2. Warranty

There is a 10 year factory guarantee on the facade scaffold. JUMBO Scaffolding disclaims liability of wear and breakage of the components of the scaffold caused by neglect or misuse. Guarantee does not apply to natural wear and tear on components. Lifetime of the façade scaffold is estimated at min. 10 years - max. 3 years for the plywood in the platforms.(according to use and storage)
NOTE: The use of unauthorized parts in your JUMBO scaffold void the warranty, liability and certification.

3. General

These instructions apply only to facade scaffolding built with original JUMBO components

Platforms can be installed with 0.5, 0.75, 1.0 and 2.0 m interval in height. Bay length for this type of scaffold is max. 3.05 m. If the platform is 2 m or more above ground, horizontal braces must be mounted (respectively 1 and 0.5 m height above the platform), as well as end stops and toeboard (must be at least 15 cm high and 3 2 cm thick).

WARNING
Do not work on the scaffolding when the weather poses a particular danger! (i.e. ice and snow)

IMPORTANT: Set up scaffolding must be regularly inspected by qualified personnel, so that any defects are discovered as soon as possible. The inspection should include the ground the scaffold stands on and the tightening of the base plates.

Lifeline or anchoring should NOT be attached to the JUMBO Facade scaffolding.

Maintenance: It is recommended to inspect the scaffolding min. once a year and continually monitor scaffold components visually before use (for ex. damage and crack formation in welds). Components that are heavily damaged should be discarded. If lubrication is deemed necessary a dry PTFE spray is recommended. DO NOT use any oil on JUMBO Facade scaffolding.

Max. Building Height
24 m
Class Load:
200 Kg/m^2
Max. Payload*:
Wind speeds up to 18 m / s: 1 platform layer with class load 1 platform layer with 50% class load **Wind speeds above 18 up to 34.7 m / s::** 1 platform layer with class load
According to SP Report P803328 the maximal dimensional forces in angled wall anchoring is 3.8 kN and 7.5 kN parallel respectively perpendicular to the facade, and force in wall anchoring perpendicular to the facade 2.8 kN. Max. vertical forces against the ground is 16 kN. Max. allowable force on vertical tubes is 5.5 kN according to SP Report P803328.

**Maximum allowable payload (people, materials, tools), on loaded platforms on the scaffold.*

Storage: JUMBO Facade Scaffolding is designed for outdoor use - but it is recommended that you store your scaffolding in a dry place when not in use, as it would extend the scaffolds lifetime significantly.

Repair: Never make changes to the components (ex. welding, cutting or bending) without further approval / inspection of the component. If there is damage to the scaffold component it must be either discarded or sent for repair at JUMBO factory in Kolding, Denmark (if deemed a repair can mend the damage properly).

3.1 Ergonomics

Make sure that the site / access road is cleared, well lit and not slippery. Lift as much as possible with your legs with a straight back and avoid twisting and turning during the lift. Be sure to plan the work and the site layout in relation to the load, use as much as possible the lightest components to build the scaffold. Insert breaks by particularly heavy burden, so muscles and joints can be relieved, and use suitable technical aids (e.g. various winches and hoists) to reduce the burden)

Couplings must be tightened to 50nm. This means that the force used is 0.25 kN on the 0.2 m long arm/shaft of the wrench or other tool used.

4. Mounting

4.1 The base

For proper design and layout of the base the following factors should be taken into account:

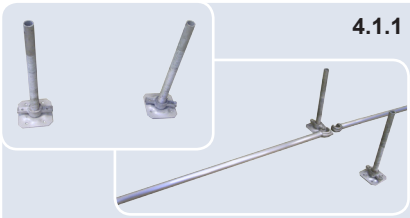
• Purpose and use of scaffolding.
• The building's height.
• Level differences in terrain (setup should begin at the highest)
• The nature of the facade - ie. are there entrances, power lines, carrying wires, signs, dormers, cornices, awnings, overhangs, projections, etc.

The surface on which the scaffolds is erected should be stable and sustainable. Check the scaffold for defects before use.

