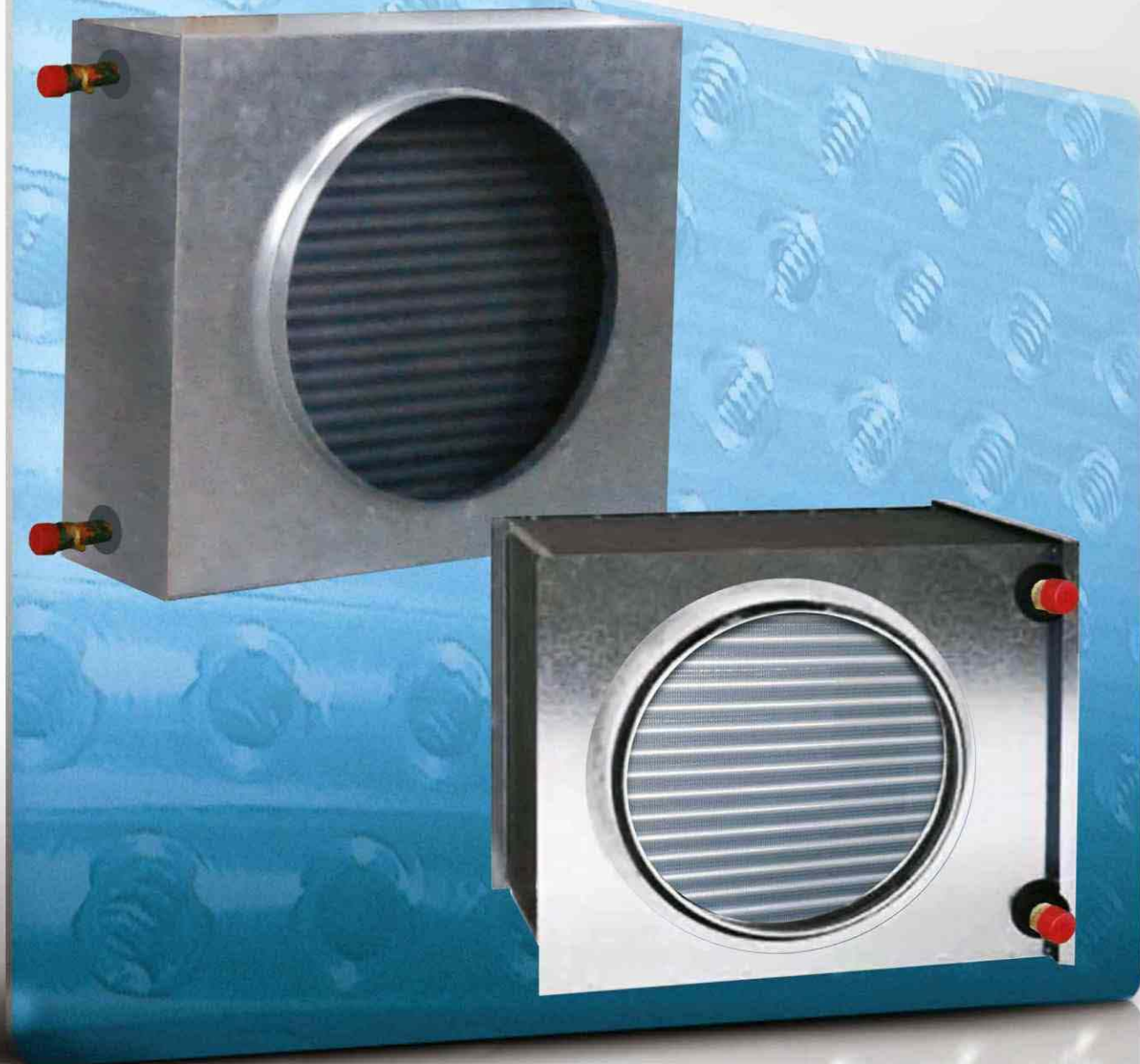




NWO AND CWO HEATERS AND COOLERS FOR ROUND DUCTS



**PRZEDSIĘBIORSTWO PRODUKCJI URZĄDZEŃ
CHŁODNICZYCH TARCZYN SP. Z O.O.**

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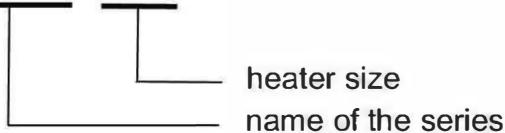
NWO hot water duct heaters

Application:

NWO hot water duct heaters are used in ventilation or air conditioning systems. They are designed to be mounted in round flex or spiro ducts. The series includes 8 sizes.

Denomination:

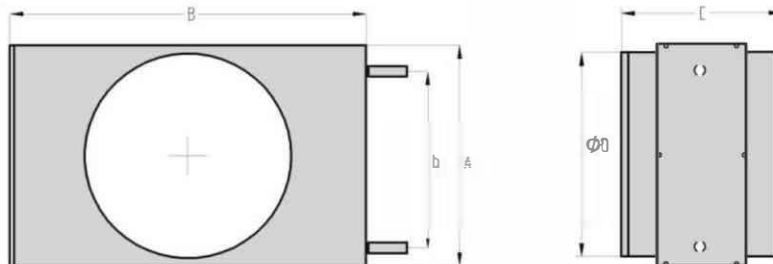
NWO - 200



Design:

The heater's fin coil is built with 3/8" internally finned copper tubes mechanically expanded inside aluminium fins which are equipped with flanges covering the whole fin spacing distance, thus ensuring perfect thermal contact. All coils are tested with 30 bar pressure. Galvanized steel casing (as an option it may be painted with RAL 9016 or another requested colour, or made of stainless steel).

