



**HENRAD**

# DISCOVER ALTO LINE



## GENERAL INFORMATION

### ALTO LINE

In both traditional and trendy newly build and renovation projects large glazed sections and terrace windows are often used to optimise natural lighting and thus limiting the open wall space. With the Alto Line Henrad offers you the ideal solution. When combining the Alto Line with the Everest Line 8 and Compact Line models a light and spacious feeling is created throughout the home.

Product:	the decorative vertical radiator with a centre connection and a stylised front
Finishing:	decorative stylised front and side panels
Also supplied:	wall brackets, ETA safety screws and plugs, screws, plugs, air vent, blind plugs and installation instructions
Connections:	4 x ½" female connection (centre connection included)
Lugs:	no lugs
Packaging:	Every radiator is sturdily packaged in high-quality cardboard and wrapped in plastic. The radiator's characteristics are shown on the label: type – height – length.
Warranty:	10 years, as long as the installation instructions have been followed and Henrad's warranty conditions have been met.
Paint process:	All radiators are degreased, phosphated, cataphoretically primed and powder-coated in Henrad white 9016 as standard.
Colours:	Henrad white 9016 + 35 different Henrad colours and about 200 RAL-colours are possible
Max. operating pressure:	10 bar (tested to 13 bar)
Max. operating temperature:	110 °C
Conformity:	in accordance with EN442
Quality assurance:	NF
Types:	11   20   21   22
Heights:	1.600   1.800   2.000   2.200 mm
Lengths:	300   400   500   600   700 mm
Depths:	49   79   79   102 mm



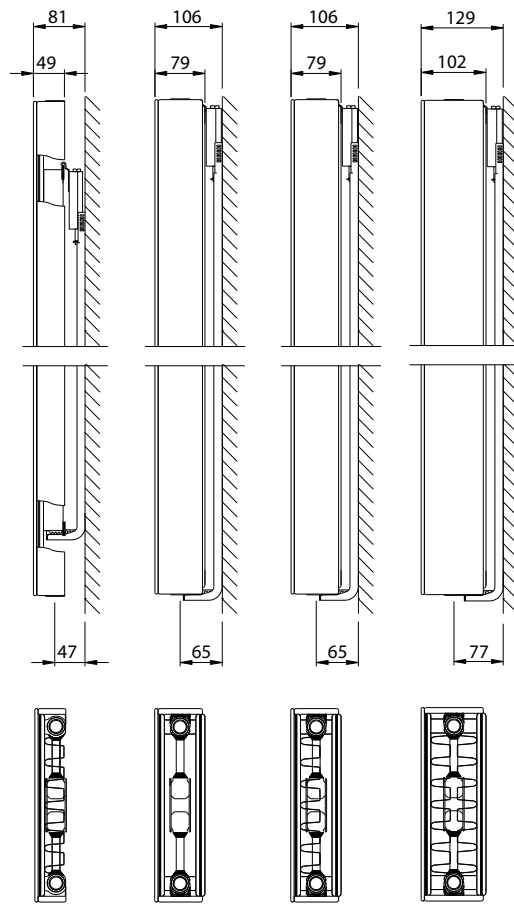
2006

## TYPE OVERVIEW

Calculation factor  
per meter  
at 75/65/20°C  
according to EN442

Characteristic equation:

$$\Phi = K_M \times \Delta T^n$$



Height		T11	T20	T21	T22	Height
<b>1600</b>	W	1.959	2.310	2.808	3.390	<b>1600</b>
	kg	56,10	77,70	85,80	94,20	
	l	7,20	14,10	14,10	14,10	
	m <sup>2</sup>	9,40	7,33	12,66	17,98	
	n	1,31	1,27	1,31	1,31	
<b>1800</b>	W	2.133	2.532	3.060	3.690	<b>1800</b>
	kg	63,00	86,70	96,00	105,30	
	l	8,10	16,20	15,90	15,90	
	m <sup>2</sup>	9,86	8,25	13,58	18,90	
	n	1,30	1,27	1,30	1,31	
<b>2000</b>	W	2.298	2.748	3.270	3.960	<b>2000</b>
	kg	69,60	95,40	106,20	116,40	
	l	9,00	18,30	17,70	17,70	
	m <sup>2</sup>	11,80	9,17	15,88	22,58	
	n	1,30	1,27	1,30	1,30	
<b>2200</b>	W	2.454	2.958	3.510	4.230	<b>2200</b>
	kg	75,60	105,60	116,40	126,60	
	l	9,90	20,10	20,10	20,10	
	m <sup>2</sup>	12,26	10,09	16,79	23,50	
	n	1,29	1,27	1,30	1,29	

W=heat output per meter / kg=weight per meter / l=content per meter / m<sup>2</sup>=surface per meter / n=exponent  
The manufacturer reserves the right to alter any of the specifications shown in this document without prior notice.

