



## ACO Visokogradnja

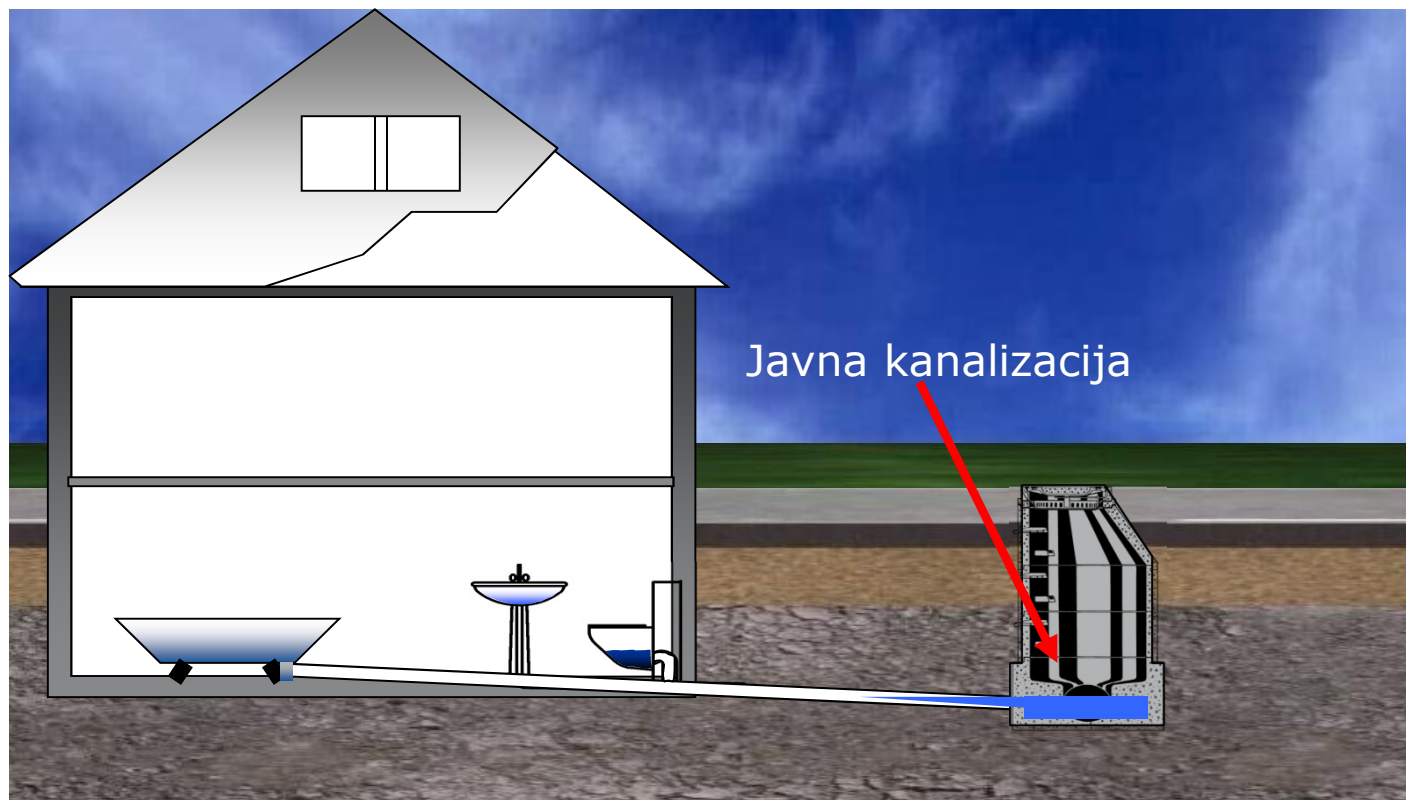


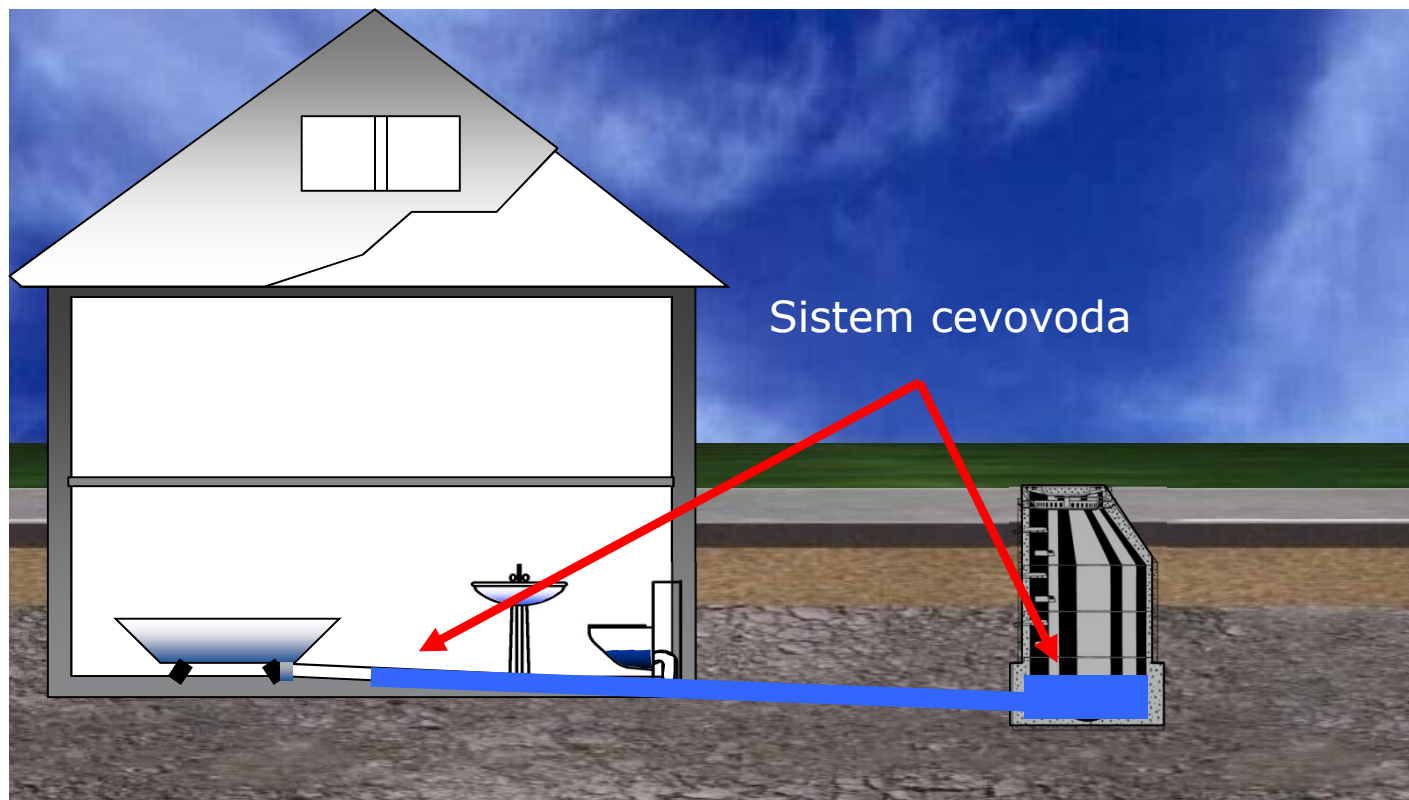
### ACO visokogradnja Protiv povratni sistemi