Technical data – dimensions:



| Type | øD [mm] | ød [mm] | A [mm] | B [mm] | C [mm] | b [mm] | Weight [kg] |
|---------|------------|------------|-----------|-----------|-----------|-----------|----------------|
| NWO-100 | 100 | 3/8" | 190 | 215 | 305 | 138 | 6 |
| NWO-125 | 125 | 3/8" | 190 | 215 | 305 | 138 | 7 |
| NWO-160 | 160 | 3/8" | 265 | 290 | 305 | 213 | 8 |
| NWO-200 | 200 | 3/8" | 265 | 290 | 305 | 213 | 10 |
| NWO-250 | 250 | 1/2" | 390 | 365 | 345 | 338 | 13 |
| NWO-315 | 315 | 1/2" | 465 | 440 | 345 | 413 | 17 |
| NWO-400 | 400 | 1/2" | 540 | 515 | 385 | 488 | 21 |
| NWO-500 | 500 | 3/4" | 640 | 625 | 385 | 588 | 28 |

NWO 100 technical data

| | | | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|--|------------------|-----------------------|-----------------------------|--|------------------|-----------------------|-----------------------------|--|------------------|-----------------------|-----------------------------|
| Air flow | Pressure drop | Inlet temperature | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 60 | 3,93 | -25 | 53,45 | 1,57 | 0,02 | 1,23 | 44,88 | 1,40 | 0,02 | 1,00 | 26,19 | 1,03 | 0,01 | 0,59 |
| 60 | 4,06 | -15 | 55,70 | 1,42 | 0,02 | 1,01 | 47,06 | 1,24 | 0,02 | 0,81 | 29,02 | 0,88 | 0,01 | 0,45 |
| 60 | 4,12 | -10 | 56,78 | 1,34 | 0,02 | 0,91 | 48,09 | 1,17 | 0,01 | 0,72 | 30,48 | 0,81 | 0,01 | 0,39 |
| 60 | 4,26 | 0 | 58,88 | 1,19 | 0,01 | 0,73 | 50,04 | 1,01 | 0,01 | 0,55 | 33,35 | 0,67 | 0,01 | 0,28 |
| 60 | 4,41 | +10 | 60,87 | 1,03 | 0,01 | 0,56 | 51,71 | 0,85 | 0,01 | 0,40 | 36,2 | 0,53 | 0,01 | 0,18 |
| 110 | 9,24 | -25 | 41,83 | 2,45 | 0,03 | 2,83 | 34,59 | 2,19 | 0,03 | 2,31 | 19,53 | 1,63 | 0,02 | 1,39 |
| 110 | 9,56 | -15 | 45,28 | 2,22 | 0,03 | 2,34 | 38,01 | 1,95 | 0,02 | 1,86 | 22,65 | 1,38 | 0,02 | 1,03 |
| 110 | 9,72 | -10 | 46,97 | 2,10 | 0,03 | 2,11 | 39,68 | 1,83 | 0,02 | 1,65 | 24,09 | 1,25 | 0,02 | 0,86 |
| 110 | 10,06 | 0 | 50,30 | 1,86 | 0,02 | 1,68 | 42,95 | 1,59 | 0,02 | 1,27 | 26,70 | 0,99 | 0,01 | 0,55 |
| 110 | 10,42 | +10 | 53,54 | 1,62 | 0,02 | 1,29 | 46,06 | 1,34 | 0,02 | 0,93 | 30,87 | 0,77 | 0,01 | 0,36 |
| 170 | 18,45 | -25 | 33,05 | 3,29 | 0,04 | 4,85 | 26,80 | 2,94 | 0,04 | 4,02 | 13,90 | 2,21 | 0,03 | 2,43 |
| 170 | 19,00 | -15 | 37,40 | 2,98 | 0,04 | 4,07 | 31,11 | 2,62 | 0,03 | 3,24 | 18,05 | 1,88 | 0,02 | 1,80 |
| 170 | 19,28 | -10 | 39,55 | 2,82 | 0,03 | 3,67 | 33,23 | 2,46 | 0,03 | 2,88 | 20,07 | 1,71 | 0,02 | 1,51 |
| 170 | 19,89 | 0 | 43,76 | 2,50 | 0,03 | 2,93 | 37,41 | 2,14 | 0,03 | 2,21 | 23,88 | 1,36 | 0,02 | 1,00 |
| 170 | 20,54 | +10 | 47,88 | 2,17 | 0,03 | 2,25 | 41,49 | 1,81 | 0,02 | 1,62 | 27,18 | 0,99 | 0,01 | 0,55 |

