



Flamco

Flamco

Compressor expansion vessels

Pump expansion vessels

Top-up devices

FLEXCON M-K / C



FLEXCON M-K / U



FLAMCOMAT



FLAMCO-FILL PE



Flamco



Flamco Flexcon® M-K, the powerful compressor expansion

The complete microprocessor-controlled control unit of the Flexcon M-K expansion automat has a number of freely-programmable working variables. Typical of the Flexcon M-K are the reliability and sturdiness. Due the range of versions and optional extras, the automats have a use in countless different installations. The automats are fitted with low-noise, oil-free compressors which require no special maintenance.

ADVANTAGES:

- ◆ Stable system pressure and a large useful tank volume.
- ◆ Easy to install and commission.
- ◆ Freely-programmable operation data.



FLEXCON M-K / C
(SCU CONTROL UNIT)

Control panel.

Steel vessel.

Signal cables
for pressure and
capacity sensor.

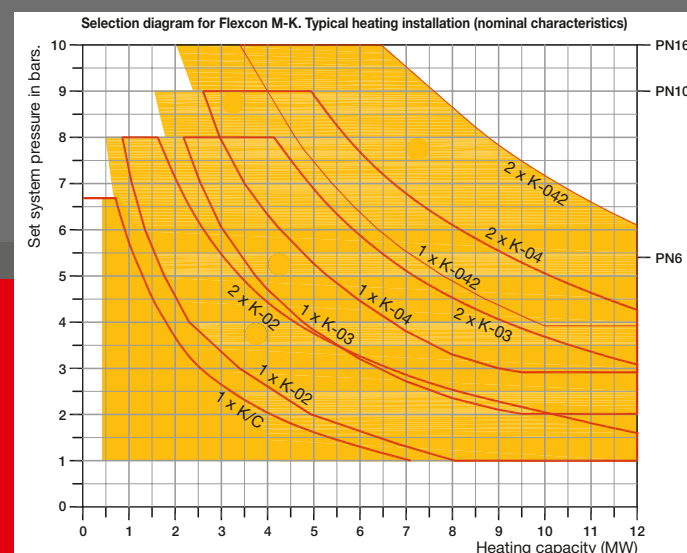
Capacity sensor.

The foot is adjustable
in height, so that the
vessel can be leveled
on any surface.



1. Grip to open cover
2. On / Off switch
3. Malfunction log LED
4. Push button/rotary control
5. Graphic display

Compressor characteristics Flexcon M-K



Tables with types and technical information: page 2.10 - 2.12.

sion automat

Flexcon M-K automats consist of a steel vessel with exchangeable diaphragm made of butyl rubber and a control unit with compressor. They are used for storing expansion volume in closed heating, cooling and air-conditioning installations. A Flexvent Super floatvent is optional.



FLEXCON M-K / U

FLEXCON M-K / U
(SDS-CONTROL UNIT)

Pressure-maintaining
connection assembly.

Compressor 1.

Diaphragm-rupture
sensor (not supplied).

Compressor 2
(optional).

Exchangeable
diaphragm made of
high-quality butyl rubber.

Foot-height adjuster.



FLEXCON M-K / S
(SDS-CONTROL UNIT)

Quick-release
couplings for
auxiliary vessels.

Pressure-pipe
connections for
maintaining pressure
and pressure sensor.

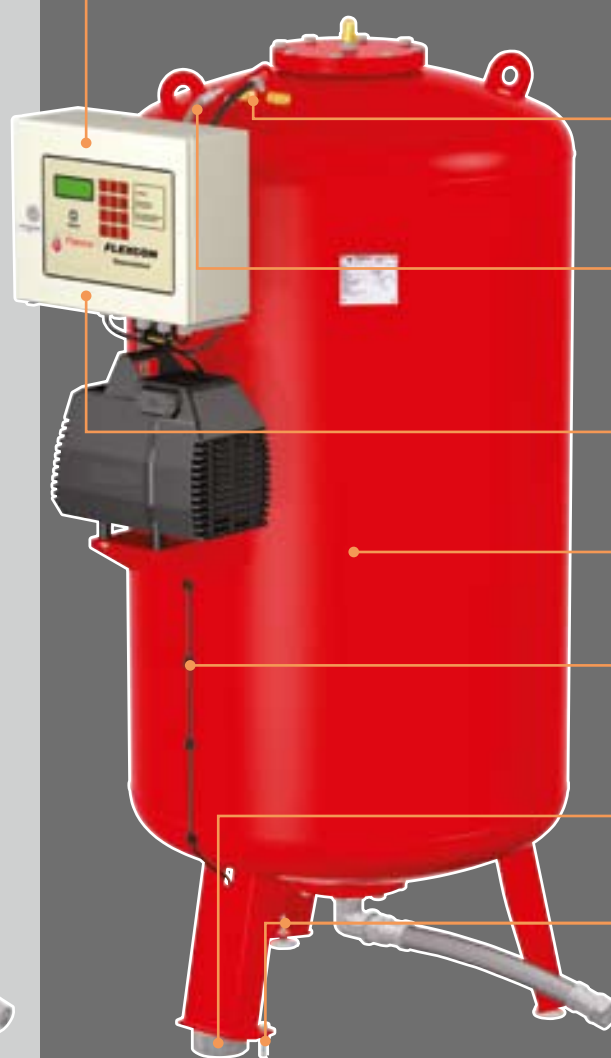
Control panel.

Steel vessel.

Capacity sensor
signal cable.

Capacity and
pressure sensor.

Foot-height adjuster.



The graphic display on the SDS and SCU control units clearly shows the user what the set parameters are, what the appliance is doing and what the current vessel capacity and system pressure are.

The Flexcon M-K compressor expansion automats absorb the expansion water in the installation. They also keep the pre-set system pressure at a constant level within precise limits. Water and compressed air are separated from each other by an exchangeable diaphragm made of high-quality butyl rubber, which is known for its low gas permeability.

