



MDL Solutions FM **TECHNICAL** catalogue

2015_01





**FLOOR-
MOUNTED**

Floor-mounted Convector type CLASIC 12,22 GRANDE 14, 23, 24



Floor-mounted Convectors from Verano should be a perfect match specifically for places where there is from technical or space reasons no option to use any trench heating or traditional panel/cast iron radiators.

Carefully designed and finished by high quality materials to ensure that low level Floor-mounted Convectors from Verano would ideally suit any interior design and would not spoil its unique character.

FLOOR-MOUNTED

The equipment of Verano heater

STANDARD equipment:

- smooth casing made of hot-dip galvanized steel sheet with zinc magnesium coating, powder painted in white RAL 9003,
- copper and aluminium heat exchanger with air vent,
- thermostatic valve (applies to the lower powered heaters type V,
- console (encased leg) with a height of 100 mm (adjustable feet on request),
- type C with water connection 2xIT ½",
- type V and type T with water connection 2xET ¾".

ADDITIONAL equipment::

- casing can be powder coated in any RAL color.

Verano floor-mounted heaters are available in three options:

- Type V - powered from the bottom
- Type C - powered from the side
- Type T - powered from the middle

Additional information

All floor-mounted heaters are also available in wall-mounted version.

Thermostatic valves fitted to radiators with bottom connection (type V) allow the installation of Schloser's thermostatic heads Catalog No. 600100001, 600100011, 600200001, 600200002, 600200003, 600200004, 600200005, 600200007 and Electro-thermal servo-motor Siemens type STA 23.

Radiators with side connection (type C 2xIT ½") can be connected directly with thermostatic and return valve. The V type radiators use ET ¾" which allows to direct connection to the valve body called "dual radiator valve".

Top end grille types



GRILL
OVAL
Standard



GRILL
OVAL I
Option



GRILL
OVAL II
Option



GRILL
LINEAR OVAL
Option



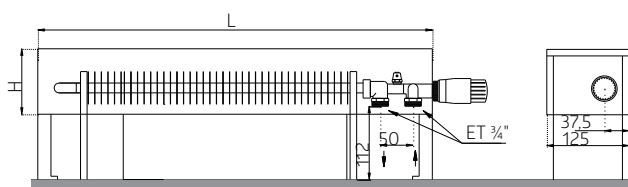
GRILLE
HONEYCOMB
Option

FLOOR-MOUNTED

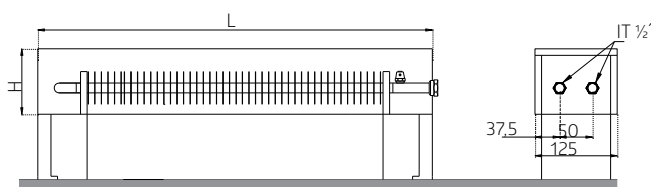


CLASIC 12

DIMENSIONS	[mm]
Height (H)	100
Width (W)	125
Length (L)	600 - 2500



Floor-mounted Convector type Clasic 12 V right

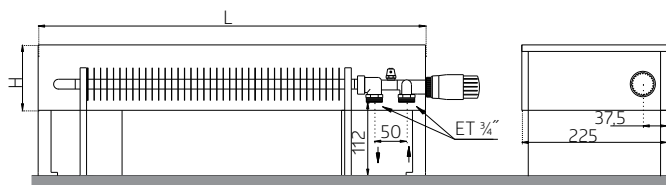


Floor-mounted Convector type Clasic 12 C right

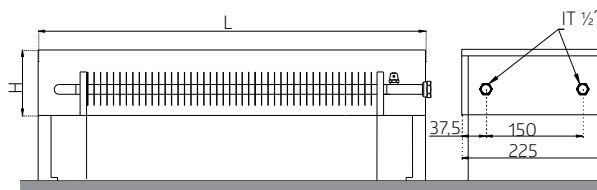


GRANDE 14

DIMENSIONS	[mm]
Height (H)	100
Width (W)	225
Length (L)	600 - 2500



Floor-mounted Convector type Grande 14 V right

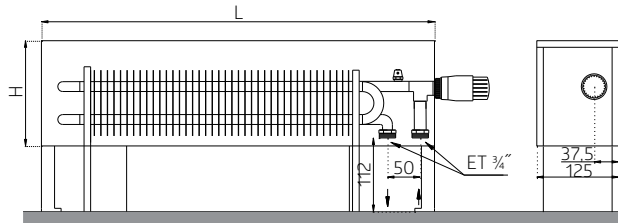


Floor-mounted Convector type Grande 14 C right

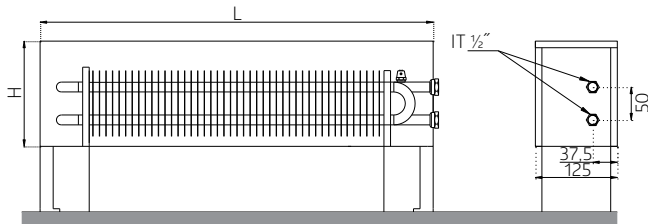
FLOOR-MOUNTED

CLASIC 22

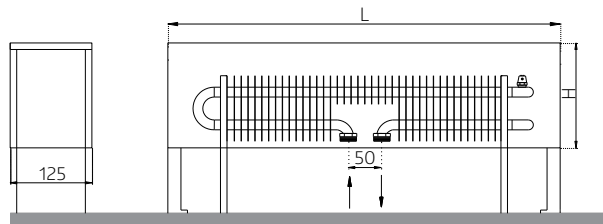
DIMENSIONS	[mm]
Height (H)	160
Width (W)	125
Length (L)	600 - 2500



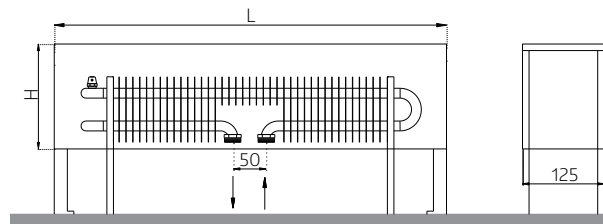
Floor-mounted Convector type Clasic 22 V right