If the ground is not sufficiently stable, set the adjustable base jacks on planks or other suitable pressure equalization.

Base jacks and chock ups must be fully supported on the whole support surface. A chocking must be no greater than 20 cm. Footplates must be a minimum 20 cm insert in the columns.

Ensure that the layout is plumb and level. When construction of the scaffold handrails and toeboards. must be consecutively installed.



4.1.1 Laying out the base.
The assembly starts at highest level of the terrain. Set out 2 base jacks with spindles screwed down. The distance to the wall must be less than 30 cm.

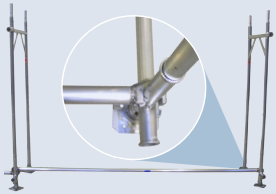
The next foot plates are placed along the wall - the distance is measured by laying out horizontal braces.

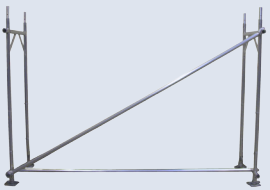
If necessary, level the floor and lay out joists

4.1.2 Erection of the first two frames.
Put two frames up on the base jacks.

Use a horizontal brace to connect the two frames and then mount a diagonal.

Mount the first platform on the frames.
Remember to slide the storm lock into place.
Set the framework plumb and level, and flush with the facade.





4.1.3 Extension of the base.
Continue to assemble frames and platforms for the planned length of the scaffold. Install horizontal braces running the bottom, keeping the framework in place. Diagonals are installed in every 5th section according to Figure 1 in section 4.7.1

4.1.4 Stiffen the framework in the base. Install a 69 cm horizontal brace at the bottom of each frame so that the claw is resting on the base jack spindle.

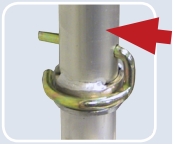
4.1.5 Access is established.
Provide access to the first platform with a scaffold ladder.

Ladder hooks are hooked on to the crossbar of the frame at the end of the scaffold

4.2 Mounting first platform layer

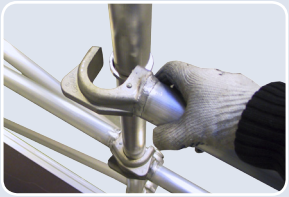
Should the scaffold be no higher than one frame in height finish with horizontal braces in accordance with paragraph 4.6. Otherwise, proceed as follows:

4.2.1 Install the first two frames. Remember to ensure all frames with clips!



4.2.2 Mount the horizontal braces between the two frames.

They must be mounted on the vertical column - just above the welded rings, from the inside and out.



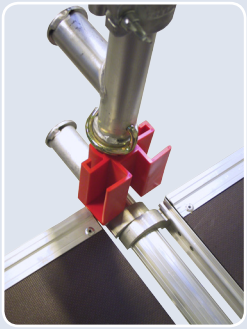
4.2.3 Complete the row in sequence: Frame, horizontal braces, frame, horizontal braces, etc.

4.2.4 Mount end stopper

4.2.5 Mount diagonals according to section 4.7.1

Before further construction mount toeboards at the entire length

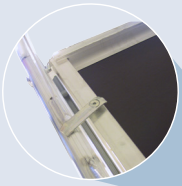
4.3 Mounting of toeboards



Mount toeboards.
Clamp the red toeboard fittings onto each vertical column facing away from the wall, as well as one at each end of the scaffold to the wall.

Slide toeboards into the fitting in the entire length of the scaffold. Finish with short toeboards at the end of the scaffold (Let the end where the ladder was hooked onto to the scaffold be open).