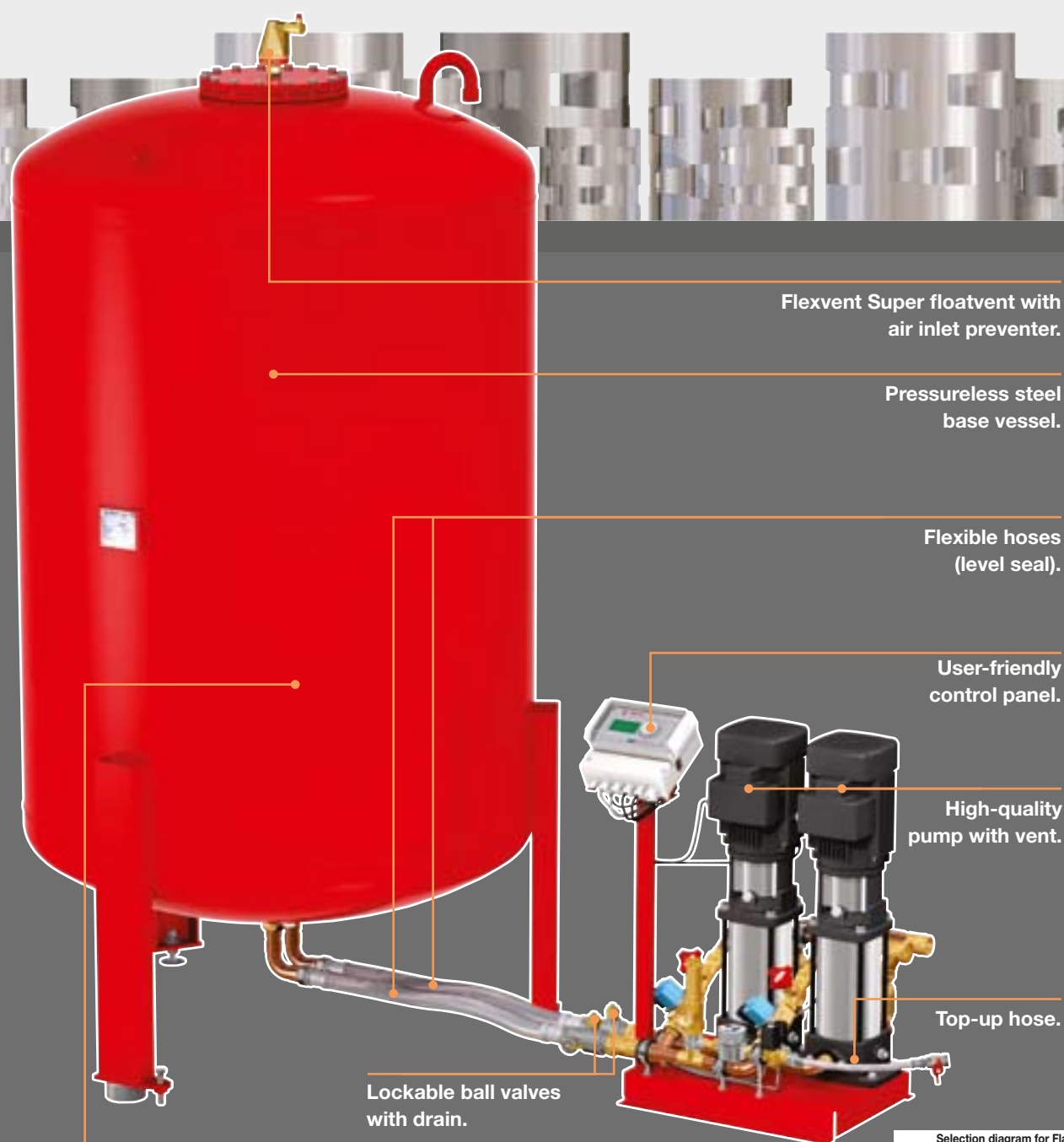


Flexcon expansion vessels have a reputation to uphold! Do not accept any less!



Flamco Tomorrow's technology in the Flamcomat® of

The Flamcomat is a modern, pump-driven pressure-expansion automat which you can easily install and operate yourself. Thanks to its sophisticated construction, we have made it possible to incorporate lots of important functions into one compact unit.



The Flamcomat is suitable for both medium-sized and large heating installations and for both cooling and air-conditioning installations. The Flamcomat makes sure that the system pressure remains constant within precise limits and that the system is topped-up automatically should there be any leakage. The venting process is at the same time dynamic and energy-efficient.

Connection-assembly sensor (optional)

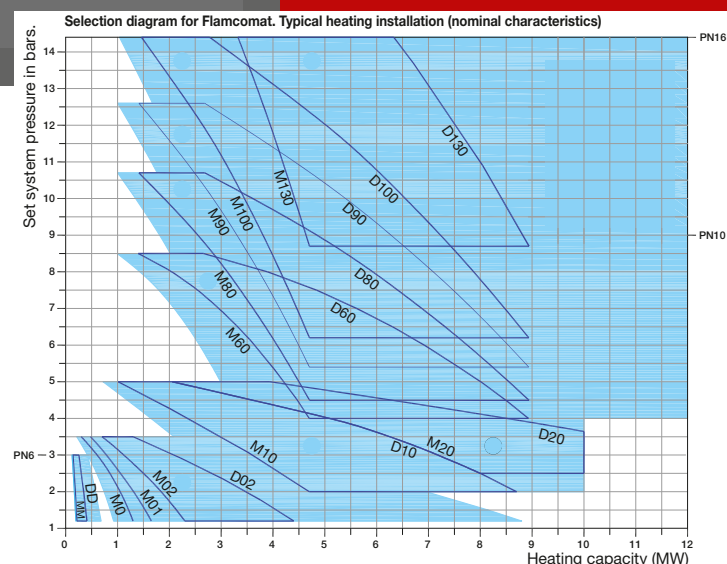
The Flamcomat de-aeration process can be performed even more economically. When the pre-set level of gas has been reached, the normal de-aeration process is stopped until the next time the sensor detects an excessive level of gas in the expansion fluid.

Flamcomat pump characteristics

ADVANTAGES:

- ◆ The Flamcomat combines pressure-control, dynamic bleeding and topping-up in one.
- ◆ Choice of pump modules in both single and double versions.
- ◆ Excellent, proven de-aeration properties, see also PDF file on CD with the conclusions of tests carried out by the independent WL / Delft Hydraulics.
- ◆ Expansion fluid is stored – in a vacuum – in an interchangeable butyl-rubber 'bellows' type diaphragm.
- ◆ Use of patented PALL-rings to separate micro-airbubbles from the system.

Tables with types and technical information: page 2.14.



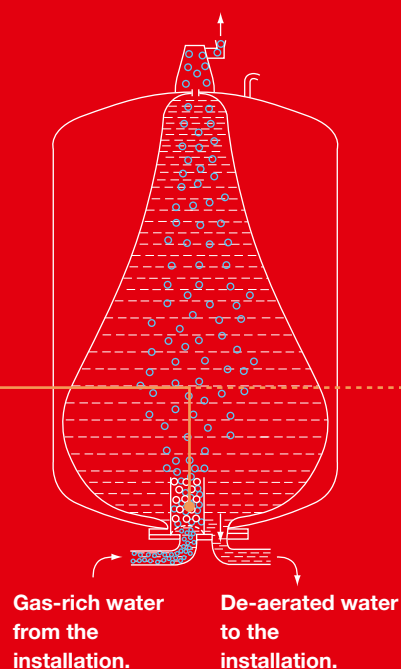
today

The Flamcomat consists of a ready-to-use pump unit and a pressureless base vessel. This pressure-expansion system can be developed with accessories from our extensive range. In this way, you can tailor your system precisely to the needs of your situation.



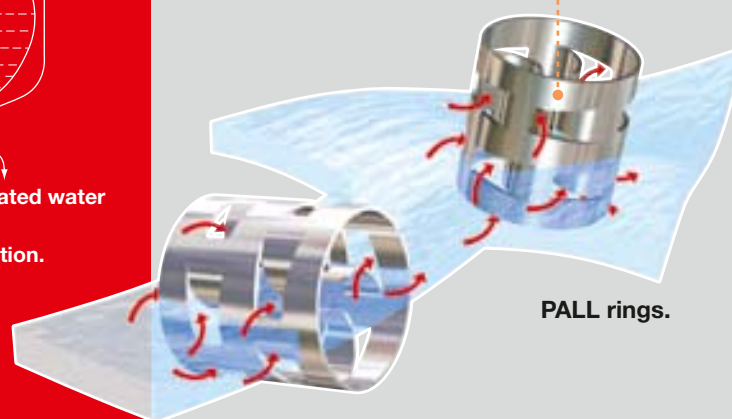
Atmospheric connection for pressure compensation in the space between the interior wall of the vessel and the exterior wall of the diaphragm.

Exchangeable diaphragm made of high-quality butyl rubber.



Gas-rich water from the installation.

De-aerated water to the installation.



PALL rings.

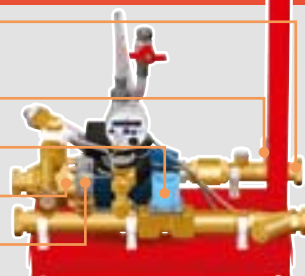
Pump pressure pipe, from pressure-expansion vessel to installation.

Pressure sensor.

Solenoid valve.

Pressure-relief valve.

Sealable filler/drain valve.



FLAMCOMAT

By using integrated PALL-rings, you can separate air from the installation continuously and completely.