Floor-mounted Convector type Clasic 22 C right



Floor-mounted Convector type Clasic 22 T left



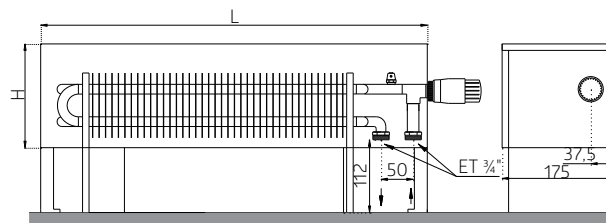
Floor-mounted Convector type Clasic 22 T right

FLOOR-MOUNTED

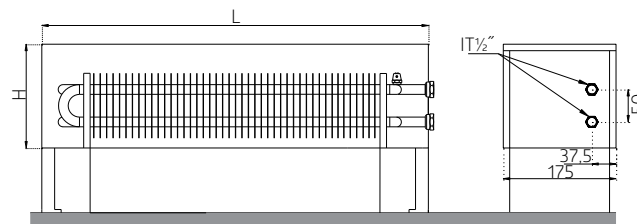
GRANDE 23



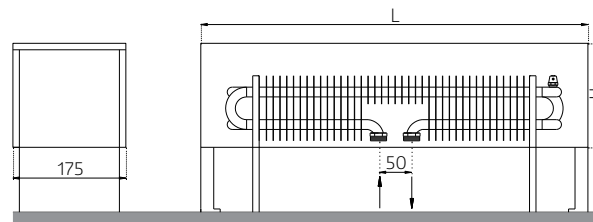
DIMENSIONS	[mm]
Height (H)	160
Width (W)	175
Length (L)	600 - 2500



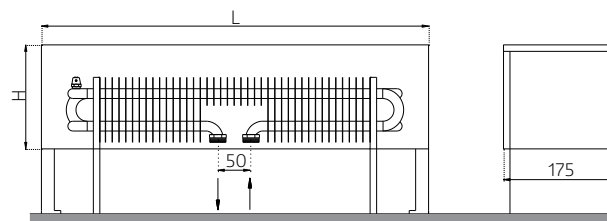
Floor-mounted Convector type Grande 23 V right



Floor-mounted Convector type Grande 23 C right



Floor-mounted Convector type Grande 23 T left

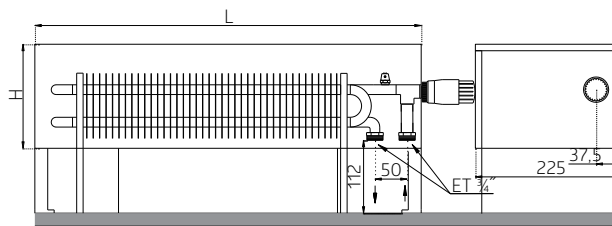


Floor-mounted Convector type Grande 23 T right

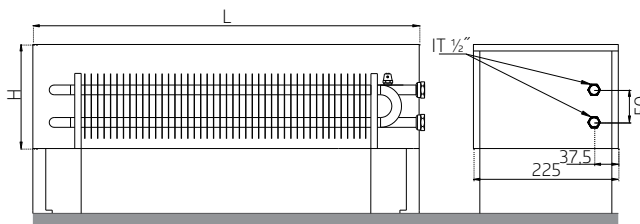
FLOOR-MOUNTED

GRANDE 24

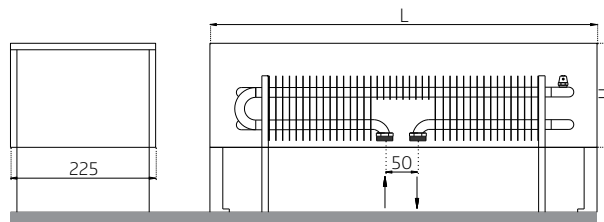
DIMENSIONS	[mm]
Height (H)	160
Width (W)	225
Length (L)	600 - 2500



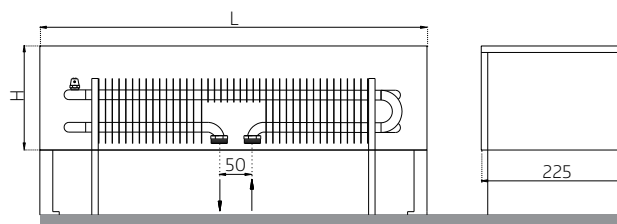
Floor-mounted Convector type Grande 24 V right



Floor-mounted Convector type Grande 24 C right



Floor-mounted Convector type Grande 24 T left



Floor-mounted Convector type Grande 24 T right

Heating output [W]

H [mm]	Type	Order code		L [mm]									
				600	800	1000	1250	1500	1750	2000	2250	2500	
100	Clasic 12 V	SCV5-10/12.5/L-12	75/65/20°C	337	451	563	704	845	985	1128	1269	1410	
			55/45/20°C	168	225	281	351	422	491	563	633	703	
	Clasic 12 C	SCC5-10/12.5/L-12	75/65/20°C	374	487	599	740	881	1021	1164	1305	1446	
			55/45/20°C	187	243	299	369	440	510	581	651	722	
	Grande 14 V	SGV5-10/22.5/L-14	75/65/20°C	705	941	1177	1471	1765	2059	2357	2658	2953	
			55/45/20°C	352	469	587	734	881	1027	1176	1326	1473	
	Grande 14 C	SGC5-10/22.5/L-14	75/65/20°C	782	1017	1254	1547	1841	2135	2433	2734	3029	
			55/45/20°C	390	507	626	772	919	1065	1214	1364	1512	