NWO 125 technical data

| | | | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|--|------------------|-----------------------|-----------------------------|--|------------------|-----------------------|-----------------------------|--|------------------|-----------------------|-----------------------------|
| Air flow | Pressure drop | Inlet temperature | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 90 | 6,89 | -25 | 45,80 | 2,13 | 0,03 | 2,16 | 38,12 | 1,90 | 0,02 | 1,77 | 21,98 | 1,41 | 0,02 | 1,06 |
| 90 | 7,12 | -15 | 48,85 | 1,92 | 0,02 | 1,79 | 41,13 | 1,69 | 0,02 | 1,42 | 24,55 | 1,19 | 0,01 | 0,78 |
| 90 | 7,24 | -10 | 50,35 | 1,82 | 0,02 | 1,61 | 42,59 | 1,58 | 0,02 | 1,26 | 25,64 | 1,07 | 0,01 | 0,64 |
| 90 | 7,49 | 0 | 53,26 | 1,61 | 0,02 | 1,28 | 45,42 | 1,37 | 0,02 | 0,97 | 28,91 | 0,87 | 0,01 | 0,44 |
| 90 | 7,76 | +10 | 56,07 | 1,40 | 0,02 | 0,99 | 48,11 | 1,16 | 0,01 | 0,71 | 32,64 | 0,69 | 0,01 | 0,29 |
| 180 | 20,50 | -25 | 31,94 | 3,42 | 0,04 | 5,30 | 25,79 | 3,05 | 0,04 | 4,32 | 13,15 | 2,29 | 0,03 | 2,61 |
| 180 | 21,12 | -15 | 36,38 | 3,09 | 0,04 | 4,37 | 30,21 | 2,72 | 0,03 | 3,48 | 17,43 | 1,95 | 0,02 | 1,93 |
| 180 | 21,44 | -10 | 38,58 | 2,93 | 0,04 | 3,94 | 32,39 | 2,55 | 0,03 | 3,09 | 19,51 | 1,78 | 0,02 | 1,63 |
| 180 | 22,12 | 0 | 42,90 | 2,59 | 0,03 | 3,14 | 36,68 | 2,22 | 0,03 | 2,37 | 23,48 | 1,42 | 0,02 | 1,07 |
| 180 | 22,85 | +10 | 47,15 | 2,26 | 0,03 | 2,42 | 40,88 | 1,88 | 0,02 | 1,73 | 26,74 | 1,02 | 0,01 | 0,58 |
| 270 | 43,25 | -25 | 23,97 | 4,41 | 0,05 | 8,59 | 18,69 | 3,94 | 0,05 | 6,99 | 7,89 | 2,96 | 0,04 | 4,22 |
| 270 | 44,64 | -15 | 29,20 | 3,99 | 0,05 | 7,09 | 23,90 | 3,51 | 0,04 | 5,62 | 13,01 | 2,53 | 0,03 | 3,13 |
| 270 | 45,37 | -10 | 31,79 | 3,77 | 0,05 | 6,39 | 26,48 | 3,29 | 0,04 | 4,99 | 15,53 | 2,31 | 0,03 | 2,64 |
| 270 | 46,91 | 0 | 36,91 | 3,35 | 0,04 | 5,08 | 31,58 | 2,86 | 0,04 | 3,83 | 20,46 | 1,85 | 0,02 | 1,76 |
| 270 | 48,55 | +10 | 41,96 | 2,91 | 0,04 | 3,91 | 36,60 | 2,42 | 0,03 | 2,80 | 25,10 | 1,38 | 0,02 | 1,01 |

NWO 160 technical data

| Air flow | Pressure drop | Inlet temperature | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| | | | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 140 | 4,84 | -25 | 50,62 | 3,53 | 0,04 | 1,33 | 42,39 | 3,15 | 0,04 | 1,09 | 24,77 | 2,33 | 0,03 | 0,65 |
| 140 | 5,00 | -15 | 53,17 | 3,19 | 0,04 | 1,10 | 44,88 | 2,80 | 0,03 | 0,88 | 26,44 | 1,94 | 0,02 | 0,47 |
| 140 | 5,08 | -10 | 54,41 | 3,02 | 0,04 | 0,99 | 46,08 | 2,63 | 0,03 | 0,78 | 27,87 | 1,77 | 0,02 | 0,40 |
| 140 | 5,26 | 0 | 56,82 | 2,67 | 0,03 | 0,79 | 48,37 | 2,27 | 0,03 | 0,60 | 31,16 | 1,46 | 0,02 | 0,28 |
| 140 | 5,44 | +10 | 59,11 | 2,32 | 0,03 | 0,61 | 50,45 | 1,91 | 0,02 | 0,43 | 34,43 | 1,15 | 0,01 | 0,18 |
| 290 | 14,04 | -25 | 36,28 | 5,93 | 0,07 | 3,50 | 29,65 | 5,29 | 0,06 | 2,86 | 15,98 | 3,96 | 0,05 | 1,73 |
| 290 | 14,52 | -15 | 40,30 | 5,36 | 0,07 | 2,89 | 33,64 | 4,71 | 0,06 | 2,30 | 19,78 | 3,37 | 0,04 | 1,28 |
| 290 | 14,78 | -10 | 42,27 | 5,07 | 0,06 | 2,61 | 35,60 | 4,42 | 0,05 | 2,05 | 21,60 | 3,06 | 0,04 | 1,08 |
| 290 | 15,31 | 0 | 46,16 | 4,94 | 0,06 | 2,08 | 39,44 | 3,84 | 0,05 | 1,57 | 24,95 | 2,43 | 0,03 | 0,70 |
| 290 | 15,87 | +10 | 49,96 | 3,91 | 0,05 | 1,60 | 43,19 | 3,25 | 0,04 | 1,15 | 28,03 | 1,76 | 0,02 | 0,39 |
| 430 | 28,45 | -25 | 28,41 | 7,66 | 0,09 | 5,67 | 22,64 | 6,83 | 0,08 | 4,62 | 10,82 | 5,14 | 0,06 | 2,81 |
| 430 | 29,34 | -15 | 33,20 | 6,92 | 0,09 | 4,68 | 27,42 | 6,09 | 0,07 | 3,73 | 15,49 | 4,38 | 0,05 | 2,08 |
| 430 | 29,80 | -10 | 35,57 | 6,55 | 0,08 | 4,22 | 29,77 | 5,72 | 0,07 | 3,31 | 17,76 | 3,99 | 0,05 | 1,76 |
| 430 | 30,77 | 0 | 40,25 | 5,81 | 0,07 | 3,36 | 34,42 | 4,97 | 0,06 | 2,54 | 22,17 | 3,20 | 0,04 | 1,17 |
| 430 | 31,82 | +10 | 44,85 | 5,06 | 0,06 | 2,59 | 39,00 | 4,21 | 0,05 | 1,86 | 26,13 | 2,34 | 0,03 | 0,66 |