The "turbo-vent" function significantly increases the de-aeration capacity.



The Flamcomat is a multi-faceted expansion automat with excellent technical performance. The Flamcomat's de-aeration capacity does not depend on the circulation speed or pressure in the system. When fitting an installation with significant differences between summer and winter operation, we recommend use of a double-pump (load-dependent) Flamcomat pump automat. You will find the complete installation instruction on the CD.



Flamco

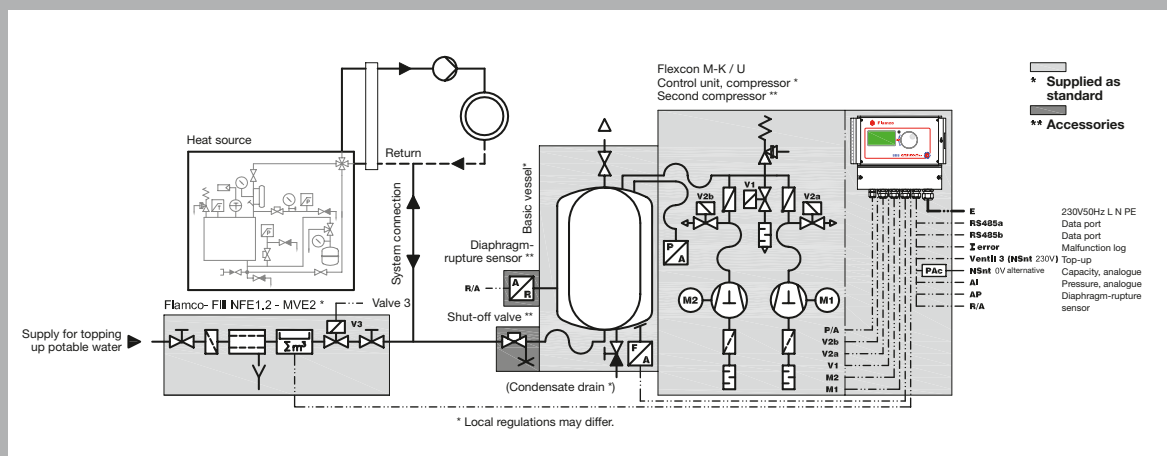
Position and operating principle of the Flamco

Just as for the standard diaphragm pressure expansion tank, it is important to choose the right place in the installation for an expansion vessel. The vessel should be connected to the installation somewhere where no pressure is exerted on it. This is normally before the circulation pump or next to the balance bottle, because the pressure here is least influenced by installation components.



FLEXCON
M-K / U

Installation plan Flexcon M-K / U



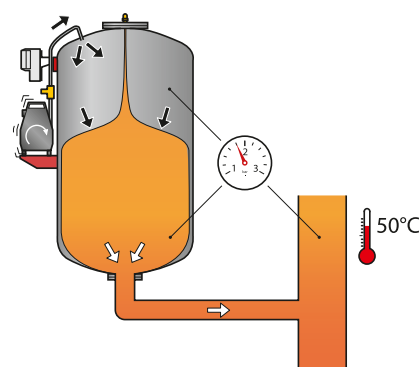
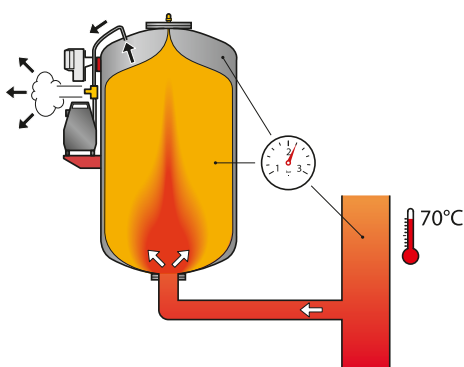
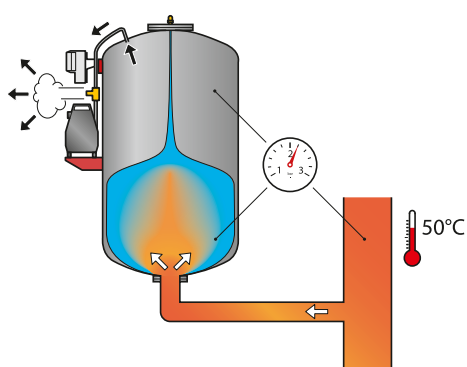
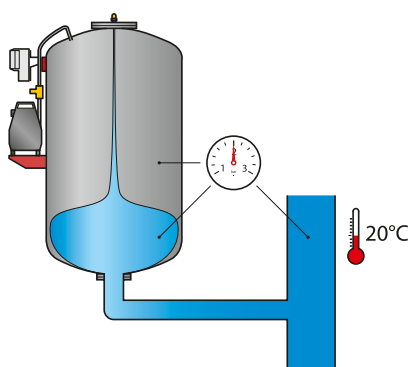
Flamco-Fill STA

MVE 1



Flamco-Fill PE

How the Flexcon M-K compressor vessel works



Cold

The compressor has a small amount of water in it.

Warming up

When heat is applied to the water, it expands; this has implications for the system pressure, which increases as well. The compressor responds to this by releasing air and, as a result, the expansion water flows into the vessel.

Operation at maximum capacity

By storing increasing amounts of water in the vessel the compressor can keep the system pressure more or less constant. When the system has warmed up completely, the vessel will be almost full to capacity.

Cooling down

When the volume of water and thus the system pressure decreases, the compressor will respond by trying to displace the water in the system with air. This restores equilibrium in the system pressure.

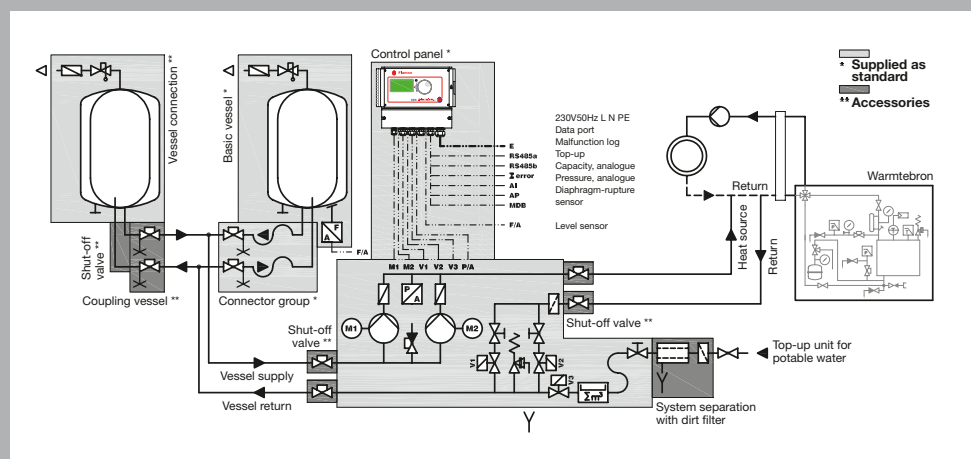
expansion vessel in the installation

De-aeration, small repairs or losses caused by leakage make the automatic top-up of water absolutely essential. This feature is integrated in the Flamcomat, while Flamco offers a range of components for the Flexcon M-K system to regulate this safely.

