



V 3048

CERTIFICATION BODY No. 3048

accredited by the Czech Accreditation Institute, Public Service Company
Centre of Building Engineering
102 21 PRAGUE 10, Prazska 16

issue the

CERTIFICATE

No. CO/ C – 0525 – 2013/P

For the following product: *Trench heater VP, VK; Trench heater with fan VKN;
Air-conditioning convector CVK;
Free standing heaters (Clasic, Grande)
Wall mounted heaters (Clasic, Grande, Quatro)*

Manufacturer : VERANO, ul. Vetterów 7a, 20-277 Lublin, Poland
NIP : 716-000-38-50,
Regon : 430771960,
Applicant : VERANO, ul. Vetterów 7a, 20-277 Lublin, Poland
Production plant : VERANO, ul. Vetterów 7a, 20-277 Lublin, Poland

Description:

The entire range of convectors company Verano uses heat exchangers with three sizes of copper pipes. Pipe diameter $D = 10$ mm, $D = 15$ mm and $d = 18$ mm.

To test were selected convectors all three pipe diameters, each with a minimum and maximum number of tubes in the heat exchanger.

Test of strength pressure resistance

Tests are performed according to test method EN 442-1 and Internal registration No.: P 02 1005.

The test pressure p' was chosen according to a requirement given in Article 5.3 of ČSN EN 442-1:

$p' = p \cdot 1,3 \cdot 1,3 = 1,69$ MPa. $p = 1,0$ MPa - the maximal admissible operating pressure, declared by the manufacturer. Test results overview


Type No.	Ø Cu (mm)	required test pressure (MPa)	Actual test pressure:	Extended uncertainty of the pressure measurement:
CVK: 09/17/180-23	10	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa
CVK: 11/32/100-38	10	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa
VKN: 09/25/080-12	15	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa
VK: 7,5/20/130-12	18	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa
VP: YP-14/38/130/-24S	15	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa
QUATRO/42/40x125	18	$p' = p \cdot 1,3 \cdot 1,3 = 1,69$	1,7 (MPa)	$U = \pm 0,05$ MPa

The above products convectors of manufacturer Verano are resistant pressure of 1 MPa.

The Certificate is issued upon the Test Report No. P918-13/A 6th May, 2013, elaborated by the Test Laboratory TZB CO 3048 of the Building Equipment - Centre of Building Construction Engineering Inc., Prague.

Date of issue: 9th May 2013




Ing. Petr Kucera, Ph.D.
Director of Certification

Body Enclosures: Test Report P 918-13/A of 5th May 2013, Test of strength pressure resistance of the convectors and of the air-conditioning convectors. Testing Laboratory of Technical Installations of Buildings-CO 3048 of CSI a.s. Prague.