

Zehnder Terraline trench heaters: maximum space for design and high thermal output

# Essential efficiency for heating

Nowadays, a perfect indoor climate is more than ever a question of economic use of energy and active climate protection. The solution is Zehnder Terraline trench heaters. Easy to install in underlays, they are suitable for numerous areas of application and will blend almost invisibly into your architectural project – whether in modern commercial buildings or private spaces. The convectors built into the floor for hot water operation are ideal for combining with other heating systems and can also be used as stand-alone solutions to cover the entire heat requirement. They ensure the highest efficiency even for low temperature systems. The range includes models with natural (Zehnder Terraline) and fas-assisted convection (Zehnder Terraline Neo).

## + BENEFITS

#### Zehnder Terraline

- The heat emitter's aluminium and copper construction enables short response times for fast heating of rooms
- High thermal output means that even large rooms are heated rapidly
- Invisible thermal output, built into the floor
- Hidden connection technology in the floor
- Built-in floor construction makes it ideal for use in front of large windows
- Silent operation makes it suitable for different areas of application
- Wide range of models supports versatile use
- As system component combines with comfortable indoor ventilation from Zehnder
- Powerful heat emitter is compatible with heat pump and/or low temperature systems
- Special solutions support a wide range of application, such as curved or angled options, or versions with cut-outs
- The grille can be walked on and ensures the necessary stability
- With several designs available, the decorative grille and frame make it possible to create an individual look
- High level of thermal output also for old buildings with a high heat load
- An alternative in old buildings where radiators should be avoided or underfloor heating is not possible

#### Zehnder Terraline Neo

- Quiet fan operation makes it suitable for different areas of application
- Energy-efficient thanks to 24 V fan assistance
- Central control unit with automatic or manual room thermostat ensures an individual and comfortable room temperature



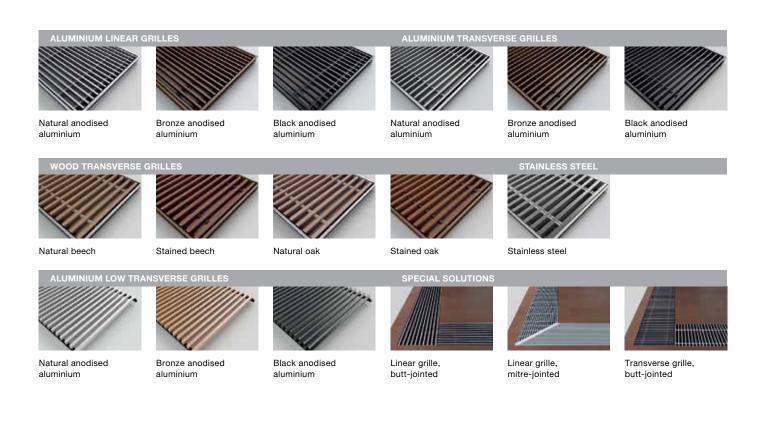


Use in business premises

Use in residential buildings

#### Zehnder Terraline grilles

Zehnder Terraline grilles are made of high-grade aluminium and are available in linear and transverse grille designs. Linear grilles are available in aluminium with natural, black or bronze finishes. Transverse grilles are available in natural, black or bronze aluminium, the wood surfaces natural beech, stained beech and natural oak, stained oak or in stainless steel. Not only the surface, also the shape of the grille can be optimally adapted either as a 45° or 90° corner version, or with made-to-measure cut-outs. Right-angled, butt-jointed grilles are also available on request. Zehnder Terraline casings can also be curved or connected in series.





Suitable connection and control technology is available for every possible application (e.g. KNX, manual thermostat, digital thermostat).

CONTROL AND CONNECTION TECHNOLOGY

Digital room thermostat from Siemens

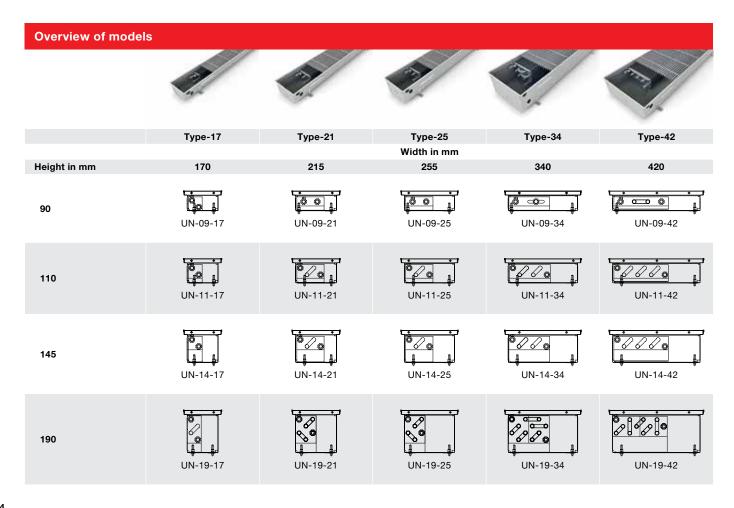
# Zehnder Terraline with natural convection

Nature serves as good example for contemporary and efficient heating technology. Trench heaters utilise natural convection: The interplay between falling cold air and rising hot air, particularly at window façades, produces a thermal wall that prevents the room cooling down and counteracts unpleasant draughts.