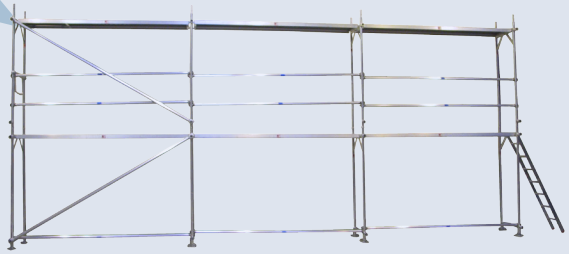
4.4 Mounting second platform layer



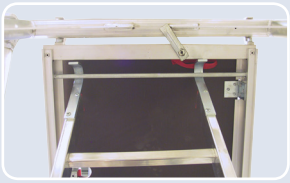
4.4.1 **The second platform layer is established** by mounting platforms in the entire length of the scaffold.

One platform must be with hatch to facilitate access to the platform layer.

DO NOT FORGET to ensure all platforms by sliding the storm lock into place



4.4.2 **Establishing access to the second platform layer.**
The ladder is hooked onto the cross pin attached to the underside of the platform with hatch



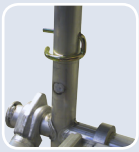
IMPORTANT: Before further assembly and traffic on the platform layer attach the scaffold to the wall - according to section 4.7.2

4.5 Mounting further platform layers

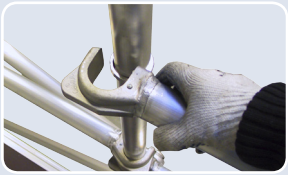
Install further layers in accordance with the pattern in Section 4.2 to 4.4, ie: Establish access to the platform layer. Next, mount frames, horizontal braces, end stops and diagonals. Then the next platform layer is mounted. Toeboards (4.3) and fasteners (Section 4.7.2) are installed continuously on the platform layer you are working on.

4.6 Mounting railway

4.6.1 **Mount a railing frame** at one end of the platform and fit, next mount a pipe at the next spigot. Remember to secure frames and pipes with a clip!!



4.6.2 **Mount horizontal braces between frame and pipes** Fit them from the inside out on the vertical column of the railing frame and on the pipe just above the welded rings



4.6.3 **Continue mounting railings in the entire length of the scaffold** in this sequence: pipe, horizontal brace, pipe, horizontal brace and finish at the end of the scaffold with a railing frame. Remember to continuously secure with clips!

4.6.4 **Mount toeboards.**
Following the instructions under section 4.3 mount fittings and toeboards in the entire length.

4.7 Bracing and anchoring

4.7.1 Bracing

Install diagonal bracing in every 5 section - and always in the peripheral sections! (see Figure 1). Remember that at the bottom of each diagonal section there must be a horizontal brace.

Diagonals are mounted on the diagonal supports that sit on the frames. The diagonals must be mounted alternately to right and left (see Figure 1).

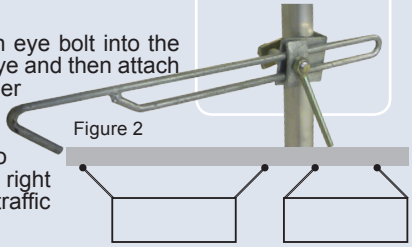
= Diagonal braces
= Anchoring
= Horizontal braces

Figure 1

4.7.2 Anchoring

In order to anchor the scaffold to the wall, first screw an eye bolt into the wall. Second place the hook on the tie rods through the eye and then attach the tie rods to the frame's vertical pillar. Tighten the coupler with the handle.

Figure 2



NOTE: The tie rods must not be installed perpendicular to scaffold, but must be mounted alternately pointing to the right and left (see Figure 2). Tie rods must be installed so that traffic can take place unhindered.

Uncovered scaffold must ALWAYS be secured at each node (frame assembly), at the outer columns and under the top platform.

Also mount tie rods staggered at every other node in height (see Figure 1)

Covered scaffold MUST ALWAYS be secured on ALL nodes!

When brackets are used the scaffold MUST be secured at all nodes in level with the bracket layer

5. Special Constructions

5.1 Stage brackets

If stage brackets are to be mounted on the scaffold, turn it the right way from the start - brackets cannot be mounted on the side of the frame where the diagonal´s spigot is placed! In case of outer stage brackets - turn the frame spigot against the wall. In case of inner stage brackets - turn the frame spigot away from the wall.

