



## Cruise Ship Meraviglia - MSC

One of the world's biggest cruise ships is using FlowCon valves to ensure optimal comfort and energy savings.

MSC Meraviglia is an upcoming cruise ship under construction for MSC Cruises by STX Europe, at the shipyard Chantiers de l'Atlantique placed in St. Nazaire, France.

Meraviglia is the leader ship of MSC's new Vista generation vessels, and each ship will have a passenger capacity of 4,500 persons. In that respect, the Vista class will rank ninth in the world. Meraviglia is expected to be delivered by May 2017, and after entering service, it will operate initially in the western Mediterranean. Eventually, the vessel will move to the North American East Coast for Eastern Caribbean cruises.

### Project configurations

FlowCon International is the main supplier of balancing valves and wafers to the cruise ship. The project configurations are as per below:

**Shipyard:** STX

**End customer:** ENGIE

**Project name:** Meraviglia - MSC

**FlowCon distributor:**

La Robinetterie Industrielle, France

**Configuration of ship:** Cooling

**Valve model:**

FlowCon AB valve with FlowCon E-JUST insert,  
FlowCon Wafer for cooling and  
FlowCon UniQ® for each cabin FCU

**Type of job/application:**

Cooling on ship and FCUs at cabins

**Date of installation:** May 2017

### Features of Meraviglia - MSC:

- 315 meter long with about 33,000 m<sup>2</sup> in common area
- 2,250 cabins with exclusive accommodation for up to 5,700 guests
- World leader of environmental engineering and safety

### Reasons for choosing FlowCon valves for MSC Cruiseship Meraviglia

FlowCon's dynamic valves were preferred for this project due to high demands in cabin comfort, energy savings and previous experience. Accurate and specified flow to the fan coils will secure the right temperature in the cabin for the benefit of passenger comfort. Flowcon's dynamic valves will eliminate the negative flow variables that may have a big impact on accuracy/temperature. These variables include pump fluctuations, valve authority conflicts and limited stroke ability. Hence, by choosing the right solution, accurate flow and temperature are at all times maintained.

The energy savings were a high priority both due to environmental aspects and due to the fuel costs of the diesel engine. Securing accurate flow to coils will reduce pump energy consumption significantly due to the relation between flow (Q) and pump work P(W)<sup>1</sup>.

Note 1:  $\frac{(\frac{1}{2}) \times p \times Q^3}{A^2} = P(W)$

In many cases, when choosing correct valves the energy consumption is reduced with up to 30% which is a benefit of both the environment and return of investment.

For MSC it was also a criterion that the valves were easy to service and replace, if needed. On sea this is an absolute must since the local plumber might be far away. FlowCon's patented insert system ensures easy flushing, easy service and easy replacement, if needed.

For more information concerning the chosen products please go to:

- <http://flowcon.com/products/adjustable-cartridge-automatic-balancing-valves/flowcon-ab/>
- <http://flowcon.com/products/pre-set-automatic-balancing-valves-dn50-1000/flowcon-wafer/>



FlowCon International specializes in dynamic applications and is constantly developing and improving in response to market demands. FlowCon International has always enjoyed a reputation as an innovative leader in the dynamic balancing market. Today FlowCon International boasts more than 50 years of HVAC market experience and is presented in more than 60 countries world-wide. Each territory is supported through our regional facilities located in California (USA), Singapore, Dubai and Denmark.

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