

Tervetuloa!

Mikael Holmberg
ANRIN Nordic



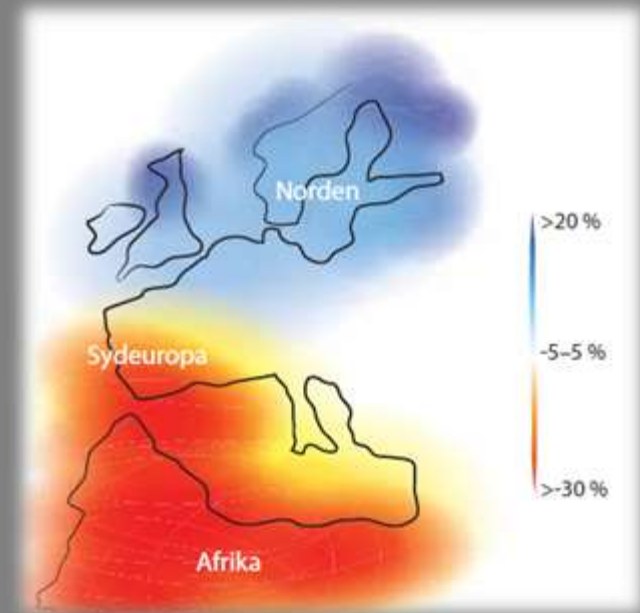
ANRIN

- Manufacturer and marketing of drainage system for installation in various areas
- Since 1971/2017
- ANRIN Nordic HQ in Stockholm
- Partner in Finland = EG-Trading
- Production in Anröchte, Germany
- Certified in accordance with DIN EN ISO 9001:2008
- Own test laboratory and workshop

