



ROTEX variocistern:
The rainwater storage tank,
which will pass through doors.

ROTEX variocistern: Systematical rainwater usage.

The utilization of rainwater is becoming more and more important and attractive. The high per-capita consumption of drinking water, the dwindling resources, the increasing infrastructural

development of agricultural land and support for rainwater and the support of rainwater reservoirs by local governments have led to an increasing demand of rainwater. In practice, rainwater can be used, among other things for garden watering, the toilet flushing, the washing machines or things like that.

Today, up to 50 % of domestic consumption of drinking water can be replaced by rainwater. The main part of the rainwater storage system is a suitable rainwater storage tank. ROTEX variocistern has been developed as a

special rainwater storage system which corresponds completely with the requirements of such a system.

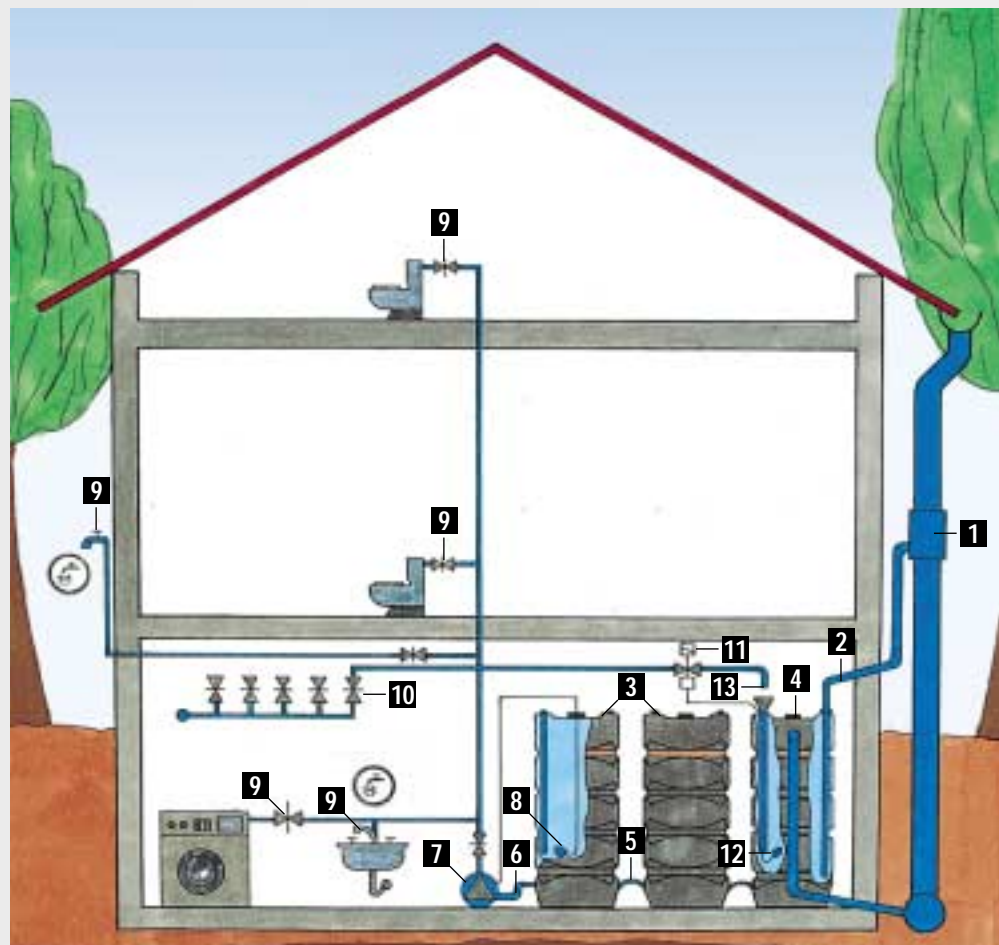
- Very easy installation, even in existing buildings
- Non-corroding
- Light weight
- Flexible use of space by free choice of tank combinations
- Tank height selected according to the room height
- Simple connections for water supply and withdrawal pipes
- Easy expandable
- Simple assembly
- Impervious to light
- Easy to clean

The ROTEX variocistern is a flexible system of tanks which can be used to store water in buildings. The individual tanks themselves are made of high-density polyethylene by the blow-moulding process and are therefore absolutely non-corroding. ROTEX variocistern single tanks are available with capacities of 750 and 1000 litres.