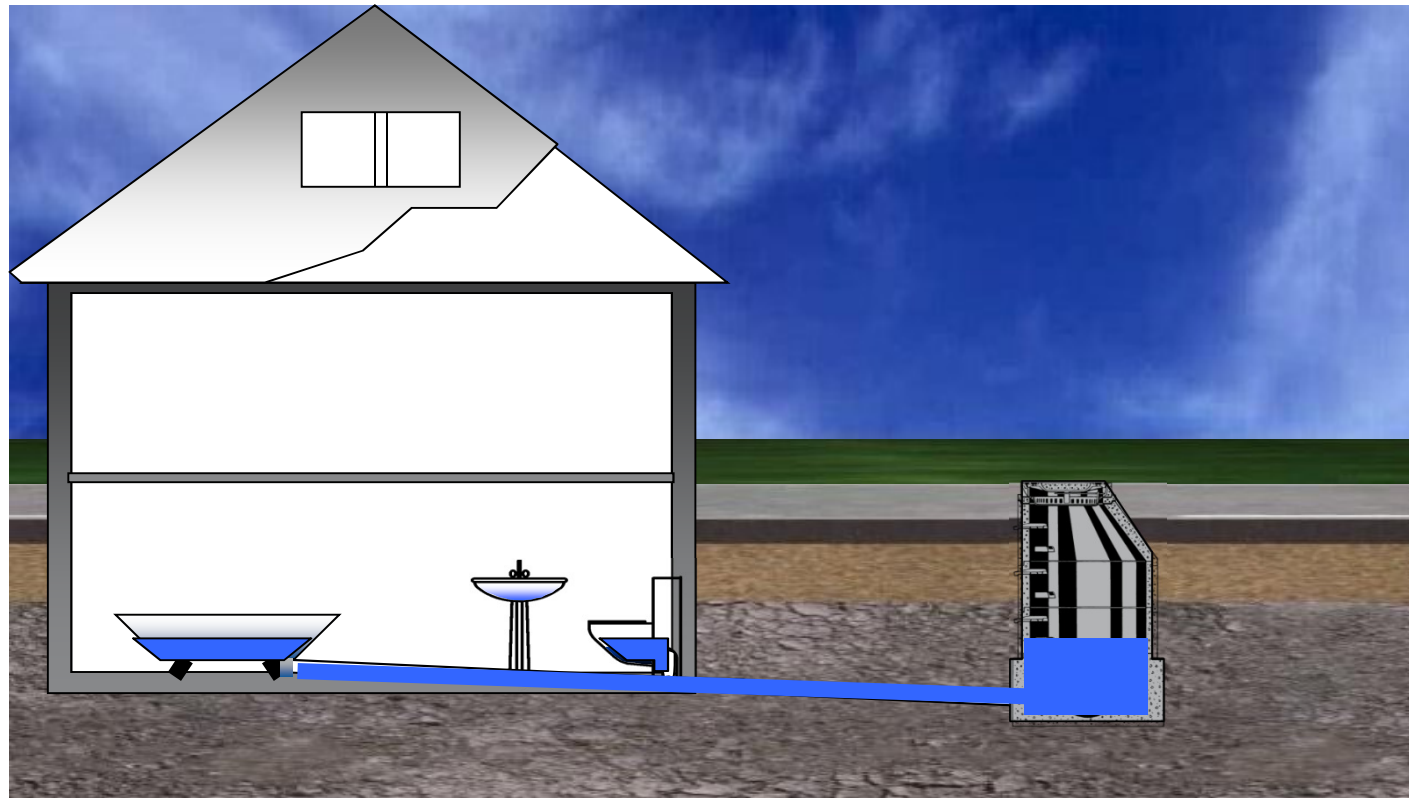
Srđan Tomić, Market Segment Manager  
Beograd, 12 Jun 2014

