Your reliable partner







Venting range and dirt separators













FLAMCO CLEAN





Flamco The best ways of avoiding or solving problems

One needs specialist knowledge to remove air from a modern central-heating system properly. The use of modern condensing boilers and lower-temperature systems require a different approach to that of systems of the past. When a central-heating system is bled properly, its output will increase, and its service life will be extended, as will that of the individual components. Flamco has an extensive range of equipment to help you bleed your system, and can offer the best solution for any situation from a domestic to an industrial scale.

Causes

Gases, including air, may enter the system in any of the following ways:

- Free air that is present in the system before or after filling.
- igwedge Air bubbles that are already present in the water during the filling process.
- Dissolved air in the system water.
- Via seals and connecting ports.
- By using an inferior expansion vessel.

Consequences

The adverse consequences of gases in a central-heating system include:

- Irritating noises and disruption to circulation.
- Impaired heat output.
- Shortened system service life due to internal corrosion.
- Possible cavitation damage to the circulation pump.

SOLUTION 1



If the problem is gas in the system causing a build-up of air at the highest points of the system, the best option is to fit a Flexvent floatvent (which usually comes with a leak preventer) at the system's highest point. They are available with connections from 1/8" to 3/4" inclusive and are described in this brochure.

FLEXVENT





All (micro)bubbles larger than 15-20 µm are being catched by the PALL rings and evacuated.

SOLUTION 2

If the problem is bubbles and microbubbles that are carried in the system water, there is a range of options in which Flamco products can be put to good use. If the pressure is constant but the temperature of the water rises (as in a boiler), the water will release dissolved gases. See also the box on Henry's Law on these pages. To separate these gases from the water and remove them, the following principles may be of use:

Reduction of speed

The lower the speed of the fluid, the sooner the bubbles will come to rest and be able to rise to the surface. The greater the diameter of the air separator, the better the result. Choose from the wide range of Flamcovent and Flexair air separators. Ample information on this can be found elsewhere in this brochure.

with air in your system!

Coalesence

This is the phenomenon in which even the smallest bubbles adhere to an alien surface, before growing into a larger air bubble with the ability to rise to the surface. The larger the surface along which aerated water must pass, the greater the chance of microbubbles adhering to it. With Flamcovent air separators, all the water comes into contact at one time or another with the unique, patented PALL rings which allows the system to function at its best. Research has shown that Flamcovent air separators 'catch' all microbubbles up to 18 µm. See also the animation on the CD. As the Flamcovent has uniaxial connections fitting in the pipe is easy. The static height depends on the system: a higher feed (supply) temperature means better performance (according to Henry's Law). The system is active during the day, providing heating. At night, the system cools down during which time free gases may be absorbed, but these will be separated the following day.



Static h	eight depending or	n the system
Supply	Continuous operation	Day - night
90 °C	10 m	15 m

10 m

5 m

5 m

2,5 m

70 °C

50 °C

Centrifuge

Dissolved gases will be released into the system when the temperature rises (according to Henry's Law). Conversely if the temperature remains constant but the pressure drops dissolved gases will be released from the water. By systematically removing water from the system and reducing its pressure dissolved gases will be released. The ENA (Pressure Step Degasser) featured in the following pages of this brochure and the Flamcomat (see the relevant brochure) use this technique to de-aerate systems successfully.



SOLUTION 3

Dissolved gases will be released into the system when the temperature rises (according to Henry's Law). Conversely if the temperature remains constant but the pressure drops dissolved gases will be released from the water. By systematically removing water from the system and reducing its pressure dissolved gases will be released. The ENA (Pressure Step Degasser) featured in the following pages of this brochure and the Flamcomat (see the relevant brochure) use this technique to de-aerate systems successfully.



90 100

100 QF 90 normal dm³ air per 1000 kg water 85 80 75 70 65 60 55 50 45 40 35 30 25 t Ó 0,0 0,2 0,4 0,6 0,8 1,0 1,2 1,4 1,6 1,8 2,0 2,2 2,4 2,6 2,8 3,0 3,2 3,4 3,6 3,8 4,0 4,2 4,4 4,6 4,8 5,0 $P \rightarrow$ pressure in bar absolut

There are two parts to Henry's Law. The first part states that at high pressures, increased levels of gas are dissolved in the liquid. At lower pressures, the gas can escape from the fluid. The second part states that cold liquid contains more gas than warmer liquid. As a liquid warms up, it releases gas.

Shown as a formula, this is: $C_x = k \times P_x$, where

- C_x = concentration of the dissolved gas in the liquid and
- k = the equilibrium constant or absorption factor (depending on the temperature)
- P_{x} = partial pressure of the gas above the solution.

FlamCO Flexvent[®] floatvents: reliable and easy to mount

The Flexvent floatvents 3/8", 1/8" - 3/8", 1/2" and 3/4"are supplied together with a shut-off valve to facilitate mounting and removal. When the floatvent is unscrewed from the shut-off valve, the valve will close automatically. Under normal circumstances the Flexvent floatvent needs no maintenance. However, if it does need removal the system need not be de-pressurized or drained as a shut-off valve is included on most Flexvent models. Due to the small dimensions of the floatvent, it is possible to install a Flexvent floatvent in those places in the system where air collects.



Leak preventer (protective cap) including expansion sealer rings to prevent leaks.

Large distance between water and shut-off mechanism, so little chance of leakage.

Flexvent floatvents are made of brass.

Mostly supplied standard with a shut-off valve for easy removal.

The float floats on the water and keeps the venting valve closed. When air is collected in the floatvent, the water level will drop and the venting valve will be opened. The collected air will escape, causing the water level to rise and the venting valve to close. This process continues as long as air is collected in the floatvent during operation. The air cushion in the upper part of each Flexvent protects the valve seat against contamination.

YOUR INSTALLATION NEEDS A FLEX

The Flexvent H has a 1/2'' right-angled connection which means it can be mounted directly on one of the radiator sockets.



- All Flexvents are tested by Flamco.
- This is your guarantee of quality.
- Very small dimensions.
- Wide range of connection dimensions.

Tables with types and technical information: page 7.18.





Air pots LTA

The Flamco air pot is mounted on rising pipes in the supply or return pipe. The water can come to rest in the air reservoir and the air in it can collect at the top of the reservoir. The air can be bled from the Flexvent mounted on top of the air pot.

The cap of the Flexvent Super is conical in shape. The advantage of this construction is that the clearance between the water level and venting valve is at its greatest. The air-escape duct can be opened or closed with an adjusting screw. The venting valve forms an integral part of the cap, so that it is impossible to damage the floatvent mechanism from outside.

The amount of air that is allowed to escape through the Flexvent floatvent depends on the system pressure. The graph shows the relationship between the amount of air in litres/min at 15 °C and 1 bar absolute pressure, and the system pressure.





Mounting of Flexvent® and Flexvent® Super. The Flexvent and the Flexvent Super floatvents have to be mounted in a vertical position. For best effect, they should be mounted in places where air collects in the installation.