ROTEX variocistern - rainwater usage of 750 - 25 000 l

- 1 Rainwater collector
- 2 Water supply
- 3 variocistern storage tank
- 4 Overflow
- 5 Connecting pipe
- 6 Pump connection
- 7 Booster pump
- 8 Dry-running protector
- 9 Bleeding points
- 10 Main water collection
- 11 Solenoid valve
- 12 Float switch
- 13 Fresh water supply



The water storage tank, which will pass through doors

Thanks to the compact square base and the light weight, the transport of the single tanks into a building is very easy. Narrow staircases and doors or confined storage spaces are no problem for the ROTEX variocistern.

ROTEX variocistern is available in two sizes:

- variocistern 750 l with a height of 1,60 m and
- variocistern 1000 l with a height of 1,90 m.

Thus the available room height can be used optimally.

All variocistern tanks have the same base of 0,78 x 0,78 m.

As a result, the tanks are suitable for new buildings as well as for existing buildings.

You have the free choice in selecting the most suitable tank combination for your special requirements, i.e. in-line, rectangular or angular installations are possible. With these combinations you can realize a storage capacity from 750 l up to 25 000 l.

variocistern – the water storage tank which is impervious to light

If light gets through the water storage tank the usual consequence is an intensive growth of algae and biological substances which use up all the oxygen contained in the water. The results are decay processes which are accompanied by strong smells.

For this reason, variocistern tanks are made of plastic which is impervious to light, so that the growth of light-dependent biomass is excluded and the risk of smells is drastically reduced.

variocistern – the easy cleanable water storage tank

Should, in spite of the fine prefiltering of the rainwater, the bottom of the tank becomes contaminated in the course of time, the necessary cleaning can be accomplished without difficulty, even after several years. The individual tanks are light weight and thanks to their compact design easily manoeuvrable.

This facilitates cleaning to a considerable extent. The straightforward connecting system using union nuts permits rapid dismantling. Meanwhile, the cleaning and emptying apertures at the top of the tanks permit straightforward cleaning with a water jet.





variocistern – the easy to assemble water storage tanks

The individual variocistern tanks are easy to connect by means of flexible connecting pipes.

These are secured with union nuts



which can be tightened by hand. No special tools are needed.

In this way, a large-capacity water storage tank, consisting of a combination of variocistern containers, can be

assembled with a few manual operations. variocistern tanks can be used in combination with all the commonly used domestic water systems. We, however, recommend the use of branded articles.

variocistern – the complete water storage system

variocistern is a complete rainwater storage system with all the requisite accessories. Of each individual size, there are two different types of container.



The **basic tank variocistern A** is equipped with an inlet socket (Ø 50 mm) and an overflow (Ø 100 mm). One variocistern A tank is required for every tank combination.

Now you can connect an appropriate number of **variocistern B** tanks to obtain a rainwater storage facility of the desired capacity. The requisite total storage capacity for a household of four persons is approx. 3 000 – 10 000 litres, depending on the method and extent of use.

Basic tank – variocistern A

The variocistern A is equipped with a filling socket with internal pressure tube (NW 50) and a pressure tube for fresh water replenishment. In addition, it is equipped with an overflow outlet socket at which you can connect standard plastic tubes NW 100.

At the under part of the A tank are 3 connecting sockets

(NW 50) fixed. These permit connection to an adjoining variocistern B tank to form a combination storage facility.



Expansion tank – variocistern B

The variocistern B has the same dimensions as the variocistern A, but no overflow outlet socket and pressure tubes.

A flexible connection tube, which is mounted to the inside of the central screw cap (Ø 225 mm) is supplied with each variocistern B. With this tube, the tank can be connected to an adjoining A or B tank by one of the three lower connecting sockets.





Installing a variocistern combination

A variocistern combination consists of one variocistern A and several variocistern B tanks. The number of tanks for your combination can be freely chosen to meet your requirement.

The installation room must have a floor drain. It has to be according to the standard DIN 1986 drainage works.

Withdrawal should take place at the B tank which is located as far as possible from the A tank. When the tanks are connected in series, a progressive process of clarification takes place from tank to tank, including even the finest matter in suspension, so that the water in the withdrawal tank is much clearer than in the A tank.