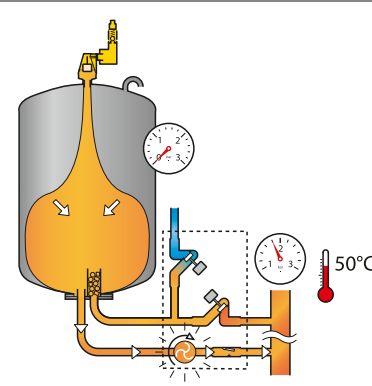
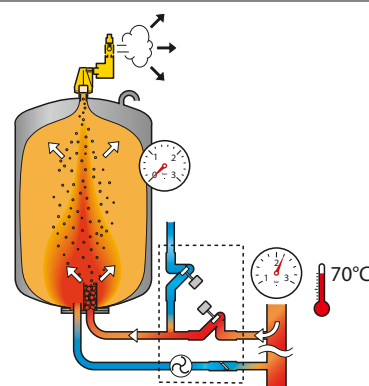
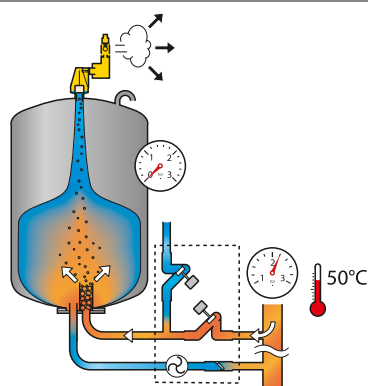
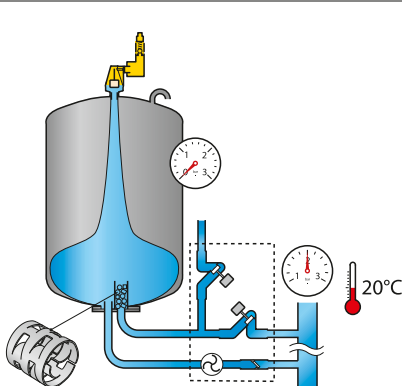
It's impossible to sum up 30 years of know-how of expansion systems in just a few words...



Installation plan Flamcomat



How the Flamcomat pump vessel works



Cold

The pump has a small amount of water in it. The pump is now at rest.

Warming up

The volume of water, and thus the system pressure, increases. The pump responds to this by opening the valve. Water flows into the vessel, which is not at pressure. The water in the vessel is de-aerated due to both the fall in pressure and the presence of the PALL rings at the bottom of the vessel.

Operation at maximum capacity

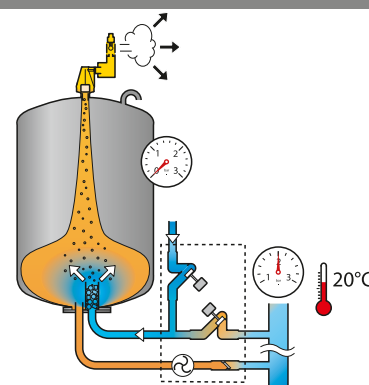
By storing increasing amounts of water in the vessel the pump can keep the system pressure more or less constant. When the system has warmed up completely, the vessel will be almost full to capacity.

Cooling down

The volume of water, and thus the system pressure, decreases. The pump pumps the de-aerated water from the pressureless vessel back into the system. This restores equilibrium in the system pressure.

ON THE FLAMCO CD YOU WILL FIND:

- ◆ This brochure as PDF file.
- ◆ The Flexcon calculation programme.
- ◆ DWF files.
- ◆ CAD symbols.



Topping-up

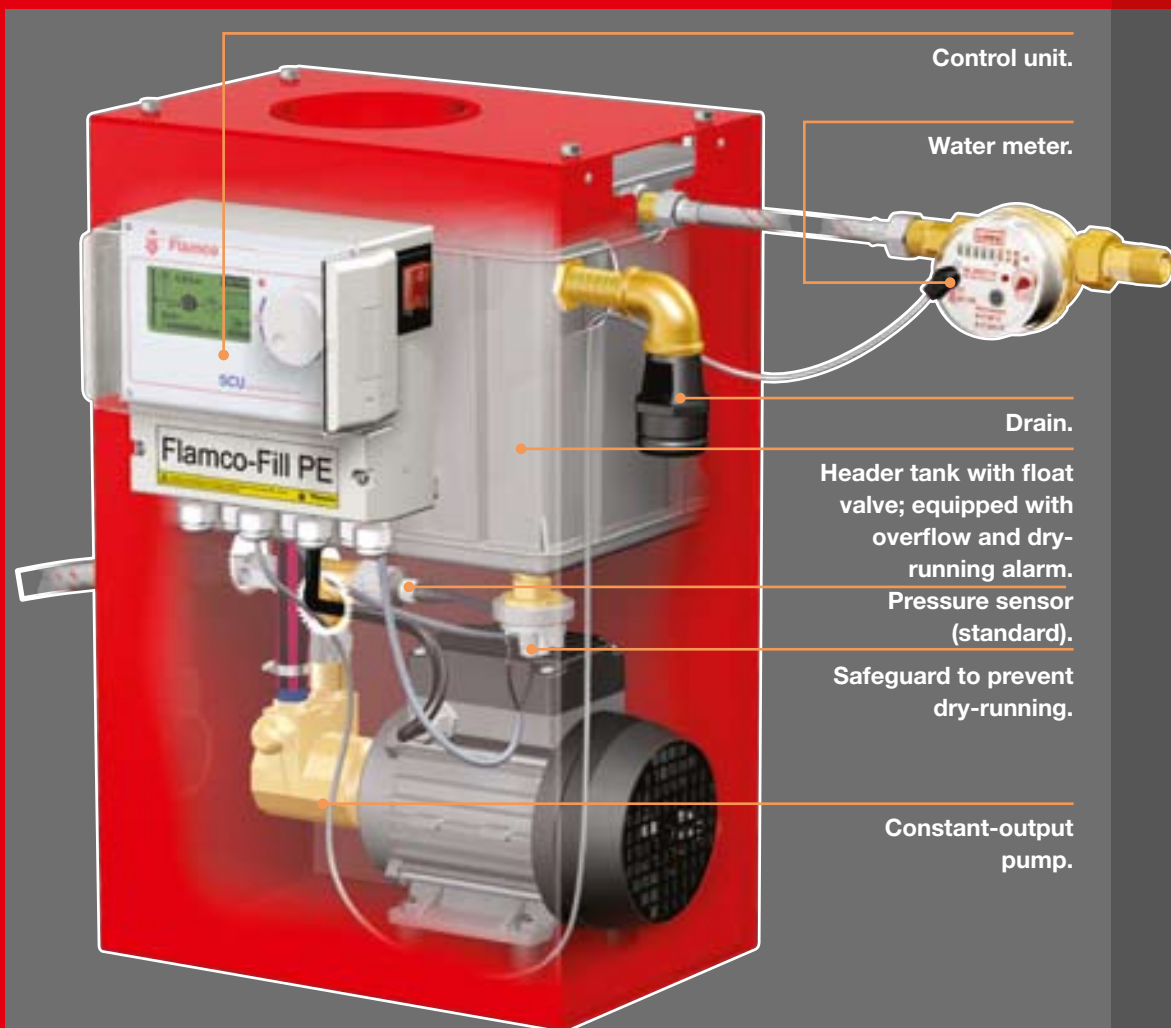
When too much water is lost from the vessel, i.e. the water level becomes critical, the appropriate amount of water will be pumped back in. This water will be de-aerated (by pressure loss and the PALL rings), before being pumped into the vessel.



Flamco

Independently operating top-up devices, or top-up devices triggered by external signals

The Flamco-Fill and the Flexfiller top-up devices ensure minimum pressure in a sealed heating or cooling water system, and top the system up as necessary when the pressure falls below a certain level. The topping up takes place at regular, adjustable intervals, so that the system can never be over-filled. If the top-up device is combined with an expansion vessel, then the latter monitors the pressure, while the top-up device receives commands from the expansion vessel based on the water level in the appliance. The current generation of Flamco-Fill and Flexfiller top-up devices is suitable for both methods of operation.

