

# Infiltration Tunnel / twin





# filtration

# Infiltration Tunnel / twin

The logistical miracle – can be laid in rows



## Easy installation

The GRAF Infiltration Tunnels are laid in lines and can be flexibly adapted to specific conditions and to the individual storage volume requested. The installation of the modules is easy, quick and variable. The installation is possible without heavy equipment, as one Infiltration Tunnel only weighs 11 gram (24.3 lbs). The tunnel modules are simply stuck together in one line and equipped with 2 end plates per line.



AT-15-7439/2009



## Infiltration Tunnel twin – Twice the volume with the same space requirement

Upon request, the Infiltration Tunnel twin 600 litres (158 US gal.) offers volume through the connection of two identical Infiltration Tunnel modules.



## Up to 12,000 litres infiltration volume per pallet

Thanks to its special design, the GRAF Infiltration Tunnel can be stacked easily. Consequently, the shipment of up to 40 Infiltration Tunnels on one pallet saves considerable transport and storage costs.



- up to 500,000 litres per lorry
- 975 items per 40" HC container



### 300 l Volume

The compact dimensions combined with a storage coefficient of 100 % result in a useful volume of 300 l (79 US gal.).

### Lorry-bearing up to 60 tons

In order to enable the free arrangement of surfaces above it, the Infiltration Tunnel features long-term resistance with 59 kN/m<sup>2</sup> (Infiltration Tunnel twin 35 kN/m<sup>2</sup>) and is therefore lorry-bearing.

### 100 % storage volume

The typical shape of the Infiltration Tunnel enables complete utilisation of the available volume for the temporary storage of rainwater.

### Connections up to DN 300 (12")

Large infiltration volumes require large pipe diameters. For the GRAF Infiltration Tunnel, this is not a problem: each end plate features connections in the sizes DN 100 (4"), 150 (6"), 200 (8") and 300 (12"). In addition, connections in the sizes DN 100 (4") and 200 (8") are provided on the upper surface for the connection of a ventilation system or an inspection opening.

### High infiltration performance

The ditch elements are placed directly upon an even layer of gravel. The sides are then covered with geotextile and the end faces are closed using end plates. This installation and the side slats ensure a permanent high infiltration performance.

### Installation depth of over 4 metres (13' 1.5")

The GRAF Infiltration Tunnel can be installed at a depth of up to 4.25 metres (13' 11"), even under heavy loads. The maximum installation depth for the Infiltration Tunnel twin is 2.5 metres (8' 2.4").



# Infiltration Tunnel / twin Ditch system



**Infiltration ditch body**

**Infiltration Tunnel**  
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**Infiltration Tunnel twin**  
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**Infiltration ditch body accessories**

**Deaeration end, geotextile, and connectors**  
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**Infiltration Tunnel/twin end plate**  
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**Shaft**

**Infiltration shaft DN 400 (16")**  
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**Infiltration shaft DN 600 (24")**  
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**Shaft accessories**

**Telescopic dome shaft pedestrian loading**  
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Mini      Maxi

**Telescopic dome shaft vehicle loading max. load 3.5 t**  
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**Telescopic dome shaft lorry bearing**  
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**Infiltration connecting piece DN 400 (16")**  
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**Infiltration connecting piece 1000 DN 600 (24")**  
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**Filter strainer DN 400 (16") / DN 600 (24")**  
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**Infiltration choke drain DN 100 (4") / DN 150 (6")**  
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# Infiltration Tunnel / twin



## Infiltration Tunnel lorry

Volume	Length	Width	Height	Weight	Colour	Order no.
300 l (79 US gal.)	1160 mm (45.7")	800 mm (31.5")	510 mm (20")	11 kg (24.4 lbs)	black	230010

[Webcode G4103](#)



## Infiltration Tunnel twin car

Consisting of two tunnels and 1 set of click-bolt connectors

Volume	Length	Width	Height	Weight	Colour	Order no.
600 l (158 US gal.)	1160 mm (45.7")	800 mm (31.5")	1020 mm (40")	22 kg (48.8 lbs)	black	410130

[Webcode G4104](#)



## End plate for Infiltration Tunnel / twin

Item	Colour	Order no.
End plates (Set of 2 units)	black	231004

## Infiltration Tunnel / twin accessories

### Inspection end

DN 200 (8")

Order no. 340527



### Deaeration end

DN 100 (4")

Order no. 369017



### GRAF click-bolt connectors

Connector for Infiltration Tunnel twin (set of 6 for one Infiltration Tunnel twin car)