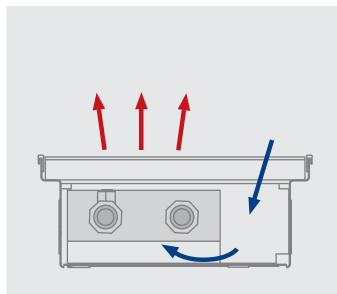
### **Overview of models**

Zehnder Terraline with natural convection comes in 4 heights and 5 widths and offers a wide model range for virtually all applications. This wide model range is characteristic for Zehnder and is continued in the large number of standard lengths, ranging in small increments from the shortest model at 800 mm to the longest at 4800 mm.

- 4 standard heights: 90, 110, 145 and 190 mm
- 5 widths: 170, 215, 255, 340 and 420 mm
- Standard lengths from 800 to 4800 mm in 100 mm increments
- Intermediate lengths possible



### **Functional principle**



#### Scope of delivery for standard version

- Casing made from galvanised sheet steel (painted in RAL 9005)
- Copper/aluminium heat emitter (painted in RAL 9005)
- Linear grille in natural anodised aluminium
- Frame in natural anodised aluminium
- Mounting accessories
- Covers for hidden connection technology



Airflow for trench heaters with natural convection

#### Output

Output					
Models	Height in mm	Width in mm	Exponent	Thermal output in W ΔT 50 K: 75/65/20 °C	Standard lengths in mm
UN-09-17	90	170	1.46	118 to 1052	800 to 4800*
UN-11-17	110		1.47	143 to 1274	
UN-14-17	145		1.49	146 to 1300	
UN-19-17	190		1.48	164 to 1466	
UN-09-21	90	215	1.44	164 to 1461	800 to 4800*
UN-11-21	110		1.55	179 to 1601	
UN-14-21	145		1.50	190 to 1694	
UN-19-21	190		1.54	227 to 2026	
UN-09-25	90	255	1.37	208 to 1855	800 to 4800*
UN-11-25	110		1.46	243 to 2171	
UN-14-25	145		1.44	279 to 2487	
UN-19-25	190		1.42	270 to 2409	
UN-09-34	90	340	1.38	247 to 2207	800 to 4800*
UN-11-34	110		1.40	314 to 2798	
UN-14-34	145		1.43	413 to 3684	
UN-19-34	190		1.47	427 to 3808	
UN-09-42	90	420	1.38	289 to 2575	800 to 4800*
UN-11-42	110		1.40	349 to 3114	
UN-14-42	145		1.40	505 to 4502	
UN-19-42	190		1.46	597 to 5326	

The thermal output specified on the left applies for the standard scope of delivery with linear grille. A drop in performance of approx. 15% must be expected when transverse grilles are used due to the smaller free cross section.

# Zehnder Terraline Neo with fan-assisted convection

Where natural convection is not sufficient for large heat output, Zehnder Terraline Neo operates with fan-assisted convection. This not only ensures a high thermal output and keeps windows free of condensation, it makes the room heating much more versatile, allowing it to be switched on as required for short heating phases.

The cross-flow fan is powered by modern EC motors (24 V), which boast low-noise, energyefficient operation with excellent control facilities. Compared to conventional AC motors (230 V), power savings of up to 72% can be achieved.

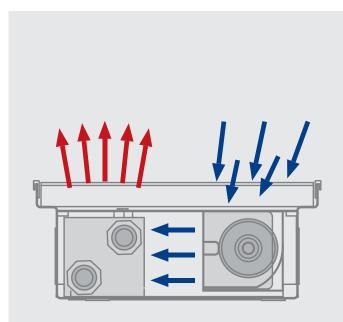
## **Overview of models**

Zehnder Terraline Neo with fan-assisted convection also comes in 4 heights and 4 widths and offers a wide model range that is continued in the number of standard lengths ranging in small increments from the shortest model at 800 mm to the longest at 4800 mm. This makes Zehnder Terraline Neo with fan-assisted convection ideal for virtually all applications.

- 4 standard heights: 70, 90, 110 and 145 mm
- 4 widths: 170, 215, 255 and 340 mm
- Standard lengths from 800 to 4800 mm in 100 mm increments
- Intermediate lengths possible



#### **Functional principle**



#### Scope of delivery for standard version

- Casing made from galvanised sheet steel (painted in RAL 9005)
- Copper/aluminium heat emitter (painted in RAL 9005)
- Linear grille made from natural anodised aluminium (low transverse grilles for models with a height of 70 mm)
- Frame in natural anodised aluminium
- Mounting accessories
- Covers for hidden connection technology
- 24 V cross-flow fan



Airflow for trench heaters with fan-assisted convection

Output					
Models	Height in mm	Width in mm	Exponent	Thermal output in W EN 16430 ΔΤ 50 Κ: 75/65/20 °C fan speed 2	Standard lengths in mm
UFT-09-17	90	170	1.0716	398 to 4083	800 to 4800*
UFT-11-17	110		1.0844	388 to 3977	
UFT-14-17	145		1.1028	401 to 4107	
UFT-09-21	90	215	1.0626	509 to 5214	800 to 4800*
UFT-11-21	110		1.0653	547 to 5610	
UFT-14-21	145		1.0711	457 to 4688	
UFT-07-25	70	255	1.1382	381 to 3909	800 to 4800*
UFT-09-25	90		1.0411	670 to 6868	
UFT-11-25	110		1.0177	837 to 8576	
UFT-14-25	145		1.0587	788 to 8080	
UFT-07-34	70	340	1.2153	439 to 4503	800 to 4800*
UFT-09-34	90		1.0272	766 to 7852	
UFT-11-34	110		1.0879	845 to 8665	
UFT-14-34	145		1.0376	1101 to 11289	

The thermal output applies to the standard scope of delivery with linear grilles (except for models with a height of 70 mm). A drop in performance of approx. 5% must be expected when transverse grilles are used due to the smaller free cross section.



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