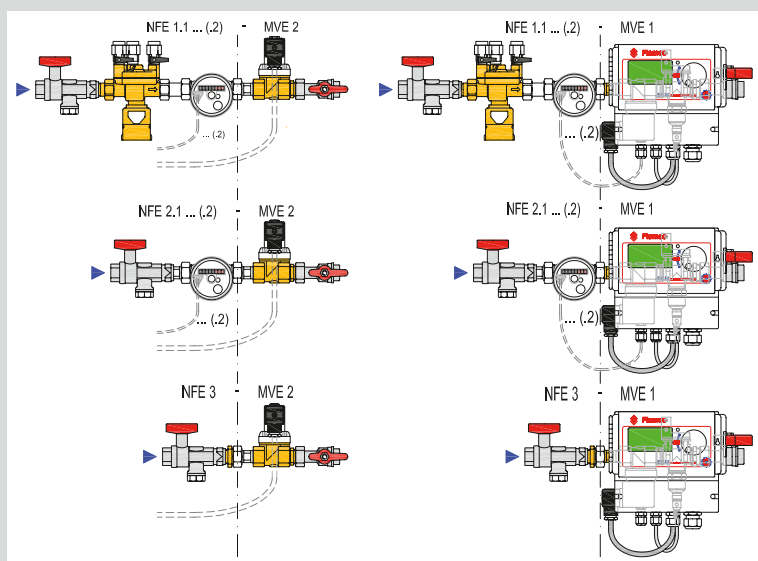


The Flamco-Fill prevents admission of air and thus stops installation malfunctions and corrosion. The control unit is built in to an IP 44 synthetic housing. The Flamco-Fill is mounted to the wall. The connection to the expansion automat is as detailed in the installation instructions.

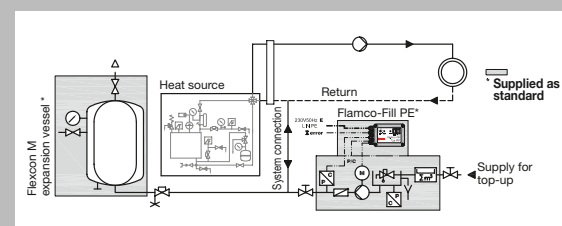
FLAMCO-FILL ADVANTAGES

- ◆ The Flamco-Fill meets all requirements for potable water supply.
- ◆ All models have a water meter for monitoring the amount of water topped up.
- ◆ Any malfunctions will result in a visible alarm and may be made visible automatically in the malfunction log, even via remote control (potential-free socket).

Possible combinations Flamco-Fill



Installation plan Flamco-Fill PE – Flexcon M



The ENA vacuum de-aeration and top-up devices are now included in the ventilation section, because their primary function is to remove gas from the system.

Tables with types and technical information: page 2.13.



FLAMCO-FILL PE



FLAMCO-FILL STU



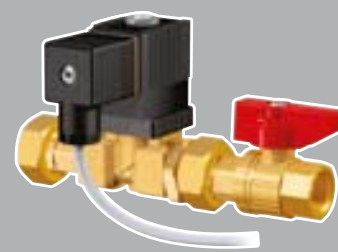
STA-M LIGHT



FLAMCO-FILL FWA-M LIGHT



MVE 1



MVE 2

Flamco has given the top-up devices range a modular structure due to the range of requirements and preferences found across Europe. The benefit to you is that you do not have to install more than is necessary for your installation to work properly. The top-up systems with the MVE 1 control unit work independently. They control the minimum system pressure and add more water in a controlled way as required. All other combinations require an external top-up command unit (230V- 1ph) to control them.

ADVANTAGES:

- ◆ The modular setup means you only install what is needed and required.
- ◆ Simple assembly, can be installed in the water pipe.
- ◆ Components approved for most European countries.
- ◆ MVE1 controller has a graphic display on which all functions can be read, programmed and controlled.
- ◆ Optional standard water meter (version x.1) or with pulsed output (version x.2).



NFE 1.1



NFE 2.1



NFE 1.2



NFE 2.2



NFE 3



FLEXFILLER D



FLEXFILLER MINI

All top-up systems with a water meter can be fitted with an impulse water meter, so that the top-up quantity can be read out via the control unit (MVE1) or remotely as an extra control. The impulse water meter is standard on the Flamco-Fill PE!



Flamco

Flexcon M-K / U compressor expansion automats

- ◆ The Flexcon M-K version with SDS control unit is called Flexcon M-K/U.
- ◆ All Flexcon M-K automats consist of a steel base vessel, an exchangeable diaphragm made of butyl rubber, a control unit with control panel, height-adjustable feet and an oil-free compressor.
- ◆ All Flexcon M-K expansion automats are supplied complete and ready for connection.
- ◆ The Flexcon M-K auxiliary vessel does not have a control unit or compressor.
- ◆ If an auxiliary vessel is to be connected, it must be equivalent to the base vessel.
- ◆ Air-side connections between the base vessel and the auxiliary vessel must be made with a high-pressure hose. Quick-release couplings are in evidence. Water-side connections must be made in situ.



Versions and dimensions Flexcon M-K / U 6 and 10 bar

Type	Capacity in litres	Dimensions in mm				Compressor	System conn. (int.) ISO 228-1	Weight in kg		Code number	
		ØD	H	C	Ød			6 bar	10 bar	6 bar	10 bar
Flexcon M-K / U 400	400	750	1385	185	620	K-011	1 1/4"	165	210	23824	23864
Flexcon M-K / U 600	600	750	1805	185	620	K-011	1 1/4"	195	250	23826	23866
Flexcon M-K / U 800	800	750	2205	185	620	K-031	1 1/4"	230	300	23828	23868
Flexcon M-K / U 1000	1000	750	2760	185	620	K-031	1 1/2"	265	340	23830	23870
Flexcon M-K / U 1200	1200	1000	1990	175	850	K-031	1 1/2"	325	450	23832	23872
Flexcon M-K / U 1600	1600	1000	2490	175	850	K-031	1 1/2"	380	525	23836	23876
Flexcon M-K / U 2000	2000	1200	2230	175	1050	K-031	2"	465	640	23840	23880
Flexcon M-K / U 2800	2800	1200	2830	175	1050	K-031	2 1/2"	550	765	23848	23888
Flexcon M-K / U 3500	3500	1200	3630	175	1050	K-031	2 1/2"	660	940	23855	23895

Versions and dimensions Flexcon M-K auxiliary vessels 6 and 10 bar

Type	Capacity in litres	Dimensions in mm				System conn. (int.) ISO 228-1	Weight in kg		Code number	
		ØD	H	C	Ød		6 bar	10 bar	6 bar	10 bar
Flexcon M-K 400	400	750	1385	185	620	1 1/4"	130	175	22040	22070
Flexcon M-K 600	600	750	1805	185	620	1 1/4"	160	215	22041	22071
Flexcon M-K 800	800	750	2205	185	620	1 1/4"	195	265	22042	22072
Flexcon M-K 1000	1000	750	2760	185	620	1 1/2"	230	305	22043	22073
Flexcon M-K 1200	1200	1000	1990	175	850	1 1/2"	290	415	22044	22074
Flexcon M-K 1600	1600	1000	2490	175	850	1 1/2"	345	490	22045	22075
Flexcon M-K 2000	2000	1200	2230	175	1050	2"	430	605	22046	22076
Flexcon M-K 2800	2800	1200	2830	175	1050	2 1/2"	515	730	22048	22078
Flexcon M-K 3500	3500	1200	3630	175	1050	2 1/2"	625	905	22047	22077

Second compressor unit

Type	Suitable for	Code number
Compressor K 011	Flexcon M-K / S and Flexcon M-K / U	23618
Compressor K 031	Flexcon M-K / S and Flexcon M-K / U	23620
Compressor K 04	Flexcon M-K / S and Flexcon M-K / U	23621

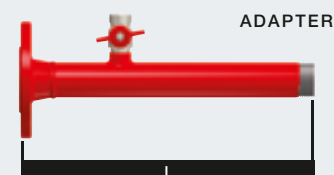
The second compressor unit is fitted on a second support bracket on the expansion automat. The compressors have to be of the same type. Complete delivery and ready for connection.