H [mm]	Type	Order code		L [mm]									
				600	800	1000	1250	1500	1750	2000	2250	2500	
160	Clasic 22 V	SCV5-16/12.5/L-22	75/65/20°C	402	535	669	836	1003	1171	1339	1507	1675	
			55/45/20°C	200	267	334	417	500	584	668	752	836	
	Clasic 22 C	SCC5-16/12.5/L-22	75/65/20°C	445	579	712	880	1046	1214	1383	1550	1718	
			55/45/20°C	222	289	355	439	522	606	690	774	857	
	Clasic 22 T	SCT5-16/12.5/L-22	75/65/20°C	321	464	602	773	941	1110	1280	1448	1616	
			55/45/20°C	160	231	300	385	470	554	639	723	807	
	Grande 23 V	SGV5-16/17.5/L-23	75/65/20°C	673	898	1121	1402	1682	1963	2247	2528	2809	
			55/45/20°C	336	448	560	700	839	980	1121	1261	1402	
	Grande 23 C	SGC5-16/17.5/L-23	75/65/20°C	746	971	1194	1475	1755	2036	2320	2601	2882	
			55/45/20°C	372	485	596	736	876	1016	1158	1298	1438	
	Grande 23 T	SGT5-16/17.5/L-23	75/65/20°C	538	778	1009	1295	1579	1862	2147	2429	2711	
			55/45/20°C	269	388	504	646	788	929	1071	1212	1353	
	Grande 24 V	SGV5-16/22.5/L-24	75/65/20°C	861	1150	1435	1795	2153	2513	2876	3236	3595	
			55/45/20°C	430	574	716	896	1074	1254	1435	1615	1794	
	Grande 24 C	SGC5-16/22.5/L-24	75/65/20°C	955	1243	1529	1888	2246	2606	2970	3329	3689	
			55/45/20°C	476	620	763	942	1121	1300	1482	1661	1841	
	Grande 24 T	SGT5-16/22.5/L-24	75/65/20°C	689	996	1292	1658	2021	2383	2748	3110	3470	
			55/45/20°C	344	497	645	827	1008	1189	1371	1552	1732	

Heat outputs [W] according to EN 442 for the room air temperature $T_i = 20^\circ\text{C}$.
 Maximum working pressure: 1.0 MPa.
 The test pressure of 1.3 MPa.
 Maximum operating temperature: 95°C

General information

Bench Floor-mounted Convectors is ideal in areas where we care about saving space and make it functional. In addition to its primary role which is heating, is also applicable as a seat.

The equipment of Verano heater

STANDARD equipment:

- smooth casing made of galvanized steel coated with zinc-magnesium coating, standard powder coated in white RAL 9003;
- copper-aluminum heat exchanger,
- vent valve,
- thermostatic valve (only for the Lower powered heaters - type V), type C with water connection 2xIT ½" type V and type T with water connection 2xET ¾"
- consoles (encased leg) with a height of 100 mm,
- means for fastening the seat,

ADDITIONAL equipment:

- casing can be powder coated in any RAL color
- seat is not included and can be done by the client or on request.



Heating output [W]

H [mm]	Type	Order code		L [mm]							
				600	800	1000	1250	1500	1750	2000	2250
100	Bench Clasic 12 V	LSCV-10/12.5/L-12	75/65/20°C	280	395	507	647	788	929	1071	1212
			55/45/20°C	140	197	253	323	393	463	534	605
	Bench Clasic 12 C	LSCC-10/12.5/L-12	75/65/20°C	316	432	544	684	825	965	1107	1248
			55/45/20°C	158	215	271	341	412	482	553	623
	Bench Grande 14 V	LSGV-10/22.5/L-14	75/65/20°C	586	824	1059	1353	1647	1940	2237	2534
			55/45/20°C	293	411	529	675	822	968	1116	1265
	Bench Grande 14 C	LSGC-10/22.5/L-14	75/65/20°C	663	901	1136	1429	1724	2017	2314	2611
			55/45/20°C	331	450	567	713	860	1006	1155	1303

H [mm]	Type	Order code		L [mm]							
				600	800	1000	1250	1500	1750	2000	2250
160	Bench Clasic 22 V	LSCV-16/12.5/L-22	75/65/20°C	334	469	602	769	937	1104	1271	1440
			55/45/20°C	167	234	301	384	467	551	634	719
	Bench Clasic 22 C	LSCC-16/12.5/L-22	75/65/20°C	378	512	646	812	980	1147	1315	1484
			55/45/20°C	188	256	322	405	489	572	656	740
	Bench Grande 23 V	LSGV-16/17.5/L-23	75/65/20°C	561	785	1009	1290	1571	1851	2133	2415
			55/45/20°C	280	392	504	644	784	923	1065	1205
	Bench Grande 23 C	LSGC-16/17.5/L-23	75/65/20°C	634	858	1082	1363	1644	1923	2206	2488
			55/45/20°C	316	428	540	680	820	960	1101	1242
Bench Grande 24 V	LSGV-16/22.5/L-24	75/65/20°C	718	1005	1292	1651	2011	2369	2731	3092	
		55/45/20°C	358	501	645	824	1003	1182	1363	1543	
Bench Grande 24 C	LSGC-16/22.5/L-24	75/65/20°C	811	1098	1385	1745	2104	2462	2824	3185	
		55/45/20°C	405	548	691	871	1050	1229	1409	1589	

Heat outputs [W] according to EN 442 for the room air temperature $T_i = 20^\circ\text{C}$.

Maximum working pressure: 1.0 MPa.

The test pressure of 1.3 MPa.

