

JOHN CRANE MIDDLE EAST FZE



	55	110
Sustainable Sites	15	26
Water Efficiency	5	10
Energy & Atmosphere	14	35
Materials & Resources	5	14
Indoor Environmental	9	15
Innovation & Design	3	6
Regional Priority	4	4

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Silver, New Construction (NC) v2009
Gross Square Feet: 20,743 sq ft / Office & Factory
Neighborhood: Jebel Ali Free Zone, Dubai, UAE
Construction Cost: \$80.00 / square foot
Completed: January 2011
Date of Certification: July 24, 2012

BENEFITS

- **22.76 %** Savings on Energy Use
- **38.9%** Savings on Potable Water Use
- **32.87%** Materials Use with Recycled Content



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 announce that "JOHN CRANE MIDDLE EAST FZE" has been awarded with **Prestigious LEED Silver 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 V2009 Silver Certification**.



PROJECT PROFILE

JOHN CRANE MIDDLE EAST JAFZA

Dubai, U.A.E.

THE NEW BUILDING

John Crane Middle East in Jebel Ali Free Zone, Dubai, is part of Smiths Group, a global technology business. The total built-up area of 20,743 sq. ft. includes a conditioned Ground plus Mezzanine office in front of a conditioned Ground Plus a partial Mezzanine workshop and Warehouse facility.

John Crane is an international leader in the design, development and manufacture of a wide range of products and services for the world's process and industrial markets.

The new office and workshop / warehouse facility is designed in accordance with John Crane's corporate social responsibility at work and towards environmental sustainability.

SUSTAINABLE SITES AND TRANSPORTATION

The project team accomplished the following strategies to encourage responsible transportation :

- Provided storage area for bicycles to serve 5% of FTE and transient building occupants
- Provided showers and changing areas for 0.5% of the FTE occupants.
- Provided preferred parking for low-emitting and fuel-efficient vehicles
- Provided access to public transportation
- Provided preferred parking for 5% of the total parking provided for carpools and van pools on site
- Provided 100% covered parking space with SRI >29
- 100% of roofing materials were used to exceed the SRI requirement >78

ENERGY EFFICIENCY AND RENEWABLE ENERGY

John Crane achieved an energy cost savings of 22.76% using the ASHRAE 90.1-2007 Option1 Whole Bldg. Energy Simulation method

Energy efficiency measures of the John Crane facility includes:

- Improved thermal envelope
- High efficiency glazing
- Reduced internal lighting power density
- More efficient cooling equipment

MATERIALS & RESOURCES

The building has a designated recycling storage and collection areas. A construction waste management plan was developed and implemented which diverted more than 75% construction waste from landfill. The Project used construction materials with recycled content of about **32.87%** of the construction materials cost and regional materials of about **27.51%**.

OTHER GREEN FEATURES INCLUDE

Specific environmental green features for UAE includes

Exemplary performance on:

- Heat Island Effect, Non Roof
- Regional Materials

Regional credits for:

- Water use Reduction
- Enhanced Commissioning and Measurement & Verification

LESSONS LEARNED

- Teamwork and dedication certainly paved the way to achieve the certification.
- Decisions that occur in the construction period for implementation of some green features are generally more costly, than if made during design stages.

THE TEAM

Owner: John Crane Middle East FZE

Design Consultant: Chawla Architectural & Consulting Engineers

Contractor: AAQ Contracting LLC

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

MECSD Chief Technical Officer: Thom Bohlen, CTO, LEED AP; BD+C, NCARB

LEED AP: Mr. Mohammed Ruvathar

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: MECSD & John Crane Middle East

Prepared By: Rosemarie R. Amoroso