Air-side connection between base vessel and auxiliary vessel

Type	Suitable for	Code number
High-pressure connection hose for 2 vessels, max. length 3 m	Flexcon M-K / S and Flexcon M-K / U	22380
High-pressure connection hose for several vessels	Flexcon M-K / S and Flexcon M-K / U	22381

Adapter with flange connection PN 16

For vessel capacity (litres)	Connection PN16		L mm	Suitable for	Code number
	int.				
400 - 800	1 1/4"	DN 32	350	Flexcon M-K / S and Flexcon M-K / U	23795
1000 - 1600	1 1/2"	DN 40	470	Flexcon M-K / S and Flexcon M-K / U	23796
2000 - 2000	2"	DN 50	560	Flexcon M-K / S and Flexcon M-K / U	23797
2800 - 3500	2 1/2"	DN 65	560	Flexcon M-K / S and Flexcon M-K / U	23798





- ◆ The Flexcon M-K/S has a freely-programmable control unit for single and multiple use as well as master slave operation.
- ◆ All Flexcon M-K expansion automats have a connection for a Flamco-Fill top-up automat and remote fault alarm.
- ◆ The maximum diaphragm temperature for all Flexcon M-K automats is 70 °C (343 K) during continuous operation.
- ◆ With the Easycontact (for Flexcon M-K / U and Flexcon M-K / S), six potential-free outlets are available for: pressure too high or too low, capacity too high or low, motor overheated and diaphragm rupture (if installed).

Versions and dimensions Flexcon M-K / S 3 bar

Type	Capacity in litres	Dimensions in mm				Compressor	System conn. (int.) ISO 228-1	Weight in kg 3 bar	Code number 3 bar
		ØD	H	C	Ød				
Flexcon M-K / S 5000	5000	1500	3550	175	1520	K 03	1 1/2"	980	23559
Flexcon M-K / S 6500	6500	1800	3465	175	1820	K 03	1 1/2"	1480	23560
Flexcon M-K / S 8000	8000	1900	3565	175	1920	K 03	1 1/2"	1585	23561
Flexcon M-K / S 10000	10000	2000	3985	175	2020	K 03	1 1/2"	1825	23562

Versions and dimensions Flexcon M-K/S 6 and 10 bar

Type	Capacity in litres	Dimensions in mm				Com-pressor	System conn. (int.) ISO 228-1	Weight in kg		Code number	
		ØD	H	C	Ød			6 bar	10 bar	6 bar	10 bar
Flexcon M-K / S 400	400	750	1385	185	620	K-011	1 1/4"	156	201	22901	22950
Flexcon M-K / S 400	400	750	1385	185	620	K-031	1 1/4"	165	210	22903	22952
Flexcon M-K / S 400	400	750	1385	185	620	K-04	1 1/4"	170	215	22906	22954
Flexcon M-K / S 600	600	750	1805	185	620	K-011	1 1/4"	186	241	22907	22955
Flexcon M-K / S 600	600	750	1805	185	620	K-031	1 1/4"	195	250	22909	22957
Flexcon M-K / S 600	600	750	1805	185	620	K-04	1 1/4"	200	255	22911	22959
Flexcon M-K / S 800	800	750	2205	185	620	K-011	1 1/4"	221	291	22912	22960
Flexcon M-K / S 800	800	750	2205	185	620	K-031	1 1/4"	230	300	22914	22962
Flexcon M-K / S 800	800	750	2205	185	620	K-04	1 1/4"	235	305	22916	22964
Flexcon M-K / S 1000	1000	750	2760	185	620	K-011	1 1/2"	256	331	22917	22965
Flexcon M-K / S 1000	1000	750	2760	185	620	K-031	1 1/2"	265	340	22919	22967
Flexcon M-K / S 1000	1000	750	2760	185	620	K-04	1 1/2"	270	345	22921	22969
Flexcon M-K / S 1200	1200	1000	1990	175	850	K-011	1 1/2"	316	441	22922	22970
Flexcon M-K / S 1200	1200	1000	1990	175	850	K-031	1 1/2"	325	450	22924	22972
Flexcon M-K / S 1200	1200	1000	1990	175	850	K-04	1 1/2"	330	455	22926	22974
Flexcon M-K / S 1600	1600	1000	2490	175	850	K-031	1 1/2"	380	525	22929	22977
Flexcon M-K / S 1600	1600	1000	2490	175	850	K-04	1 1/2"	385	530	22931	22979
Flexcon M-K / S 2000	2000	1200	2230	175	1050	K-031	2"	465	640	22934	22982
Flexcon M-K / S 2000	2000	1200	2230	175	1050	K-04	2"	470	645	22936	22984
Flexcon M-K / S 2800	2800	1200	2830	175	1050	K-031	2 1/2"	550	765	22939	22987
Flexcon M-K / S 2800	2800	1200	2830	175	1050	K-04	2 1/2"	555	770	22941	22989
Flexcon M-K / S 3500	3500	1200	3630	175	1050	K-031	2 1/2"	660	940	22944	22992
Flexcon M-K / S 3500	3500	1200	3630	175	1050	K-04	2 1/2"	665	945	22946	22994



Additional options Flexcon control unit

Type	Code number
Easycontact	23649
Diaphragm rupture sensor	22386
SDS modules	see page 2.14



Flamco

Flexcon M-K / C compressor-driven expansion vessels



- ◆ Compressor –driven expansion vessels with fixed diaphragm for medium-sized sealed heating and cooling systems.
- ◆ HSS steel with the perfect protection and finish in carmine red gloss (RAL 3002) epoxy powder coating.
- ◆ Suitable for glycol-based anti-freeze supplements (up to 50%). Details available on request.
- ◆ Max. operating pressure: 6.0 bar.
- ◆ Max. temperature (vessel): 120 °C (393 K). Max. operating temperature (diaphragm): 70 °C (343 K) (DIN 4807/3). Max. supply temperature (boiler): 90 °C (363 K).
- ◆ Compliant with the Pressure Equipment Directive (97/23/EC).

Versions and dimensions Flexcon M-K / C

Type	Capacity litres	Max. permissible operating pressure: bar	Max. permissible operating temperature: °C	Max. permissible temperature in continuous operation °C
Flexcon M-K / C 110	110	6	120	70
Flexcon M-K / C 200	200	6	120	70
Flexcon M-K / C 350	350	6	120	70
Flexcon M-K / C 425	425	6	120	70

Versions and dimensions Flexcon M-K / C

Type	Dimensions in mm						Threaded connection: DIN ISO 228-1 (internal thread)	Weight in kg	Code number
	Ø D	Ø d	H 1	H 2	H 3	B			
Flexcon M-K / C 110	484	360	1160	1235	925	518	G 1" DN 25	39	23225
Flexcon M-K / C 200	600	450	1335	1410	1100	-	G 1" DN 25	73	23226
Flexcon M-K / C 350	790	610	1400	1475	1170	-	G 1" DN 25	83	23227
Flexcon M-K / C 425	790	610	1555	1630	1320	-	G 1" DN 25	93	23228





Flamco

Top-up devices

- ◆ NFE 1.1. and 1.2 top-up units comprise a vacuum break type BA, water meter (1.1) / impulse water meter (1.2), dirt trap, ball valve and non-return valve.
- ◆ NFE 2.1 and 2.2 top-up unit with water meter, dirt trap, ball valve and non-return valve.
- ◆ MVE 1 comprises a digital control unit, solenoid valve, pressure sensor and ball valve. MVE 2 comprises a ball valve and a solenoid valve.
- ◆ Flamco-Fill PE comprises a digital control unit with an atmospheric reserve tank integrated in a box (protection type AB), a pressure sensor and a pump in order for the top-up water to pressurise the system.
- ◆ Flexfiller glycol top-up unit with two tanks (one for water and one for glycol) and two pumps with a maximum operating pressure of 2.5 bars.