## ALTO LINE

HEAT OUTPUTS ACCORDING TO EN442



On the label: Art. 0276 18 22 05  
VERTICAL DECO T11-22: 0276 H1800 T22 L500

EN442 (W) 70/50/20°C

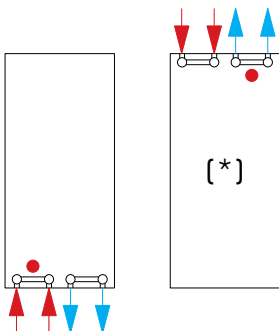
EN442 (W) 55/45/20°C

Height	1600				1800				2000				2200				Height
Type	11	20	21	22	11	20	21	22	11	20	21	22	11	20	21	22	Type
300	439 302 0276161103	522 362 0276162003	629 432 0276162103	759 520 0276162203	479 329 0276181103	572 397 0276182003	686 472 0276182103	827 568 0276182203	516 355 0276201103	620 430 0276202003	734 505 0276202103	889 612 0276202203	552 380 0276221103	668 463 0276222003	788 543 0276222103	951 656 0276222203	300
400	586 403 0276161104	696 483 0276162004	839 576 0276162104	1.011 693 0276162204	638 439 0276181104	763 529 0276182004	915 629 0276182104	1.103 757 0276182204	688 474 0276201104	827 574 0276202004	979 673 0276202104	1.185 815 0276202204	736 507 0276221104	891 618 0276222004	1.051 724 0276222104	1.268 874 0276222204	400
500	732 503 0276161105	870 604 0276162005	1.049 720 0276162105	1.264 866 0276162205	797 548 0276181105	953 661 0276182005	1.144 786 0276182105	1.378 946 0276182205	860 592 0276201105	1.034 717 0276202005	1.223 841 0276202105	1.481 1.019 0276202205	920 634 0276221105	1.113 772 0276222005	1.314 905 0276222105	1.585 1.093 0276222205	500
600	878 603 0276161106	1.044 724 0276162006	1.259 864 0276162106	1.517 1.039 0276162206	957 659 0276181106	1.144 793 0276182006	1.372 943 0276182106	1.654 1.136 0276182206	1.032 711 0276201106	1.242 861 0276202006	1.468 1.010 0276202106	1.778 1.223 0276202206	1.103 761 0276221106	1.336 927 0276222006	1.577 1.086 0276222106	1.902 1.311 0276222206	600
700	1.025 704 0276161107	1.218 845 0276162007	1.468 1.008 0276162107	1.770 1.213 0276162207	1.117 768 0276181107	1.334 926 0276182007	1.601 1.100 0276182107	1.930 1.325 0276182207	1.205 830 0276201107	1.449 1.005 0276202007	1.712 1.178 0276202107	2.074 1.427 0276202207	1.287 888 0276221107	1.559 1.081 0276222007	1.839 1.267 0276222107	2.219 1.530 0276222207	700

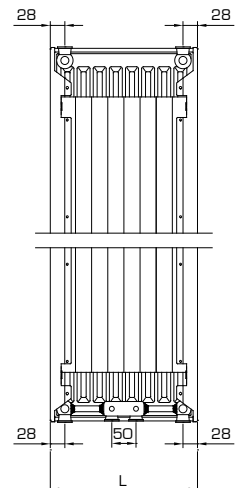
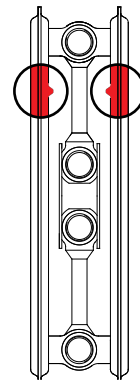
Core assortment (Henrad white 9016) available ex factory within 10 days.  
Core assortment is subject to change, please refer to [www.henrad.eu](http://www.henrad.eu) for the latest information.  
Delivery time depends on the model, please refer to your distributor.

