

# Case Study

## The Project:

Haydon Wick Primary School, Swindon

## Specifiers:

Swindon Borough Council

## The Heating Solution:

Jaga oXygen System (Maxi LST)

## The Detail:

Haydon Wick Primary School was experiencing a number of problems associated with poor heating and air quality in the classrooms; as a result the 290 pupils tended to fall asleep in lessons, feel sluggish and suffer from headaches. New School Building Bulletins required innovative solutions to this problem. For Haydon Wick, Swindon Borough Council specified the Jaga oXygen air refreshment system, to provide good air quality and safe, energy-efficient heating.

Jaga's low water content (Low-H<sub>2</sub>O) Maxi LST radiators, incorporating Jaga oXygen units, were installed in the three classroom extension to the school. The small fans within the units introduce fresh air from outside, and pre-heat it during winter. A sensor in each room measures if the carbon dioxide levels are too high, which occurs when more pupils enter the classroom or activity increases. An exhaust system in the roof then removes exactly the right quantity of stale air which otherwise would leave pupils susceptible to headaches and feelings of lethargy or even nausea. The active CO<sub>2</sub> sensor system allows fans to operate only when there is a need for fresh air, preventing the system from over-ventilating and wasting money. The whole oXygen system is controlled by a PC, making it very easy for Haydon Wick to adjust settings as needed. The system can also be operated remotely, through a secure internet connection.

## About Jaga:

Part of one of Europe's leading manufacturers of heating systems, Jaga's UK operations were originally established in 1991. Traditionally the company has been best known in the UK for its Low Surface Temperature (LST) radiators which have proved particularly popular in hospital and healthcare locations and in sheltered housing or other situations where the vulnerable are present.

Jaga is now actively targeting the commercial office, educational, social housing, local authority and private housing sectors with its innovative Low-H<sub>2</sub>O and dynamic ranges. Jaga Low-H<sub>2</sub>O heating solutions offer a constant and perfectly controlled output, a reaction speed three times faster than traditional radiators, and an extra energy saving of 10% compared to steel panel radiators.



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# Maxi LST: Technical Sheet

## Rigid and Robust:

The Maxi LST complies with the highest safety requirements and is suitable for areas where safety and durability are of prime importance.

- Low Surface Temperature, the casing always remains safe to touch
- The valve body can be hidden within the standard casing
- With a Low-H<sub>2</sub>O heat exchanger of pure copper and aluminium:
  - totally non-corrosive, a 10 year guarantee
  - efficient: rapid heating up due to super low water content
  - high heat output achieved with normal and lower flow temperatures
  - the optimal combination of convection and radiation
  - with dirt-repellent and dust-proof lacquer in graphite grey (RAL 7024)
- Soft design: rounded angles, to avoid accidental injury
- Super strong profiled front plates in 1.5mm steel
- Casing locks included as standard for extra security

## Maxi LST Dimensions:

Height: 44cm, 59cm, 74cm  
Length: 63cm up to 203cm  
Breadth: 13cm, 18cm, 23cm  
Watts: from 637 up to 6685

## Colours:

Scratch resistant surface coating with a satin gloss finish. High UV resistance.  
Standard colours without surcharge:

- white (201) RAL 9010 glossy
- white (233) RAL 9016 glossy
- sandblast grey metallic (001)
- Other colours available

## High Efficiency:

A Maxi LST radiator incorporating the oXygen air refreshment system can achieve energy savings of 20%\* compared with uncontrolled natural ventilation.

## oXygen System Operating Principals

- Balanced ventilation system
  - Air removed = air supplied (balance)
- Central Exhaust Box with extraction in wet rooms, such as toilets
  - Has a relative humidity sensor. (Optional)
- Central operation console = Master
- Demand-driven ventilation/checks the CO<sub>2</sub> level in the room



\*Certified independent testing carried out in Holland.