Order no. 410094



### GRAF-Tex geotextile

For one Infiltration Tunnel  
Size of 2.50 x 2.50 m (8' 2.4" x 8' 2.4")

Order no. 231006



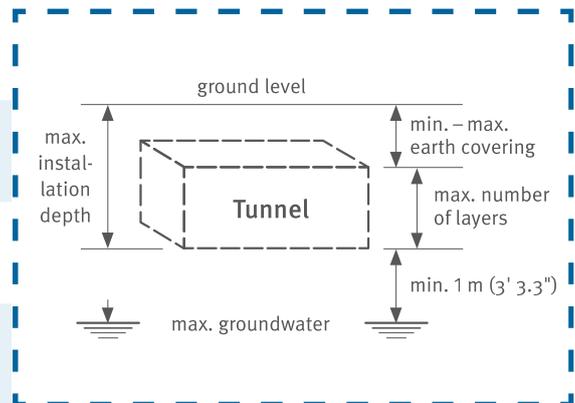
Sold by the metre, roll width 5 m (16' 4.8")

Order no. 231002

Sold by the metre, roll width 2,5 m (8' 2.4")

Order no. 231007

Infiltration module		Infiltration Tunnel lorry	Infiltration Tunnel twin car
Gross / net volume		300 litres (79 US gal.)	600 litres (158 US gal.)
<b>Load</b>			
Load	Short-term	max. 100 kN/m <sup>2</sup>	max. 75 kN/m <sup>2</sup>
	Long-term	max. 59 kN/m <sup>2</sup>	max. 35 kN/m <sup>2</sup>
Without traffic load	min. earth covering	250 mm (9.8")	250 mm (9.8")
	max. earth covering	3750 mm (12' 3.2")	1500 mm (4' 10.3")
	max. installation depth	4250 mm (13' 11.3")	2500 mm (8' 2.4")
Vehicle	min. earth covering	250 mm (9.8")	500 mm (16.7")
	max. earth covering	3500 mm (11' 5.4")	1500 mm (4' 10.3")
	max. installation depth	4000 mm (13' 1.5")	2500 mm (8' 2.4")
Lorry 12/H-10/H-15	min. earth covering	500 mm (16.7")	
	max. earth covering	3250 mm (10' 7.5")	
	max. installation depth	3750 mm (12' 3.6")	
Lorry 30	min. earth covering	500 mm (16.7")	
	max. earth covering	2750 mm (10' 7.6")	
	max. installation depth	3250 mm (10' 8")	
Lorry 40/HS-20	min. earth covering	500 mm (16.7")	
	max. earth covering	2500 mm (8' 2")	
	max. installation depth	3000 mm (9' 10.1")	
Lorry 60/HS-25	min. earth covering	750 mm (29.5")	
	max. earth covering	1750 mm (5' 8.5")	
	max. installation depth	2250 mm (7' 4.6")	


**Connections upper side**

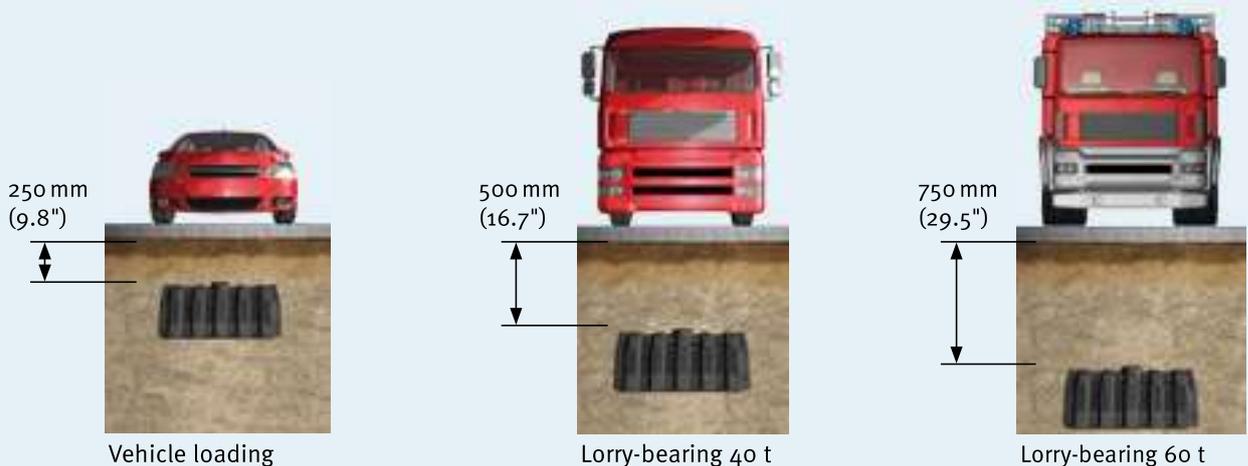
DN 100 (4")	2 x	4 x
DN 150 (6")	1 x	2 x
DN 200 (8")	1 x	2 x
DN 300 (12")	1 x	2 x

