Helping you focus....

...on your own Business.





Some assembly required

At the recent IPAF summit in Dublin, Kevin O'Shea of Mastclimbers Inc made a presentation extolling the virtues of renting mast climbing work platforms, particularly during the current recession. His pitch focussed both on the contractor benefits of using mastclimbers on a project, as well as the profitability potential for access rental companies.



It is surprising that some 50 years after the first mastclimbers were first introduced, they are still not perhaps with one or two exceptions - the façade access product of choice. No matter how you look at it, mastclimbers provide a more convenient, safer and more efficient working platform for the vast majority of façade work than regular scaffold, whether system or tube and fitting.



In spite of the obvious benefits that mast climbers offer façade scaffold is still the by far the most widely used access method for buildings.

There are of course a few applications where the façade scaffold, even a tube and fitting façade scaffold is the best tool for the job. However they are few and far between and

limited to the occasional job where it is essential to have tradesmen working on multiple levels at the same time. Multi-level mastclimbers are available but probably best for long term jobs such as cathedral/large church renovation and cleaning where the shapes are very awkward and where the platforms will remain in place for several years.

When it comes to costs O'Shea quoted savings of more than 50 percent when using mastclimbers on a typical façade job. Most of the saving comes, of course, from the fact that the delivery cost and set up time is substantially lower. When you add the other benefits to the equation, such as the time saved climbing ladders, the elimination of a material or personnel hoist, the fact that

Mastclimbers vs scaffold

Typical application: Facade 50 metres high by 40 metres wide, requires brick finish 2,000 square metres of coverage for six months

Scaffold: \$175,000

Mastclimbers: \$90,000

Scissors or Booms: Not suitable

Cradles/Swingstage: Not suitable

Scaffold v mastclimbers Footprint on ground

- Scaffold: 100 square metres
- Mastclimbers: 4 square metres

Mastclimbers also benefit from:

- · No repetitive strain from climbing = lower absenteeism
- · Exactly the right working height at all times = better productivity and quality of work.
- No hoist required = further cost saving

Source: Kevin O'Shea actual example, USA East coast



the optimum height, which in itself brings in productivity and quality of work benefits and it is hard to imagine why mast climbers are not always the access method of choice for façade work.

O'Shea argues that given the fact that mastclimbers, like scaffolding, are an integral access solution for a building, it must be designed even on the most basic level - unlike just turning up and unloading a scissor lift. This fact tends to favour the better organised companies, which run solid quality control procedures and can prove their competence to serious contractors.

It also allows, he points out, companies to be paid for their expertise, something that has all but vanished from most day to day crane or powered access rental businesses.

The design and build element, along with the fact that most mastclimbers tend to be tied into the building, make the rental far more permanent, not subject to mid contract undercutting and temporary off-hiring, allowing the rental company to safely predict the contribution over the life of the project. With a mast climber placed on say a four month project, the rental company has all that time to seek out a new

contract for it and can generally plan his sales efforts far better than the day to day nature of mobile work platforms.

If you go back to the late 1980's, mastclimbers were the hottest new product in the UK and Ireland and a good number of powered access rental companies added them to their fleets. On the whole it was a disaster as everyone cut the rates for the simplest jobs and then found that they had underestimated the work required to design and install the equipment and lost money while distracting themselves from their core boom and scissor husiness

Gradually all of them exited the market, with the net beneficiary being Andrew Reid and his young company Mastclimbers. Having spotted the fact that the logistics and design skills were more important than the product itself, he set out steadily building a business based on these lines. Mastclimbers gradually acquired most of the competitive fleets in the UK to a point where it almost had a monopoly. It became part owned by SGB after absorbing its mastclimber fleet and today is an integrated division of SGB UK, itself owned by the US-based conglomerate, Harsco.

mast climbers

While powered access companies took a stab at the market in the 1980's the scaffold industry largely ignored it, seeing it as a competitor to their products and services. This in spite of the fact that the skill sets required to operate mastclimbers efficiently are precisely those needed for contract scaffolding.

The big scaffolders made and are still making the same mistake as the coaching companies when the railways arrived, thinking that they were a coaching company rather than a transporter of people. One or two scaffold companies are now getting the message and we take a look at one of the fastest growing companies below.

O'Shea certainly makes the mastclimbing rental business look very appealing and it has been shown to be a first class, highly rewarding business. Is it a good bolt-on for boom and scissor rental companies? We think not - it needs to be set up as a specialist stand alone business or division. While scaffold companies already have most of the skill sets and stand to



loose most from the growth of mastclimbers, they also appear to be highly conservative and slow to adopt new technology so perhaps it will be the new entrants that will benefit the most. Much will depend on the demands from contractors and the speed that they switch over from scaffold. One interesting recent development is the arrival in the market of one or two tower crane rental companies, such as HTC. While they may not be well versed in the access industry, they have the design, delivery and erection skills and are usually one of the first companies on site. Maybe over the next 10 years we will see the emergence of the specialist tower crane/hoist/mastclimber supplier?

