Cementation Skanska, an internationally recognised specialist piling and ground engineering subcontractor, needed an efficient solution to machine the end face of 10 metre length I-beams used on a construction project.

Outsourcing the machining of these large items would be time consuming and expensive, so the company decided to procure a solution that would allow the machining to be carried out in-house.

The steel I-beams to be machined were manufactured in 30 metre sections and then cut to 10 metre lengths. The end face of each section then needed to be machined accurately in preparation for a connection flange to be welded. Following the welding operation, each flange needed to be machined once more, making them flat and ready for construction.

The solution provided by Mirage was named the ‘MR750x750 Picture Frame Mill’, (after the machine’s 750mm x 750mm stroke).

The assembly included a hydraulically driven 2-axis milling rail (MR1500), a Mirage Gantry equipped with a ball screw feed, and a purpose-built frame, for clamping it to each i-beam.

The feed types included manual operation for getting the milling head into position, plus an auto-feed setting for use when each cut was being made.
Project Outcome

- The solution provided by Mirage enabled Skanska to machine all of the i-beams for the construction project that required machining.
- Keeping the solution in-house saved Cementation Skanska valuable time and money.

More about the MR 1500 Milling Rail

The MR1500 is just one of Mirage’s 2-axis milling machines. Each machine incorporates the latest workshop machine tool technology in a portable format for ease of use on-site. All of our milling machines use the latest linear guides and ball screw technology to ensure accuracy maximum performance.

The MR1500 is available with the choice of either air or hydraulic drive power. Accuracy is ensured through the use of precision linear ‘V’ rails and the ball screw feed. Hand feed is 10mm per /rev and auto feed to ‘X’ axis is 0-83mm/min.
About Mirage Machines

Mirage portable machine tools optimise the performance of on-site assets by achieving operational excellence, maximising uptime and improving productivity.

Our proprietary technology drives the development of the most reliable, durable, efficient and precise portable machine tools on the market, that are capable of delivering the most exacting standards of tolerance with the highest quality output.

Our portfolio of portable machine tools are suitable for a diverse range of on-site machining applications. Mirage have been granted ISO 9001:2008 certification for our design and manufacturing systems and we are able to provide full CE certification for our products.

Industries

Mirage manufacture a range of portable machines for a wide variety of applications and industries including:

- Oil & Gas
- Wind Power
- Decommissioning
- Ship Build & Repair
- Petrochemical
- Mining & Construction
- Subsea
- Utilities
- Nuclear
- Power Generation

Our products are supported by industry experts who work closely with our customers to optimise performance for industry specific applications.

With extensive experience within service companies, our teams understand the dynamics of a wide range of industries and have the capability to deliver turn-key solutions that both meet specific requirements and address complex challenges.

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