

ESAB MIDDLE EAST FZE



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Sustainable Sites	11	14
Water Efficiency	4	5
Energy & Atmosphere	16	17
Materials & Resources	5	13
Indoor Environmental	12	15
Innovation & Design	5	5

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Platinum, New Construction (NC) V2.2
Square Feet: 61,033 sq ft / Office & Warehouse
Neighborhood: Jebel Ali Free Zone, Dubai, UAE
Construction Cost: \$56 / square foot
Completed: May 2010
Date of Certification: October 2, 2010

BENEFITS

- 51.70% Savings on Energy Use
- 35.41% Offset by On-Site Renewable Energy
- 30.40% Savings on Potable Water Use

PROJECT BACKGROUND

A new resolution on the implementation of green building specifications and standards in the emirates of Dubai has been issued by H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE and ruler of Dubai. As per the new resolution, effective on January 2008, all owners of residential and commercial buildings and properties in the emirates of Dubai must comply with the internationally recognized environment friendly specifications to turn Dubai into a healthy city that meets the demands of best practices and benchmarks of pollution-free sustainable development.

Implementing this resolution, Dubai becomes the first city in the Middle East to adopt green building specifications and requirements. The resolution falls in line with Sheikh Mohammed's keen interest in dealing with the current environmental challenges.

In response to this resolution, we are proud to inform that "ESABMIDDLE EAST FZE" has been awarded with **Prestigious LEED Platinum Certification** established by the U.S. Green Building Council and verified by the Green Building Certification Institute (GBCI). It is the first project in the UAE to achieve the LEED NC 2.2 Platinum Certification.





PROJECT PROFILE

ESAB MIDDLE EAST, JAFZA, Dubai, UAE

THE NEW BUILDING

ESAB Middle East FZE is a new construction project with a total built-up area of 61,033 sq ft, consisting of 24,536 sq ft for office and demo area in 2 floors and 36,497 sq ft for warehouse space. The project will primarily act as a Office, Demo and warehouse facility for ESAB. The company produces consumables and equipment for virtually every welding and cutting process and applications. The construction of the facility was completed in May 2010.

The new office and warehouse construction is designed in such a way that Energy & Water conservation is practiced. ESAB's overall intent is to minimize energy and water usage by implementation of innovative design concepts particularly thermal cooling and water usage.

TECHNOLOGIES INCORPORATED

Innovative air-con system

- Solar panels generate hot water; this energy is used to create cold water in the ClimateWell Units
- This cold water – topped up, as required, from a conventional chiller – is fed to air-handling units, creating cold air
- The cold air is then fed through the hollow-core slabs in the building structure, thus cooling the building interior

Heat management

- GreenWall thermal insulation
- ThermoShield heat deflection
- RAK Windows heat deflection

Lighting management

- BMS light controls
- Motion detectors and timers
- The outside light sets the intensity of the interior lighting

OTHER GREEN FEATURES

- 15.17 % Materials use with recyclable content
- 20.66% Regional materials use
- 77.26% Construction waste diverted from landfill
- 100% Of roofing materials meet the SRI requirement

Exemplary performance for:

- Optimize Energy Performance
- On-site Renewable Energy
- Innovative Wastewater Technologies
- Maximize Open Space

On-site water-recycling plant

- Fresh water is stored on-site for domestic and firefighting use
- Domestic wastewater is processed on-site
- Recycled water used for toilets, irrigation
- Any excess is dispatched off-site; any short age is topped up from DEWA mains

Rainwater management

- Permeable interlocking paving
- Elevated warehouse

- Provide storage area for bicycles
- Provide showers and changing rooms
- Provide access to public transportation
- Provide preferred parking for low-emitting and fuel efficient vehicles
- Use of low water-use fixtures
- Use of low VOC building finishes
- Use of Green Label certified carpets
- Use of no-added urea formaldehyde for compressed woods and agrifiber materials

LESSONS LEARNED

Thomas Bohlen, Chief Technical Officer of Middle East Centre for Sustainable Development, said: "This project has proven that even industrial buildings in the Middle East can be designed, constructed and operated to the highest current standards of sustainability."

THE TEAM

Owner: Mr. Harald Hespe (RD) & Mr. Johan Fransson (MD) of ESAB ME FZE

Design Consultant: Pax-Kent International

Contractor: Fars Al Mazrooei Contracting

Green Building Consultant: Middle East Centre for Sustainable Development (MECSA), Dubai, UAE

LEED AP: Mr. Loveleen Raval, Ms. Mary Rose Anlacan, & Ms. Marissa Ahumada

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: ESAB & MECSA