## **TOSHIBA**

## **CASE STUDY 3**

### MECHANICAL ENGINEERING SUPPLIER

By using the USX, more than 50% of the operating costs could be saved.



**Project Period** 

December 2016

#### **Installed Units**

- Air-cooled heat pump "Universal Smart X" (USX)
- "Super Digital Inverter" (SDI)

#### PROBLEM STATEMENT

The customer is a parts manufacturer of industrial machinery. The customer's original gas absorption chiller, after nearly 20

years of operation, needed to be replaced to save energy, easily control temperature and reduce operating costs.

#### **SOLUTION**

To meet the customer's needs, TOSHIBA recommended replacing the original absorption chiller with the air-cooled Universal Smart X heat pump chiller (USX). The USX reduced

running costs through high-efficiency operation and provided risk diversification with a backup for each module.

#### Gas Absorption Chiller



Universal Smart X

#### Split Air Conditioning System



Super Digital Inverter

#### **ADVANTAGES**

Replacement with highefficiency chiller brought energy savings and large reduction in operating costs.

- 1. The system installation costs were reduced.
- 2. 54.6% energy saving rate compared to gas.
- 3. Simple and reliable system operation.



Gas Absorption Chiller



old split airconditioning system



Universal Smart X



Super Digital Inverter

# CUSTOMER'S OPINION

Universal Smart X offered us cost reduction for maintenance and operation, lower environmental impact and higher comfort.