Maximum operating temperature: 95°C

FLOOR-MOUNTED

Water capacity [dm³]

Type	L [mm]								
	600	800	1000	1250	1500	1750	2000	2250	2500
Clasic 12 V	0,17	0,23	0,29	0,37	0,44	0,52	0,60	0,67	0,75
Clasic 12 C	0,18	0,24	0,31	0,38	0,46	0,54	0,61	0,69	0,77
Grande 14 V	0,30	0,42	0,55	0,70	0,85	1,01	1,16	1,32	1,47
Grande 14 C	0,35	0,47	0,60	0,75	0,90	1,06	1,21	1,37	1,52
Clasic 22 V	0,36	0,48	0,60	0,76	0,91	1,06	1,22	1,37	1,53
Clasic 22 C	0,36	0,48	0,60	0,76	0,91	1,06	1,22	1,37	1,53
Clasic 22 T	0,33	0,45	0,57	0,73	0,88	1,04	1,19	1,34	1,50
Grande 23 V	0,53	0,71	0,90	1,13	1,36	1,59	1,82	2,05	2,28
Grande 23 C	0,52	0,71	0,89	1,12	1,36	1,59	1,82	2,05	2,28
Grande 23 T	0,50	0,69	0,87	1,10	1,33	1,56	1,80	2,03	2,26
Grande 24 V	0,68	0,93	1,18	1,49	1,79	2,10	2,41	2,72	3,03
Grande 24 C	0,68	0,93	1,17	1,48	1,79	2,10	2,40	2,71	3,02
Grande 24 T	0,67	0,92	1,17	1,48	1,78	2,09	2,40	2,71	3,01

BENCH FLOOR-MOUNTED

Water capacity [dm³]

Type	L [mm]								
	600	800	1000	1250	1500	1750	2000	2250	2500
Bench Clasic 12 V	0,17	0,23	0,29	0,37	0,44	0,52	0,60	0,67	0,75
Bench Clasic 12 C	0,18	0,24	0,31	0,38	0,46	0,54	0,61	0,69	0,77
Bench Grande 14 V	0,30	0,42	0,55	0,70	0,85	1,01	1,16	1,32	1,47
Bench Grande 14 C	0,35	0,47	0,60	0,75	0,90	1,06	1,21	1,37	1,52
Bench Clasic 22 V	0,36	0,48	0,60	0,76	0,91	1,06	1,22	1,37	1,53
Bench Clasic 22 C	0,36	0,48	0,60	0,76	0,91	1,06	1,22	1,37	1,53
Bench Grande 23 V	0,53	0,71	0,90	1,13	1,36	1,59	1,82	2,05	2,28
Bench Grande 23 C	0,52	0,71	0,89	1,12	1,36	1,59	1,82	2,05	2,28
Bench Grande 24 V	0,68	0,93	1,18	1,49	1,79	2,10	2,41	2,72	3,03
Bench Grande 24 C	0,68	0,93	1,17	1,48	1,79	2,10	2,40	2,71	3,02

Correction factors of heating outputs

Correction factors of heating outputs for Floor-mounted and Bench Floor-mounted Convectors for parameters other than 75/65/20°C

Heating medium temperature (°C)		Room air temperature Ti (°C)						
Ts	Tr	5	8	12	16	20	24	32
90	85	1,975	1,878	1,751	1,626	1,504	1,354	1,152
	80	1,894	1,798	1,673	1,549	1,428	1,281	1,082
	75	1,814	1,719	1,595	1,473	1,354	1,209	1,014
	70	1,735	1,642	1,519	1,399	1,281	1,138	0,946
85	80	1,814	1,719	1,595	1,473	1,354	1,209	1,014
	75	1,735	1,642	1,519	1,399	1,281	1,138	0,946
	70	1,657	1,565	1,443	1,325	1,209	1,069	0,880
	65	1,580	1,489	1,369	1,252	1,138	1,000	0,815
80	75	1,657	1,565	1,443	1,325	1,209	1,069	0,880
	70	1,580	1,489	1,369	1,252	1,138	1,000	0,815
	65	1,504	1,414	1,296	1,181	1,069	0,933	0,751
	60	1,428	1,340	1,224	1,110	1,000	0,867	0,689
75	70	1,504	1,414	1,296	1,181	1,069	0,933	0,751
	65	1,428	1,340	1,224	1,110	1,000	0,867	0,689
	60	1,354	1,267	1,152	1,041	0,933	0,802	0,628
	55	1,281	1,195	1,082	0,973	0,867	0,738	0,568
70	65	1,354	1,267	1,152	1,041	0,933	0,802	0,628
	60	1,281	1,195	1,082	0,973	0,867	0,738	0,568
	55	1,209	1,124	1,014	0,906	0,802	0,676	0,511
	50	1,138	1,055	0,946	0,841	0,738	0,616	0,455
65	60	1,209	1,124	1,014	0,906	0,802	0,676	0,511
	55	1,138	1,055	0,946	0,841	0,738	0,616	0,455
	50	1,069	0,986	0,880	0,776	0,676	0,557	0,400
	45	1,000	0,919	0,815	0,713	0,616	0,499	0,348
60	55	1,069	0,986	0,880	0,776	0,676	0,557	0,400
	50	1,000	0,919	0,815	0,713	0,616	0,499	0,348
	45	0,933	0,854	0,751	0,652	0,557	0,444	0,298
	40	0,867	0,789	0,689	0,592	0,499	0,390	0,249
55	50	0,933	0,854	0,751	0,652	0,557	0,444	0,298
	45	0,867	0,789	0,689	0,592	0,499	0,390	0,249
	40	0,802	0,726	0,628	0,534	0,444	0,338	0,204
	35	0,738	0,664	0,568	0,477	0,390	0,288	0,160
50	45	0,802	0,726	0,628	0,534	0,444	0,338	0,204
	40	0,738	0,664	0,568	0,477	0,390	0,288	0,160
	35	0,676	0,604	0,511	0,422	0,338	0,240	0,120
45	40	0,676	0,604	0,511	0,422	0,338	0,240	0,120
	35	0,616	0,545	0,455	0,369	0,288	0,195	0,083

How to choose the most efficient heater?

Calculated thermal power requirement is 1130 W.

Planned supply, return and indoor temperatures: Ts/Tr/Ti=50/40/20°C. For this parameters we read the temperature correction factor which is 0.390.