Versions and dimensions NFE

Type	Dimensions L (mm)	Connection to		Weight in kg	Code number
		Water supply	System		
NFE 1.1	355	Rp 1/2"	G 3/4"	3	23780
NFE 1.2	355	Rp 1/2"	G 3/4"	3	23781
NFE 2.1	200	Rp 1/2"	G 3/4"	2	23782
NFE 2.2	200	Rp 1/2"	G 3/4"	2	23783
NFE 3	130	Rp 1/2"	G 3/4"	0.5	23784

Versions and dimensions MVE

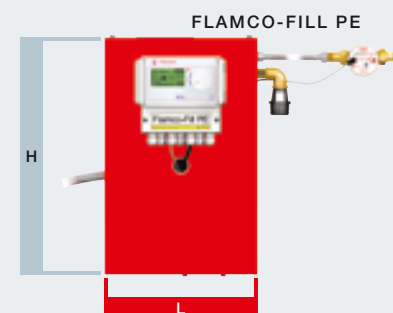
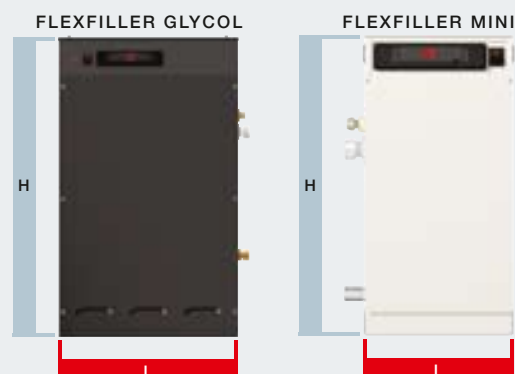
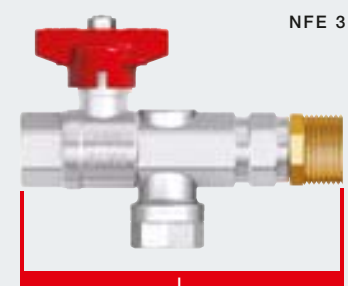
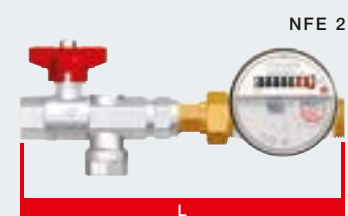
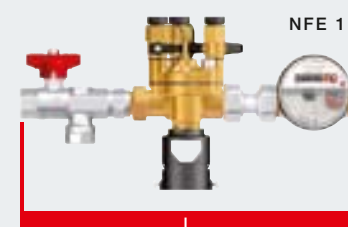
Type	Dimensions L (mm)	Connection to		Weight in kg	Code number
		Water supply	System		
MVE 1	300	G 3/4"	Rp 1/2"	9	23785
MVE 2	175	G 3/4"	Rp 1/2"	2	23786

Versions and dimensions Flamco-Fill

Type	L (mm)	Dimensions		Connection to		Weight in kg	Code number
		D (mm)	H (mm)	Water supply	System		
Flamco-Fill PE	400	320	495	1/2"	1/2"	25	23757
Flamco-Fill STU	550	150	100	Rp 1/2"	Rp 1/2"	9	23751

Versions and dimensions Flexfiller

Type	Pump set	L (mm)	Dimensions		Connection BSP (ext.)	Weight in kg	Code number
			B (mm)	H (mm)			
Flexfiller 125 D	125 D	470	320	780	1/2"	28	17395
Flexfiller 150 D	150 D	470	320	780	1/2"	28	17396
Flexfiller 225 D	225 D	470	320	780	1/2"	30	17397
Flexfiller 250 D	250 D	470	320	780	1/2"	30	17398
Flexfiller 280 D	280 D	680	730	1590	1/2"	170	17399
Flexfiller Mini 130 D	130 D	245	155	485	1/4"	6	17455
Flexfiller Mini 230 D	230 D	245	155	485	1/4"	6.2	17456
Flexfiller Glycol 225DG		680	680	1200	1/2"	80	17390





Flamco

Flamcomat pump expansion automats and pump units

- ◆ The Flamcomat consists of a pressureless base vessel with integrated turbo-venting, an exchangeable diaphragm made of butyl rubber, electronic level indicator and control, height-adjustable feet as well as a Flexvent floatvent with air-admission block.
- ◆ The Flamcomat combines three important functions: pressure control, dynamic venting and topping-up.
- ◆ Max. installation pressure: 10 bar; max. system working pressure 8.5 bar.
- ◆ Max. diaphragm temperature: 70 °C (343 K) at continuous operation.
- ◆ Pump units completely assembled and ready for operation.
- ◆ Freely-programmable control unit, made up of a power section and a control section.



Versions and dimensions Flamcomat GB (base vessels) and BB (auxiliary) vessels

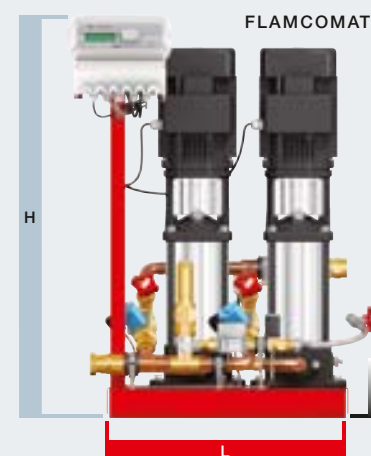
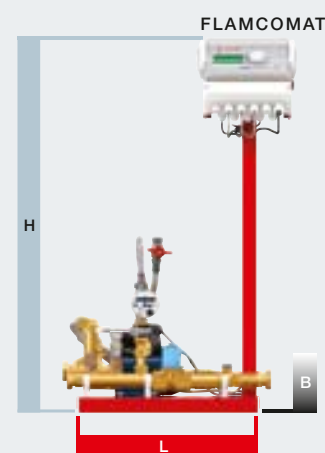
Type	Capacity in litres	Dimensions in mm		Conn. (ext.)	Weight in kg	Code number	
		ØD	H			GB	BB
Flamcomat 150	150	550	1350	G 1 1/2"	55	17710	17760
Flamcomat 200	200	550	1530	G 1 1/2"	70	17711	17761
Flamcomat 300	300	550	2030	G 1 1/2"	90	17712	17762
Flamcomat 400	400	750	1535	G 1 1/2"	130	17713	17763
Flamcomat 600	600	750	1955	G 1 1/2"	160	17714	17764
Flamcomat 800	800	750	2355	G 1 1/2"	195	17715	17765
Flamcomat 1000	1000	750	2855	G 1 1/2"	226	17716	17766
Flamcomat 1000	1000	1000	1915	G 1 1/2"	261	17726	17776
Flamcomat 1200	1200	1000	2210	G 1 1/2"	290	17717	17767
Flamcomat 1600	1600	1000	2710	G 1 1/2"	345	17718	17768
Flamcomat 2000	2000	1200	2440	G 1 1/2"	430	17719	17769
Flamcomat 2800	2800	1200	3040	G 1 1/2"	515	17720	17770
Flamcomat 3500	3500	1200	3840	G 1 1/2"	625	17721	17771
Flamcomat 5000	5000	1500	3570	G 1 1/2"	1240	17722	17772
Flamcomat 6500	6500	1800	3500	G 1 1/2"	1710	17723	17773
Flamcomat 8000	8000	1900	3650	G 1 1/2"	1830	17724	17774
Flamcomat 10000	10000	2000	4050	G 1 1/2"	2025	17725	17775