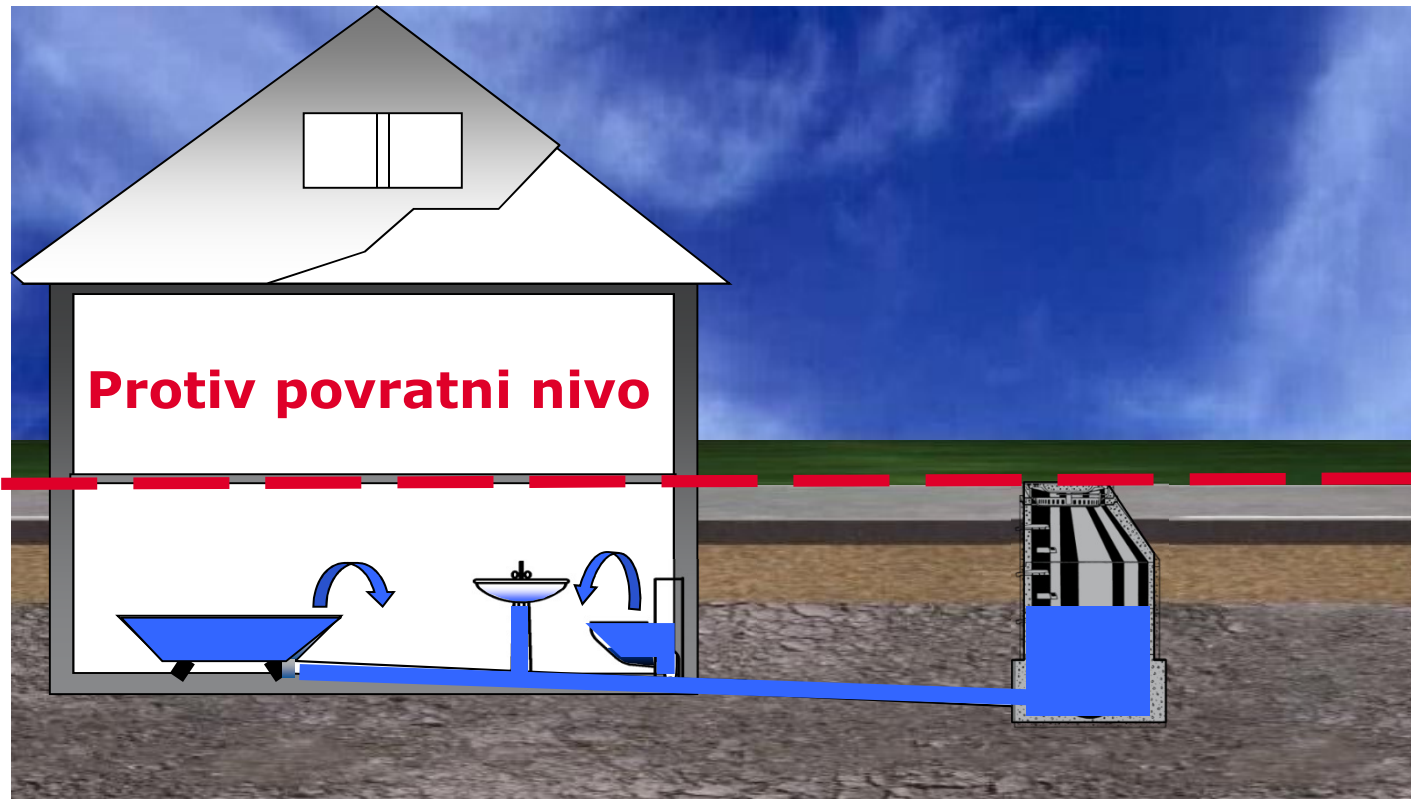


**Šta je povratni tok?**











**Rezeptat...**



ACO





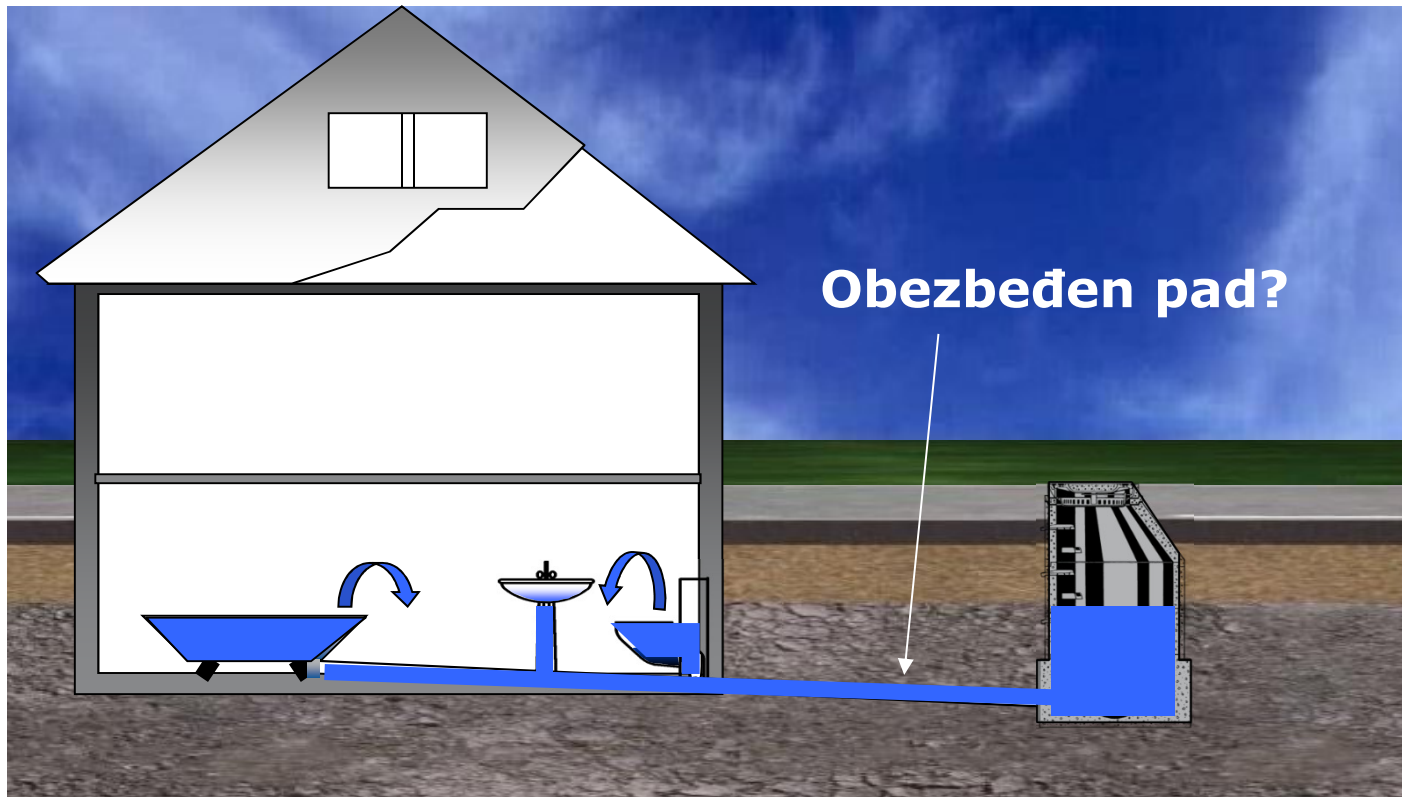


## **Kada je protiv povratna zaštita neophodna?**

Kada postoje toaleti, slivnici i tuševi u podrumu

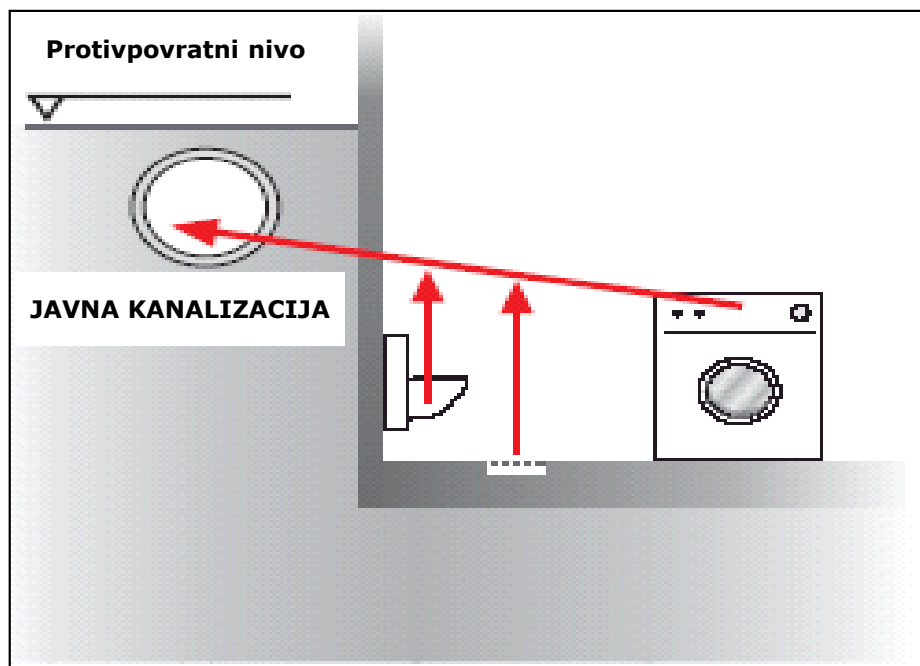


# **Vrsta protiv povratne prevencije**





## Slučaj #1 : Bez pada od podruma do javne kanalizacije

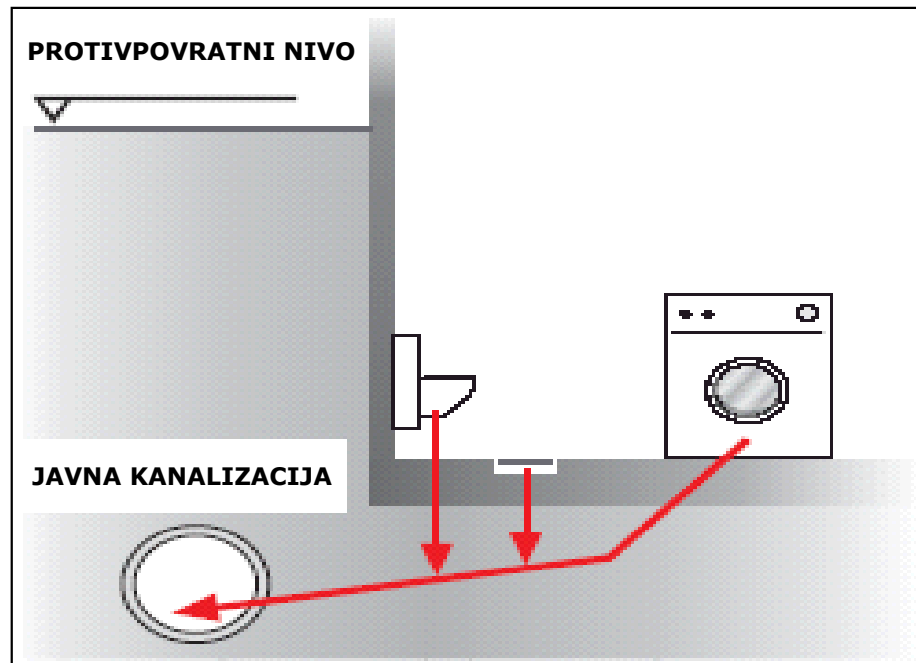