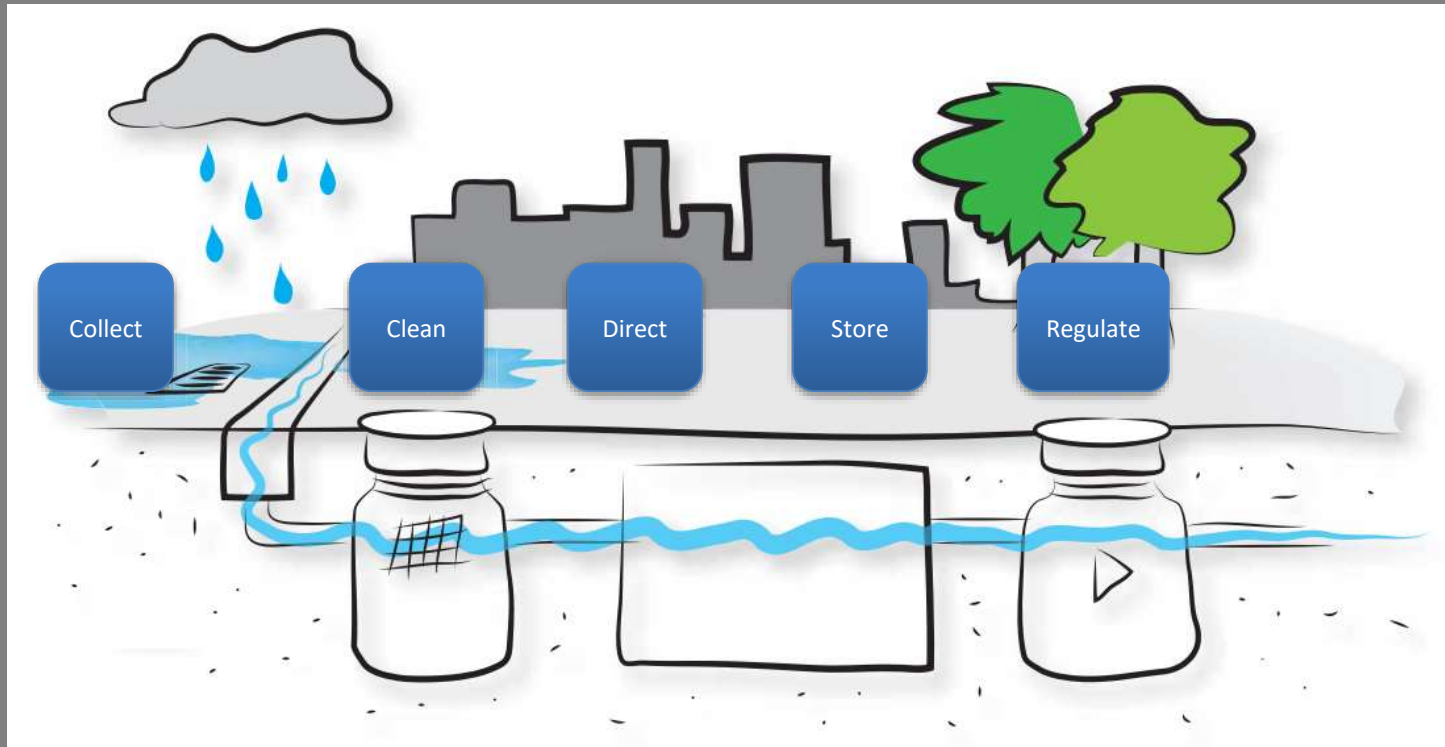


The challenge of today and tomorrow

- Increase of rain and snow already
- Big climate changes next 100 years
- Some reports says increase of 20% of rain!
- This means high demand on dewatering systems!



Different phases of collecting daywater



How should we plan a project?

Collect

From?
Manholes
Or
Drain channels

Surface

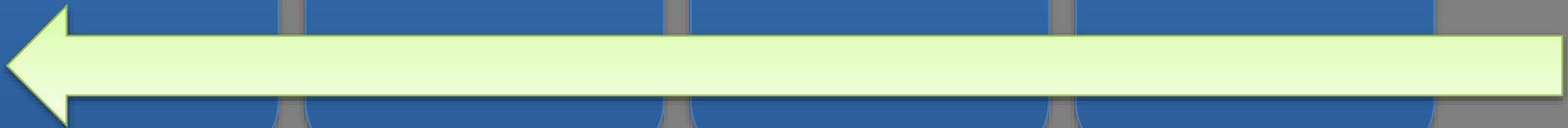
Area of collect?
Asphalt?
Pavers?
Concrete?

Cleaning?

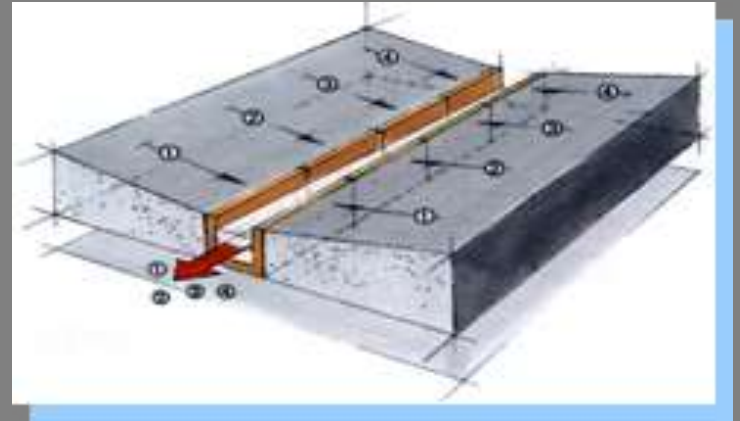
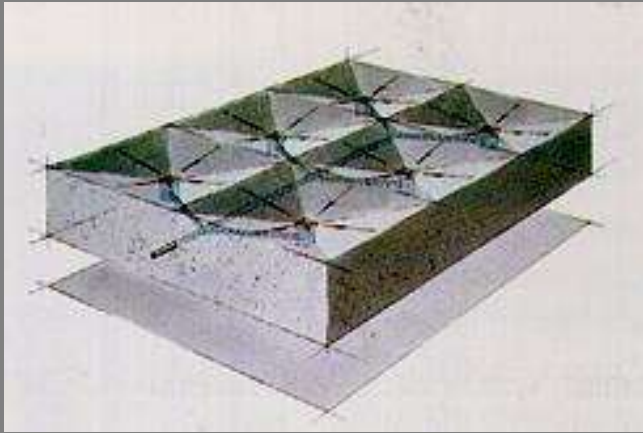
Is it needed?
From?
Oil, fat, heavy metals
or sediment?

Recipient

Where will the water
go? Storage?
Infiltration? Capacity
of pipes etc?



Manholes vs. Drainage channels



Area of collect - summarize

- Where are the collecting of daywater needed?
- Big areas, length and Capacity?
- Loadclasses?