Basically rainwater utilization requires permission for legal waste water issued by the competent authority. For new buildings or refurbishments, permission should be sought together with the construction application. Quality of the rainwater depends strongly on the local content of pollutant in the air. Normally the quality of water is better than expected.

The distribution of the rainwater in the building has to be done completely separately from the pipe system. Free taps have to be marked with the corresponding indicative sign, to avoid mixing up drinking water. Further it is recommended to use water taps with removable handles to prevent additional misuse.

Find out your needed storage capacity

You can see the necessary storage capacity in the enclosed table, in depending on the number of people per household and the available roof area in m².

You should choose a size which provides enough usable rainwater at any time. From previous experience, the consumption of rainwater is approx. 40 - 50 litre per day and person.

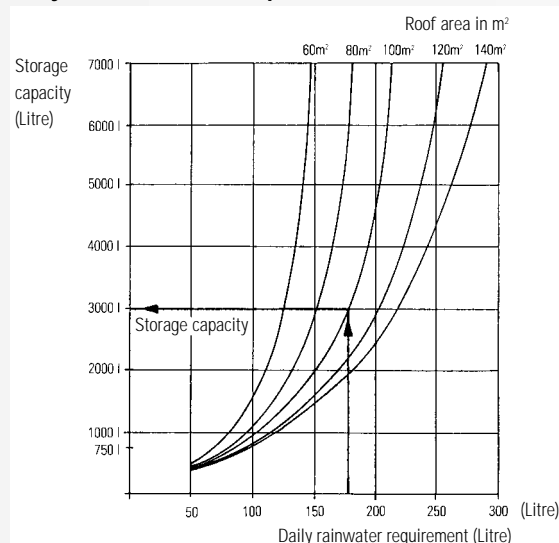
Example

Daily rainwater consumption:
4 persons x 45 l = 180 litre.



	variocistern 750	variocistern 1000
Storage capacity:	750 l x No. of tanks	1000 l x No. of tanks
Capacity per tank:	750 Litre	1000 Litre
Dimension per tank:	78 x 78 x 160 cm	78 x 78 x 190 cm
Warranty:	5 years warranty	5 years warranty
Insurance cover:	5 million Euro for personal injury and property damage	

Table for the storage calculation in dependence on the roof area and daily rainwater consumption.



variocistern:

Accessories and prices.

Fresh water replenishment

In order to maintain the water supply e.g. if there is no rain for a longer period and the variocistern tanks become empty, a replenishment set can be installed permitting replenishment from the main water supply. The replenishment set consists of a float switch and 220 V magnetic valve. The float switch is also mounted in the central screw cap of the A tank and is positioned approximately 5 cm below the float for the dry-running protection. The main water supply is turned on and off by means of the magnetic valve. This water, how-ever, must not be led directly into one of the tanks but must be led into the master tank by way of the funnel supplied. The minimum distance between the main water outlet and the funnel has to be 2 cm.

Water level gauge

As the tanks are impervious to light, the water level in the storage system cannot be seen from the outside. If there is the need to check the water level, a special water level gauge can be installed. This is screw mounted to one of the two filling sockets on one of the tanks. There you can see the water level in the system in cm.

Replenishment set

Ref.No.: 19 30 10



Water level indicator IDEAL-S

Connecting thread 1 1/2"

Display in cm.

Ref.No.: 19 30 20



750 l	1	Tank combination name	VC 701	VC 702	VC 703	VC 704
	2	Capacity	750 l	1500 l	2250 l	3000 l
	3	Tank combination	1 x A	1 x A/1 x B	1 x A/2 x B	1 x A/3 x B
	4	Combination dimensions in cm	78 x 78	78 x 164	78 x 250	164 x 164

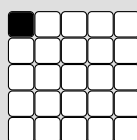
Bestellnummer

variocistern A 750: 19 07 50

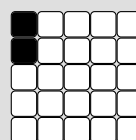
variocistern B 750: 19 07 51

variocistern A 1000: 19 10 00

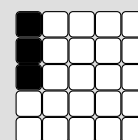
variocistern B 1000: 19 10 01



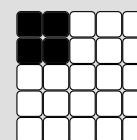
1 tank



2 tanks



3 tanks



4 tanks

1000 l	1	Tank combination name	VC 1001	VC 1002	VC 1003	VC 1004
	2	Capacity	1000 l	2000 l	3000 l	4000 l
	3	Tank combination	1 x A	1 x A/1 x B	1 x A/2 x B	1 x A/3 x B
	4	Combination dimensions in cm	78 x 78	78 x 164	78 x 250	164 x 164