Koristiti prepumpna postrojenja

**AKTIVNA PROTIV  
POVRATNA  
PREVENCIJA**



## Slučaj #2 : Postoji pad od podruma do javne kanalizacije



Koristiti protivpovratne  
slivnike i protiv  
poplavne sisteme

**PASIVNA PROTIV  
POVRATNA  
PREVENCIJA**

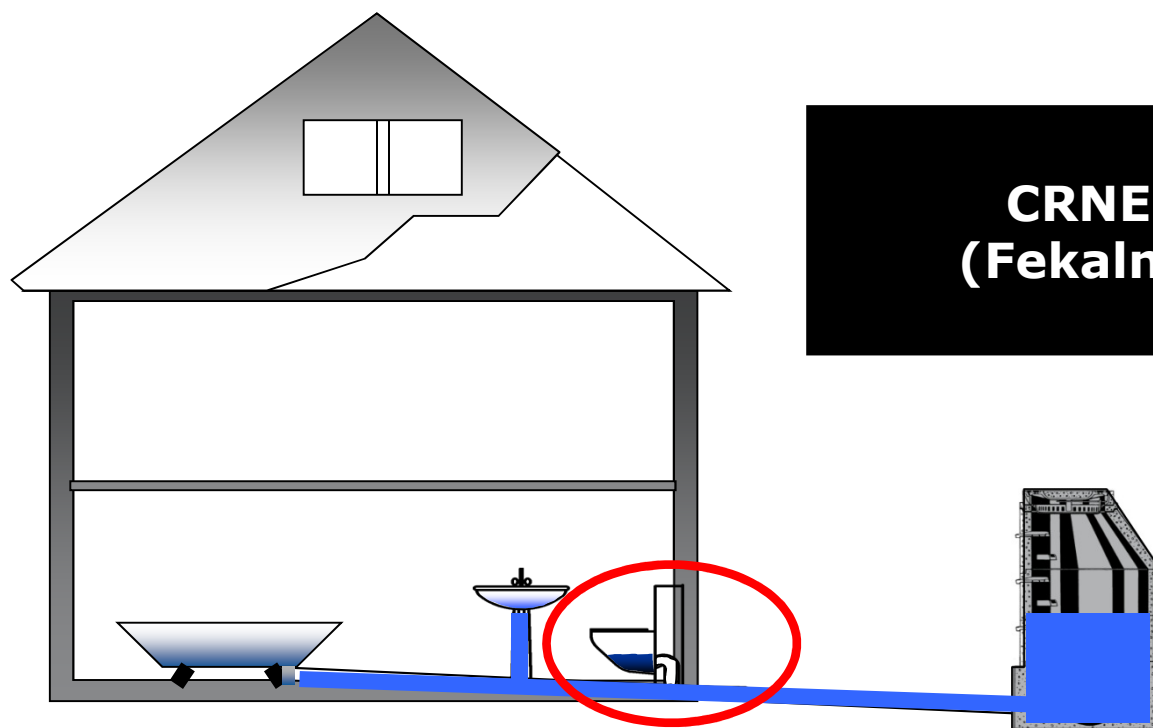


# **Vrsta odpadne vode**

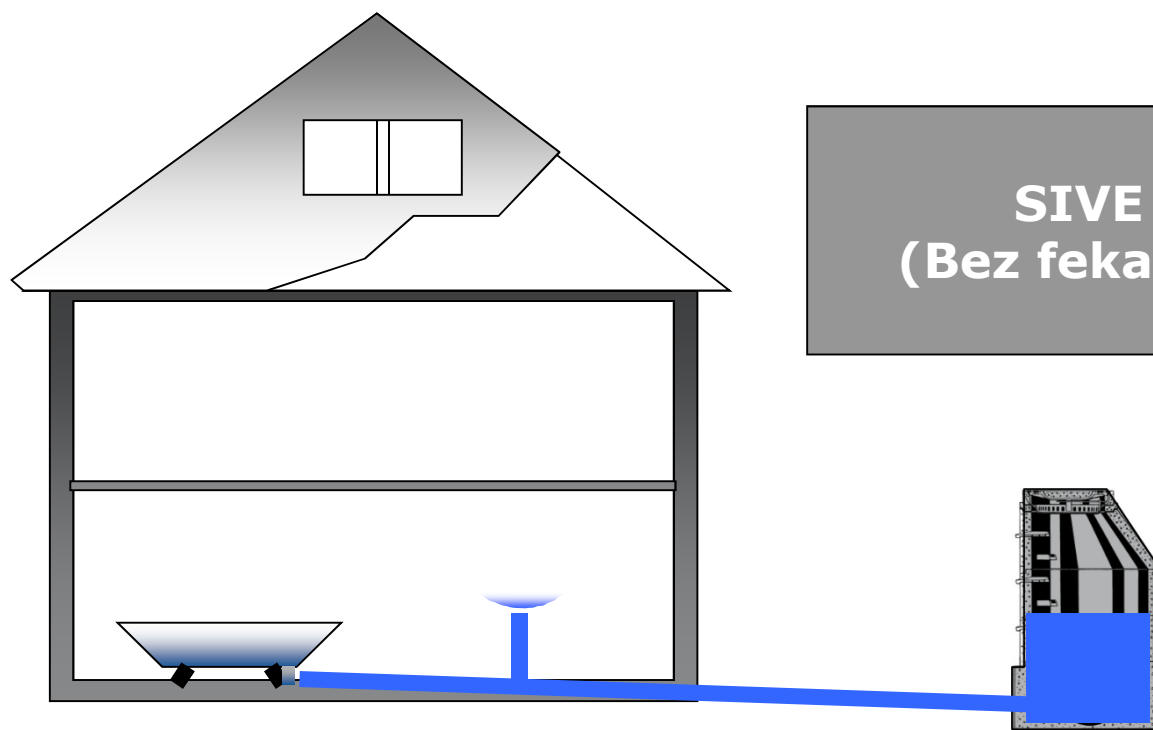


Koja vrsta otpadne vode napušta podrum preko protiv povratne zaštite?





