LYNGSON

Lyngson OKNO

for glass facades and panoramic windows

- natural convection
- Low-H₂O façade convection heater
- strong metal casing
- standard colour white, Ral colours on demand
- a innovative heating technology and high quality
- easily accessible for maintenance
- extended range
- available in many sizes and colours
- a sleek and discreet design creates space for the architects





OKNO

The technological evolution allows us to produce ever more efficient glazing for building façades with large glass windows without a great heat loss. But large windows, however, almost always give a cold feeling as a result of the so-called 'cold trap'. This can be solved by integrating the OKNO heating system in the window frame.

The facade convector OKNO placed directly on the facade prevent direct penetration of cold air into the interior. The warm air rising from the OKNO mixes with the falling cold air and creates a heat shield that provides superior thermal comfort inside buildings. Placing an artificial "air curtain" or other artificial solutions can thus be avoided. In some buildings that having glazed façades throughout many storeys, a façade convection heater would be a perfect match. A mechanism of natural convection being used in a OKNO would stop a mass of cold air naturally falling down.

Mounting example





Lyngson reserves the right to change product specification at any time in line with our policy of continuous improvement and innovation.

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Low-H₂O: an example of ecodesign:

Low-H₂O radiators consume less energy. But it is not only during their life that they are more environmentally friendly. Since a Low-H2O radiator is much lighter and smaller than an equivalent capacity of a steel panel radiator, the raw material requirement in manufacturing is also significantly reduced.

The "Low Mass" radiator with super fast heat conductivity

A lower mass heats up faster than a higher mass. That is a law of nature. Low- H_2O radiators contain up to 90% less water than a steel panel radiator and they also have no heavy steel plates that require pre-heating. The ultra-modern alu-minium and copper heat exchanger rapidly transfers the heat to the room. Low- H_2O radiators respond faster and immediately provide thermal comfort. They achieve this with a much lower consumption.





Warm up of rising

and falling air

Rising air

OKNO T4

Dimensions



OKNO T4

| T4 | Ö | Double-sided Low-H ₂ O heat exchanger: 1/2" double-sided connection | | | | | | | | | | | | | |
|----------|-----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 |
| В | | 8.5 | | | | | | | | | | | | | |
| Н | 6 | | | | | | | | | | | | | | |
| 75/65/20 | 121 | 141 | 162 | 182 | 202 | 222 | 242 | 283 | 323 | 364 | 404 | 444 | 485 | 525 | 566 |
| 55/45/20 | 61 | 71 | 81 | 91 | 101 | 111 | 121 | 141 | 162 | 182 | 202 | 222 | 242 | 263 | 283 |

output per meter of cabinet length (m/l) at 75/65/20°C: 202 Watt output per meter of cabinet length (m/l) at 55/45/20°C: 101 Watt



• option: other colours

OKNO T9

Dimensions



OKNO T9

| Τ9 | Ø | Standard Low-H ₂ 0 heat exchanger: 1/2" same end connection | | | | | | | | | | | | | |
|----------|------|--|--|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| | | D | Double-sided Low- H_2^0 heat exchanger: 1/2" double-sided connection | | | | | | | | | | | | |
| L | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 |
| В | 13.5 | | | | | | | | | | | | | | |
| Н | 6 | | | | | | | | | | | | | | |
| 75/65/20 | 255 | 297,5 | 340 | 382,5 | 425 | 468 | 510 | 595 | 680 | 765 | 850 | 935 | 1020 | 1105 | 1190 |
| 55/45/20 | 128 | 149 | 170 | 191 | 213 | 234 | 255 | 298 | 340 | 383 | 425 | 468 | 510 | 553 | 595 |

output per meter of cabinet length (m/l) at 75/65/20°C: 425 Watt output per meter of cabinet length (m/l) at 55/45/20°C: 213 Watt



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OKNO T14

Dimensions



OKNO radiator T14

| T14 | Ĺ | Standard Low-H ₂ 0 heat exchanger: 1/2" same end connection | | | | | | | | | | | | | |
|----------|---|--|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| | Low-H ₂ 0 heat exchanger: 1/2" double-sided connection | | | | | | | | | | | | | | |
| L | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 |
| В | 18.5 | | | | | | | | | | | | | | |
| Н | 6 | | | | | | | | | | | | | | |
| 75/65/20 | 416 | 486 | 555 | 625 | 694 | 763 | 833 | 972 | 1110 | 1249 | 1388 | 1526 | 1665 | 1804 | 1943 |
| 55/45/20 | 208 | 243 | 278 | 312 | 347 | 382 | 416 | 486 | 555 | 625 | 694 | 763 | 833 | 902 | 972 |

output per meter of cabinet length (m/l) at 75/65/20°C: 694 Watt output per meter of cabinet length (m/l) at 55/45/20°C: 347 Watt



• standard colour: traffic white RAL 9016

• option: other colours

Lyngson OKNO

Option: with integrated pipe duct



Standard device



Option: with integrated pipe duct + 5 cm



Standard device



Option: with integrated pipe duct + 5 cm



Standard device



Option: with integrated pipe duct + 5 cm



PRODUCT DESCRIPTION

The appliance is equipped as standard for heating and for connection to traditional water heating systems. Material:

The Low-H₂O heat exchanger:

- standard heat exchanger: 1/2" same end connection
- double-sided heat exchanger: 1/2" double-sided connection (on request)
- is manufactured of round, seamless circulation tubes of pure red copper, with pure aluminium fins and collectors for left or right 1/2" same end connection.
- air vent 1/8" and drain cock 1/2" are included
- pressure test: 20 bar
- working pressure: 10 bar
- electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024.

Casing:

- electrolytic, galvanised steel plate of 1.25 mm thick
- brackets made of sendzimir galvanized steel plate of 1 mm
- the casing is lacquered in the colour traffic white RAL 9016. A scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200 °C. UV-resistant due to ASTM G53.

Options:

• integrated pipe duct: width of the standard device + 5 cm

How to install

The building services engineer chooses the heating elements considering the following conditions:

- a heat output calculation according to the standard.
- the heat exchangers will be connected to a one pipe system / two pipe system, with a same side end connection.
- the valve connection is concealed within the standard casing

Maintenance:

Frequency of maintenance depends on the environment in which it is placed.