Flamco The best air separators for each situation

The operation of the Flamcovent is based on a special method of separating gases from fluid (water). This method is based on a long-established and proven process from the processing industry. The process uses special fillers. Originally the renowned Raschig ring was used, but this was replaced by a number of variants of which the PALL ring is the best known.

The operation of the Flexair is based on the principle of centrifugal force.



BRASS FLAMCOVENT WITH THREADED CONNECTIONS OR COMPRESSION FITTINGS



FLAMCOVENT SOLAR

Flamcovent Solar

In solar-powered systems, the high temperatures which may be created can easily lead to the production of steam (vapour). If a floatvent is in direct contact with steam, the float will not be able to close the vent as it floats on water not steam. The Flamcovent Solar is a type of through-flow air separator in which the eliminator head cannot be disconnected from the system. Hence, the Flamcovent Solar is fitted with a manual vent. As a result, any steam in the system will not evaporate, thus removing any danger of combustion from the immediate environment.

The air chamber of the Flamcovent is conical. The advantage of this construction is that the distance (A) between the water level and the venting valve is larger than in a straight air chamber. This means that the chance of contamination is reduced to a minimum. See the comparison below.



FLAMCOVENT® ADVANTAGES:

mcovent 1"

- Even the smallest micro-bubbles attach themselves to the PALL rings and are thereby separated.
- The conical air chamber provides the greatest distance between the water level and the venting valve.
- The venting valve can be closed off with an adjusting screw.

Tables with types and technical information: page 7.20.



The operation of the Flamcovent® air separators is based on the term coalescence. This term means that the smaller gas bubbles tend to adhere to a surface and fuse together into a larger gas bubble which will rise into the air chamber.

Flamco

Choose between two air separator systems

- Flamcovent air separators contain many PALL rings.
 They remove even the smallest micro-bubbles from the water.
- The venting capacity of the Flexair air separators is particularly large at high water speeds.



Operation of the Flamcovent

The water flows along and through each PALL ring so that each gaseous water particle can adhere to the total PALL ring contact surface. The flow rate of the water will diminish in proportion to the increase in diameter. In this way, air bubbles can rise to the air chamber.

> Float, float mechanism and venting valve lead the air (separated from the water) out of the vent.



Flamcovent® air separators have been proved

to be better! Tests carried out at the Delft Technical University have unequivocally proved that Flamcovent air separators remove all micro-bubbles from $15 - 20 \mu m$ upwards. This is three times better than comparable air separators! The full test report can be found on the Flamco CD.

(000)

Protective plate.

Gearing.

Air chamber.

PALL rings.

PERFORMANCE OF

for the best result!



This is how the Flexair[®] air separator works

The operation of the Flexair air separator is based on the principles of centrifugal force. Tangentially-mounted connections rotate the water in the Flexair air separators. As a result, the heavier water is pushed against the walls, while the lighter air is removed by the air separator spindle. The float mechanism automatically removes the air from the air separator. Occupying the central position on top of the Flexair air separators with DN 25 to DN 50 connections is a Flexvent floatvent. Larger Flexair air separators (from DN 65 upwards) are fitted with a Flexvent Super floatvent.



With a Flamcovent® you can achieve optimum and continuous venting of your installation!



ENA: the effective vacuum bleeding/top-up de

The Flamco ENA vacuum bleeding/top-up device can be used both in sealed centralheating systems and in sealed cooling/air-conditioning systems. The ENA can be used in combination with a Flexcon pressure-expansion vessel or a Flexcon M-K expansion unit. The new, modern control unit makes the ENA easy to program. The ENA is available in four pressure bands and can be used up to a maximum input temperature of 70 °C.

CE



ENA 20 Flexvent Top floatvent with air inlet preventer. SCU control unit with display and "roll & click" operation. Vacuum tank made of stainless steal. Connection from system: 3/4". Top-up connection: 3/4". Connection to system: 3/4". Pump (pumps). Baseplate with attachment holes.

ENA ADVANTAGES:

- Excellent bleeding performance
- Turbo and normal bleed settings
- Bleeds make-up water
- Supplied ready for connection Compact dimensions
- Quiet operation
- Intuitive, intelligent control unit
- ENA 5: a compact, wall-mounted unit with built-in re-boiler
- Optional vacuum test
- Fitted as standard with a clock for advanced functions

Tables with types and technical information: page 7.22.

vice

Bleeding and leakage, if any, will reduce the volume in the system. The ENA is able to top-up the level automatically to compensate for this. The water added is bled before being pumped into the system. The vacuum thus created means that the system can be bled in the most effective way possible. The ENA has a potential-free contact, through which an error log can be transmitted to a building management system (BMS). The control unit's display can show the current ENA status and system pressure.





How the ENA vacuum bleeding/top-up device works



1. Not active When the ENA is inactive, the stainless-steel column is filled with water, and the pressure is equal to the system pressure.



3. Water intake The pump stops and the column fills up again with water. The gas is then expelled via the automatic air vent.



2. Creating a vacuum As the pump draws more water out of the column than can flow back in, a vacuum is created. Gas is released and collects on the surface of the water.



4. Topping-up

If water is lost from the system the volume, and as a consequence the pressure, will drop. Water for topping-up is bled in the column and fed into the system in small doses (until the correct pressure has been regained).

ENA selection table cooling



System capacity (litres)

System capacity (litres)

ENA selection table heating



Flamco Insulation jackets, air and dirt separators and

Proper insulation of a central-heating installation to prevent heat loss is of the utmost importance. Relevant considerations include, on the one hand, the financial aspects of energy efficiency, and, on the other hand, environmental factors. Insulation means increased output, which in turn leads to a reduction in the use of scarce fossil fuels and fewer CO₂ emissions.

65 F

42



FLAMCO ISOPLUS

The Flamco ISOplus is suitable for Flamcovent air separators and Flamco Clean dirt separators with welded or flanged connections.

Aluminium ties with quickrelease tabs.

0.8 mm aluminium jacket (alu-stucco).

Insulation material made of 50 mm PUR hard foam (OKAFOAM).





FLAMCO ECOPLUS

FLAMCOVENT

ADVANTAGES OF FLAMCO® ISOPLUS:

- Simple attachment.
- Fire-resistant to fire class B2 (DIN 4102-B2, flammable fluids other than highly-flammable).
- No CFCs (Chlorofluorocarbons).
- Low heat conductivity coefficient (λ).
- Maximum temperature 120 °C.

Flamcovent EcoPlus

The lightweight environmentally-friendly insulation jacket around the Flamcovent EcoPlus helps to retain heat. It is therefore an excellent way of making a contribution to energy economy.

FLAMCOVENT

ECOPLUS





air pots

If it is not possible or practical to install the air or dirt separator in a horizontal pipe then Flamco has the answer for you on this page: solutions for vertical pipes. See the two diagrams here for the options. The operation of the vertical air vents is in no way affected by vertical installation and is comparable with the horizontal versions shown elsewhere in this brochure. You can therefore be confident of optimum performance.