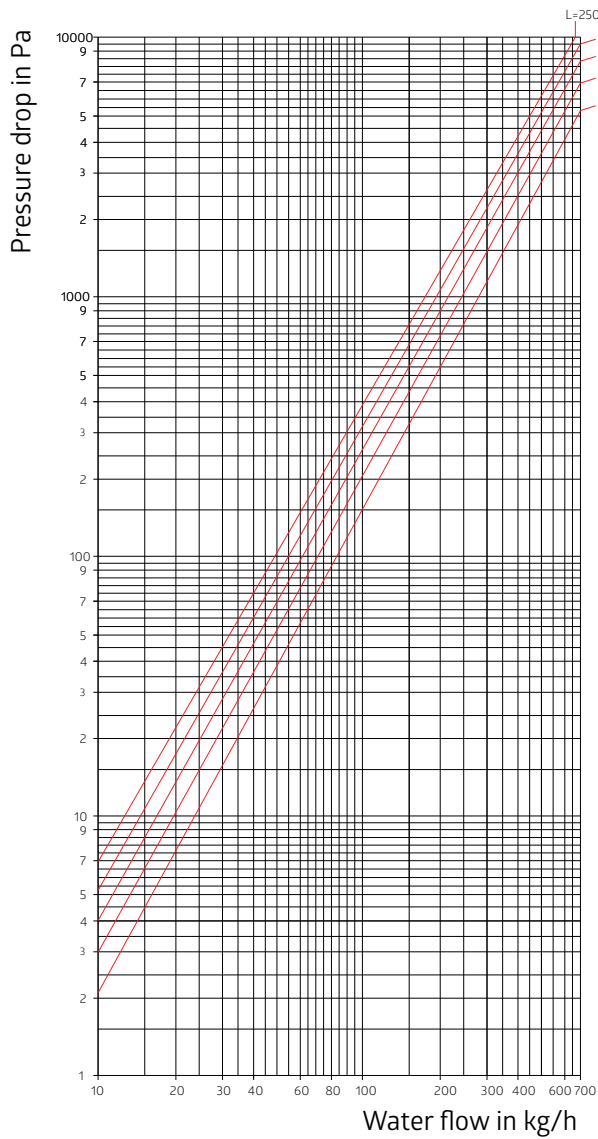
Then we divide the calculated thermal power (1130 W) by correction factor (0.390) and we get heat output needed which is 2897 W, according to which we

choose the heater Grande 14V 100x2500 (2953W for 75/65/20°C).

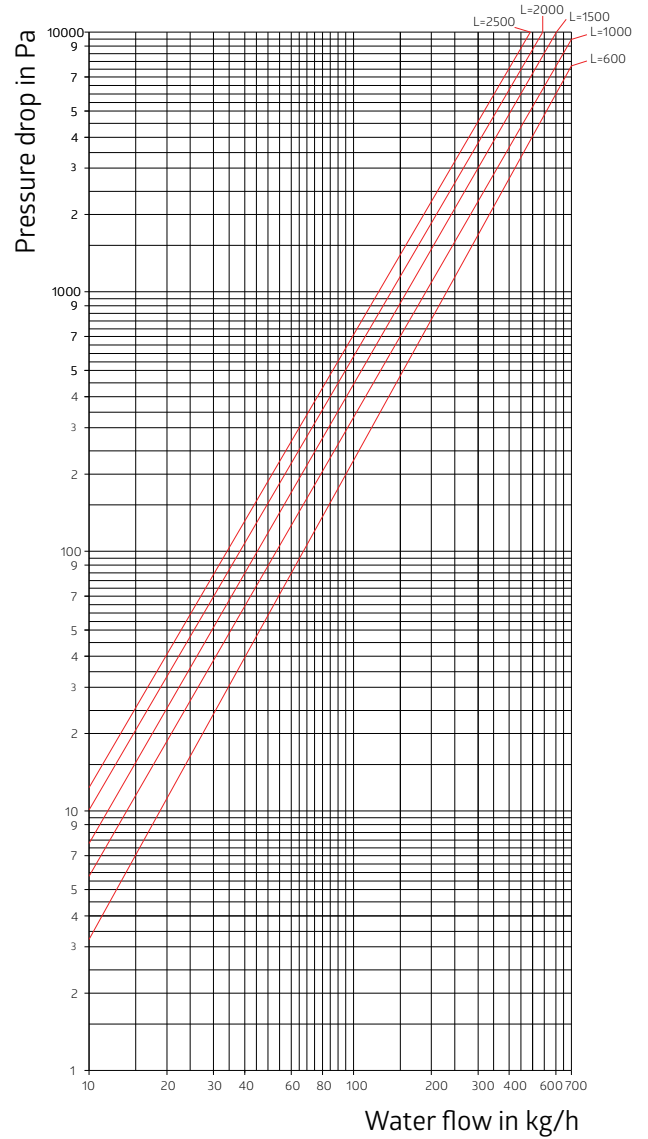
It follows that the draft heater reaches the power output 1152 W for parameters 50/40/20°C, while the parameters 75/65/20°C get 2953 W.

FLOOR-MOUNTED +BENCH

Pressure losses [Pa]