NWO 200 technical data

| Air flow | Pressure drop | Inlet temperature | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| | | | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 225 | 9,56 | -25 | 41,38 | 4,98 | 0,06 | 2,52 | 34,20 | 4,44 | 0,05 | 2,06 | 19,25 | 3,32 | 0,04 | 1,25 |
| 225 | 9,88 | -15 | 44,88 | 4,50 | 0,06 | 2,08 | 37,66 | 3,96 | 0,05 | 1,66 | 22,43 | 2,81 | 0,03 | 0,92 |
| 225 | 10,05 | -10 | 46,60 | 4,26 | 0,05 | 1,88 | 39,36 | 3,72 | 0,05 | 1,48 | 23,90 | 2,55 | 0,03 | 0,77 |
| 225 | 10,40 | 0 | 49,97 | 3,78 | 0,05 | 1,50 | 42,67 | 3,22 | 0,04 | 1,14 | 26,30 | 1,99 | 0,02 | 0,49 |
| 225 | 10,78 | +10 | 53,25 | 3,28 | 0,04 | 1,16 | 45,86 | 2,72 | 0,03 | 0,83 | 30,21 | 1,53 | 0,02 | 0,31 |
| 455 | 31,57 | -25 | 27,30 | 7,94 | 0,10 | 6,06 | 21,65 | 7,08 | 0,09 | 4,94 | 10,09 | 5,33 | 0,06 | 3,00 |
| 455 | 32,56 | -15 | 32,20 | 7,18 | 0,09 | 5,01 | 26,54 | 6,31 | 0,08 | 3,98 | 14,87 | 4,54 | 0,06 | 2,23 |
| 455 | 33,08 | -10 | 34,63 | 6,79 | 0,08 | 4,51 | 28,94 | 5,93 | 0,07 | 3,54 | 17,21 | 4,14 | 0,05 | 1,88 |
| 455 | 34,17 | 0 | 39,41 | 6,02 | 0,07 | 3,59 | 33,71 | 5,15 | 0,06 | 2,72 | 21,75 | 3,32 | 0,04 | 1,25 |
| 455 | 35,34 | +10 | 44,13 | 5,24 | 0,06 | 2,77 | 38,39 | 4,36 | 0,05 | 1,99 | 25,90 | 2,44 | 0,03 | 0,71 |
| 680 | 66,04 | -25 | 19,64 | 10,13 | 0,12 | 9,61 | 14,83 | 9,03 | 0,11 | 7,83 | 5,00 | 6,81 | 0,08 | 4,74 |
| 680 | 68,25 | -15 | 25,30 | 9,15 | 0,11 | 7,93 | 20,46 | 8,05 | 0,10 | 6,30 | 10,57 | 5,81 | 0,07 | 3,52 |
| 680 | 69,40 | -10 | 28,10 | 8,66 | 0,11 | 7,15 | 23,25 | 7,56 | 0,09 | 5,59 | 13,32 | 5,30 | 0,06 | 2,97 |
| 680 | 71,82 | 0 | 33,65 | 7,68 | 0,09 | 5,69 | 28,79 | 6,57 | 0,08 | 4,29 | 18,72 | 4,27 | 0,05 | 1,99 |
| 680 | 74,41 | +10 | 39,13 | 6,68 | 0,08 | 4,38 | 34,25 | 5,56 | 0,07 | 3,14 | 23,93 | 3,19 | 0,04 | 1,17 |