**CRNE VODE  
(Fekalne vode)**



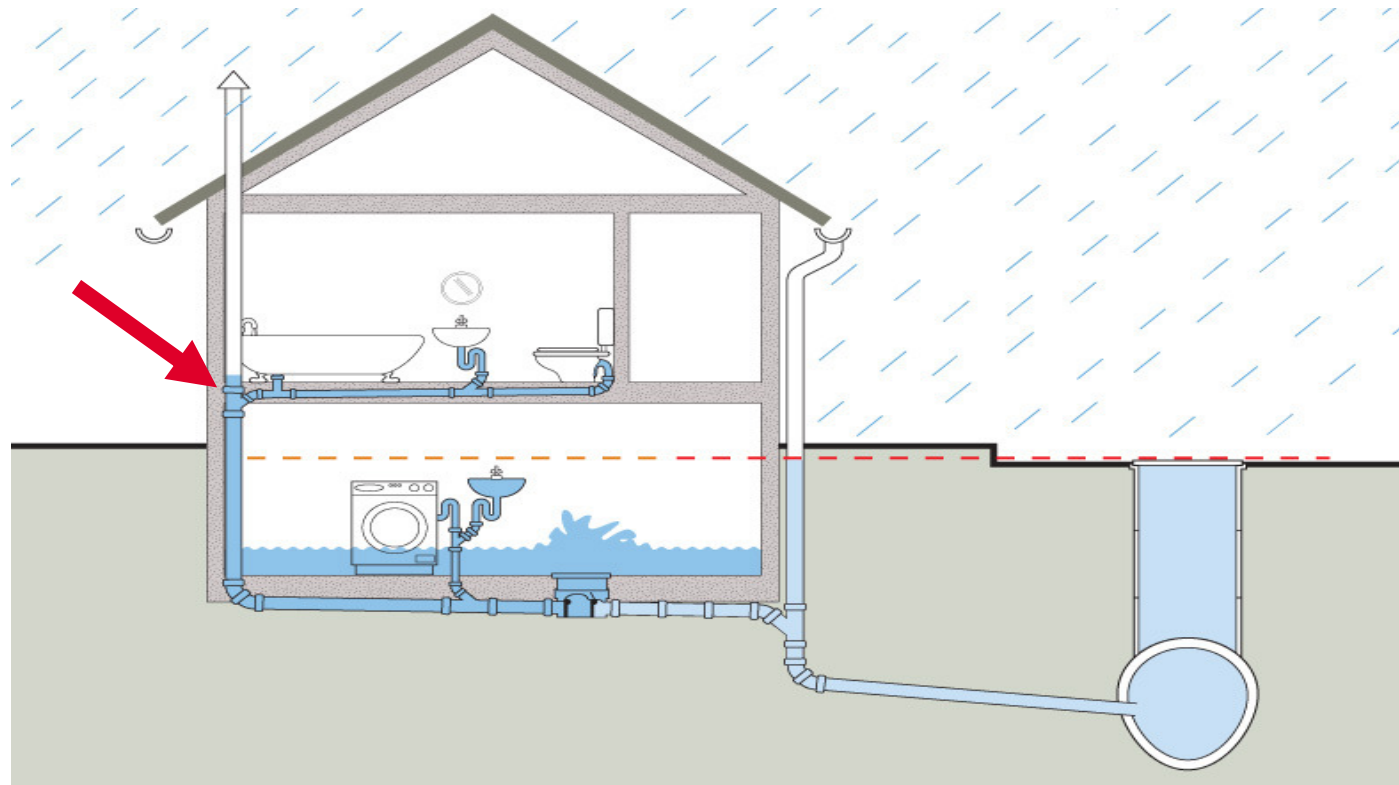
**SIVE VODE**  
**(Bez fekalnih voda)**



U slučaju povrata voda nije bitan tip otpadne vode



## Pasivna protivpovratna prevencija – princip ugradnje

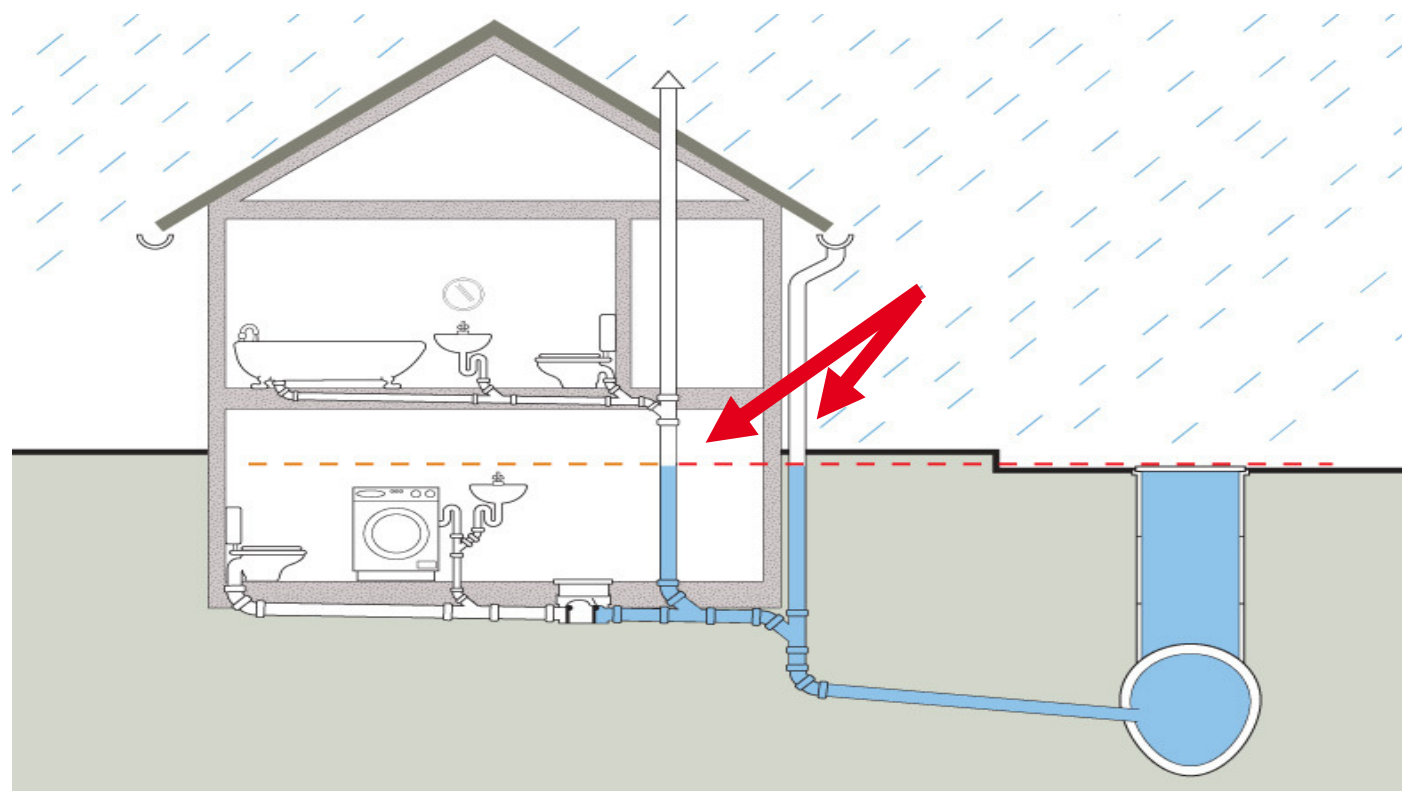


**POGREŠNO!  
POGREŠNO!  
POGREŠNO!**

**Nikada ne vezivati  
spratove iznad  
protiv povratnog  
nivoa na protiv  
povratni sistem!**



## Pasivna protivpovratna prevencija – princip ugradnje



**DOBRO**



## Standard EN 13564-1

### Tipovi protiv povratnih brana

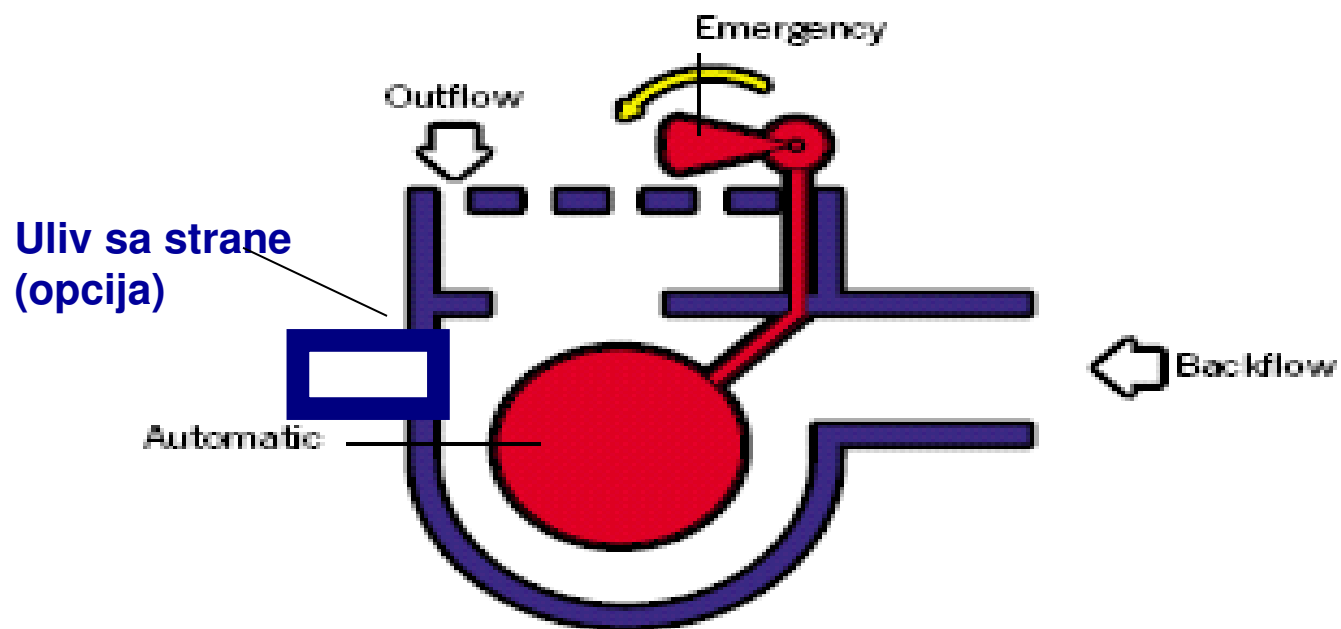
Type	Use	Automatic seal	Emergency seal	Fields of application
0	inline pipe	1	0	rain water utilization plants
1	inline pipe	1	1**	rain water utilization plants
2	inline pipe	2	1**	rain water utilization plants/waste water free of faeces
3	inline pipe	1 (electrical,pneumatic)	1	waste water free of and containing faeces, marked with "F"
4	floor drain	1	1**	waste water free of faeces/precipitation *
5	floor drain	2	1**	waste water free of faeces/precipitation

\* only as per EN 13564-1

\*\* The emergency seal can be combined with the automatic seal



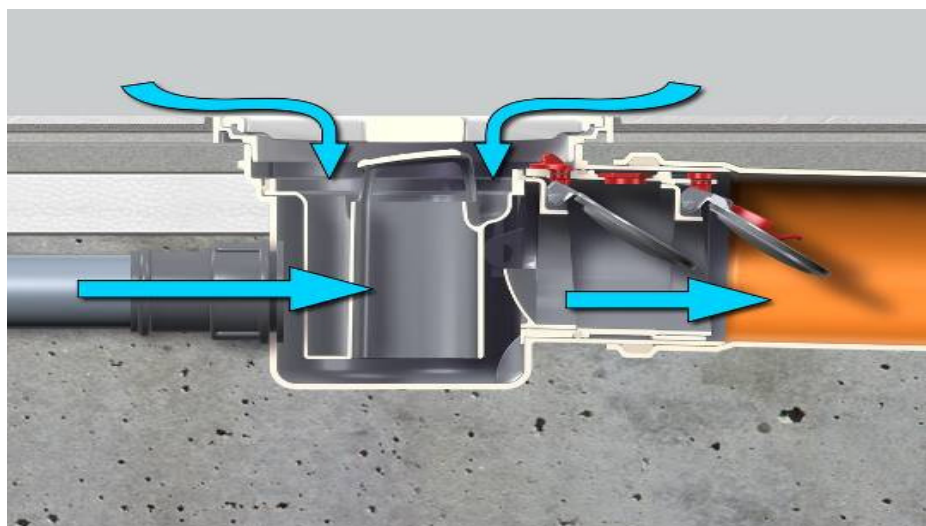
## Protiv povratni slivnik - princip



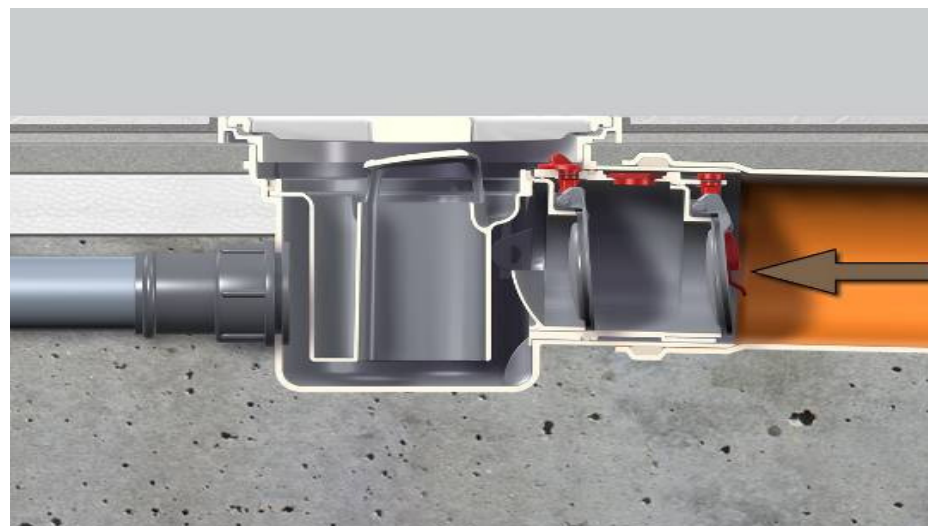




## Protiv povratni slivnik - princip



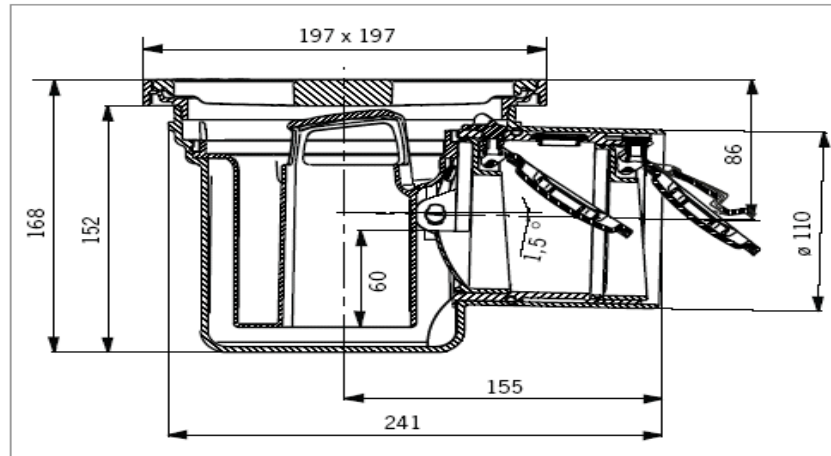
Normalni uslovi: Otpadna voda može biti odvedena preko uliva sa strane i pokrivne rešetke