NOTE: Mount stage brackets with spigot, pipes and endpieces at each end of the stage bracket layer against the wall. The intermediate brackets can be without spigots (railing is not required against the wall) In case of stage facing away from the wall, each bracket must have spigot and a complete railing must be mounted!
Stage bracket support is required in case of outer stage brackets! When brackets are used, anchoring must be used at all nodes in level with the bracket layer.

5.1.1 Mount stage brackets.
On the JUMBO 4mm facade scaffolding you can choose to mount a bracket in level with the platform level - or mount the bracket offset, anywhere on the vertical pillar.

Control that the U-formed part of the bracket is fitted around the vertical pillar on the frame, thighten the coupler around the frame´s vertical pipe

NOTE: Bracket support (Articel no. 1520060HU) **MUST** be used in case of outer stages!

Continue mounting stages in the planned length.

Stage bracket suuport

The support is mounted by placing the ringcoupler around the lower part of the stage´s spigot.

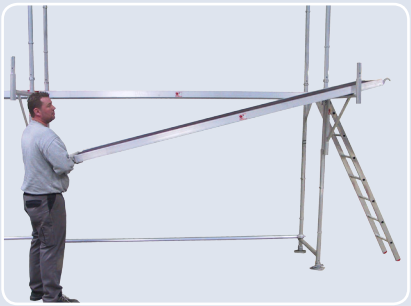
Now place the support on the frame on which the stage is mounted and fasten the coupler.

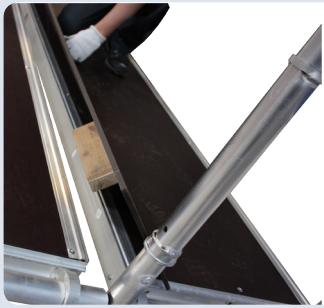
Figure 1

Figure 2

5.1.2 Mount platform layer on stage brackets. Push the platform up and over the stage bracket, and place it correct, the platform´s hooks must be placed with the hooks on the bracket´s horizontal pipes. REMEMBER to lock the storm lock.

Continue to place platforms in the entire length.





NOTE: If the gap between platform and stage deck exceeds 8 cm, use a shield (articel no. 12075100) to close the gap.

Place the shield with the bricks in the gap between the two platforms.

5.1.3 Mount railing.

If the stage bracket layer is against the wall mount the stage bracket with spigots at both ends of the layer

Handrail post and end pieces are mounted on the outer stages. REMEMBER to secure the handrail post with clips.

The intermediate stage brackets can be without spigot since a handrail is not required against the wall (max. distance to the wall 30 cm).

If the stage bracket layer is away from the wall railing is required on the entire length of the layer - place handrail posts on each spigot on the stage bracket. REMEMBER to secure the handrail posts with clips.

Mount an end piece at each end of the the ayer.

Now move the horizontal braces from the platform layer out on the handrail posts on the stage brackets - on the entire length of the stage.

5.1.4 Mount toeboard.

First place the red toeboard clips on the handrail posts as well as on the outer pillar facing the stage bracket ayer.

Mount toeboards between the clips - at each end, on the entire length af the layer

5.2 Staircases

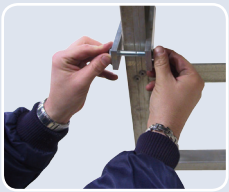
5.2.1 **Start mounting two frames** on the already erected scaffold. Use two aluminium swivel double couplers per frame.
The frame must be mounted with a base jack on the outer pillar, and none on the inner.
Frames must be mounted displaced with app. 45° - remember to fasten the bolts.

5.2.2 **Mount a starting staircase** on one frame. The hooks on the staircase must be placed on the horizontal pipe on the frame - REMEMBER to lock the storm lock.

5.2.3 **Mount base jacks on the starting staircase** on the two couplers at the bottom of the staircase. Use the spindles to get the stairs plumb and in level.