NWO 250 technical data

| | | | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| Air flow | Pressure drop | Inlet temperature | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 360 | 7,20 | -25 | 46,78 | 8,63 | 0,11 | 3,64 | 39,26 | 7,72 | 0,09 | 3,01 | 23,86 | 5,87 | 0,07 | 1,89 |
| 360 | 7,45 | -15 | 49,89 | 7,81 | 0,10 | 3,02 | 42,34 | 6,90 | 0,08 | 2,44 | 26,77 | 5,02 | 0,06 | 1,42 |
| 360 | 7,57 | -10 | 51,41 | 7,40 | 0,09 | 2,74 | 43,85 | 6,49 | 0,08 | 2,18 | 28,16 | 4,59 | 0,06 | 1,21 |
| 360 | 7,83 | 0 | 54,39 | 6,58 | 0,08 | 2,20 | 46,79 | 5,66 | 0,07 | 1,69 | 30,69 | 3,71 | 0,05 | 0,82 |
| 360 | 8,11 | +10 | 57,28 | 5,75 | 0,07 | 1,71 | 49,62 | 4,81 | 0,06 | 1,26 | 32,33 | 2,71 | 0,03 | 0,47 |
| 710 | 21,10 | -25 | 32,79 | 13,69 | 0,17 | 8,66 | 26,73 | 12,25 | 0,15 | 7,12 | 14,41 | 9,33 | 0,11 | 4,45 |
| 710 | 21,73 | -15 | 37,26 | 12,40 | 0,15 | 7,19 | 31,18 | 10,95 | 0,14 | 5,77 | 18,78 | 8,01 | 0,10 | 3,53 |
| 710 | 22,06 | -10 | 39,47 | 11,75 | 0,14 | 6,50 | 33,37 | 10,30 | 0,13 | 5,15 | 20,93 | 7,34 | 0,09 | 2,86 |
| 710 | 22,76 | 0 | 43,81 | 10,44 | 0,13 | 5,21 | 37,70 | 8,98 | 0,11 | 3,99 | 25,11 | 5,98 | 0,07 | 1,96 |
| 710 | 23,51 | +10 | 48,09 | 9,13 | 0,11 | 4,05 | 41,94 | 7,65 | 0,09 | 2,96 | 29,06 | 4,56 | 0,06 | 1,20 |
| 1050 | 43,33 | -25 | 24,93 | 17,49 | 0,21 | 13,76 | 19,69 | 15,65 | 0,19 | 11,29 | 9,06 | 11,93 | 0,14 | 7,01 |
| 1050 | 44,73 | -15 | 30,15 | 15,84 | 0,19 | 11,40 | 24,90 | 14,00 | 0,17 | 9,14 | 14,21 | 10,24 | 0,12 | 5,28 |
| 1050 | 45,46 | -10 | 32,74 | 15,01 | 0,18 | 10,30 | 27,47 | 13,16 | 0,16 | 8,14 | 16,75 | 9,39 | 0,11 | 4,50 |
| 1050 | 47,00 | 0 | 37,85 | 13,34 | 0,16 | 8,25 | 32,56 | 11,48 | 0,14 | 6,30 | 21,75 | 7,66 | 0,09 | 3,09 |
| 1050 | 48,64 | +10 | 42,89 | 11,65 | 0,14 | 6,40 | 37,59 | 9,77 | 0,12 | 4,67 | 26,61 | 5,88 | 0,07 | 1,90 |

NWO 315 technical data

| | | | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| Air flow | Pressure drop | Inlet temperature | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 560 | 7,07 | -25 | 47,88 | 13,62 | 0,17 | 6,22 | 40,37 | 12,22 | 0,15 | 5,16 | 25,12 | 9,36 | 0,11 | 3,30 |
| 560 | 7,30 | -15 | 50,96 | 12,35 | 0,15 | 5,18 | 43,43 | 10,93 | 0,13 | 4,20 | 28,06 | 8,06 | 0,10 | 2,50 |
| 560 | 7,43 | -10 | 52,47 | 11,71 | 0,14 | 4,69 | 44,93 | 10,29 | 0,13 | 3,76 | 29,48 | 7,39 | 0,09 | 2,14 |
| 560 | 7,68 | 0 | 55,42 | 10,42 | 0,13 | 3,78 | 47,85 | 9,00 | 0,11 | 2,93 | 32,16 | 6,04 | 0,07 | 1,49 |
| 560 | 7,96 | +10 | 58,29 | 9,13 | 0,11 | 2,96 | 50,67 | 7,69 | 0,09 | 2,20 | 34,45 | 4,62 | 0,06 | 0,92 |
| 1120 | 21,09 | -25 | 33,41 | 21,83 | 0,27 | 15,06 | 27,37 | 19,57 | 0,24 | 12,43 | 15,16 | 15,00 | 0,18 | 7,86 |
| 1120 | 21,73 | -15 | 37,87 | 19,79 | 0,24 | 12,52 | 31,82 | 17,52 | 0,21 | 10,10 | 19,54 | 12,92 | 0,16 | 5,96 |
| 1120 | 22,06 | -10 | 40,08 | 18,76 | 0,23 | 11,33 | 34,01 | 16,49 | 0,20 | 9,02 | 21,69 | 11,87 | 0,14 | 5,10 |
| 1120 | 22,75 | 0 | 44,42 | 16,70 | 0,21 | 9,11 | 38,33 | 14,41 | 0,18 | 7,02 | 25,91 | 9,74 | 0,12 | 3,54 |
| 1120 | 23,51 | +10 | 48,69 | 14,62 | 0,18 | 7,10 | 42,58 | 12,31 | 0,15 | 5,24 | 29,97 | 7,55 | 0,09 | 2,22 |
| 1680 | 44,64 | -25 | 25,17 | 28,12 | 0,35 | 24,30 | 19,97 | 25,21 | 0,31 | 20,00 | 9,48 | 19,33 | 0,23 | 12,57 |
| 1680 | 45,90 | -15 | 30,42 | 25,49 | 0,31 | 20,18 | 25,21 | 22,56 | 0,28 | 16,23 | 14,66 | 16,64 | 0,20 | 9,52 |
| 1680 | 46,64 | -10 | 33,01 | 24,17 | 0,30 | 18,25 | 27,79 | 21,23 | 0,26 | 14,48 | 17,22 | 15,29 | 0,19 | 8,14 |
| 1680 | 48,22 | 0 | 38,14 | 21,51 | 0,26 | 14,65 | 32,91 | 18,55 | 0,23 | 11,25 | 22,27 | 12,55 | 0,15 | 5,65 |
| 1680 | 49,91 | +10 | 43,21 | 18,82 | 0,23 | 11,40 | 37,95 | 15,84 | 0,19 | 8,37 | 27,20 | 9,74 | 0,12 | 3,55 |