FLAMCOVENT SOLAR V

FLAMCOVENT V







Flamcovent V

This brass vertical air separator is available with a 22 mm or 28 mm crimp coupling or a ³/₄" threaded coupling. Suitable for a maximum pressure of 10 bar and a maximum water temperature of 120 °C.

Flamcovent Solar (V)

Flamcovent® 3/4"

This brass vertical air separator is also available with a 22 mm crimp coupling or a ${}^{3}/{}^{"}$, 1" or 1 ${}^{1}/{}^{"}$ threaded coupling. For use with solar-powered systems, this version is suitable for a maximum water temperature of 200 °C.

Flamco Clean V

A particularly handy small dirt separator with the choice of threaded or crimp coupling.

FlamCO Flamco/Flamcovent Clean prevents dirt particl

Every system is susceptible to problems from dirt as well as air. Dirt particles may be sand or metal, from welding for instance, or perhaps remnants of Teflon tape. The presence of such dirt particles can have severe implications. The effect of corrosion or blockage will cause expensive problems to your system. In short, reduced efficiency and rising costs. To prevent this happening, Flamco also supplies a wide range of dirt separators under the name Flamco Clean in brass (from ³/₄" to 2") and in steel (from DN 50 to DN 600 with welded or flanged connections, and to DN 200 with grooved connections). Each of them are designed to efficiently and effectively remove dirt, protecting the system from problems.



that all dirt particles will be intercepted and deposited in the bottom of the device. The result is optimum dirt elimination. The PALL rings are made of stainless steel, guaranteeing a long service life. So that you do not have to drain off the dirt particles every day, the recepticle in the Flamco Clean in which the dirt accumulates is especially large. The effect of this is that the dirt particles are not exposed to the flow and not carried back into the system again. Should dirt become stuck to the inside of the body the integral dirt scraper can be used by simply rotating the ball cock.

Secondly, the use of PALL rings in the Flamco Clean ensures



To remove dirt successfully, the flow velocity must be reduced. This being the case, the dirt particles (which are heavier than water) can drop to the bottom of the vessel. The Flamco Clean reduces the flow velocity in two ways. Firstly, Flamco Clean has a wider diameter than the connected pipe. This means that Flamco Clean outperforms comparable products from other suppliers offering far better efficiency.



Excerpt from the report drawn up by the Dutch TNO Institute for Environmental and Energy Technology. See the CD for the full report.

es affecting the operation of your system













CLEAN E WITH FLANGED CONNECTIONS



Flamco® Clean

Dirt particles in the water flow clash with the many PALL rings in the Flamco Clean and sink to the bottom. The blow-off cock at the bottom of the unit provides an escape for the collected dirt particles. This means that the installation will no longer be subject to dips in output due to silt and containments. It also means a minimum drop in pressure and improved accessory service life. Flamco Clean is a low-maintenance system. It merely needs the

Flamcovent[®] Clean

This has been specially developed to remove not only air, but also persistent dirt particles. In the bottom part is an area which is free of turbulence.

removal of the built-up sediment from time to time.

This gives the relatively heavy particles the opportunity to sink to the bottom. The dirt particles cannot get back into the system. The sediment can escape through the drain cock on the bottom of the Flamcovent Clean. In terms of separation of air, the process is the same as that with the Flamcovent.

ON THE FLAMCO CD YOU WILL FIND:

- This brochure as a PDF file. An animation showing how
- the Flamcovent works.
- All fitting and assembly instructions. DWF files.
- CAD symbols.



The Flamco A-S dirt separator must

solely be positioned in the return

This prevents contamination of the

pipe of the heating installation.

(expensive) boiler installation.

Flamco Correct mounting is your guarantee of effectiveness

Here are some practical tips to start with: when insulating air separators, the brass head must never be insulated! When filling the installation, you must make sure that the air is not allowed to escape through the floatvent. Before commissioning the installation, it must be properly flushed and cleaned.

Calculating the size of Flamcovent needed.

The information below is for both heating and cooling systems. The effectiveness of the Flamcovent air separator is determined by the flow velocity in the system. For optimum results Flamco specifies a flow velocity no higher than $1\frac{1}{2}$ m/s when the Flamcovent is at the optimum location (i.e. lowest pressure, highest temperature), and 1 m/s in other locations. Higher flow velocities (i.e. above $1\frac{1}{2}$ m/s) will adversely affect the Flamcovent's ability to eliminate air.



Should the Flamcovent be installed in systems with flow velocities in excess of $1^{1/2}$ m/s adapters must be installed at the inlet and discharge to reduce the flow velocity through the Flamcovent. These adapters must be sized to provide a maximum flow velocity of < $1^{1/2}$ m/s at the inlet port of the Flamcovent.

The Flamco A-S dirt separator must be fitted in such a way that it is accessible at all times and can be maintained without any problem. The use of the Flamco A-S dirt separator reduces deposits of dirt in the boiler. Equally, removal of dirt and silt particles increases the service life of pumps, regulating equipment and other accessories.

A 'pre-fabricated' insulation package is available for the Flamco A-S (please order separately) containing a CFC-free insulation jacket. The standard version has 80 mm soft-foam insulation (easy-to-fit package). Also available is the 100 mm version. The standard colour is red, RAL 3002. Other colours are available on request.



FLAMCOVENT BRASS

FLAMCOVEN

STEEL









When fitting in existing boiler houses where the supply pipe runs just below the ceiling, the clearance above must be at least 100 mm for the purposes of servicing. In terms of the position in the installation, there is no difference between the Flexair and the Flamcovent. The drawings show only the Flamcovent.

In order to best bleed the installation, the Flexair or Flamcovent air separator must be mounted immediately after the boiler or mixing valve in the supply pipe.



Without mixing valve



With mixing valve



min. 100 mm

With mixing valve

Work on an installation (under pressure) must always be carried out by a certified specialist. The fitter must inform the user of this and warn him of the dangers of improper and incorrect use. The entire central-heating installation must also be well maintained. You can find detailed information on the CD.



Boiler in cellar

Boiler in loft

FLEXCON AND ACCESSORIES 📶 Venting range and dirt separators



Flexvent® floatvents and Air pots LTA

- Flexvent floatvents can be used in sealed cooling and heating systems up to a maximum temperature of 120 °C and a maximum pressure of 10 bar.
- If underpressure is registered in the installation, e.g. when draining the installation, the Flexvent floatvent also works to admit air.
- The Flamco air pot must always be mounted vertically. Air is automatically bled by placing a Flexvent floatvent. A bleed pipe can also be mounted so that the air pot can be bled manually.
- Maximum temperature is 120 °C and maximum pressure is 10 bar.