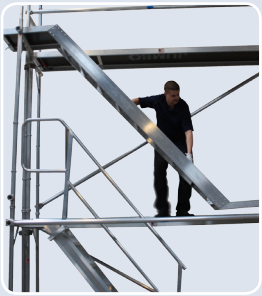
5.2.4 **Mount starting railing on the staircase.** The handrail´s brackets are placed on the outer beam on the staircase. Mount a horizontal brace on the spigot on the frame.

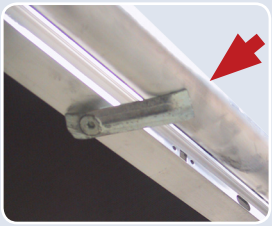
REMEMBER to secure the railing with bolts.



5.2.5 Mount railing on the landing of the starting staircase. Start mounting the next facade frame. Then place an end piece on the frame. The claws on the end piece must be mounted on the inner side.
REMEMBER to secure the frame with a clips and mount toeboards on the staircase gable as described in section 5.2.9

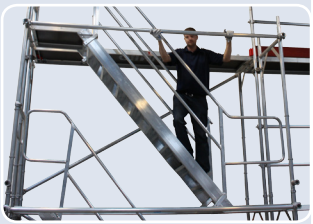
5.2.6 Mount the next staircase. If the staircase has to continue mount another frame (secure with a rotatable aluminium coupler) and mount the next staircase. Remember to lock the stormlock under each landing.





5.2.7 Mount railing. Place an end piece on the frame on the bottom landing of the staircase and mount the outer staircase railing, and then mount the inner. Remember to fasten the bolts on the railings. Mount toeboards as described in section 5.2.9

Before further extensions are mounted mount a horizontal brace. If a taller staircase is needed continue as described in section 5.2.5 - 5.2.7. End with a top railing - section 5.2.8



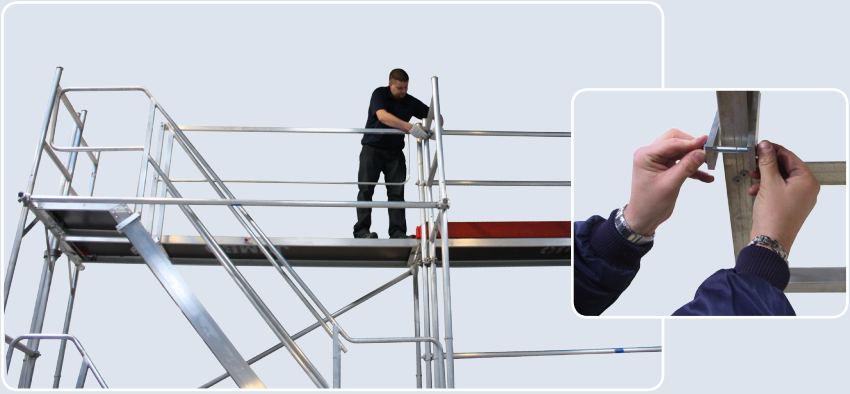
5.2.8 **Mount top railing.** End the staircase frames with a 1 m. railing on each side. Remember to secure with clips.

Remove the horizontal braces and mount a top railing instead.

The fork on the toprailing is mounted on the beam at the top step of the staircase - mount the coupler on the opposite railing frame.

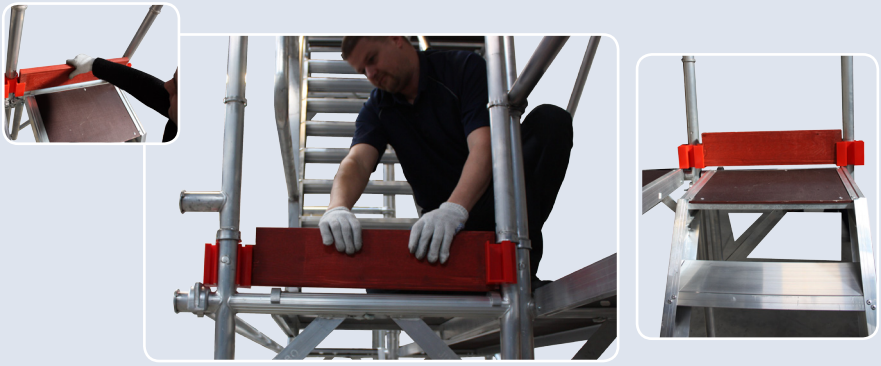
REMEMBER to secure the top railing with a bolt, and to thighten the coupler.