NWO 400 technical data

| Air flow | Pressure drop | Inlet temperature | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| | | | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 900 | 8,23 | -25 | 45,93 | 21,31 | 0,26 | 7,35 | 38,62 | 19,11 | 0,23 | 6,08 | 23,77 | 14,64 | 0,18 | 3,85 |
| 900 | 8,50 | -15 | 49,22 | 19,31 | 0,24 | 6,12 | 41,89 | 17,11 | 0,21 | 4,95 | 26,92 | 12,60 | 0,15 | 2,92 |
| 900 | 8,65 | -10 | 50,83 | 18,32 | 0,22 | 5,54 | 43,48 | 16,10 | 0,20 | 4,42 | 28,44 | 11,57 | 0,14 | 2,50 |
| 900 | 8,95 | 0 | 53,98 | 16,31 | 0,20 | 4,46 | 46,61 | 14,08 | 0,17 | 3,44 | 31,33 | 9,46 | 0,11 | 1,73 |
| 900 | 9,27 | +10 | 57,05 | 14,29 | 0,18 | 3,49 | 49,64 | 12,04 | 0,15 | 2,57 | 33,86 | 7,24 | 0,09 | 1,06 |
| 1800 | 25,57 | -25 | 31,34 | 33,84 | 0,41 | 17,60 | 25,51 | 30,33 | 0,37 | 14,48 | 13,72 | 23,25 | 0,28 | 9,08 |
| 1800 | 26,35 | -15 | 36,01 | 30,68 | 0,38 | 14,62 | 30,16 | 27,16 | 0,33 | 11,75 | 18,31 | 20,02 | 0,25 | 6,88 |
| 1800 | 26,76 | -10 | 38,32 | 29,09 | 0,36 | 13,22 | 32,46 | 25,56 | 0,31 | 10,49 | 20,56 | 18,40 | 0,22 | 5,88 |
| 1800 | 27,62 | 0 | 42,86 | 25,90 | 0,32 | 10,62 | 36,99 | 22,35 | 0,27 | 8,15 | 24,99 | 15,09 | 0,18 | 4,07 |
| 1800 | 28,55 | +10 | 47,34 | 22,68 | 0,28 | 8,27 | 41,44 | 19,09 | 0,23 | 6,07 | 29,26 | 11,69 | 0,14 | 2,54 |
| 2700 | 53,85 | -25 | 23,17 | 43,39 | 0,53 | 28,23 | 18,17 | 38,89 | 0,47 | 23,17 | 8,09 | 29,80 | 0,36 | 14,44 |
| 2700 | 55,61 | -15 | 28,61 | 39,33 | 0,48 | 23,42 | 23,60 | 34,81 | 0,43 | 18,78 | 13,46 | 25,67 | 0,31 | 10,92 |
| 2700 | 56,53 | -10 | 31,30 | 37,29 | 0,46 | 21,17 | 26,28 | 32,76 | 0,40 | 16,74 | 16,12 | 23,58 | 0,29 | 9,32 |
| 2700 | 58,47 | 0 | 36,63 | 33,19 | 0,41 | 16,97 | 31,59 | 28,63 | 0,35 | 12,98 | 21,36 | 19,35 | 0,23 | 6,45 |
| 2700 | 60,55 | +10 | 41,89 | 29,05 | 0,36 | 13,19 | 36,81 | 24,49 | 0,30 | 9,67 | 26,49 | 15,02 | 0,18 | 4,03 |