Povratni tok: pritisak povratnog toka blokira klapne



# ACO JUNIOR®



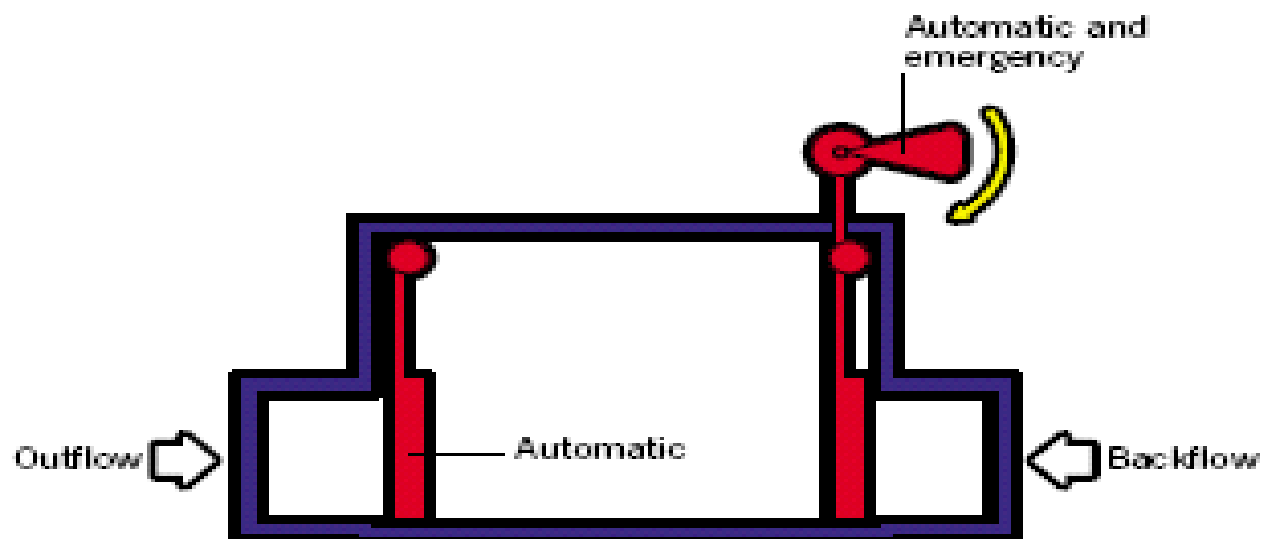


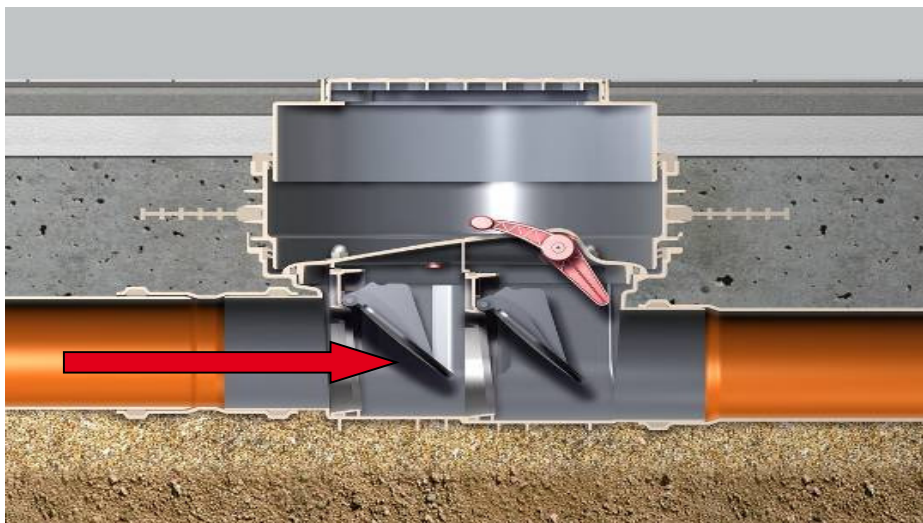
## ACO JUNIOR®



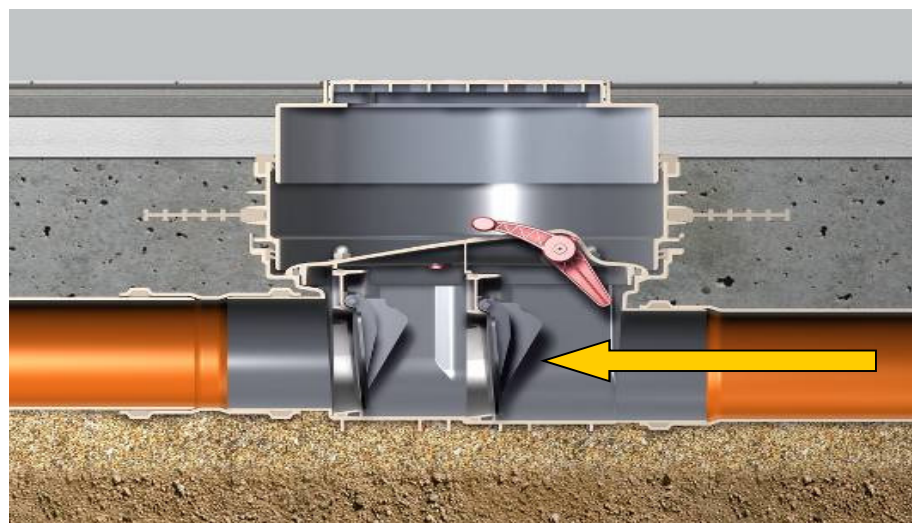


## Protiv povratni sistem za sive vode - princip

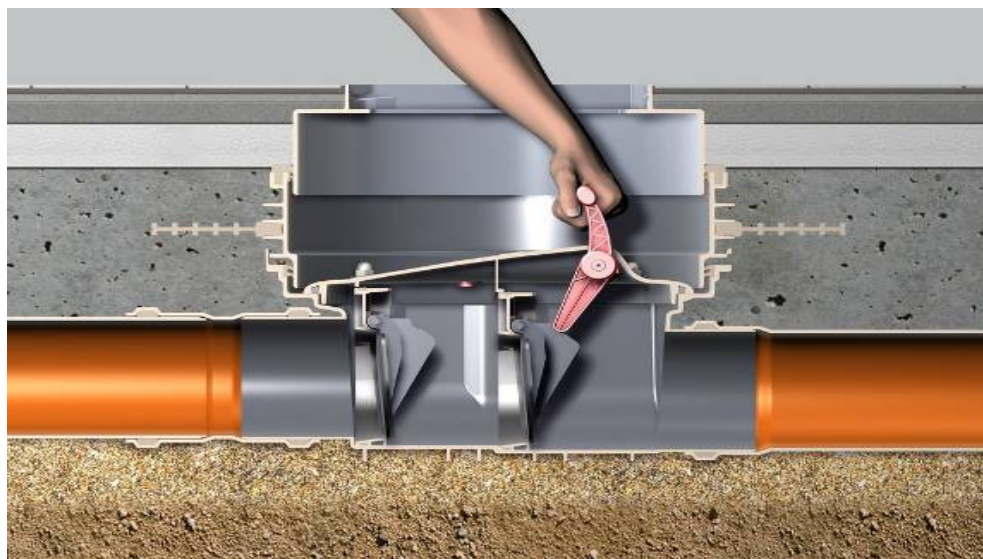




Normalni uslovi: Otpadna voda može biti odvedena preko ulivne cevi



Povratni tok: pritisak povratnog toka blokira klapne