Mount toeboards on the top landing of the staircase as described in section 5.2.9



5.2.9 **Mount toeboards.** Mount a toeboard on each landing and by the staircase gable

Place a toeboard clip on the handlist post and one on the opposite frame (if not already mounted) then mount the toeboard.



5.3 Wide bottom frame

Wide bottom frames allows free passage under the scaffold.

5.3.1 Lay out the base.

Start the mounting at at the highest level of the terrain. Place two base jacks with the spindlers fully screwed down. The distance to the wall must not exceed 30 cm.

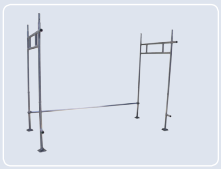
The next base jacks must be place along the wall - the distance is measured with horizontal braces.

If necessary level the surface and place joists.

5.3.2 Mount the first two frames.

Place two bottom frames on the base jacks. REMEMBER: If stage brackets are to be mounted later, turn the scaffold the right way from the beginning!

Use a horizontal brace to connect the two frames and then mount a diagonal.



First mount the platform on the frame - make sure the platform is pushed correctly against the inner spigot.
Remember to lock the storm lock.
Adjust the frame vertically and in level, and flush with the facade.

5.3.3 Extend bottom frame.

Continue to mount frames and one platform per bay, until you reach the planned length of the scaffold. Use horizontal braces to keep the frames in place until the platform is mounted. When the platform is in place the horizontal braces can be removed except in diagonal sections, where there has to be a lower horizontal brace as described in section 4.7.1
Diagonals must be mounted in every 5th. bay as shown in fig. 1 section 4.7.1

5.3.4 Mount spigot coupler on each horizontal pipe of the frames. They must be placed against the already mounted platform. Do not thighten the spigot coupler to hard, it has to be adjusted when the next frame layer is mounted.

Now place the second platform on all bays on the entire lenght of the scaffold.

5.3.5 Mount frames one side goes on the spigot of the wide bottom frame and the other side on the spigot coupler. If the frame doesn´t fit perfectly loosen the spigot coupler and adjust. REMEMBER to thighten the spigot coupler and to secure all frames with clips!

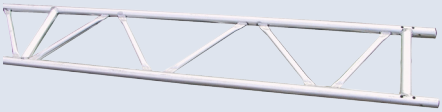
When the frames are mounted on the entire lenght continue the mounting as described in section 4.2 - 4.6.

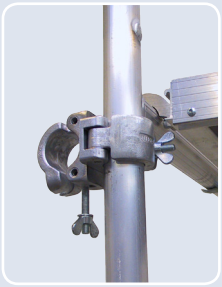
Mount anchoring and diagonals according to the description in section 4.7.

5.4 Girders

5.4.1 **Mount girders** with 50 mm aluminium double couplers. First fasten the coupler onto the pillar on the scaffold, then on the girder.

Thighten the bolts on the couplers.