**Connections upper side**

DN 100 (4")	1 x	1 x
DN 200 (8")	1 x	1 x

**Measurements**

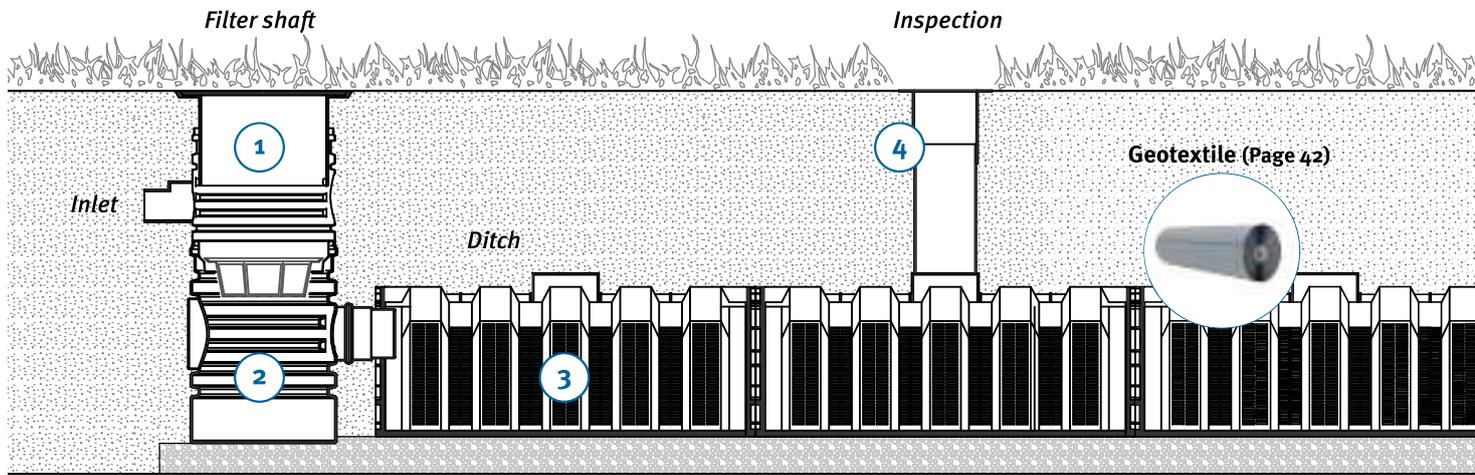
Length	1160 mm (45.7"), 1220 mm (48") (incl. end plates)	
Width	800 mm (2' 7.5")	
Height	510 mm (24")	1020 mm (48")
Weight	approx. 11 kilos (24.2 lbs)	approx. 2 x 11 kilos (2 x 24.2 lbs)