Models Flexvent

	Connection	Material	Shut-off valve	Code number	
Flexvent ¹ /8"	1/8" male	brass	no	27775	
Flexvent ³ /8"	3/8" male	brass	yes	27750	FLEXVENT
Flexvent ³ /8"	3/8" male	brass	no	27725	
Flexvent 1/8" - 3/8"	1/8" of 3/8" male	brass	yes	27780	
Flexvent 1/2"	1/2" male	brass	yes	27740	
Flexvent ³ /4"	3/4" male	brass	yes	27735	67
Air inlet preventer Flexvent	-	brass	-	27755	Pho M
Flexvent Solar 3/8"*	3/8" male	nickel-plated	no	27785	
Flexvent Top 3/8" wit	3/8" male	brass	yes	28510	
Flexvent Top 1/2"	1/2" male	brass	no	28515	
Flexvent H ¹ /2"	1/2" male	nickel-plated	no	27710	
Flexvent H ¹ /2" wit	1/2" male	brass	no	27711	
Ventielhuls Flexvent H	1/2" x 1/2" male	brass	-	27703	1/8"
Flexvent Super 1/2"	1/2" female	brass	optional	28520	Ø 30
Shut-off valve Flexvent Super	1/2" female-male	brass	-	28525	
Flexvent MAX 3/4"	3/4" female	brass	no	28550	
	* Manual floatvent				



Models and dimensions Flamco air pot LTA

Туре	Dimensi	ons mm	Installation connection	Bleed connection	Material	Weight	Capacity	Code number
	н	ØD	Α	В		kg	litres	
Flamco LTA 1	185	110	G 1/2″	G ³ /8″	Rst 37-2	1.3	1	27581
Flamco LTA 2	233	110	G ¹ / ₂ ″	G ³ /8″	Rst 37-2	1.7	1.6	27582
Flamco LTA 5	221	196	G 1/2″	G 1/2″	Rst 37-2	4	5	27585



FLEXCON AND ACCESSORIES 7118 Venting range and dirt separators

FLEXAIR





Flexair® air separators

- Flexair air separators are used in heating and cooling systems up to a maximum supply temperature of 110 °C and a maximum pressure of 10 bar.
- The Flexair air separator is available in three different models, namely one with threaded connections, one with welded connections and one with flanged connections. All connection pipes have ISO-standard dimensions.
- Flexair DN 65 air separators and larger are all CE approved.
- Suitable for glycol solutions of up to 50%. Not for use with water heaters.

Models and dimensions Flexair G with threaded connections

	Connection	Ext. dia of pipe			Di	mensi	Capacity	Weight	Code number					
		mm	A	В	ØC	עש	Øđ	E	F F	G	Intres	кд		
Flexair 1" G	1" female	-	275	290	114	-	1″	176	-	-	1.2	1.5	27512	
Flexair 1 ¹ /4" G	11/4" female	-	275	304	114	-	1 ¹ /4″	176	-	-	1.2	1.5	27513	
Flexair 11/2" G	11/2" female	-	285	332	124	-	1 ¹ /2″	180	-	-	1.5	1.7	27514	
Flexair 2" G	2" female	-	305	340	134	-	2″	192	-	-	2.3	2.3	27515	

Models and dimensions Flexair S with welded connections

Туре	Connection	Ext. dia			D	imensi	ions m	m			Capacity	Weight	Code
		mm	A	B	ØC	ØD	Ød	Е	F	G	litres	kg	number
Flexair 25 S	DN 25	33.7	275	252	114	33.7	28.5	176	-	-	1.2	1.3	27550
Flexair 32 S	DN 32	42.4	275	262	114	42.4	37.2	176	-	-	1.2	1.3	27551
Flexair 40 S	DN 40	48.3	285	290	124	48.3	43.1	180	-	-	1.5	1.5	27552
Flexair 50 S	DN 50	60.3	305	310	134	60.3	54.5	192	-	-	2.3	2.1	27553
Flexair 65 S	DN 65	76.1	475	400	254	76.1	70.3	155	205	-	17	7.7	27558
Flexair 80 S	DN 80	88.9	475	400	254	88.9	82.5	155	205	-	17	7.9	27554
Flexair 100 S	DN 100	114.3	695	570	450	114.3	107.1	212	277	-	79	27.4	27555
Flexair 125 S	DN 125	139.7	695	570	450	139.7	131.7	186	290	-	79	27.7	27556
Flexair 150 S	DN 150	168.3	775	570	450	168.3	159.3	234	305	-	91	30.9	27557
Flexair 200 S	DN 200	219.1	1275	780	650	219.1	206.5	335	543	206	261	125	27560
Flexair 250 S	DN 250	273	1555	1040	800	273.0	257.0	463	620	254	510	235	27561
Flexair 300 S	DN 300	323.9	1765	1170	850	323.9	306.3	506	697	250	700	275	27562
Flexair 350 S	DN 350	355.6	1850	1300	1000	355.6	335.6	566	710	310	1000	425	27563
Flexair 400 S	DN 400	406.4	2480	1560	1200	406.4	384.4	698	846	384	1900	665	27564
Flexair 500 S	DN 500	508	2950	1950	1500	508.0	476.0	872	994	481	3500	1260	27565
Flexair 600 S	DN 600	610	3380	2340	1800	610.0	578.0	1046	1132	578	6000	2035	27566

Models and dimensions Flexair F with flanged connections PN 16 (DIN 2633)

Туре	Connection	Ext. dia			D		Capacity	Weight	Code				
		mm	A	В	ØC	ØD	Ød	E	F	G	litres	kg	10 bar*
Flexair 65 F	DN 65	76.1	475	490	254	185	70.3	155	205	-	17	13.7	27538
Flexair 80 F	DN 80	88.9	475	490	254	200	82.5	155	205	-	17	15.9	27534
Flexair 100 F	DN 100	114.3	695	675	450	220	107.1	212	277	-	79	37.4	27535
Flexair 125 F	DN 125	139.7	695	675	450	250	131.7	186	290	-	79	40.7	27536
Flexair 150 F	DN 150	168.3	775	675	450	285	159.3	234	305	-	91	46.9	27537
Flexair 200 F	DN 200	219.1	1275	904	650	340.0	206.5	335	543	206	261	140	27527
Flexair 250 F	DN 250	273	1555	1180	800	405.0	257.0	463	620	254	510	260	27528
Flexair 300 F	DN 300	323.9	1765	1326	850	460.0	306.3	506	697	250	700	320	27529
Flexair 350 F	DN 350	355.6	1850	1464	1000	520.0	335.6	566	710	310	1000	505	27530
Flexair 400 F	DN 400	406.4	2480	1730	1200	580.0	384.4	698	846	384	1900	745	27531
Flexair 500 F	DN 500	508	2950	2130	1500	715.0	476.0	872	994	481	3500	1370	27532
Flexair 600 F	DN 600	610	3380	2530	1800	840.0	578.0	1046	1132	578	6000	2090	27533
Flexair S/F air chamber	DN 65 - DN 300												28554





* On request also available in 16 or 25 bar execution.



amco

Flamcovent[®] air separators

- igwedge The Flamcovent air separators are suitable for sealed installations up to a maximum temperature of 120 °C and a maximum pressure of 10 bar.
- Flamcovent air separators in brass have threaded connections or compression fittings. Flamcovent air separators in steel have electrostatically fitted powder coating, which creates a smooth and even red coat of paint. This Flamcovent has welded or flanged connections.
- Flamcovent DN 50 air separators and larger are all CE approved.
- igwedge The surface area of the PALL rings is much larger than that of comparable air separators. For that reason, Flamcovent air separators are far more effective and efficient.