### CONNECTION POSSIBILITIES

View: front of radiator

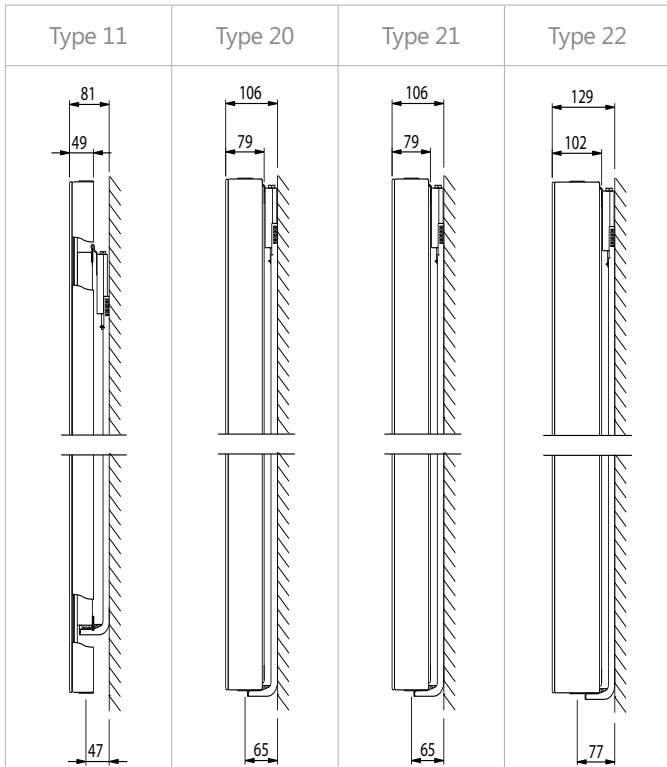


flow lock ●



(\*) With these connection options, both the supply and return must be vented.  
Top connection allowed provided there is a temperature difference between flow and return of maximum 20°C.

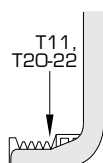
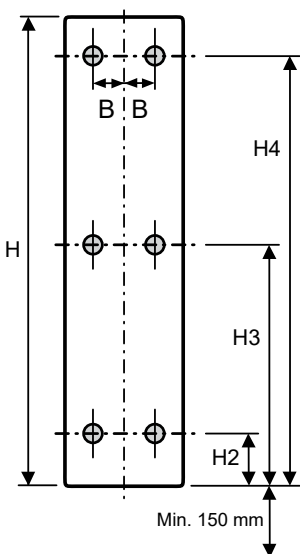
# WALL BRACKETS



Nominal Height (mm)	Type 11			Types 20-22		
	H2	H3	H4	H2	H3	H4
<b>1600</b>	160	730	1300	70	740	1410
<b>1800</b>	160	830	1500	70	840	1610
<b>2000</b>	160	930	1700	70	940	1810
<b>2200</b>	160	1030	1900	70	1040	2010

Nominal Length (mm)	Type 11	Types 20-22
	B	B
<b>L 300</b>	50	60
<b>L 400</b>	80	110
<b>L 500</b>	130	160
<b>L 600</b>	180	210
<b>L 700</b>	230	260

Types 11-22



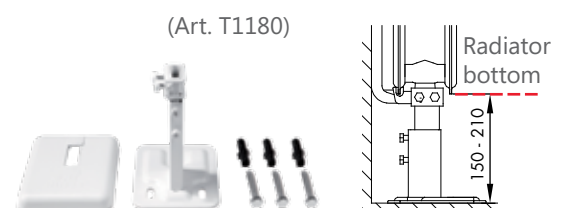
Always refer to the installation instructions and safety regulations before mounting a radiator!

An additional floor support for vertical radiators (types 20-22) is available for weak walls.

A professional inspection of the wall should always be conducted prior to mounting the radiator.

**ATTENTION:**

Always to be used in combination with the supplied wall brackets!



# VALVED DESIGN CONNECTION FITTING

## SPECIFICATIONS

- design cover
- design thermostatic head
- 2x 3/4" - 1/2" reduction
- 2x conical adapter
- Inlet on thermostatic head side
- valve with adjustable Kv (8 presettings)
- maximum operating temperature: 90°C
- maximum operating pressure: 6 bar
- maximum tightening torque: 35 Nm
- body in white high-quality plastic

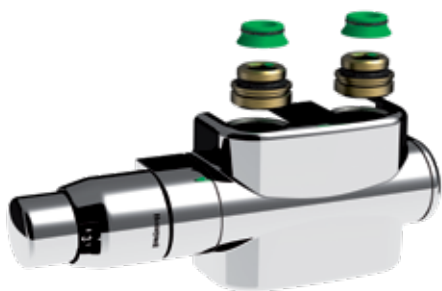
The valve cannot be replaced.