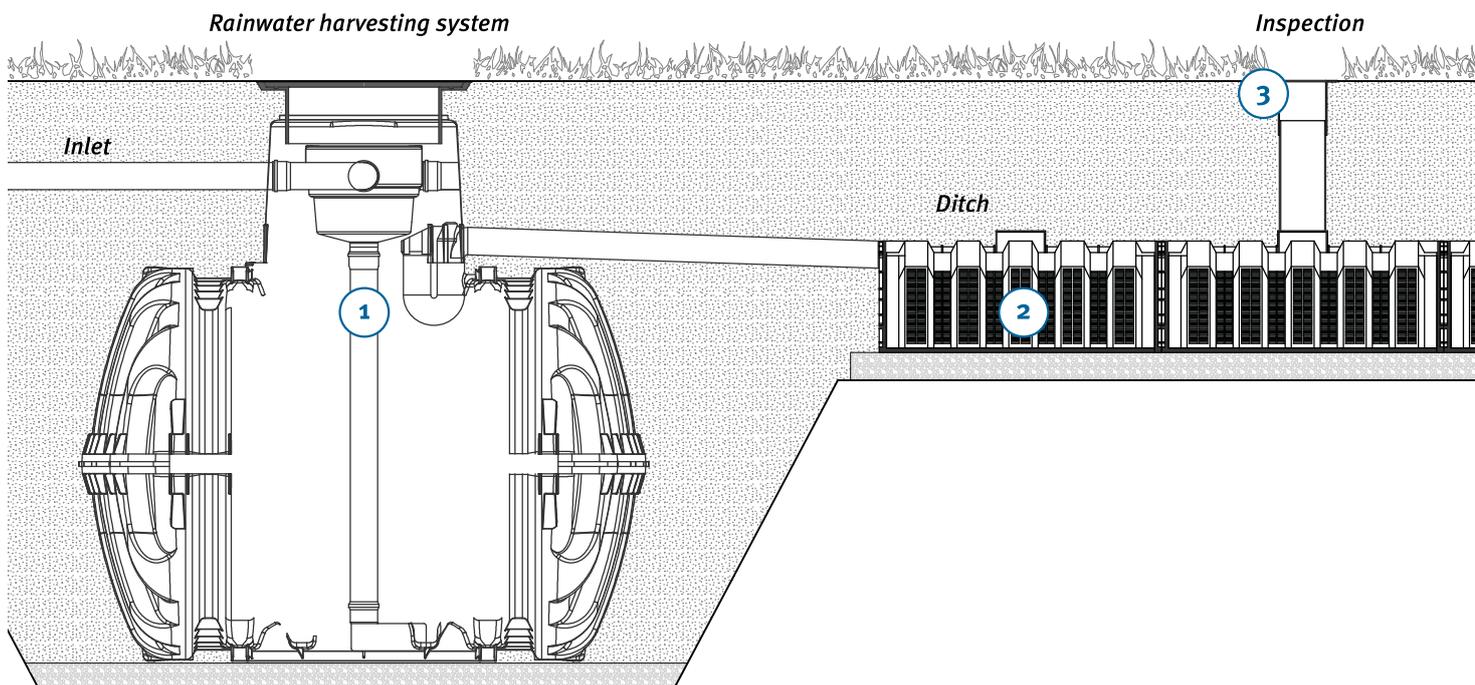
# Infiltration Tunnel / twin

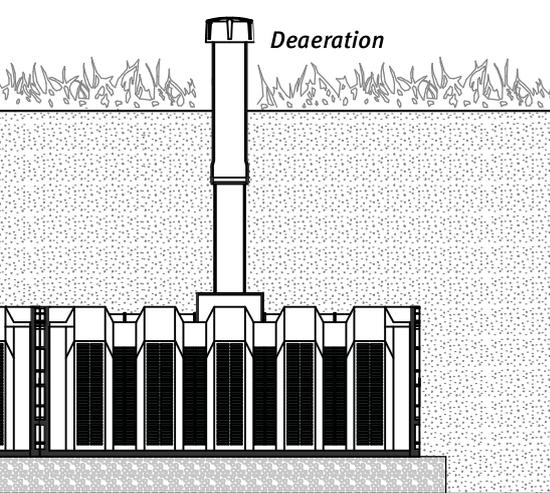
Areas of application

## Ditch infiltration with Infiltration Tunnel



## Combined rainwater harvesting and infiltration with Infiltration Tunnel





**1 Telescopic dome shaft**



- Choice of pedestrian, car or HGV loading

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**2 Infiltration shaft DN 400 (16")**



- 2 x DN 150 (6")
- For connections of up to DN 150 (6")

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**3 Infiltration Tunnel**



- The logistical miracle – can be laid in rows

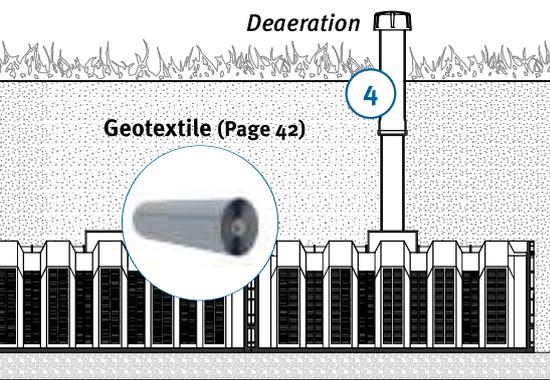
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**4 Inspection end**



- DN 200 (8")

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**1 Rainwater harvesting**

You can find more information about our Carat S Rainwater tank in our catalogue, "Rainwater harvesting solutions"



**2 Infiltration Tunnel**



- The logistical miracle – can be laid in rows

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**3 Inspection end**



- DN 200 (8")