6. Components and accessories

Article no.	TUN-nr.	Figure	Description	Weight kg.
12135225	5929665	1	Wide bottom frame Ø50x4mm	13,80
12079200s	1252848	2	Frame 74x200 cm - Ø50x4mm	9,00
12079100s	1252849	2	Frame 74x100 cm - Ø50x4mm	5,80
12079075s	1252850	2	Frame 74x75 cm - Ø50x4mm	5,00
12079050s	1252851	2	Frame 74x50 cm - Ø50x4mm	4,20
12074101s	1252852	3	Guardrail frame Ø50x4mm	5,40
1540000	5929689	4	End piece	2,00
1103510	7782931	5	Diagonal 351 cm	4,00
1103054	5929723	5	Diagonal 314 cm (to frame 74x100cm)	3,68
1103053	1252853	5	Diagonal 309 cm (to frame 74x75cm)	3,60
1103052	1252854	5	Diagonal 306 cm (to frame 74x50cm)	3,60
1103050	7782923	5	Horizontal brace 305 cm	3,60
1102500	7782915	5	Horizontal brace 250 cm	3,10
1101780	7782907	5	Horizontal brace 178 cm	2,50
1100691	5929710	5	Horizontal brace 69 cm	1,70
1610305	5192515	6	Toeboard 305 cm (150x32mm)	5,80
1610250	5195514	6	Toeboard 250 cm (150x32mm)	4,80
1610178	5192512	6	Toeboard 178 cm (150x32mm)	3,80
1610074	5192510	6	Toeboard 74 cm (150x32mm)	2,50
FLB-1	5192516	7	Toeboard clip	0,23
1600100	5929690	8	Safety clip	0,12
26ST1004	5033759	9	Base jack 80 cm (adjustable 65 cm)	5,00
26ST1003	5033757	9	Base jack 65 cm (adjustable 50 cm)	4,00
26ST1002	5713756	9	Bsse jack 50 cm (adjustable 30 cm)	3,10
1003050	7782881	10	Platform w/o hatch 305 cm	20,00
1002500	7782865	10	Platform w/o hatch 250 cm	15,70
1001780	7782840	10	Platform w/o hatch 178 cm	8,50
1003051	7782899	11	Platform w/hatch 305 cm	21,50
1002501	7782873	11	Platform w/hatch 250 cm	16,10
1001781	7782857	11	Platform w/hatch 178 cm	11,00
12075100	1306453	12	Shield	5,00
1550212	5929691	13	Ladder 212 cm	3,80
1550312	5929692	13	Ladder 312 cm	5,20
1540100s	1252855	14	Handrail post Ø50x4mm	1,60
26ST1006	5033761	15	Tie rod 0,90 m	2,60
26ST1005	5033760	15	Tie rod 0,60 m	2,00
26ST1008	5713758	15	Tie rod 0,30 m	2,00
1591010	5036509	16	Eyescrew	0,05
1590010	5192509	17	Rawplugs	0,01
143000S4	5189639	18	Starting staircase 4 trin	11,00
143000S8	5189640	19	Starting staircase 8 trin	17,00
1430305	5017516	20	Staircase for 305 cm platform	26,00
1430250	5017522	20	Staircase for 250 cm platform	22,00
143000G4	5189643	21	Starting railing for start staircase 4 steps	4,50
143000G8	5189641	22	Starting railing for start staircase 8 steps	6,00
1430305i	5017519	23	Inner railing for 305 cm	6,00
1430250i	5189613	23	Inner railing for 250 cm	3,50
1430305u	5189616	24	Outer railing for 305 cm	8,00
1430250u	5017518	24	Outer railing for 250 cm	6,00
143050top	5247831	25	Top railing for 305 cm	4,00
142500top	5247830	25	Top railing for 250 cm	4,00
1530200s	1252856	26	Spigot coupler Ø50x4mm	1,00
1520060Hs	1252857	27	Stage - 60 cm w/spigot Ø50x4mm	3,00
1520060	5929687	28	Stage - 60 cm w/o spigot Ø50x2mm	2,30
1520060HU	5189637	29	Stage support	3,00
1530100	5929693	30	Solid aluminium coupler 50mm	1,00
1530110	5929694	31	Rotatable aluminium coupler 50 mm	1,00
19800	5246345	32	8 m girder (shorter versions available)	25,00