NWO 500 technical data

| Air flow | Pressure drop | Inlet temperature | Water temperature at the inlet/outlet: 90°/70°C | | | | Water temperature at the inlet/outlet: 80°/60°C | | | | Water temperature at the inlet/outlet: 60°/40°C | | | |
|-------------------|---------------|-------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|---|------------------|-----------------------|-----------------------------|
| | | | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater | Outlet temperature | Heating capacity | Hot water consumption | Pressure drop in the heater |
| m ³ /h | Pa | °C | °C | kW | l/s | kPa | °C | kW | l/s | kPa | °C | kW | l/s | kPa |
| 1400 | 8,69 | -25 | 45,62 | 33,00 | 0,40 | 9,49 | 38,41 | 29,62 | 0,36 | 7,89 | 23,82 | 22,80 | 0,28 | 5,09 |
| 1400 | 8,98 | -15 | 48,97 | 29,93 | 0,37 | 7,92 | 41,75 | 26,55 | 0,32 | 6,44 | 27,07 | 19,67 | 0,24 | 3,89 |
| 1400 | 9,13 | -10 | 50,62 | 28,40 | 0,35 | 7,18 | 43,38 | 25,00 | 0,31 | 5,77 | 28,64 | 18,09 | 0,22 | 3,34 |
| 1400 | 9,45 | 0 | 53,84 | 25,31 | 0,30 | 5,80 | 46,58 | 21,89 | 0,27 | 4,52 | 31,68 | 14,88 | 0,18 | 2,35 |
| 1400 | 9,79 | +10 | 56,99 | 22,21 | 0,27 | 4,56 | 49,69 | 18,75 | 0,23 | 3,40 | 34,46 | 11,55 | 0,14 | 1,49 |
| 2500 | 22,20 | -25 | 33,30 | 48,63 | 0,60 | 19,60 | 27,32 | 43,64 | 0,53 | 16,23 | 15,26 | 33,57 | 0,41 | 10,36 |
| 2500 | 22,87 | -15 | 37,81 | 44,12 | 0,54 | 16,33 | 31,82 | 39,10 | 0,48 | 13,22 | 19,70 | 28,97 | 0,35 | 7,90 |
| 2500 | 23,22 | -10 | 40,04 | 41,85 | 0,51 | 14,79 | 34,04 | 36,82 | 0,45 | 11,82 | 21,88 | 26,65 | 0,32 | 6,78 |
| 2500 | 23,96 | 0 | 44,43 | 37,29 | 0,46 | 11,92 | 38,41 | 32,23 | 0,39 | 9,23 | 26,16 | 21,95 | 0,26 | 4,75 |
| 2500 | 24,76 | +10 | 48,75 | 32,69 | 0,40 | 9,33 | 42,71 | 27,59 | 0,34 | 6,92 | 30,30 | 17,12 | 0,21 | 3,02 |
| 3500 | 41,22 | -25 | 26,37 | 60,00 | 0,74 | 29,10 | 21,09 | 53,82 | 0,66 | 24,03 | 10,45 | 41,39 | 0,50 | 15,25 |
| 3500 | 42,54 | -15 | 31,53 | 54,41 | 0,67 | 24,21 | 26,24 | 48,22 | 0,59 | 19,55 | 15,55 | 35,71 | 0,43 | 11,61 |
| 3500 | 43,23 | -10 | 34,09 | 51,61 | 0,63 | 21,92 | 28,79 | 45,40 | 0,55 | 17,47 | 18,07 | 32,85 | 0,40 | 9,95 |
| 3500 | 44,68 | 0 | 39,14 | 45,98 | 0,56 | 17,64 | 33,82 | 39,73 | 0,49 | 13,62 | 23,03 | 27,04 | 0,33 | 6,96 |
| 3500 | 46,24 | +10 | 44,11 | 40,29 | 0,49 | 13,78 | 38,78 | 33,98 | 0,41 | 10,18 | 27,88 | 21,11 | 0,26 | 4,42 |

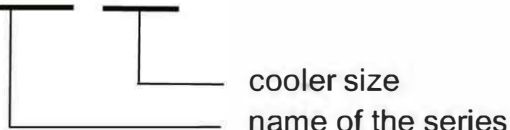
CWO cold water duct coolers

Application:

NWO cold water duct coolers are used in ventilation or air conditioning systems. They are designed to be mounted in round flex or spiro ducts. The series includes 7 sizes.

Denomination:

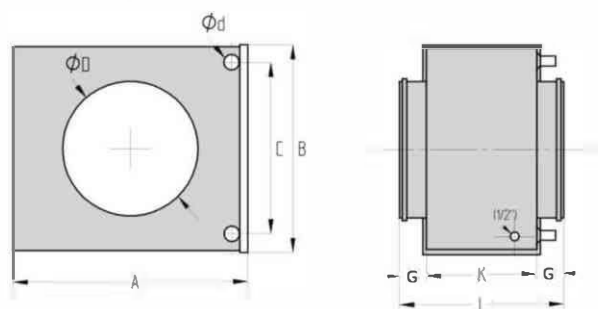
CWO - 200



Design:

The cooler's fin coil is built with 3/8" internally finned copper tubes mechanically expanded inside aluminium fins which are equipped with flanges covering the whole fin spacing distance, thus ensuring perfect thermal contact. All coils are tested with 30 bar pressure. Galvanized steel casing (as an option it may be painted with RAL 9016 or another requested colour, or made of stainless steel).