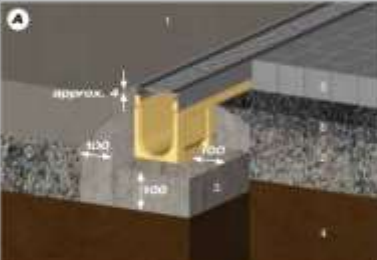
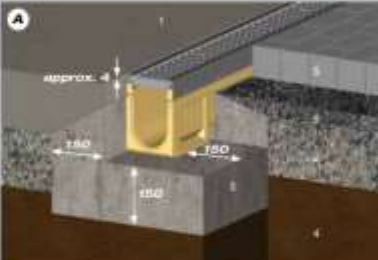
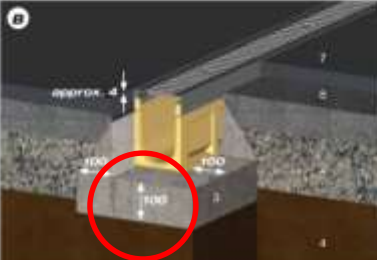
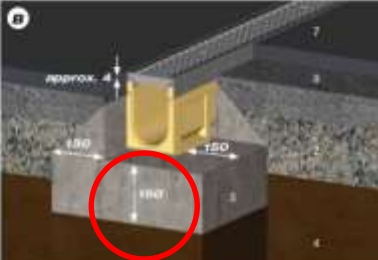
Loadclasses





According to the standard EN-1433

Loadclass	Typical application area	SELF	KE	SF
A15	Pedestrian and cycles, green areas.	Green	Green	Green
B125	Squares, garages and walklanes	Green	Green	Green
C250	Small lorries	Red	Green	Green
D400	Roads, parkinglots	Red	Green	Green
E600	Industrial areas, harbours	Red	Green	Green
F900	Airports, harbours, Heavy industries	Red	Red	Green



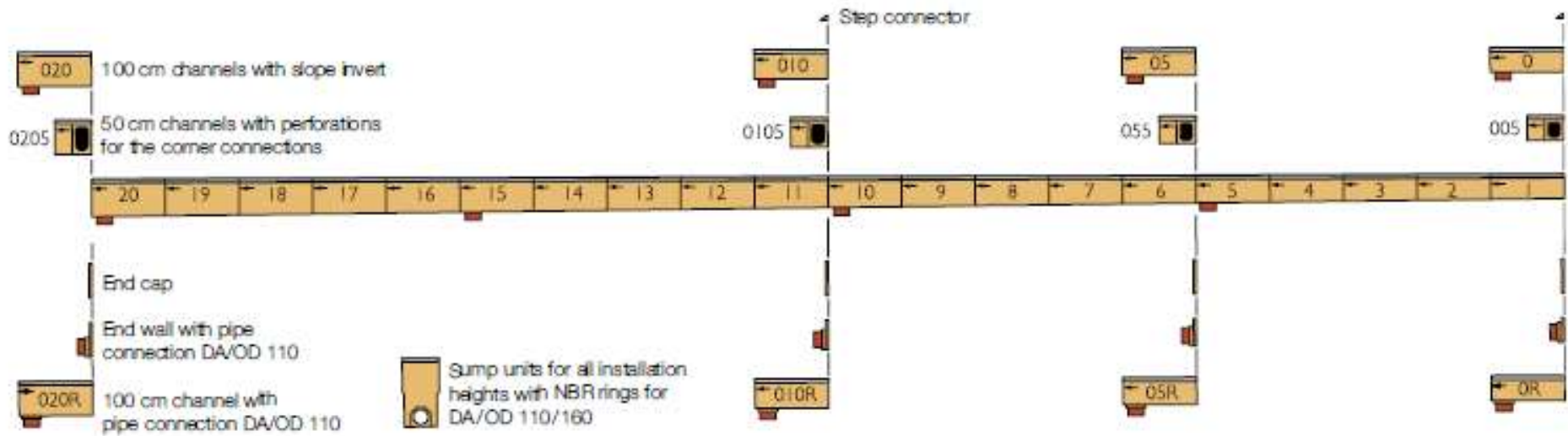
Load Classes – Building Instructions

A 15	B 125
<ul style="list-style-type: none"> (A) Road concrete and/or concrete sheets or paving bed (B) Cast asphalt 	<ul style="list-style-type: none"> (A) Road concrete and/or concrete sheets or paving bed (B) Cast asphalt
	
	