Rainwater collector RWS equipped with a fine filter

Type: Copper
Ref.No.: 19 30 30



Type: Galvanized sheet steel

Ref.No.: 19 30 31

Rainwater collector RWS equipped with a fine filter

Type: Plastic
Ref.No.: 19 30 38



Pump connecting set

Ref.No.: 19 30 00

Rain water collector

The ROTEX RWS rainwater collector is used to collect the rainwater from the roof gutter downpipe.

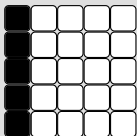
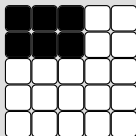
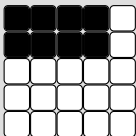
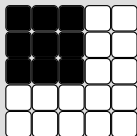
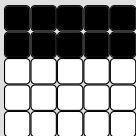
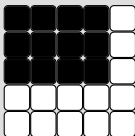
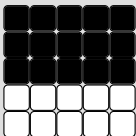
It contains a coarse particle filter and a fine filter with a mesh size of 170 mm, and is provided with a lateral water connection with a diameter of 50 mm which is suitable for standard plastic discharge pipes. The rainwater collector is designed for downpipes of Ø 100 mm and is made of copper or galvanized metal.

Additional sizes available if required.

Connection set for booster pump

By means of the pump connection set, any standard booster pump can be connected to a variocistern tank.

The connecting set contains a suction hose incl. an adapter for the connection to one of the lower sockets in the tank, and a float switch which serves to prevent the pump from running dry. The float switch is mounted in the central screw cap (NW 225) of the A tank. You can see the mounting positions of the float switch for the 2 different sizes of tanks in the mounting instructions. If the water level falls below the minimum limit the pump is automatically switched off.

VC 705	VC 706	VC 708	VC 709	VC 710	VC 712	VC 715
3 750 l	4 500 l	6 000 l	6 750 l	7 500 l	9 000 l	11 250 l
1 x A/4 x B	1 x A/5 x B	1 x A/7 x B	1 x A/8 x B	1 x A/9 x B	1 x A/11 x B	1 x A/14 x B
78 x 422	164 x 250	164 x 336	250 x 250	164 x 422	250 x 336	250 x 422
						
5 tanks	6 tanks	8 tanks	9 tanks	10 tanks	12 tanks	15 tanks
VC 1005	VC 1006	VC 1008	VC 1009	VC 1010	VC 1012	VC 1015
5 000 l	6 000 l	8 000 l	9 000 l	10 000 l	12 000 l	15 000 l
1 x A/4 x B	1 x A/5 x B	1 x A/7 x B	1 x A/8 x B	1 x A/9 x B	1 x A/11 x B	1 x A/14 x B
78 x 422	164 x 250	164 x 336	250 x 250	164 x 422	250 x 336	250 x 422



Enjoy saving energy: ROTEX - The coming heating system.

Firstly comfortable heat and hygienic hot water make you feel at home. Energy gets always more precious and more expensive. With energy saving heating system you can increase the comfort and save energy. Therefore invest today into the future. The energy saving potential with heating is very big and has a lasting effect for years.

ROTEX, the coming heating system, it contains energy saving components which are perfectly co-ordinated.

- Condensing boiler for oil and gas
- Hygienic high-efficiency hot water storage tank
- Pressureless and eco friendly solar systems
- Underfloor heating and radiators with only one water distribution
- Fume barrier safety tanks
- A connecting plastic-installation system for domestic and heating

You can find further information under www.rotex-heating.com

ROTEX

ROTEX Environmental Management Ltd.
Unit 7, Lodge Road Kingswood
Bristol BS15 1LD · Great Britain
Fon: +44(0)1179611698 · Fax: +44(0)1179611715
e-mail sales@rotex.co.uk
www.rotex-heating.com

ROTEX Heating Systems GmbH
Langwiesenstraße 10 · D-74363 Güglingen
Fon +49(7135)103-0 · Fax +49(7135)103-200
e-mail info@rotex.de · www.rotex.de



Technical changes reserved