Going from strength to strength



One UK company that has gone from strength to strength by spotting trends in façade access and putting its money where its mouth is, is BFT Mastclimbers of Leighton Buzzard, Bedfordshire. The company started out as a traditional tube and fitting scaffolder. After some years in the business it spotted the potential and the benefits of switching to system scaffold and dropped most its traditional inventory and invested in large volumes of Layher equipment, which helped it to grow and move ahead of the pack.

Then three years ago BFT recognised the fact that for the vast majority of applications, (90 percent it claims) mastclimbers would or should be replacing scaffold. As a result the company began buying mastclimbing work platforms from Spanish manufacturer Alher. The company's managers quickly realised that to make the most of the new equipment it had to fully stake its belief in the concept and exit the scaffold business in order to focus all of its efforts on mast climbers. Managing director, Robin Head says that trying to keep a foot in both camps is a

hard balance to pull off well. "If you are passionate about what mastclimbers can do and believe that they are the best tool for the job you effectively end up selling against traditional scaffolding. If you also have a scaffold division and try and put the same passion and belief into that product, you need to be selling against mastclimbers and can end up tearing yourself apart as two parts of the business compete with each other."

"There is also the case of course where most of the company's mastclimbers are out on rent but you have scaffold sitting in the yard. At that point, that is what you would inevitably end up selling to the customer regardless of whether it is the best solution for his application."

"Once we got into the mastclimber business it became very clear to us that this was the way forward - the future - and that few if any contactors will return to scaffold once they have used a mastclimber," adds Head.

BFT currently operates a fleet of 220 mast climbers all of which are

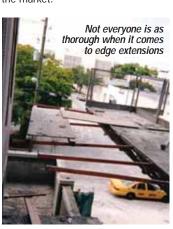


made by Spanish manufacture Alher. Until recently utilisation has been as close to 100 percent as is physically possible, which has caused some problems with availability. A further 30 units were added late last year, in spite of the poor exchange rate between sterling and the Euro, simply to keep up with demand. After a slightly slower start to the year utilisation is back in the high 90's with a reasonable forward order book. Head says that he expects to add further platforms during the year as the market grows and, he says, due to winning increased market share.

The company's latest product from Alher is a lighter weight, more compact mastclimber, the PM60 with easier to handle triangular mast. BFT says that it is targeted at the London market where it feels its compact, lighter weight components will suit the space limitations so often found in the capital. The ultra compact base is just 800mm wide and can be moved with a simple stack truck. 1.5 metre mast sections weigh just 44kg and yet the PM60 retains

much of the versatility of the larger products with up to 60 metres lift height, and 750kg lift capacity on a single mast or 900kg in double mast configuration.

The company prides itself on the fact that when profiling a building it always uses purpose designed mesh floored deck extensions rather than loose scaffold boards. Details such as this, combined with a real 'can do' customer service attitude, together with the small specialist company focus should help ensure the company's continued growth as it plays its part in expanding the market.





British Aircraft warning light solution specialists Delta Obstruction Lighting, is currently installing a lighting system on the cooling towers at the new Cairo West power plant in Egypt. In order to transport men and materials to the top of the 150 metre towers and to carry out the installation work, the company used a rack and pinion hoist to reach a slip-form type cantilever platform.



DEDA TRANSPORT PLATFORMS SUSPENDED WORKING PLATFORMS

GEDA rationalizes construction work: For transport of persons or material - a versatile orientated platform concept can be individually arranged for every use. Up to 400 m height, max. 3200 kg (persons and material), European type test certified, thousand fold in action at constructions sites worldwide.

GEDA Dechentreiter GmbH & Co. KG D-86663 Asbach-Baeumenheim Phone +49 (0) 906 9809-0 Fax +49 (0) 906 9809-50 E-Mail: info@geda.de www.geda.de

Raising the profile



The Fraco mastclimber wrapped around the façade to provide full access

The Guggenheim Building in Rochester, Minnesota is one of the landmark features of a city center which is steeped in the highest traditions of architecture and design. Built in 1974 and part of the Mayo Clinic's portfolio, it recently required some serious renovation work. The contact was awarded to local company, Building **Restoration Corporation and** Tom Fee, project manager for the job explains the main work involved.