Models and dimensions Flamcovent (brass)

Туре	Connection	Ext. dia of pipe			I	Dimens	ions mn	ı			Weight	Code number
		mm	A	В	ØC	ØD	Ød	E	F	G	kg	
Flamcovent 22	22 mm compr. fittings	-	151	98	71	-	22	121	36	-	1,4	28060
Flamcovent ³ /4"	3/4" female	-	151	88	71	-	3/4″	121	36	-	1,4	28020
Flamcovent 1"	1" female	-	171	100	80	-	1″	137	45	-	1,8	28021
Flamcovent 1 ¹ /4"	1 ¹ /4" female	-	192	114	87	-	1 ¹ /4″	152	55	-	2,4	28022
Flamcovent 1 ¹ /2"	11/2" female	-	192	114	87	-	1 ¹ /2″	152	60	-	2,5	28023
Flamcovent 2"	2" female	-	214	131	93	-	2″	169	70	-	2,6	28024

Models and dimensions Flamcovent S (steel) with welded connections

Туре	Connection	Ext. dia	Dimensions mm									Code
		mm	A	В	ØC	ØD	Ød	E	F	G	kg	IIUIIIDEI
Flamcovent 50 S	DN 50	60.3	480	260	175	60.3	54.5	364	-	-	8.6	28131
Flamcovent 65 S	DN 65	76.1	480	260	175	76.1	70.3	364	-	-	8.8	28132
Flamcovent 80 S	DN 80	88.9	645	370	270	88.9	82.5	456	-	-	20.6	28133
Flamcovent 100 S	DN 100	114.3	645	370	270	114.3	107.1	456	-	-	21.2	28134
Flamcovent 125 S	DN 125	139.7	805	525	360	139.7	131.7	549	-	-	41.3	28135
Flamcovent 150 S	DN 150	168.3	805	525	360	168.3	159.3	549	-	-	42.4	28136
Flamcovent 200 S	DN 200	219.1	970	650	450	219.1	206.5	709	-	-	75.3	28137
Flamcovent 250 S	DN 250	273	1285	850	600	273	260.4	910	-	-	155	28138
Flamcovent 300 S	DN 300	323.9	1450	850	600	323.9	309.7	1050	-	-	175	28139
Flamcovent 350 S	DN 350	355.6	1600	1050	800	355.6	339.6	1130	-	-	305	28140
Flamcovent 400 S	DN 400	406.4	1770	1050	800	406.4	388.8	1275	-	-	340	28151
Flamcovent 500 S	DN 500	508	2090	1400	1000	508	486	1470	-	-	673	28153
Flamcovent 600 S	DN 600	610	2485	1680	1200	610	585	1765	-	-	1355	28155

Models and dimensions Flamcovent F (steel) with flanged connections PN 16 (DIN 2633)

Туре	Connection	Ext. dia				Weight	Code					
		mm	A	В	ØC	ØD	Ød	E	F	G	kg	10 bar*
Flamcovent 50 F	DN 50	60.3	480	-	175	165	-	364	-	350	13.7	28141
Flamcovent 65 F	DN 65	76.1	480	-	175	185	-	364	-	350	14.9	28142
Flamcovent 80 F	DN 80	88.9	645	-	270	200	-	456	-	470	28	28143
Flamcovent 100 F	DN 100	114.3	645	-	270	220	-	456	-	470	30.4	28144
Flamcovent 125 F	DN 125	139.7	805	-	360	250	-	549	-	635	53.8	28145
Flamcovent 150 F	DN 150	168.3	805	-	360	285	-	549	-	635	57.9	28146
Flamcovent 200 F	DN 200	219.1	970	-	450	340	-	709	-	774	97.3	28147
Flamcovent 250 F	DN 250	273	1285	-	600	405	-	910	-	990	190	28148
Flamcovent 300 F	DN 300	323.9	1450	-	600	460	-	1050	-	1016	220	28149
Flamcovent 350 F	DN 350	355.6	1600	-	800	520	-	1130	-	1214	365	28150
Flamcovent 400 F	DN 400	406.4	1770	-	800	580	-	1275	-	1220	415	28152
Flamcovent 500 F	DN 500	508	2090	-	1000	508	-	1470	-	1580	795	28154
Flamcovent 600 F	DN 600	610	2485	-	1200	610	-	1765	-	1870	1505	28156
Flamcovent S/F air chamber	DN 50 - DN 600											28555

* On request also available in 16 or 25 bar execution.

Models and dimensions Flamcovent R (grooved connections)

Туре	Connection	Ext. dia Dimensions mm of pipe										Weight	Code number
		mm	Α	В	ØC	ØD	Ød	E	F	G	litres	kg	
Flamcovent 50 R	DN 50	60.3	470	260	175	60.3	54.5	357	-	-	8	9.5	28111
Flamcovent 65 R	DN 65	76.1	470	260	175	76.1	70.3	357	-	-	8	9.5	28112
Flamcovent 80 R	DN 80	88.9	621	370	270	88.9	82.5	445	-	-	25	21.5	28113
Flamcovent 100 R	DN 100	114.3	621	370	270	114.3	107.1	445	-	-	25	23	28114
Flamcovent 125 R	DN 125	139.7	790	525	360	139.7	130.7	547	-	-	59	50	28115
Flamcovent 150 R	DN 150	168.3	790	360	360	168.3	159.3	542	-	-	60	60	28116
Flamcovent 200 R	DN 200	219.1	970	450	450	219.1	206.5	709	-	-	123	102	28117















Flamcovent air separators for vertical use and use with solar-powered systems

- Flamcovent brass vertical air separators are suitable for use in vertical pipes in sealed systems with maximum water temperature of 120 °C and maximum pressure of 10 bar. These air separators have threaded or crimp connections.
- \diamond Suitable for glycol solutions of up to 50%. Not for use with water heaters.
- The Flamcovent Solar is designed specifically for use with solar-powered systems.
- The Flamcovent Solar is fitted with a Styropor insulation jacket as standard. These air separators have a maximum temperature rating of 200 °C.