Fig. 1


Fig. 2


Fig. 3

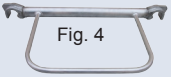


Fig. 4


Fig. 5

Fig. 6


Fig. 7


Fig. 8


Fig. 9


Fig. 10


Fig. 11


Fig. 12


Fig. 13


Fig. 14


Fig. 15


Fig. 16


Fig. 17

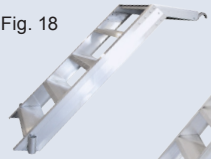


Fig. 18

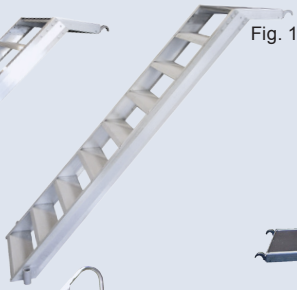


Fig. 19

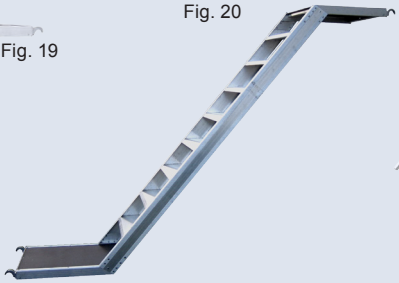


Fig. 20


Fig. 21

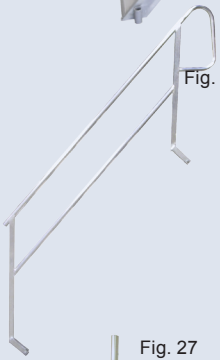
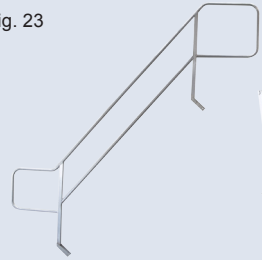


Fig. 22


Fig. 23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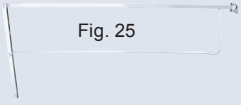


Fig. 25


Fig. 26


Fig. 27


Fig. 28

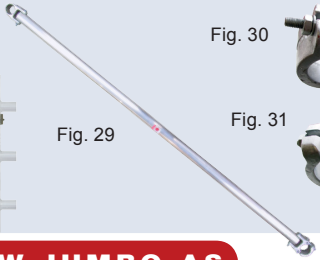


Fig. 29


Fig. 30


Fig. 31


Fig. 32

7. Warnings and abuse

WARNING
Do not work on the scaffold if the weather causes dangerous situations! (eg. ice and snow

The facade scaffold must only be mounted by persons older than 18 years, and only after thorough instructions on assembly and use.

The facade scaffold must not be used for anything else than scaffold work.

Must only be mounted on stable and solid surface.
Min. distance to energized electric cables: 3 m
Avoid installation of billboards or other items, that might increase the wind load.
Don´t EVER increase the range with ladders etc.
The scaffold must never be used as anchorage or support of loose building parts.
Avoid installation in places where persons and animals move around. Any passage under the scaffold must be shielded effectively.
Keep order on the scaffold to avoid risks of falling objects.

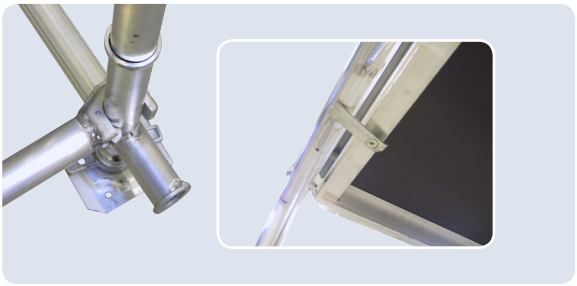
Control the scaffold regularly for any kind of defects.

Installation and use must only take place if all the scaffold parts are in good conditions.

The facade scaffold must only be used with other equipment approved by JUMBO Stillads A/S. Construction changes at your own risk.

Lifeline or anchoring should NOT be attached to the JUMBO Facade scaffolding.

Protect storm lock, claws and coupler from severe blows and penetrating dirt



For further technical questions please contact:
JUMBO Stillads A/S • Stålvej 7 • DK 6000 Kolding • Tel: 0045 75 50 50 75 • www.jumbo.as

8. Dealer

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