"The support steel which holds the stone cladding in place required replacement. To achieve this we had to remove around 200 stone panels, each weighing between 550kg and 1,100kg. Our personnel



needed a stable working platform which could access 100 percent of the profile of the façade so that we could achieve high productivity. Working with Atlanta-based Mastclimbers, we developed a square profiled 'U' shaped, twin-mast platform which enveloped the full façade."

Mastclimbers worked closely with Canadian manufacturer Fraco to

customise an ACT8 Electric, mastclimber. Kevin O'Shea of Mastclimbers said: "Fraco worked closely with us to design a

tailor-made solution which, since

Working with a mobile crane over 200 stone cladding panels were removed in order to replace the steel supports and then refitted.

its introduction to the project, has revolutionised the task. The productivity benefits are huge, and operationally the task is infinitely easier with mast climbers than any other form of access."

"The training requirement consisted of taking experienced construction trades people and introducing them to new technology. You won't get them on any other type of access now!" adds Fee.

Sloping

When we think of malt whisky distilleries in Scotland, traditional building's steeped in tradition come to mind. However the new Diageo distillery at Roseisle, Speyside is a futuristic building with sloping sides that presented several challenges when it came to cladding. Contractor Rok quickly understood that this was a job for mastclimbing work platforms and called in SGB's Mastclimber division.

The £40 million building is the first new distillery to be built in Scotland for 30 years and while it adopts traditional malt whisky methods within the dramatic architecture by Austin Smith Lord, the building houses traditional copper stills.

The long 10 bay, 15 metre high façade, inclines 15 degrees ruling out the use of scissor lifts and would also have been a challenge for traditional scaffold - not to mention the inefficiencies of using non powered access for the job.

SGB used a 15 metre high twin mast assembly which covered half of the building's length. Once the cladding was completed the masts were dismantled and relocated to

complete the other half.

Working closely with Rok, SGB developed a design which minimised interference with the installation of the cladding and insulation materials, allowing the cladding subcontractor to install thermal insulation as well as the cladding panels over the steel frame. The inclined towers were supported on a special base unit with the built-in offset, designed by SGB to transfer the loads directly to the ground. The masts were also supported at the top of the façade and at intermediate points to provide the necessary lateral stiffness.

Rok senior project manager Tom McLaughlan said: "We were

distillery

originally going to use scissor lifts with extending platforms, but this presented problems of instability at maximum working height.

Scaffolding seemed to be the only alternative until we consulted SGB who proposed the use of mastclimbers, which it had used on inclined facades before."

"SGB was very involved in the design process, working with us

and the designers to determine the anchor points for the masts and taking into account the position of the various openings in the façade. What started out looking like a very complicated access problem actually turned out to be a straightforward operation that worked well and went very smoothly", added McLaughlan.



The answer to your prayers



Munich's Frauenkirche is currently hidden behind scaffolding in order to deal with serious moisture damage - particularly on the windward side of the building which is costing €500,000 a year. The renovation work currently being carried out on the north tower, is being assisted by a new Geda Multilift P18 Comfort passenger and material hoist supplied by Geda's dealer BNS in Chemnitz, working closely with the Munich scaffolder SGM.

The 90 metre hoist can stop at any one of 23 levels. The hoist's integrated

level pre-selection control system with digital display is simple and practical to use, with each level to be reached selected with the simple push button, like any hotel elevator. The hoist's inbuilt frequency control eliminates jerky starts and stops, while reducing wear and tear on the brakes, track rollers, etc. Numerous safety features have been built in to allow for the combined passenger and material application, including the overspeed safety brake, overload protection with top and bottom limit switches and interlocked safety gates.

A Titanic development

Belfast-based mast climber rental company AER is working with Harcourt Construction on the regeneration of the historic Titanic Quarter in Belfast. Harcourt gave AER the challenge of finding a practical way to provide access to all areas of the Gateway Building, a key part of phase one of the huge project. The building has a concrete frame with an external façade consisting of stone cladding and

glazed screens to a large double atrium.

The solution consisted of a number of single and twin masted Alimak-Hek mastclimbing platforms, equipped for a combination of light duty work and bricklaying. The machines have to be positioned in 30 different

configurations throughout the duration of the project, working at widths of up to 24 metres with

heights of up to 25 metres. AER staff make daily calls to the site in order to ensure that all platforms are functioning as planned and to discuss any fine tuning or platform repositioning. The site was originally planned for system scaffold, but having carried out a feasibility study concluded that mast climbers would be both faster, provide better access and be less costly.



Mastclimbers are being used for construction and renovation of Belfast's Titanic Quarter currently one of the largest redevelopment projects in the British Isles.