Models and dimensions Flamcovent V

	Connection	А	В	Dimensio Ø C	ons mm Ø d	E	F	Weight kg	Code number
Flamcovent V 22	22 mm compr.	189	94	71	22	161	32	2	28069
Flamcovent V 28	28 mm compr.	191	97	71	28	161	39	2	28006
Flamcovent V 3/4"	3/4″	182	80	71	³ /4″	161	32	2	28005
Flamcovent V 1"	1″	204	100	85	1″	184	50	3	28007
Flamcovent V 1 ¹ /4"	1 ¹ /4″	204	100	85	1 ¹ /4″	184	50	3	28008

Models and dimensions Flamcovent Solar

Туре	Connection			Dimensi	ions mm			Insulation	Weight	Code
		A	B	ØC	Ød	E	F	mm	kg	number
Flamcovent Solar 22	22 mm compr.	151	98	71	22	121	36	113x188x102	1.4	28062
Flamcovent Solar 3/4"	³ /4″	151	88	71	³ /4″	121	36	113x188x102	1.4	28663
Flamcovent Solar 1"	1″	171	100	80	1″	137	45	117x206x110	1.8	28664
Flamcovent Solar 11/4"	1 ¹ /4″	192	114	87	1 ¹ /4″	152	55	121x226x116	2.4	28665
Flamcovent Solar 11/2"	1 ¹ /2"	192	114	87	1 ¹ /2″	152	60	121x226x116	2.5	28666
Flamcovent Solar 2"	2″	214	131	93	2″	169	70	135x258x125	3	28667

Models and dimensions Flamcovent Solar V

Туре	Connection			Dimensi	ons mm	Insulation	Weight	Code		
		A	В	ØC	Ød	E	F	mm	kg	number
Flamcovent Solar V 22	22 mm compr.	189	94	71	22	182	32	190x215x100	2	28065
Flamcovent Solar V 3/4"	³ /4″	182	80	71	³ /4″	182	32	190x215x100	2	28009
Flamcovent Solar V 1"	1″	204	100	85	1″	195	50	215x227x115	3	28685
Flamcovent Solar V 11/4"	1 ¹ /4″	204	100	85	1 ¹ /4″	195	50	215x227x115	3	28686

Models and dimensions Flamcovent EcoPlus V

Туре	Connection			Dimens	ions mm	Insulation	Weight	Code		
		Α	B	ØC	Ød	E	F	mm	kg	number
Flamcovent EcoPlus V 22	22 mm compr.	189	94	71	22	161	32	190x215x100	2	28670
Flamcovent EcoPlus V 3/4"	³ /4″	182	80	71	3/4″	161	32	190x215x100	2	28671
Flamcovent EcoPlus V 1"	1″	204	100	85	1″	184	50	215x227x115	3	28672
Flamcovent EcoPlus V 11/4"	1 ¹ /4″	204	100	85	1 ¹ /4″	184	50	215x227x115	3	28673



FLAMCOVENT SOLAR



FLAMCOVENT SOLAR V







ENA vacuum de-aeration and top-up automats

- Suitable for heating and cooling systems in combination with a pressure expansion vessel with diaphragm or compressor-driven expansion unit. Your system will be even more precisely controlled.
- Assembled and ready for connection.
- Maximum operating temperature: 70 °C (343 K). Maximum feed (supply) temperature in the system: 120 °C (293 K).
- Permissible pressure in the make-up water pipe: 2 to 8 bars.
- Suitable for glycol solutions of up to 30%.

Models and dimensions ENA

hars hars B D H kg	Code nummer	
ENA 5 1.0 - 2.5 6 420 320 710 28 1708	085	
ENA 7 0.8 - 2.7 8 740 325 1270 40 1707	070	
ENA 10 0.8 - 3.5 8 740 325 1270 40 1709	090	
ENA 20 2.0 - 4.5 8 740 325 1270 45 1709	091	
ENA 30 3.0 - 8.0 10 740 540 1270 60 1709	092	
ENA 60 10.0 - 23.0 25 917 708 1220 160 1706	060	









Flamcovent Clean air and dirt separators

Flamcovent Clean steel combined air and dirt separators are suitable for sealed installations with maximum temperatures of up to 120 °C and a maximum pressure of 10 bar.

Suitable for glycol solutions of up to 50%. Not for use with water heaters.

Models and dimensions Flamcovent Clean S (welded connections)

	Connection	Ext. dia Dimensions mm							Capacity	Weight	Code
		mm	Α	В	ØC	ØD	Ød	E	litres	kg	number
Flamcovent Clean 50 S	DN 50	60.3	565	260	175	60.3	54.5	365	10	9.5	28070
Flamcovent Clean 65 S	DN 65	76.1	565	260	175	76.1	70.3	365	10	9.5	28071
Flamcovent Clean 80 S	DN 80	88.9	765	370	270	88.9	82.5	450	32	23.5	28072
Flamcovent Clean 100 S	DN 100	114.3	765	370	270	114.3	107.1	450	32	24.0	28073
Flamcovent Clean 125 S	DN 125	139.7	980	525	360	139.7	131.7	550	76	46.5	28074
Flamcovent Clean 150 S	DN 150	168.3	980	525	360	168.3	159.3	550	76	47.5	28075
Flamcovent Clean 200 S	DN 200	219.1	1193	650	450	219.1	206.5	708	158	93	28076
Flamcovent Clean 250 S	DN 250	273	1577	850	600	273	260.4	892	370	185	28077
Flamcovent Clean 300 S	DN 300	323.9	1742	850	600	323.9	309.7	1032	415	210	28078
Flamcovent Clean 350 S	DN 350	355.6	1986	1050	800	355.6	339.6	1109	840	425	28079
Flamcovent Clean 400 S	DN 400	406.4	2159	1050	800	406.4	388.8	1252	927	465	28095
Flamcovent Clean 500 S	DN 500	508	2590	1400	1000	508	486	1470	1768	760	28096
Flamcovent Clean 600 S	DN 600	610	3085	1680	1200	610	585	1756	3056	1600	28097

Models and dimensions Flamcovent Clean F with flanged connections PN 16 (DIN 2633)

Туре	Connection	Ext. dia of pipe			Dimensi	Capacity	Weight	Code number			
		mm	Α	В	ØC	ØD	Ød	E	litres	kg	indiniser
Flamcovent Clean 50 F	DN 50	60.3	565	350	175	165	54.5	365	10	14.5	28080
Flamcovent Clean 65 F	DN 65	76.1	565	350	175	185	70.3	365	10	14.5	28081
Flamcovent Clean 80 F	DN 80	88.9	765	470	270	200	82.5	450	32	31.0	28082
Flamcovent Clean 100 F	DN 100	114.3	765	470	270	220	107.1	450	32	33.5	28083
Flamcovent Clean 125 F	DN 125	139.7	980	635	360	250	131.7	550	76	59.0	28084
Flamcovent Clean 150 F	DN 150	168.3	980	635	360	285	159.3	550	76	63.0	28085
Flamcovent Clean 200 F	DN 200	219.1	1193	774	450	340	206.5	708	158	115	28086
Flamcovent Clean 250 F	DN 250	273	1577	990	600	405	260.4	892	370	215	28087
Flamcovent Clean 300 F	DN 300	323.9	1742	1006	600	460	309.7	1032	415	255	28088
Flamcovent Clean 350 F	DN 350	355.6	1986	1214	800	520	339.6	1109	840	490	28089
Flamcovent Clean 400 F	DN 400	406.4	2159	1220	800	580	388.8	1252	927	545	28090
Flamcovent Clean 500 F	DN 500	508	2590	1580	1000	715	486	1470	1768	882	28091
Flamcovent Clean 600 F	DN 600	610	3085	1870	1200	840	585	1756	3056	1750	28092
Flamcovent Clean S/F air chamber											28555

Models and dimensions Flamcovent Clean R (grooved connections)

