

# New Hanging Scaffold “Umbrella Deck™”

## 1. Introduction

Internal scaffolding is necessary in boiler maintenance at waste incineration plants and similar facilities. Conventionally, pipe scaffolding had been erected from the bottom of the boiler. However, in work in which a large number of personnel handle long pipes, etc. in a limited space, there was a high risk of accidents, and there were also variations in the finish and safety of the scaffolding depending on the skill of the workers. As an additional problem, the long time required to assemble and dismantle scaffolding had become a cause of long-term plant stops. “Umbrella Deck™” is a new type of hanging scaffold that solves these problems and can be installed “by a small number of personnel,” “safely” and “in a short time” by assembling the subdivided parts of the system product.

## 2. Umbrella Deck™

### 2.1 Structure

The structure of Umbrella Deck is shown in **Fig. 1**.

### 2.2 Features

The features of Umbrella Deck are as follows.

- (1) Consists of subdivided members that can be assembled by 4 persons in half a day.
- (2) Uniform finish because Umbrella Deck is a system product.
- (3) Smooth motor-driven raising/lowering by adoption of a rack and pinion system.
- (4) Adaptable to various sizes by a scissors link mechanism.

### 2.3 Specification

The product specification is shown in **Table 1**, and the installation condition is shown in **Photo 1**.

## 3. Conclusion

In the future, we plan to develop larger- and smaller-scale systems in order to expand the applications of Umbrella Deck to not only waste incineration plants, but also biomass power plant boilers, silos, tanks and

other storage tanks, and various types of plant equipment and structures.

### For Further information, Please Contact:

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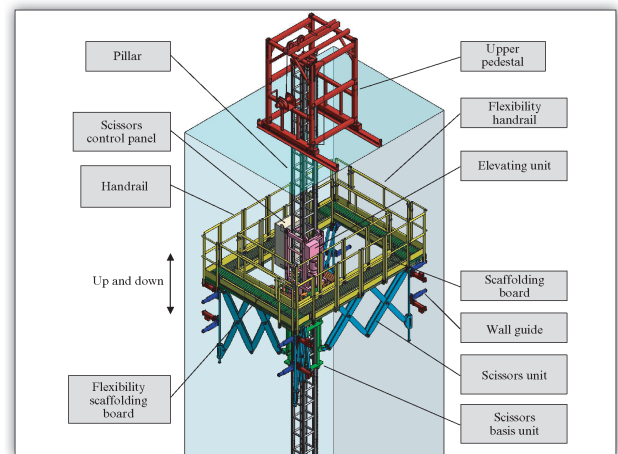


Fig. 1 Structural drawing of Umbrella Deck™

Table 1 Specification of Umbrella Deck™

Movable load	450 kg
Rated speed	1.08 m/min
Own weight	1 000 kg
Power supply	AC 200 V
Operation	Push button type
Qualification	Gondola handling

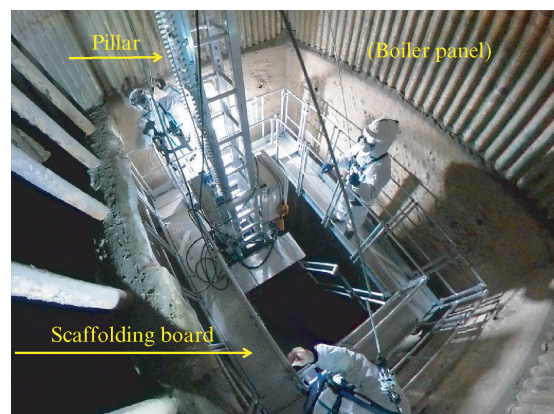


Photo 1 Installation of Umbrella Deck™

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