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**4 Deaeration end**



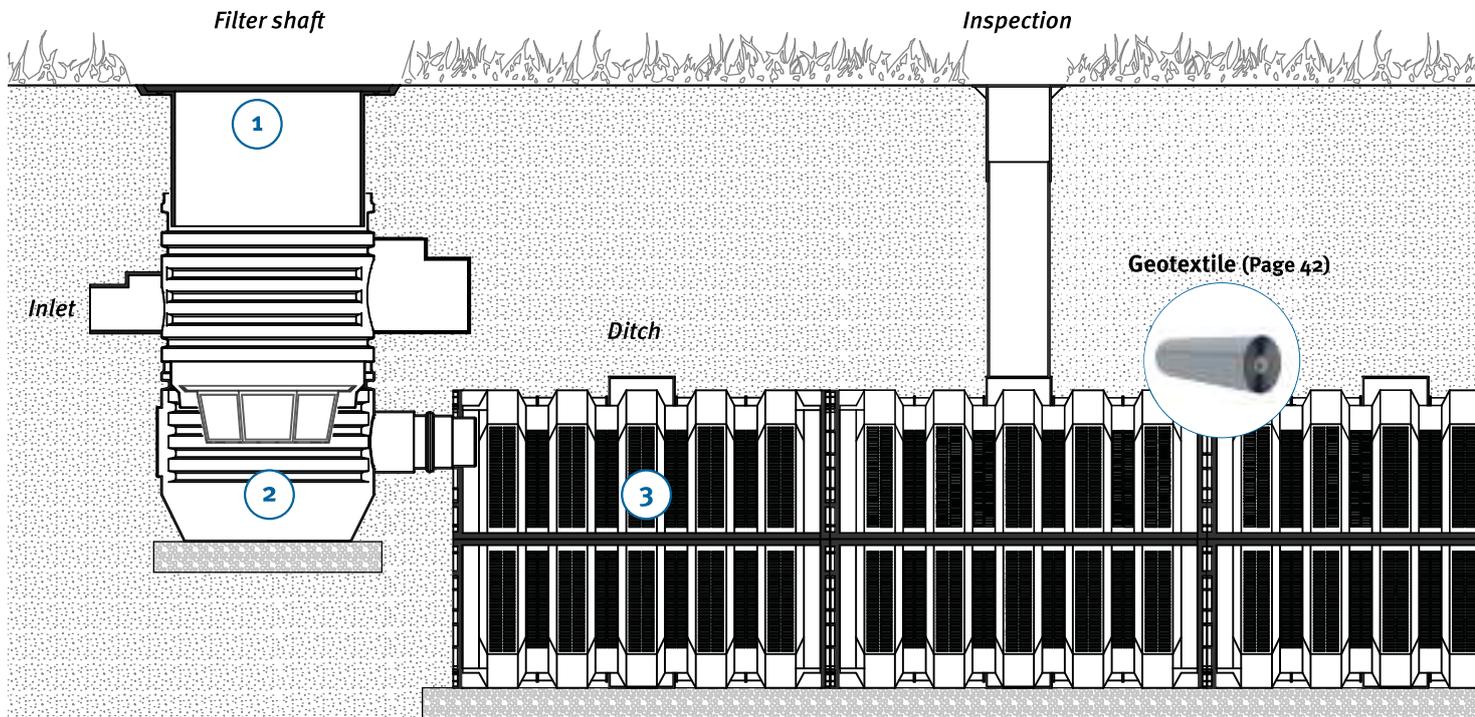
- DN 100 (4")
- For separate ventilation