Туре	Connection	Ext. dia			Dimensi	Capacity	Weight	Code			
		mm	A	В	ØC	ØD	Ød	E	litres	kg	number
Flamcovent Clean 50 R	DN 50	60.3	560	230	175	60.3	54.5	357	10	17	28101
Flamcovent Clean 65 R	DN 65	76.1	560	260	175	76.1	70.3	357	10	18	28102
Flamcovent Clean 80 R	DN 80	88.9	756	370	270	88.9	82.5	445	33	34	28103
Flamcovent Clean 100 R	DN 100	114.3	756	370	270	114.3	107.1	445	33	40	28104
Flamcovent Clean 125 R	DN 125	139.7	970	525	360	139.7	130.7	547	78	65	28105
Flamcovent Clean 150 R	DN 150	168.3	970	525	360	168.3	159.3	547	78	86	28106
Flamcovent Clean 200 R	DN 200	219.1	1193	650	450	219.1	206.5	708	158	93	28107

FLAMCOVENT CLEAN S



FLAMCOVENT CLEAN R





Flamco Clean dirt separators



- Flamco Clean brass dirt separators (available for use in horizontal or vertical pipes) are suitable for sealed installations with maximum temperatures of up to 120°C and a maximum pressure of 10 bars.
- Brass dirt separators have threaded couplings or crimp couplings whilst their steel counterparts have welded, flanged or grooved connections.
- Dirt separators are used to protect boilers, pumps and other devices and accessories from damage caused by dirt particles. Dirt separators are also effective when used in old systems or if an open system is converted to run as a sealed system.

Models and dimensions Flamco Clean S (welded connections)

	Connection	Ext. dia of pipe mm	A	В	Dimensi Ø C	ons mm Ø D	Ø d	E	Capacity litres	Weight kg	Code number
Flamco Clean 50 S	DN 50	60.3	525	260	175	60.3	54.5	125	8	9.5	28118
Flamco Clean 65 S	DN 65	76.1	525	260	175	76.1	70.3	125	8	9.5	28119
Flamco Clean 80 S	DN 80	88.9	670	370	270	88.9	82.5	190	25	21.5	28120
Flamco Clean 100 S	DN 100	114.3	670	370	270	114.3	107.1	190	25	23	28121
Flamco Clean 125 S	DN 125	139.7	840	525	360	139.7	130.7	255	59	50	28122
Flamco Clean 150 S	DN 150	168.3	840	525	360	168.3	159.3	260	60	60	28123
Flamco Clean 200 S	DN 200	219.1	1020	650	450	219.1	206.5	270	123	102	28124
Flamco Clean 250 S	DN 250	273	1330	850	600	273	260.4	400	287	120	28125
Flamco Clean 300 S	DN 300	323.9	1495	850	600	323.9	309.7	420	333	190	28126
Flamco Clean 350 S	DN 350	355.6	1640	1050	800	355.6	339.6	490	646	375	28127
Flamco Clean 400 S	DN 400	406.4	1810	1050	800	406.4	388.8	520	731	420	28128
Flamco Clean 500 S	DN 500	508	2140	1400	1000	508	486	630	1384	580	28129
Flamco Clean 600 S	DN 600	610	2535	1680	1200	610	585	735	2390	955	28130

Models and dimensions Flamco Clean F (flanged connections PN 16 DIN 2633)

Туре	Connection	Ext. dia of pipe	Dimensions mm				Capacity	Weight	Code		
		mm	A	B	ØC	ØD	Ød	E	litres	kg	number
Flamco Clean 50 F	DN 50	60.3	525	350	175	165	54.5	125	8	14.6	28188
Flamco Clean 65 F	DN 65	76.1	525	350	175	185	70.3	125	8	15.7	28189
Flamco Clean 80 F	DN 80	88.9	670	470	270	200	82.5	190	25	29	28190
Flamco Clean 100 F	DN 100	114.3	670	470	270	220	107.1	190	25	42	28191
Flamco Clean 125 F	DN 125	139.7	840	635	360	250	130.7	255	59	69	28192
Flamco Clean 150 F	DN 150	168.3	840	635	360	285	159.3	260	60	75	28193
Flamco Clean 200 F	DN 200	219.1	1020	774	450	340	206.5	270	123	142	28194
Flamco Clean 250 F	DN 250	273	1330	990	600	405	260.4	400	287	150	28195
Flamco Clean 300 F	DN 300	323.9	1495	1016	600	460	309.7	420	333	245	28196
Flamco Clean 350 F	DN 350	355.6	1640	1214	800	520	339.6	490	646	440	28197
Flamco Clean 400 F	DN 400	406.4	1810	1220	800	580	388.8	520	731	500	28198
Flamco Clean 500 F	DN 500	508	2140	1580	1000	715	486	630	1384	702	28199
Flamco Clean 600 F	DN 600	610	2535	1870	1200	840	585	735	2390	1105	28200

Models and dimensionsn Flamco Clean R (grooved connections)

Туре	Connection	Ext. dia of pipe	Dimensions mm						Capacity	Weight	Code
		mm	A	В	ØC	ØD	Ød	E	litres	kg	number
Flamco Clean 50 R	DN 50	60.3	525	260	175	60.3	54.5	125	8	9.5	28181
Flamco Clean 65 R	DN 65	76.1	525	260	175	76.1	70.3	125	8	9.5	28182
Flamco Clean 80 R	DN 80	88.9	670	370	270	88.9	82.5	190	25	21.5	28183
Flamco Clean 100 R	DN 100	114.3	670	370	270	114.3	107.1	190	25	23	28184
Flamco Clean 125 R	DN 125	139.7	840	525	360	139.7	130.7	255	59	50	28185
Flamco Clean 150 R	DN 150	168.3	840	525	360	168.3	159.3	260	60	60	28186
Flamco Clean 200 R	DN 200	219.1	1020	650	450	219.1	206.5	270	123	102	28187





FLAMCO CLEAN R





Flamco Clean and Flamco Clean EcoPlus dirt separators

- Flamco Clean brass dirt separators (available for use in horizontal or vertical pipes) are suitable for sealed installations with maximum temperatures of up to 120°C and a maximum pressure of 10 bars.
- Brass dirt separators have threaded couplings or crimp couplings whilst their steel counterparts have welded, flanged or grooved connections.
- Dirt separators are used to protect boilers, pumps and other devices and accessories from damage caused by dirt particles. Dirt separators are also effective when used in old systems or if an open system is converted to run as a sealed system.