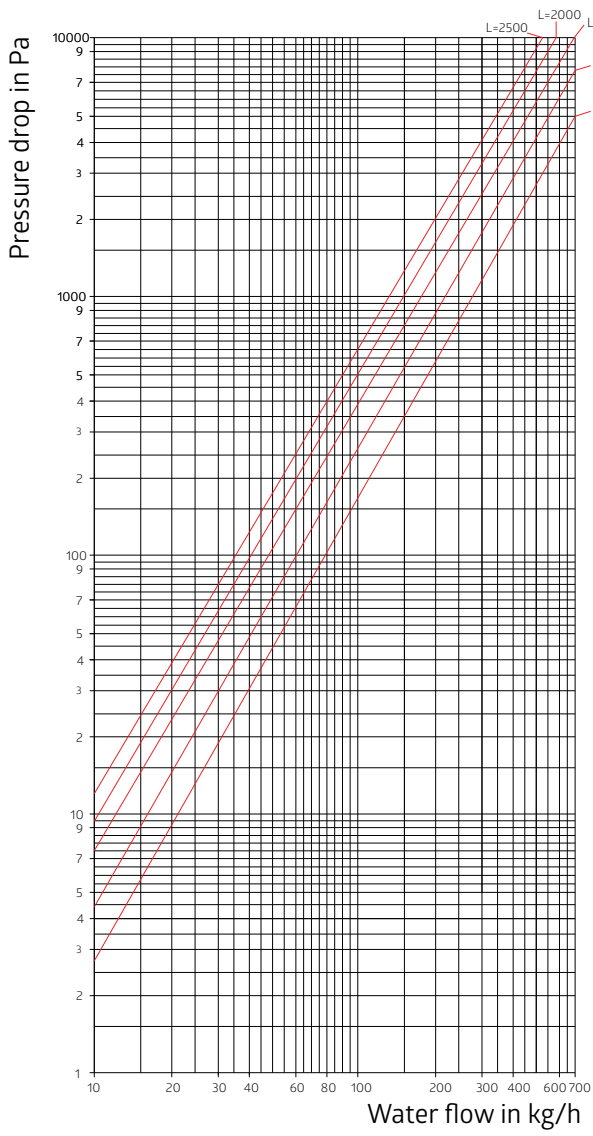
Clasic 12



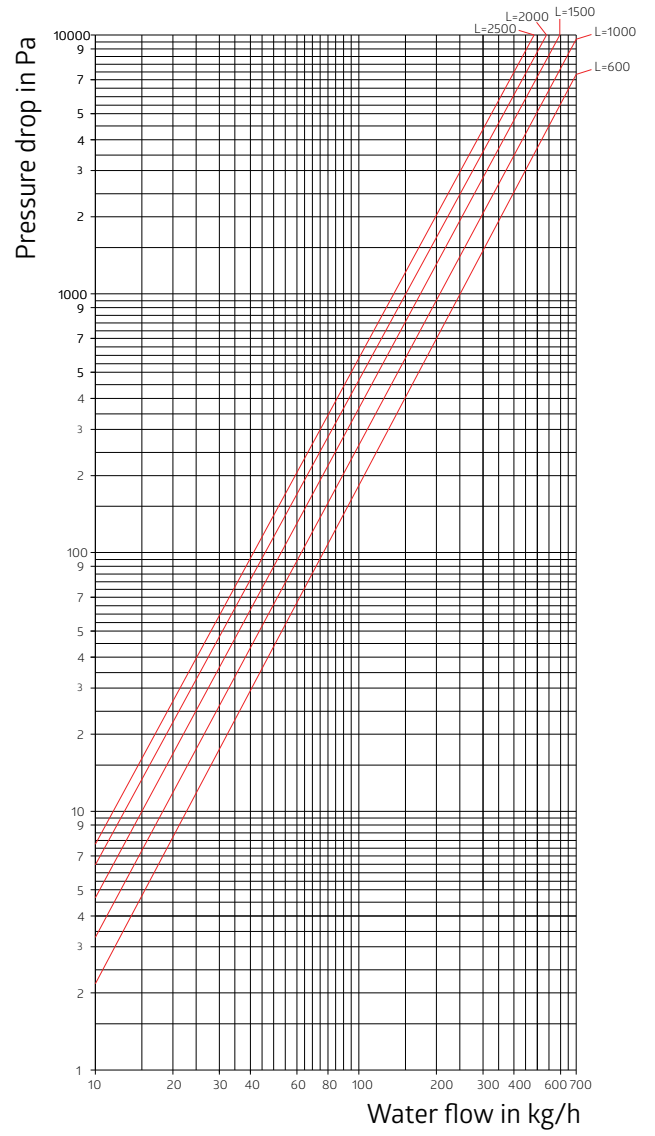
Grande 14

FLOOR-MOUNTED +BENCH

Pressure losses [Pa]