Technical data – dimensions:



| Type | ϕD [mm] | ϕd | A [mm] | B [mm] | C [mm] | L [mm] | K [mm] | G [mm] | Weight [kg] |
|---------|------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| CWO-100 | 100 | 1/2" | 240 | 190 | 98 | 355 | 285 | 35 | 6 |
| CWO-125 | 125 | 3/4" | 330 | 265 | 188 | 355 | 285 | 35 | 7 |
| CWO-160 | 160 | 3/4" | 330 | 265 | 180 | 355 | 285 | 35 | 8 |
| CWO-200 | 200 | 3/4" | 405 | 340 | 263 | 355 | 285 | 35 | 10 |
| CWO-250 | 250 | 3/4" | 480 | 415 | 338 | 395 | 285 | 55 | 13 |
| CWO-315 | 315 | 3/4" | 555 | 490 | 413 | 395 | 285 | 55 | 17 |
| CWO-400 | 400 | 3/4" | 715 | 515 | 438 | 425 | 315 | 55 | 21 |

Technical data:

| Typ | q [m ³ /h] | Dp [Pa] | t _{in} [°C] | t _{out} [°C] | P [kW] | qr [l/s] | Dpr [kPa] |
|---------|--------------------------|------------|-------------------------|--------------------------|-----------|-------------|--------------|
| CWO 100 | 60 | 6,92 | 25 | 14,24 | 0,26 | 0,01 | 0,58 |
| | | 7,33 | 28 | 15,93 | 0,33 | 0,01 | 0,80 |
| | 110 | 15,17 | 25 | 16,17 | 0,35 | 0,01 | 0,89 |
| | | 16,01 | 28 | 18,12 | 0,44 | 0,02 | 1,32 |
| | 165 | 26,86 | 25 | 17,45 | 0,43 | 0,02 | 1,25 |
| | | 28,13 | 28 | 19,47 | 0,54 | 0,02 | 1,84 |
| CWO 125 | 90 | 4,26 | 25 | 13,08 | 0,45 | 0,02 | 0,44 |
| | | 4,51 | 28 | 14,56 | 0,57 | 0,02 | 0,60 |
| | 180 | 9,89 | 25 | 15,32 | 0,65 | 0,03 | 0,71 |
| | | 10,46 | 28 | 17,16 | 0,83 | 0,03 | 1,02 |
| | 270 | 17,01 | 25 | 16,60 | 0,80 | 0,03 | 0,96 |
| | | 17,90 | 28 | 18,57 | 1,00 | 0,04 | 1,43 |
| CWO 160 | 140 | 7,21 | 25 | 14,51 | 0,57 | 0,02 | 0,60 |
| | | 7,63 | 28 | 16,25 | 0,73 | 0,03 | 0,81 |
| | 290 | 18,79 | 25 | 16,82 | 0,83 | 0,03 | 1,02 |
| | | 19,75 | 28 | 18,80 | 1,04 | 0,04 | 1,52 |
| | 400 | 29,90 | 25 | 17,81 | 0,98 | 0,04 | 1,37 |
| | | 31,71 | 28 | 19,56 | 1,32 | 0,05 | 2,32 |
| CWO 200 | 230 | 6,53 | 25 | 14,32 | 0,96 | 0,04 | 0,87 |
| | | 6,92 | 28 | 16,00 | 1,23 | 0,05 | 1,25 |
| | 450 | 15,54 | 25 | 16,44 | 1,37 | 0,05 | 1,50 |
| | | 16,36 | 28 | 18,40 | 1,71 | 0,07 | 2,23 |
| | 700 | 29,19 | 25 | 17,81 | 1,71 | 0,07 | 2,23 |
| | | 31,10 | 28 | 19,20 | 2,44 | 0,10 | 4,17 |
| CWO 250 | 360 | 6,57 | 25 | 14,20 | 1,54 | 0,06 | 2,73 |
| | | 7,01 | 28 | 15,54 | 2,08 | 0,08 | 4,61 |
| | 700 | 15,84 | 25 | 15,69 | 2,51 | 0,10 | 6,42 |
| | | 17,02 | 28 | 17,23 | 3,46 | 0,14 | 11,35 |
| | 1060 | 28,84 | 25 | 16,65 | 3,37 | 0,13 | 10,84 |
| | | 30,96 | 28 | 18,30 | 4,65 | 0,18 | 19,33 |
| CWO 315 | 570 | 7,41 | 25 | 14,53 | 2,36 | 0,09 | 3,28 |
| | | 8,02 | 28 | 15,30 | 3,51 | 0,14 | 6,57 |
| | 1130 | 18,89 | 25 | 15,74 | 4,20 | 0,17 | 9,03 |
| | | 20,23 | 28 | 17,40 | 5,69 | 0,23 | 15,49 |
| | 1700 | 34,31 | 25 | 16,79 | 5,51 | 0,22 | 14,63 |
| | | 36,80 | 28 | 18,50 | 7,57 | 0,30 | 25,87 |
| CWO 400 | 900 | 8,50 | 25 | 15,10 | 3,40 | 0,14 | 3,05 |
| | | 9,27 | 28 | 15,78 | 5,26 | 0,21 | 6,54 |
| | 1800 | 22,47 | 25 | 16,15 | 6,28 | 0,25 | 8,97 |
| | | 24,10 | 28 | 17,88 | 8,52 | 0,34 | 15,42 |
| | 2500 | 36,81 | 25 | 16,98 | 7,81 | 0,31 | 13,21 |
| | | 39,51 | 28 | 18,50 | 11,07 | 0,44 | 24,65 |

Data for water temperature at 6/12°C and relative air humidity at 50%

q – air flow

Dp – pressure drop on the air side

t_{in} – inlet air temperature

t_{out} – outlet air temperature

P – capacity

qr – water flow

Dpr – pressure drop on the water side