Versions and dimensions pump units

Type	Max. work. pressure bar	For max. heating capacity kW	Dimensions in mm			Connection internal thread			Weight in kg	Code number
			L	B	H	To vessel	To system	To water supply		
MM	3	134 - 215	420	330	660	1"	3/4"	1/2"	12	17880
M 0	3.5	300 - 1300	440	330	890	1 1/4"	1"	1 1/2"	15	17786
M 02	3.5	700 - 2300	440	330	890	1 1/4"	1"	1 1/2"	17	17789
M 10	5	1000 - 4700	460	380	890	1 1/4"	1"	1 1/2"	20	17780
M 20	5	2100 - 8000	460	380	890	1 1/4"	1"	1 1/2"	23	17781
M 60	8.5	1400 - 4700	410	410	915	1 1/2"	1 1/4"	1 1/2"	40	17784
M 80	10.7	1400 - 4700	570	490	950	1 1/2"	1 1/4"	1 1/2"	50	17882
M 100	14.4	1400 - 4700	570	490	1000	1 1/2"	1 1/4"	1 1/2"	54	17884
M 130	14.4	3300 - 4700	570	490	1200	1 1/2"	1 1/4"	1 1/2"	62	17886
DM	3	134 - 409	380	340	660	1"	3/4"	1/2"	14	17881
D 02	3.5	700 - 4400	590	500	890	1 1/2"	1 1/4"	1 1/2"	32	17788
D 10	5	1000 - 8700	590	500	890	1 1/2"	1 1/4"	1 1/2"	34	17782
D 20	5	2100 - 10000	590	500	890	1 1/2"	1 1/4"	1 1/2"	40	17783
D 60	8.5	1400 - 9000	560	410	915	1 1/2"	1 1/4"	1 1/2"	75	17785
D 80	10.7	1400 - 9000	660	490	950	1 1/2"	1 1/4"	1 1/2"	90	17883
D 100	14.4	1400 - 9000	660	490	1000	1 1/2"	1 1/4"	1 1/2"	95	17885
D 130	14.4	3300 - 9000	660	490	1200	1 1/2"	1 1/4"	1 1/2"	115	17887

SDS modules

Type	Description	Suitable for		Code number
		Flexcon M-K / U	Flamcomat	
SDS module 31	Remote reading	●	●	17793
SDS module 32	Clock with weekly cycle	●	●	17790
SDS module 33	Analogue signalling for capacity and pressure	●	●	17792
SDS module 34	Diaphragm rupture sensor intern	●	●	17791
SDS module 34	Diaphragm rupture senso extern			22386
SDS module 40	RS485 - LONWORKS interface converter	●	●	17795
SDS module 42	Remote reading	●	●	17797
SDS module 43	Analogue / GSM coupler	●	●	17798
SDS module 45	PE contact, for connecting a Flamco-Fill top-up automat or ENA vacuum de-aeration and top-up automat	●		17794
Easycontact		●	●	23649





- ◆ A Flamcomat unit consists of a base vessel and eventually an auxiliary vessel, plus a SDS module, pump unit, rotating vessel connection and eventual other accessories.
- ◆ Switch module and connectors with rotatable connection, sealed. Non-return valve incl. dirt trap and seal.

Vessel connections, sealed

Type	Connection to vessel (int.)	Connection to control unit (ext.)	Weight in kg	Code number
Vessel connection type 5	1 1/2"	1 1/4"	0.5	17730
Vessel connection type 6	1 1/2"	1 1/2"	0.5	17731

Ball cock with blow-off valve

Type	Connection	For pump unit	Weight in kg	Code number
Ball cock with blow-off valve DN 20	3/4"	D 02, D 10, D 20, M 60, D 60	0.5	17734
Ball cock with blow-off valve DN 25	1" ext.	MM, DM	0.5	17737
Ball cock with blow-off valve DN 30	1 1/4" ext.	M 0, M 01, M 10, M 20	0.5	17738

System divider

Type	Connection	Weight in kg	Code number
System divider type BA	1/2" int. - 1/2" ext.	0.6	17736

Switch modules

Type	Capacity litres	Dimensions in mm Ø D	H	Connection	Weight in kg	Code number
Switch module M	18	286	600	1 1/2"	8.5	17732
Switch module D	18	286	600	1 1/4"	10	17733

Water meter with pulse port

Type	Code number
Water meter with pulse port	17739

Flexible connections

Type	Application Control	Capacity	Connection Vessel	Control	Weight in kg	Code number
Flexible connection 1	MM, DM	150 - 1600	G 1 1/2"	G 1"	2.5	17841
Flexible connection 2	MM, DM	2000 - 10000	G 1 1/2"	G 1"	3.0	17842
Flexible connection 3	M 0, M 20	150 - 1600	G 1 1/2"	G 1 1/4"	3.5	17741
Flexible connection 4	M 0, M 20	2000 - 10000	G 1 1/2"	G 1 1/4"	4.0	17742
Flexible connection 5	M 60, D 02-60	150 - 1600	G 1 1/2"	G 1 1/2"	5.0	17755
Flexible connection 6	M 60, D 02-60	2000 - 5000	G 1 1/2"	G 1 1/2"	5.5	17756
Flexible connection 7	M 60, D 02-60	6500 - 10000	G 1 1/2"	G 1 1/2"	6.5	17757

Connection-assembly sensors

Type	Application Control	Vessel capacity	Connection Vessel	Control	Weight in kg	Code number
Connection-assembly sensor 1	MM, DM	150 - 1600	1 1/2"	1"	2.5	17810
Connection-assembly sensor 2	MM, DM	2000 - 10000	1 1/2"	1"	3.0	17811
Connection-assembly sensor 3	M 0, M 20	150 - 1600	1 1/2"	1 1/4"	3.5	17812
Connection-assembly sensor 4	M 0, M 20	2000 - 10000	1 1/2"	1 1/4"	4.0	17813
Connection-assembly sensor 5	M 60, D 02-60	150 - 1600	1 1/2"	1 1/2"	5.0	17814
Connection-assembly sensor 6	M 60, D 02-60	2000 - 5000	1 1/2"	1 1/2"	5.5	17815
Connection-assembly sensor 7	M 60, D 02-60	6500 - 10000	1 1/2"	1 1/2"	6.5	17816

VESSEL CONNECTIONS, SEALED



BALL COCK WITH BLOW-OFF VALVE



SWITCH MODULES



WATER METER WITH PULSE PORT





FLEXCON M-K / C



FLEXCON M-K / U



FLAMCOMAT



FLAMCO-FILL PE

EXPANSION AUTOMATS

CONTENTS	PAGE
Flexcon M-K compressor expansion automat	2.2/2.3
Flamcomat: The technology of the future	2.4/2.5
Control unit and installation	2.6/2.7
Top-up devices	2.8/2.9
Tables	2.10/2.15



On the Flamco CD you will find all available information of all Flamco products.

Copyright Flamco b.v., Gouda, Holland. No part of this publication may be reproduced or published in any way without explicit mention of the source. The data listed are solely applicable to Flamco products. Flamco b.v. shall accept no liability whatsoever for incorrect use, application or interpretation of the technical information. Flamco b.v. reserves the right to make technical alterations.

Flamco b.v. refers you further to its international sales and delivery conditions as drawn up by Orgalime.



Flamco

Flamco b.v.

P.O. Box 115

2800 AC Gouda - Holland

Industriestraat 6

2802 AC Gouda - Holland

Telephone: +31 182 591800

Fax: +31 182 522557

info@flamco.nl

www.flamcogroup.com