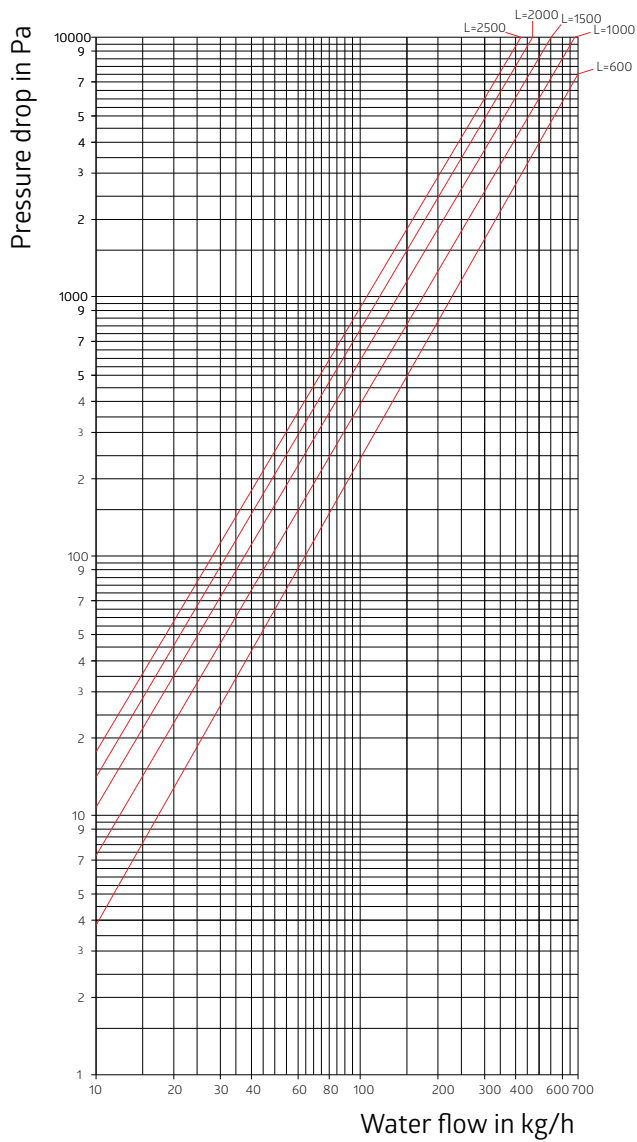
Clasic 22



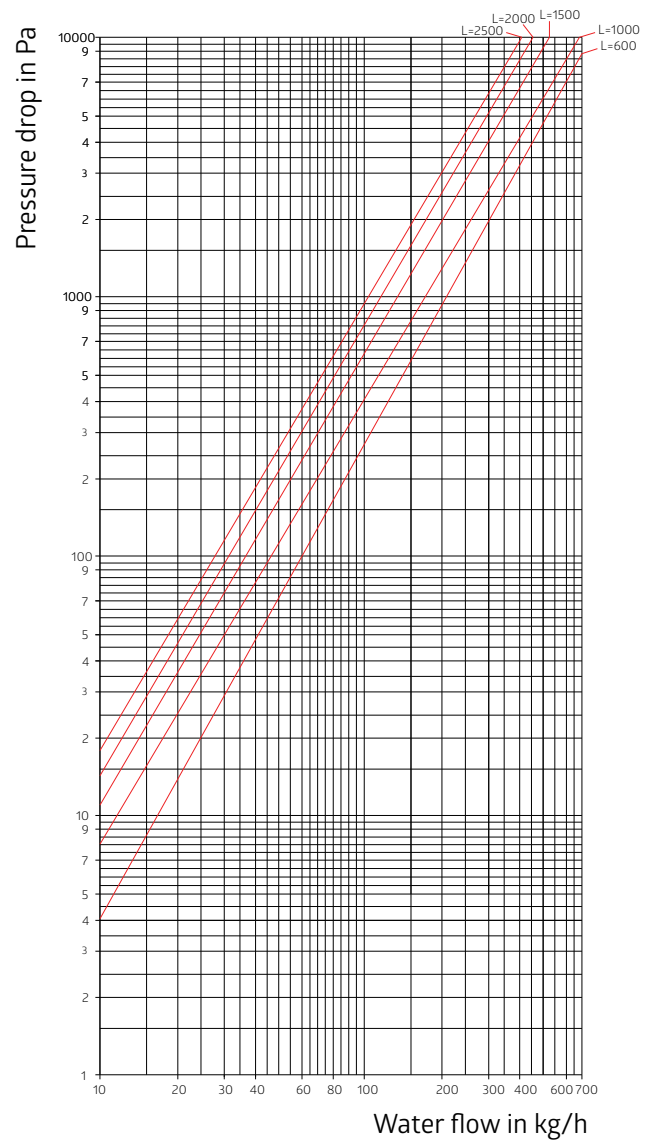
Classic 22 T

FLOOR-MOUNTED +BENCH

Pressure losses [Pa]