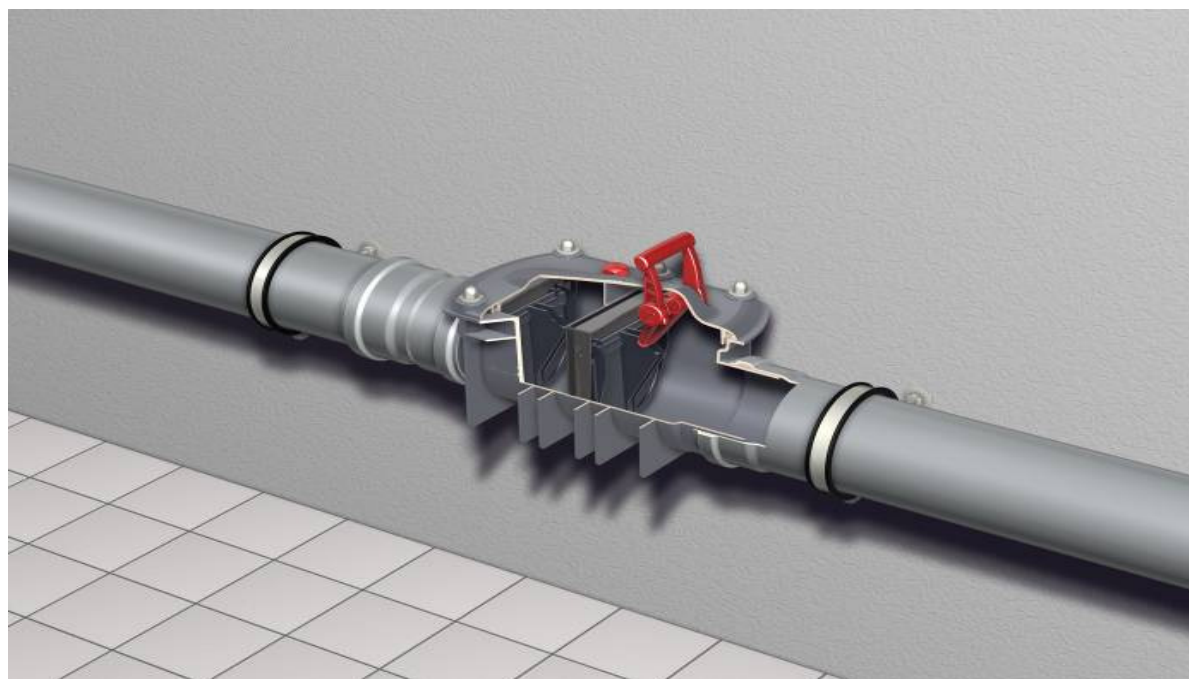


Vanredni slučaj: Prva klapna može biti ručno zatvorena





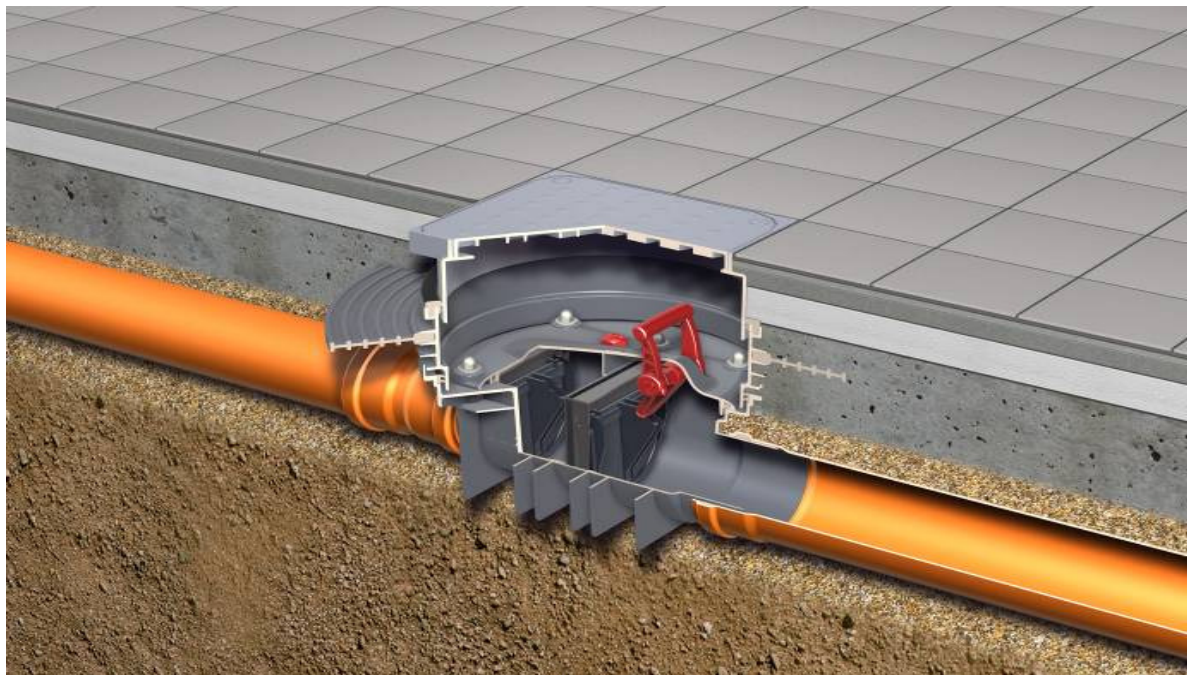
## Ugradnja iznad zemlje - TRIPLEX-K





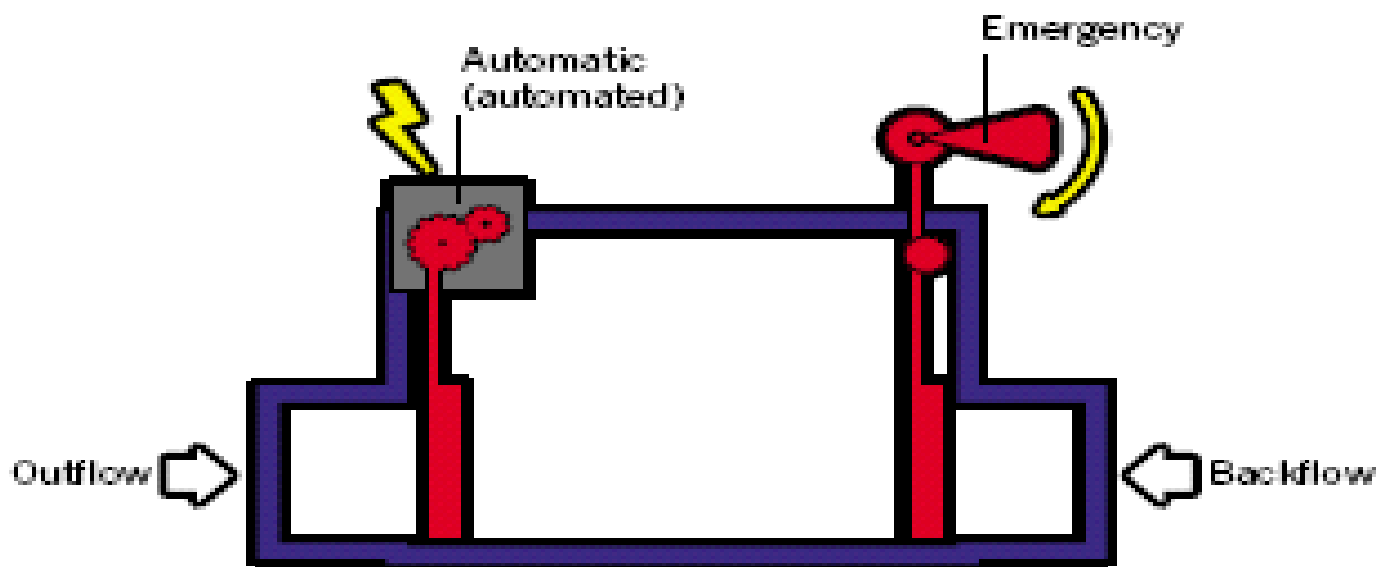


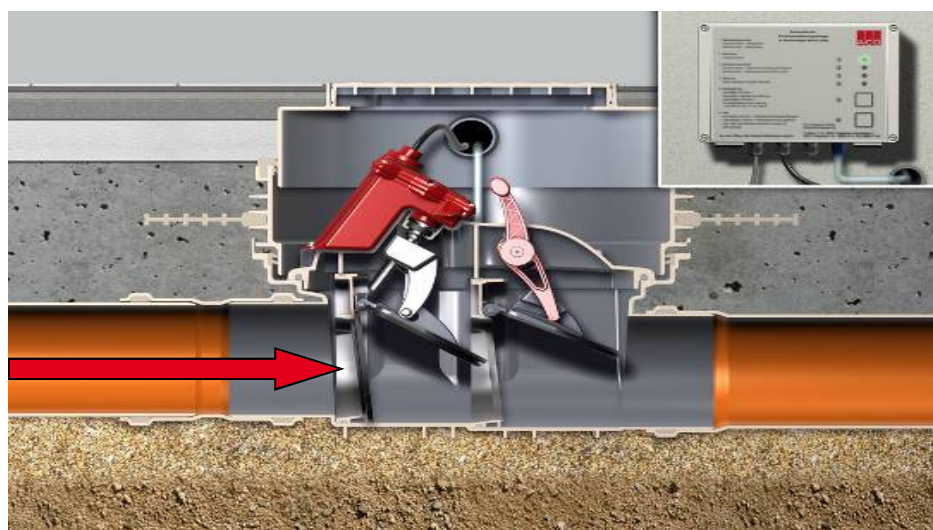
## Ugradnja u podu - TRIPLEX-K



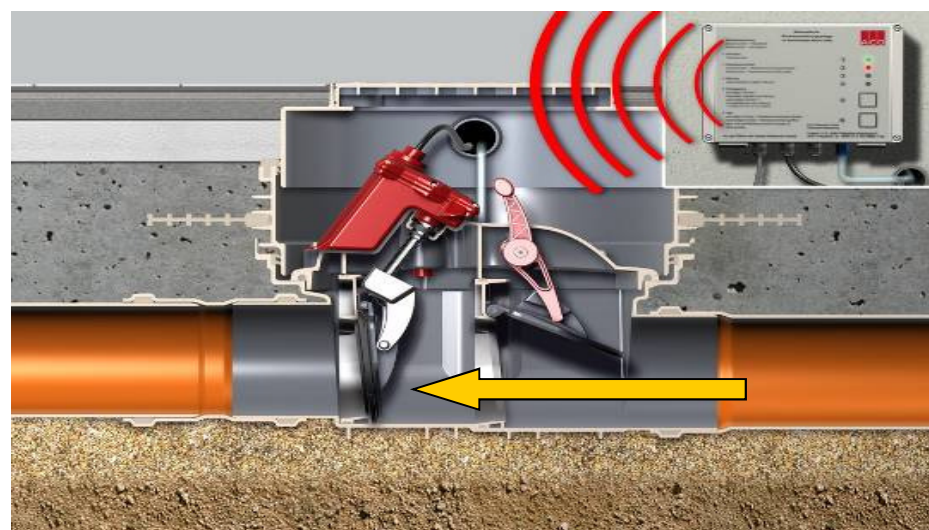


## Protiv povratni sistem za crne vode - princip

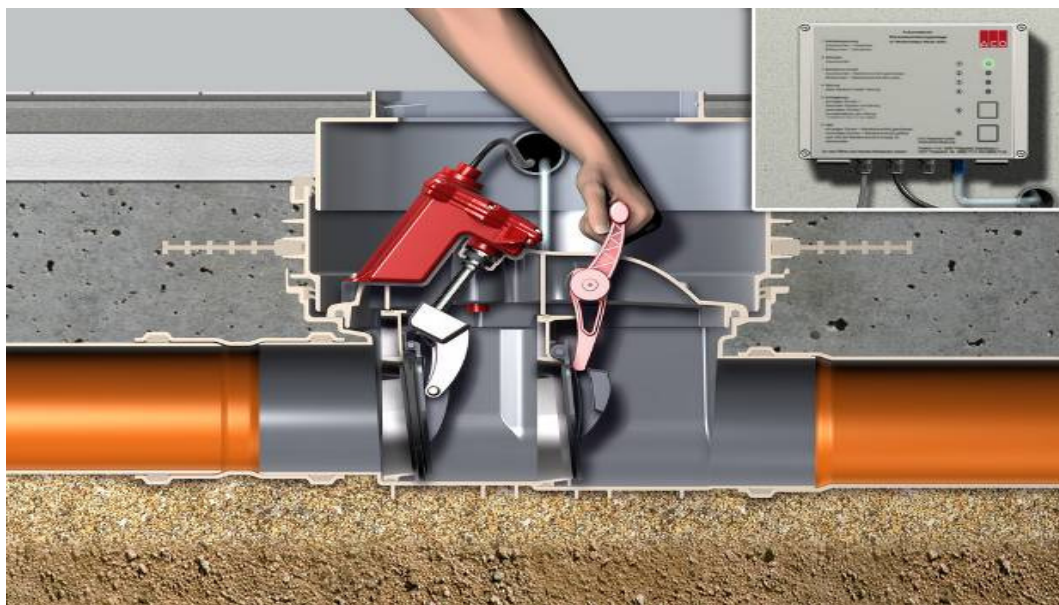