Models and dimensions Flamco Clean

	Connection	А	B	Dimens C	ions mm Ø d	E	F	Weight kg	Code number
Flamco Clean 22	22 mm compr.	196	168	136	22	116	32	1.4	28029
Flamco Clean ³ /4"	³ /4″	196	168	136	³ /4″	88	36	1.4	28030
Flamco Clean 1"	1″	216	184	156	1″	100	45	1.8	28031
Flamco Clean 1 ¹ /4"	1 ¹ /4″	237	199	177	1 ¹ /4″	114	55	2.4	28032
Flamco Clean 1 ¹ /2"	11/2"	237	199	177	1 1/2″	114	60	2.5	28033
Flamco Clean 2"	2″	255	210	198	2″	131	70	2.6	28034

Models and dimensions Flamco Clean V

Туре	Connection			Weight	Code					
		A	B	C	Ød	D	E	F	kg	number
Flamco Clean V 22	22 mm compr.	230	125	80	22	158	94	32	2.2	28039
Flamco Clean V 3/4"	3/4″	223	125	80	³ /4″	158	80	32	2.2	28035
Flamco Clean V 1"	1″	247	139	88	1″	184	100	50	3.2	28036
Flamco Clean V 11/4"	1 ¹ /4″	247	139	88	1 ¹ /4″	184	100	50	3.2	28037

Models and dimensions Flamco Clean EcoPlus

Туре	Connection	Dimensions mm						Insulation	Weight	Code
		A	B	C	Ød	E	F	mm	kg	number
Flamco Clean EcoPlus 22	22 mm compr.	196	168	136	22	114	32	113x157x102	1.4	28635
Flamco Clean EcoPlus 3/4"	³ /4″	196	168	136	³ /4″	88	36	113x157x102	1.4	28630
Flamco Clean EcoPlus 1"	1″	216	184	156	1″	100	45	117x175.5x110	1.8	28631
Flamco Clean EcoPlus 11/4"	1 ¹ /4″	237	199	177	1 ¹ /4″	114	55	121x196x116	2.4	28632
Flamco Clean EcoPlus 11/2"	11/2"	237	199	177	1 ¹ /2″	114	60	121x196x116	2.5	28633
Flamco Clean EcoPlus 2"	2″	255	210	198	2″	-	70	135x258x125	2.6	28634

Models and dimensions Flamco Clean EcoPlus V

Туре	Connection	Dimensions mm							Insulation	Weight	Code
		Α	B	C	Ød	D	E	F	mm	kg	number
Flamco Clean EcoPlus V 22	22 mm compr.	230	125	80	22	158	94	32	-	2.2	28676
Flamco Clean EcoPlus V 3/4"	³ /4″	223	125	80	3/4″	158	80	32	190x215x100	2.2	28677
Flamco Clean EcoPlus V 1"	1″	247	139	88	1″	184	100	50	215x227x115	3.2	28678
Flamco Clean EcoPlus V 11/4"	1 ¹ /4″	247	139	88	1 ¹ /4″	184	100	50	215x227x115	3.2	28679



FLAMCO CLEAN MESSING

FLAMCO CLEAN V





Flamco[®] ISOplus and Flamcovent[®] EcoPlus

- The Flamco ISOplus is an insulation jacket for steel Flamcovents and Flamco Clean.
- The Flamcovent EcoPlus is a Flamcovent air separator with special insulation.



Models and dimensions Flamco ISOplus

	Suitable for	Dimensions mm		Aluminium jacket	Number of ties	Code number		
		Α	ØB	mm				
Flamco ISOplus 50	50 S/F	520	280	0,8	2	28160		
Flamco ISOplus 65	65 S/F	520	280	0.8	2	28161		
Flamco ISOplus 80	80 S/F	690	375	0.8	2	28162		
Flamco ISOplus 100	100 S/F	690	375	0.8	2	28163		
Flamco ISOplus 125	125 S/F	840	465	0.8	2	28164		
Flamco ISOplus 150	150 S/F	840	465	0.8	2	28165		
Flamco ISOplus 200	200 S/F	1020	555	0.8	2	28166		

Models and dimension Flamcovent EcoPlus

Туре	Connection			Dimensi	ions mm	Insulation	Weight	Code		
		Α	В	ØC	F	Ød	E	mm	kg	number
Flamcovent EcoPlus 22	22 mm	151	98	71	36	22 mm	121	113x188x102	1.4	28660
Flamcovent EcoPlus 3/4"	³ /4″	151	88	71	36	³ /4″	121	113x188x102	1.4	28620
Flamcovent EcoPlus 1"	1″	171	100	80	45	1″	137	117x206x110	1.8	28621
Flamcovent EcoPlus 11/4"	1 ¹ /4″	192	114	87	55	1 ¹ /4″	152	121x226x116	2.4	28622
Flamcovent EcoPlus 11/2"	1 ¹ /2″	192	114	87	60	1 ¹ /2"	152	121x226x116	2.5	28623
Flamcovent EcoPlus 2"	2″	214	131	93	70	2″	169	135x258x125	2.6	28624







FLAMCOVENT ECOPLUS





- The Flamco A-S dirt separator must be equipped with shut-off valves in both the in and out flow streams. A bypass with shut-off valve must also be fitted. In this way, the installation can remain in operation while it is being serviced.
- The flow resistance for all models is 12 mbar, the connection for the blow-off cock is 1" female thread. The bleed connection is 1/2" female thread. The maximum supply temperature is 120 °C.
- CE-compliant pursuant to directive 97/23/EC. Special models tailored to size, pressure and temperature available on request.

Models Flamco A-S

	Capacity litres	Capacity m³/h	Max. output $\Delta t = 20 \ ^{\circ}C$	Weig 6 bar	ht kg 10 bar	Code r 6 bar	umber 10 bar
Flamco A-S 80	80	12	280 kW	50	60	23108	23109
Flamco A-S 110	110	16	370 kW	70	75	23111	23112
Flamco A-S 180	180	31	720 kW	90	95	23118	23119
Flamco A-S 300	300	43	1000 kW	125	130	23130	23131
Flamco A-S 400	400	66	1530 kW	160	170	23140	23141
Flamco A-S 600	600	110	2550 kW	225	240	23160	23161
Flamco A-S 800	800	192	4460 kW	280	315	23180	23181
Flamco A-S 1000	1000	285	6620 kW	345	450	23190	23191

Flamco A-S dirt separators

Dimensions Flamco A-S

Туре	Flanged connections	Dimensions mm						
	DNPN 16	ØD	Н	H1	H2	Ød		
Flamco A-S 80	65	450	935	620	180	310		
Flamco A-S 110	80	550	1030	675	265	335		
Flamco A-S 180	100	550	1325	960	265	335		
Flamco A-S 300	125	550	1790	1400	265	335		
Flamco A-S 400	150	750	1470	1030	265	560		
Flamco A-S 600	200	750	1900	1430	265	560		
Flamco A-S 800	250	750	2295	1800	265	560		
Flamco A-S 1000	300	1000	1940	1450	395	640		

Insulation package Flamco A-S

	Code number	100 mm for:	Code number
Flamco A-S 80	23110	Flamco A-S 80	23107
Flamco A-S 110	23115	Flamco A-S 110	23116
Flamco A-S 180	23120	Flamco A-S 180	23121
Flamco A-S 300	23135	Flamco A-S 300	23136
Flamco A-S 400	23145	Flamco A-S 400	23146
Flamco A-S 600	23165	Flamco A-S 600	23166
Flamco A-S 800	23185	Flamco A-S 800	23186
Flamco A-S 1000	23192	Flamco A-S 1000	23193















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

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Flamco

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