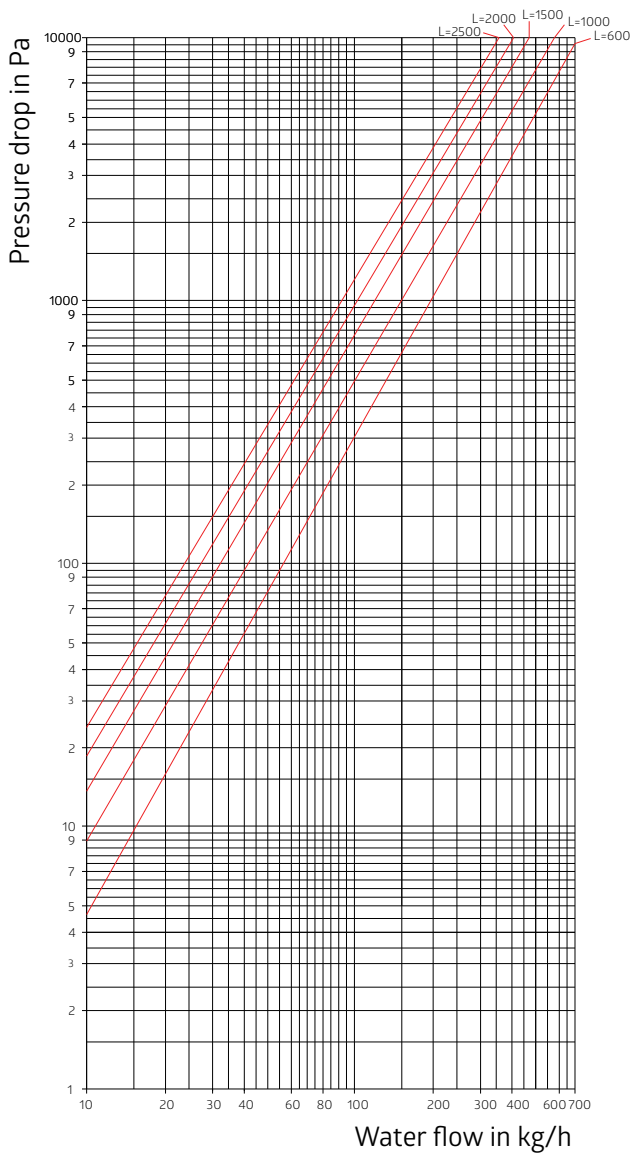
Grande 23



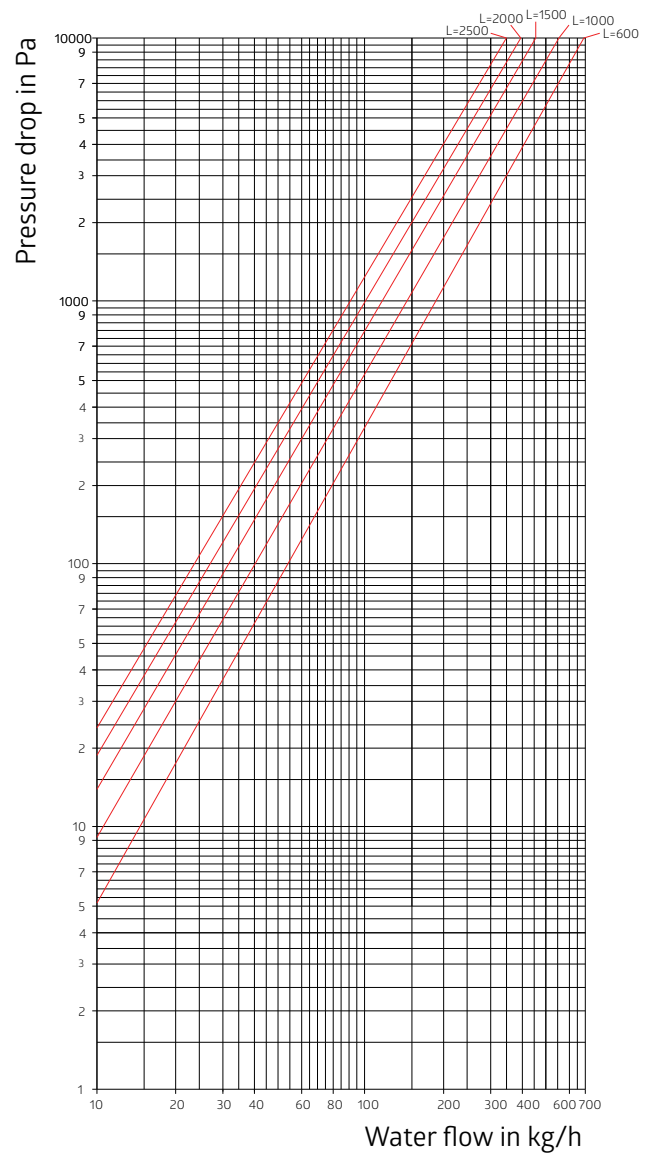
Grande 23 T

FLOOR-MOUNTED +BENCH

Pressure losses [Pa]

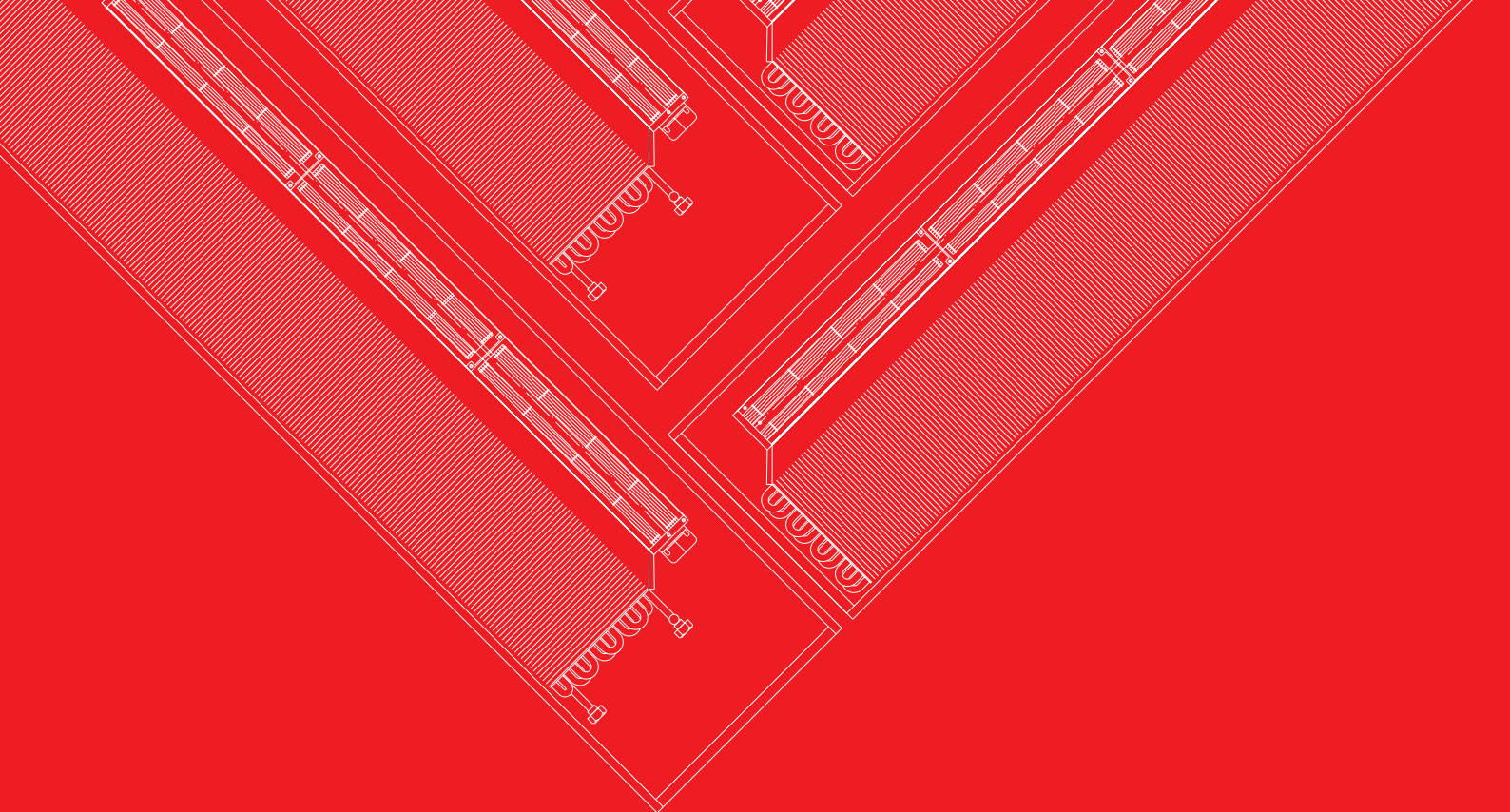


Grande 24



Grande 24 T





MDL SOLUTIONS
NATIONAL DISTRIBUTOR

2275 UPPER MIDDLE RD, E
OAKVILLE, ONTARIO
L6H 203

TEL: 289 799-3414; EMAIL:
GENERAL@MDLSOLN.COM



www.mdlsoln.com

Technical catalogue 2015_01

After completion the edition of the directory on the 21.01.2015, may have been some changes in the products listed in.
The manufacturer reserves the right to make changes to the design, color and specification.
Illustrations may include optional accessories. Printing technology can affect the differences in the forward colors.
Please contact to your local sales agent for the newest information of Verano products.