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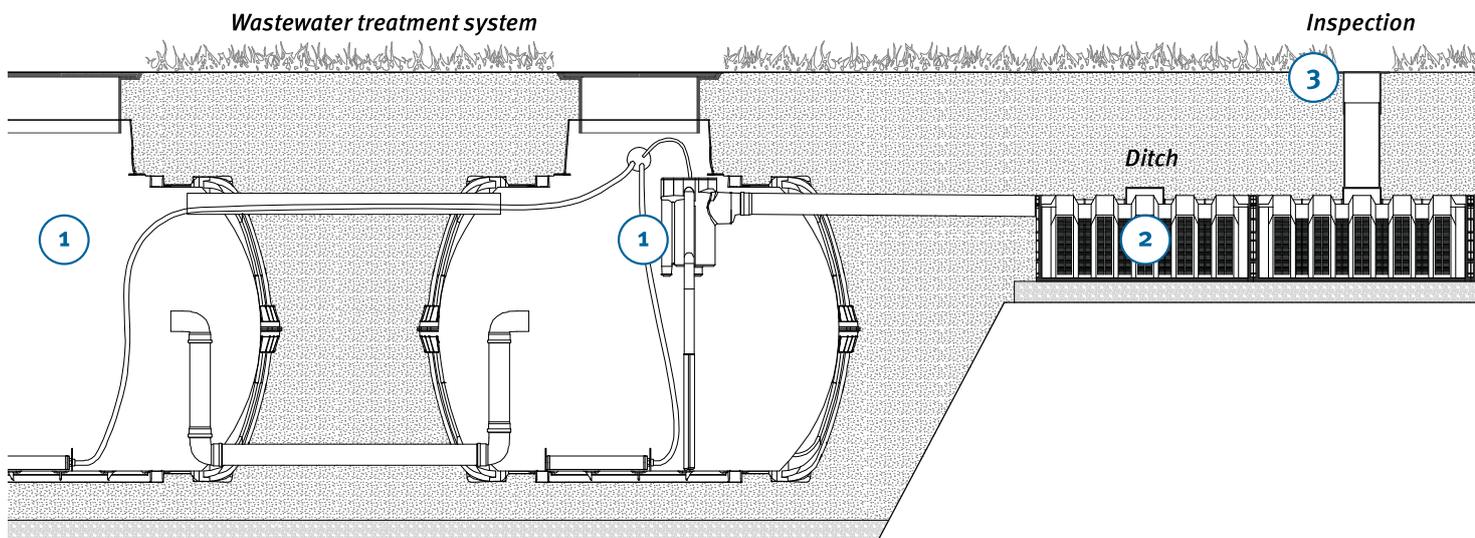
# Infiltration Tunnel / twin

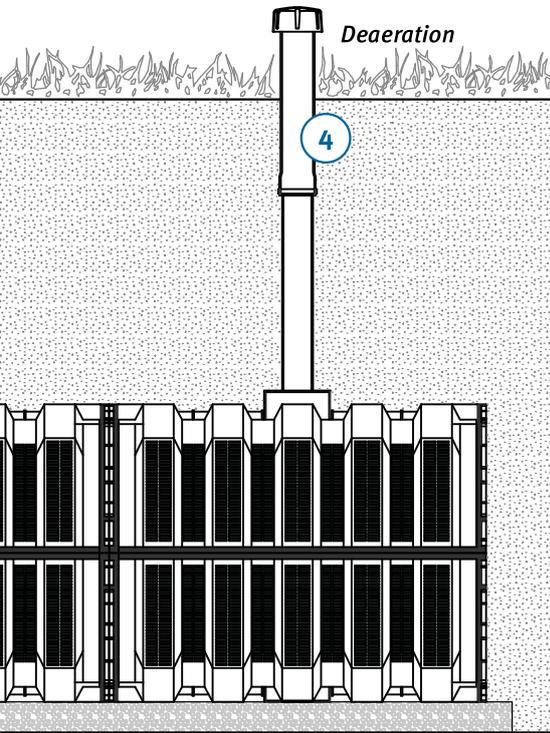
Areas of application

## Ditch infiltration with Infiltration Tunnel twin



## Combined wastewater treatment and infiltration with Infiltration Tunnel





**1 Telescopic dome shaft**



- Choice of pedestrian, car or HGV loading

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**2 Infiltration shaft DN 600 (24")**



- 2 x DN 150 (6")
- For connections of up to DN 150 (6")

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**3 Infiltration Tunnel twin**



- Twice the volume with the same space requirement

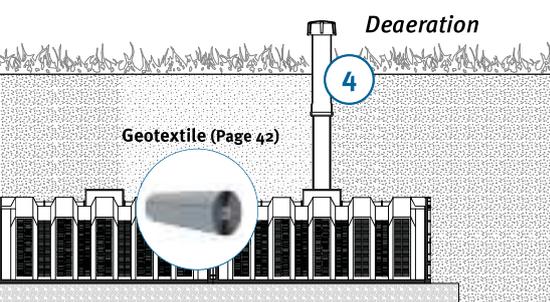
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**4 Deaeration end**



- DN 100 (4")
- For separate ventilation

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**1 Wastewater treatment**

You can find more information about wastewater treatment in our catalogue, "Wastewater Treatment Solutions"



**2 Infiltration Tunnel**



- The logistical miracle – can be laid in rows

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**3 Inspection end**



- DN 200 (8")

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**4 Deaeration end**



- DN 100 (4")
- For separate ventilation

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