For two-pipe systems, not suitable for one-pipe systems.



## DESIGN CONNECTION SET STRAIGHT PIPING WITH LEFT HANDED VALVE

- Art. N°. T2121 - white
- Art. N°. T2122 - chrome



## DESIGN CONNECTION SET ANGLE PIPING WITH LEFT HANDED VALVE

- Art. N°. T2123 - white
- Art. N°. T2124 - chrome

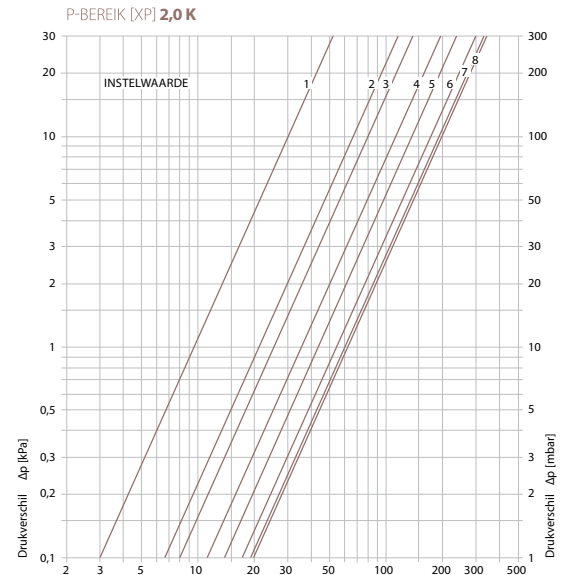
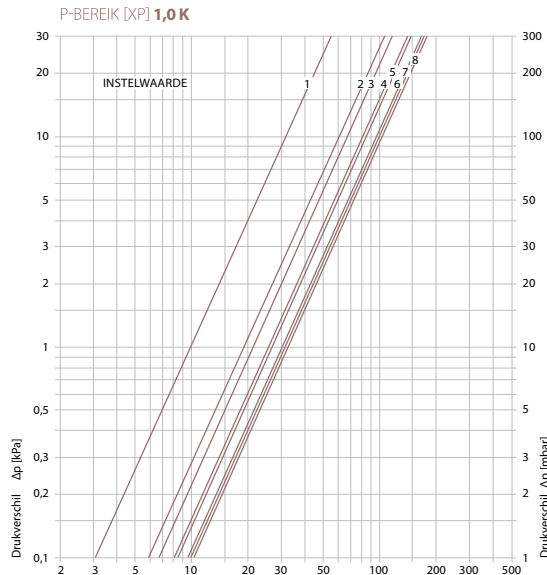


# VALVED DESIGN CONNECTION FITTING

## ADJUSTMENT OF THE VALVED CONNECTION FITTING



Voorinstelling	p-bereik xp 2,0 K	p-bereik xp 1,0 K
1	0,10	0,10
2	0,21	0,19
3	0,26	0,21
4	0,36	0,25
5	0,44	0,27
6	0,54	0,32
7	0,60	0,32
8	0,61	0,33



## LOCK FUNCTION

The lock function can be used to lock the radiator without shutting down the heating system.

The valved design connection fitting closes the inlet and outlet by closing the closing screw and the thermostatic head.

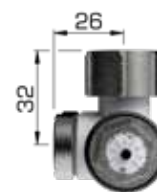


## MOUNTING DIMENSIONS

The supplied adapters enable the connection fitting to be fitted on the most commonly used connections:

- 3/4" external thread with flat sealing,
- 3/4" external thread Eurocone
- 1/2" internal thread.

The mounting dimensions are also valid for the connection fittings without valve.



3/4" external thread with flat sealing



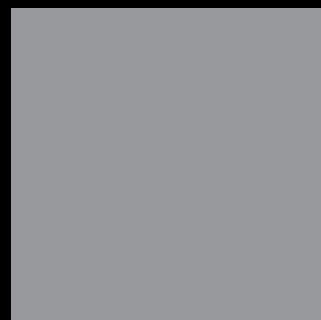
3/4" external thread Eurocone



1/2" internal thread



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