

Japan

## **CASBEE (Comprehensive Assessment System for Building Environmental Efficiency)**

*CASBEE is a rating tool used for evaluating environmental building performance in Japan, developed under the guidance of the Ministry of Land, Infrastructure and Transport.*

*CASBEE is used to assess buildings based on interior comfort, scenery consideration and environmental awareness (utilize energy saving materials and equipment, or those that cause smaller environmental loads).*

*Comprehensive assessments are ranked in five grades:*

- *Poor (C)*
- *Fairly Poor (B-)*
- *Good (B+)*
- *Very Good (A)*
- *Excellent (S)*

### **QUICKCONNECTOR COMMITMENT TO SUSTAINABILITY**

- Environmental responsibility and roots in sustainability for 85 years.
- Quickconnector products are made with natural and recycled resources using lean, responsible manufacturing processes that follow the life of a building or plant.
- During installation, Quickconnector products significantly reduce or eliminate waste, emissions and noise, while maximizing energy efficiency.
- Quickconnector manufacturer has been involved with the Alberici Headquarters, Overland, Missouri (LEED® 2.0 Platinum certification); Vancouver Olympics Village (LEED® Gold certified); Janssen Pharmaceutical (Johnson & Johnson), Titusville, New Jersey (LEED® Platinum certification); SAS Institute, Toronto, Canada; and BG Chemie in Germany.
- Quickconnector assures the “green spirit” of a building by enabling sustainable piping design and enhanced system performance.
- Easy access to systems installed with Quickconnector products promote routine maintenance schedules and thus enable building systems to operate at peak efficiency for the life of a system.
- Quickconnector may facilitate reaching CASBEE certification; solid environmental commitment and experience, with experienced certified engineers on staff.

## Background Noise Level

**Requirement – Minimize the interior air conditioning noise level, and exterior traffic noise penetration.**

### **QUICKCONNECTOR SOLUTION:**

- Quickconnector mechanical grooved pipe systems deliver unsurpassed vibration isolation and sound attenuation characteristics.
- Quickconnector flexible couplings provide vibration attenuation in the following ways; pipe end separations, elastomer gaskets and ductile iron housings.
- The versatility of Quickconnector mechanical joining systems, with expansion and noise and vibration dampening characteristics, ensure the systems do not contribute to background noise.

## Chemical Pollutants

**Requirement – Halt pollutants at source to maintain healthy indoor air. The first priority being to minimize pollutant emissions from the building.**

### **QUICKCONNECTOR SOLUTION:**

- Unlike welding that emits highly toxic pollutants, uses vast amounts of electrical energy and specialty gases, Quickconnector flameless connections avoid impact on human safety and the environment.
- More than 75 percent of Quickconnector fittings and couplings are dip coated, a process that creates less wasted paint, does not pose hazardous air pollutant (HAP) risks nor contains as many volatile organic compounds (VOCs) as spray processes.

## Seismic Isolation & Vibration Damping System

**Requirement – Evaluate performance in preventing or reducing sway due to strong winds or earthquake. Specifically, consider improved comfort in strong wind, and protection of internal equipment and fixtures in earthquakes.**

### **QUICKCONNECTOR SOLUTION:**

- Quickconnector piping systems reduce vibration transmission; are able to withstand seismic events and keep systems operational.

## **Necessary Replacement Interval for Air Conditioning & Ventilation Ducts/ Necessary Renewal Interval for HVAC, Water Supply & Drainage Pipes**

**Requirement – The longevity of air conditioning and ventilation ducts, water and HVAC pipes is evaluated by examining the materials and jointing methods used in the building.**

### **QUICKCONNECTOR SOLUTION:**

- Quickconnector joint design provides quick and easy access to piping system that allows for continued use during routine maintenance, pipeline repair, or system expansion.
- Quickconnector durable C-shaped cross-section seals can handle significant compressive cyclical loading. The gasket can withstand repeated pressure and depressurization for many years without fatiguing the rubber.
- Quickconnector piping systems are designed for the life of a system.

## **Reducing Usage of Materials**

**Requirement – To judge high-strength materials usage to reduce materials used, and evaluate the measures used on each constituent material.**

### **QUICKCONNECTOR SOLUTION:**

- Quickconnector conducts manufacturing with a recycling process that includes recycling 100% of the sand it uses in the casting process.
- Quickconnector can minimize job site waste through lean manufacturing (produce and ship only required materials), as well as coordinate deliveries according to the contractor strategy and schedule.

## **Use of Recycled Materials as Non-Structural Materials**

**Requirement – Increase demand for building products that incorporate recycled content materials, reducing impacts resulting from extraction and processing of virgin material.**

### **QUICKCONNECTOR SOLUTION:**

- Quickconnector uses 90 percent recycled steel and ductile iron for its coupling and fittings at all of its manufacturing facilities.
- Most of the Quickconnector product involved in your project may help you reach this objective.

## Use of Materials without Harmful Substances

**Requirement – Evaluate reduction in chemical use, which can effect interior quality and potentially harm the wider environment. Evaluate the level of materials that do not contain hazardous substances by counting construction material types.**

### QUICKCONNECTOR SOLUTION:

- Quickconnector uses a no-flame-joining method that reduces emissions of Particulate Matter (PM). In 2007, mechanical couplings, manufactured by Quickconnector manufacturer, used on world projects eliminated 145 metric tons of particulate matter, the equivalent of removing one million cars from the road for a week.
- More than 75 percent of Quickconnector fittings and couplings are dip coated; a process that creates less wasted paint, does not pose hazardous air pollutant (HAP) risks nor contains as many volatile organic compounds (VOCs) as spray processes.

## Consideration of Local Environment

**Requirement – Evaluate the reduction rate relative to emission standard in the gas concentration emitted by each device at the emission source.**

### QUICKCONNECTOR SOLUTION:

- Quickconnector joined pipe can be pre-fabricated and configured to lay flat in a truck bed, unlike prefabricated welded spools that are non-adjustable in the field.
- Quickconnector can fit more material per truckload, equating to reduced transportation costs and carbon emissions.
- Quickconnector avoids welding and therefore avoids all harmful effects linked to this method.
- The Quickconnector method does not require the use any emitting device on the job site.

## Conclusion

Quickconnector saves time and money and enhances sustainability, not only through the manufacture of its products themselves, but through the Quickconnector installation and maintenance processes. By avoiding welding, and recycling both sand and raw materials needed for manufacturing, Quickconnector shares CASBEE objectives.

Quickconnector products may contribute in up to 29 CASBEE points. Using Quickconnector products in your pipe system may ensure excellent opportunities for CASBEE certification. Consult your local Quickconnector representative for the right solution on your next sustainable building project.