Normalni uslovi: Otpadna voda može biti odvedena preko ulivne cevi



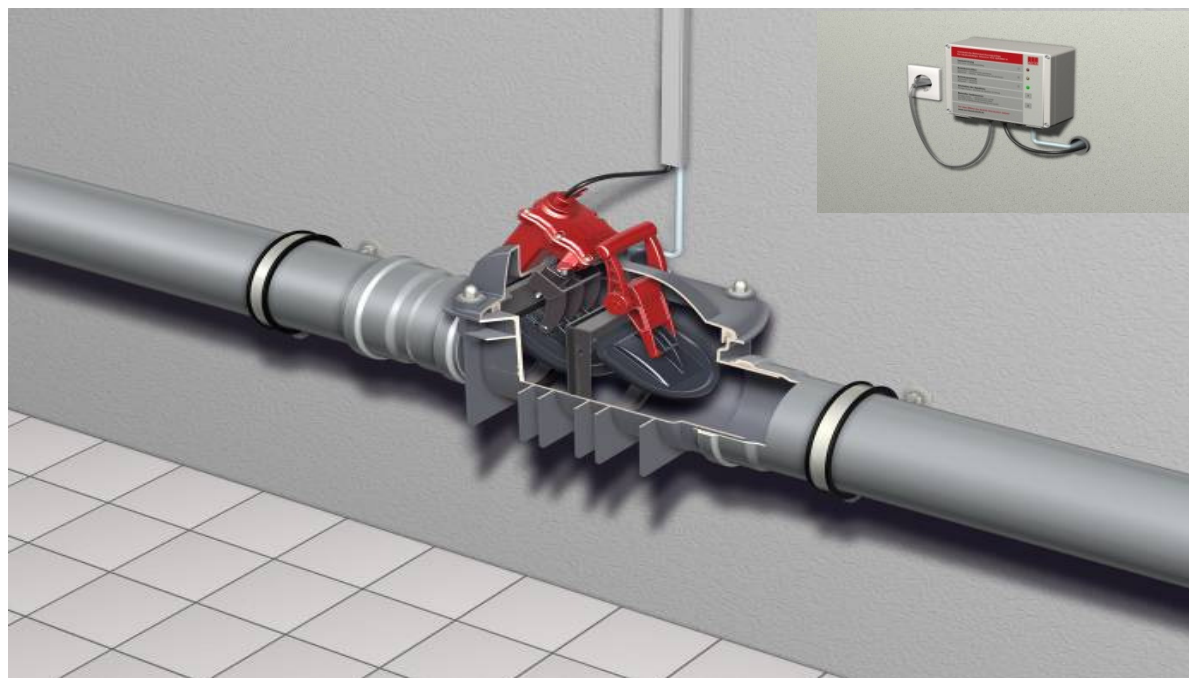
Povratni tok: pritisak povratnog toka aktivira automatiku – druga klapna se zatvara automatski



Vanredni slučaj: Prva klapna može biti ručno zatvorena



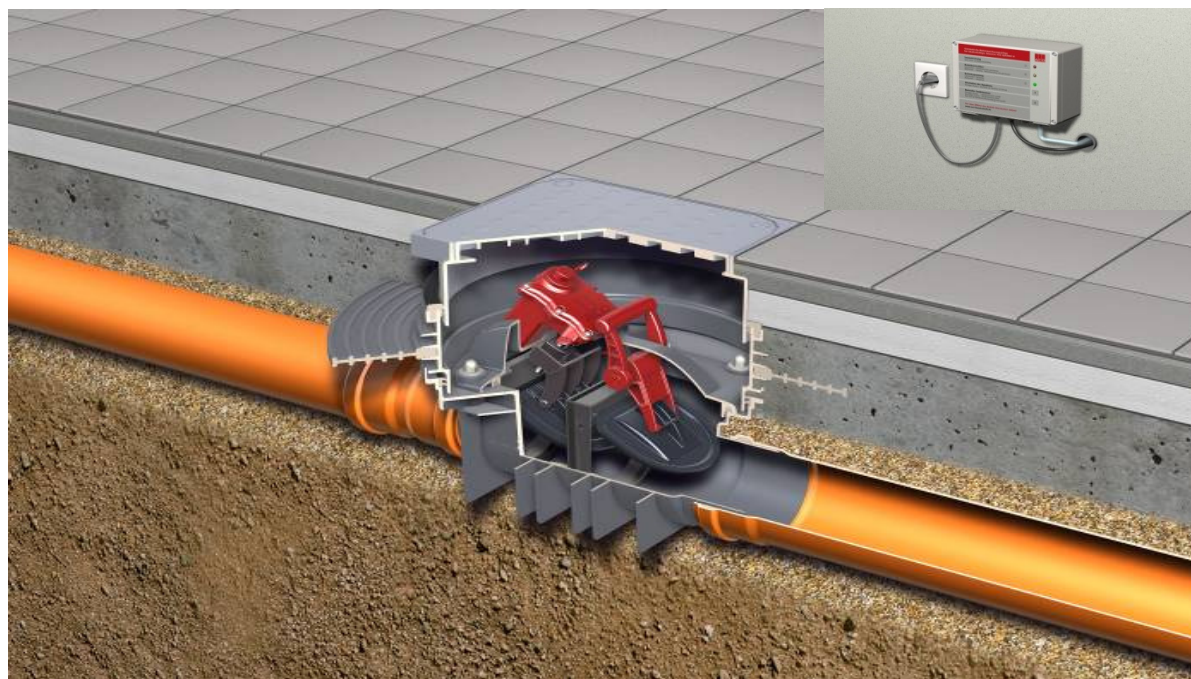
## Ugradnja iznad zemlje - QUATRIX-K







## Ugradnja u podu - QUATRIX-K





## Izbor proizvoda – check lista

