

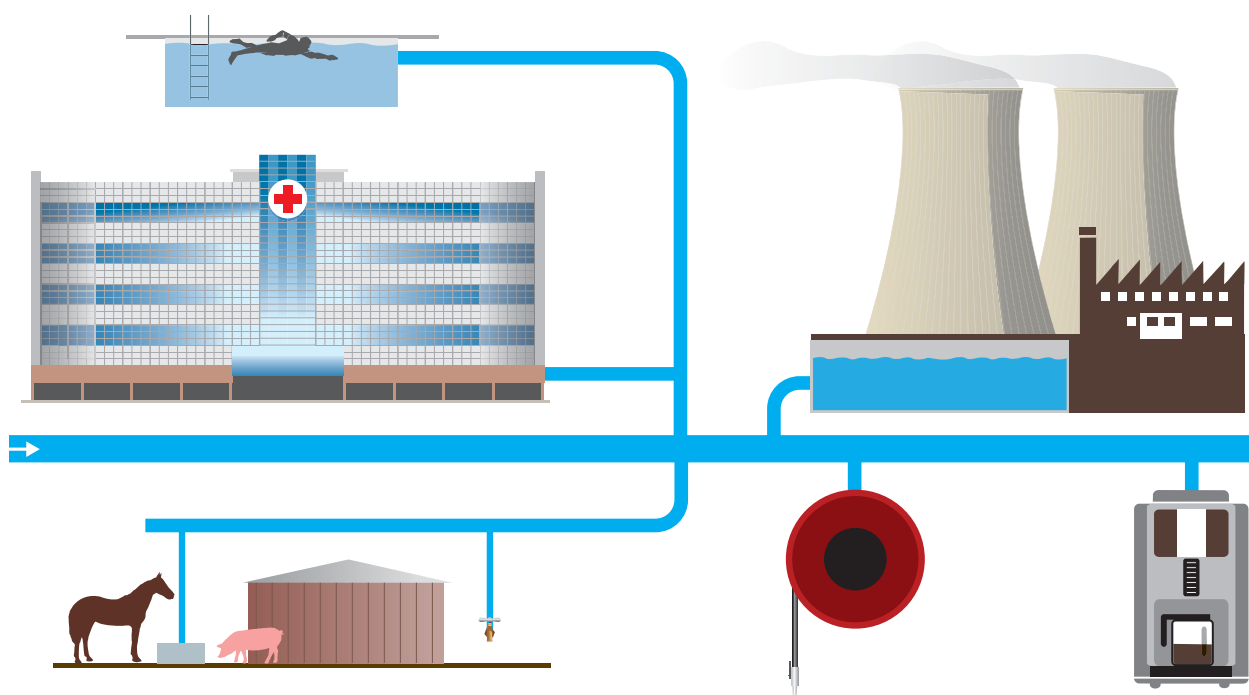
INTRODUCTION

Modern and safe solutions for our drinking water

Water is one of our most vital resources. It is therefore of utmost importance that we are able to guarantee the quality of our drinking water in the future as well.



We use and distribute our water for many purposes via a public water supply network that is becoming increasingly more complex. Consumers from all walks of life are connected to this network, which entails significant contamination risks for drinking water supply and distribution systems. This calls for innovative and watertight security solutions that meet today's demands. For this, Watts Industries is exactly what you're looking for.



Public water supply network with a large number of users.

The European Ministry of Health have issued regulations and acts providing local administrations and private individuals with preventive and control measures against pollution of drinking water.

There are two conditions which can give rise to a similar contamination:

- contact between non-drinkable water and drinking water
- risk of return of pollutants to the drinking water supply

The European standard EN 1717 is a protection method based on a classification of water into 5 liquids categories and a protection matrix which specifies the maximum level of protection for every protection device, providing the most adequate security.

Protection classes according to EN 1717.
This application may differ slightly from country to country.

Protection device			Can be used up to liquid class				
Family	Type	Description	1	2	3	4	5
A	B	Free outlet with non-circular overflow	X	●	●	●	●
B	A	Backflow preventer with different pressure zones, verifiable	●	●	●	●	-
C	A	Backflow preventer with different pressure zones, non-verifiable	●	●	●	-	-
D	A	In line anti-vacuum valve	O	O	O	-	-
E	A	Verifiable anti-pollution check valve	●	●	-	-	-
	B	Non-verifiable anti-pollution check valve	only for certain domestic uses				
H	A	Anti-siphon aerator with check valve, for hose connection	●	●	O	-	-
	D	Anti-siphon aerator with check valve, for hose connection	●	●	O	-	-

General comment: fittings with atmospheric aeration (e.g. AA, BA, CA, ...) may not be used if there is a risk of flooding.

- eliminates the risk or allowed as safety fitting
- does not eliminate the risk, not allowed as safety fitting
- O eliminates the risk only if p = atm
- X not applicable

Liquid classes *

Class	Definition	Examples
1	Water intended for human consumption, originating from a drinking water distribution system.	Drinking water, water under high pressure.
2	Liquid substance that does not pose a threat to human health. Liquid substance of which it is determined that it is suitable for human consumption, including water obtained from a drinking-water distribution system, and which may have undergone a change in taste, odour, colour or temperature (heating or cooling).	Cooled water, hot water, demineralised water, preparation of food, coffee, tea.
3	Liquid substance that can harm human health to a certain degree due to the presence of one or more toxic or highly toxic substances with an LD 50 > 200 mg/kg **.	Rinsing water for dishes and cooking equipment, central heating water without additives, water in the toilet cistern, softened water.
3/4	(the limit between categories 3 and 4 is basically indicated by LD 50 = 200 mg/kg ** body weight in accordance with EU Directive 93/92 of 23 04-1993)	Water with anti-corrosive agent, water with anti-freeze, water with detergents, water with disinfectants, water with cleaning products, water with coolant.
4	Liquid substance that poses a threat to human health due to the presence of one or more toxic or highly toxic substances with an LD 50 ≤ 200 mg/kg **, or due to radioactive, mutagenic or carcinogenic components.	Hydrazine, lindane, insecticides.
5	Liquid substance that poses a threat to human health due to the presence of pathogenic bacteria or viruses.	Rinsing water for dishes and cooking equipment, sewer and waste water, animal drinking water, swimming pool water.

* With regard to contact between drinking water and contamination, it is assumed that the connection is always permanent. This means that the situation Pc (Permanent/continuous) should always be assumed for the risk analysis method.

** LD = Lethal Dose