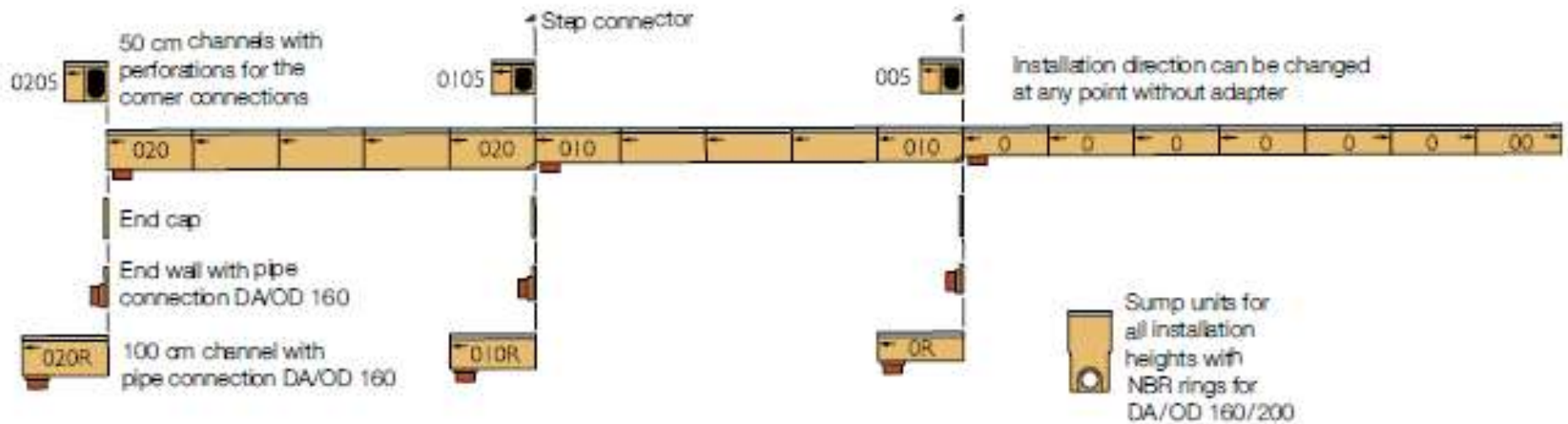
SF-200	SF-300
<ul style="list-style-type: none"> (A) Road concrete and/or concrete sheets or paving bed (B) Cast asphalt 	<ul style="list-style-type: none"> (A) Road concrete and/or concrete sheets or paving bed (B) Cast asphalt
	
	



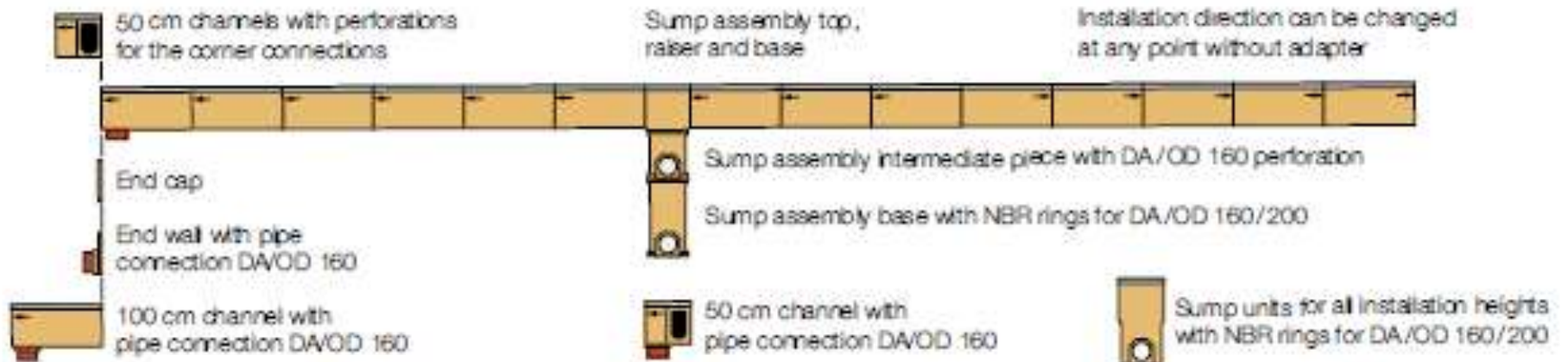
Slope or not?



Slope or not?

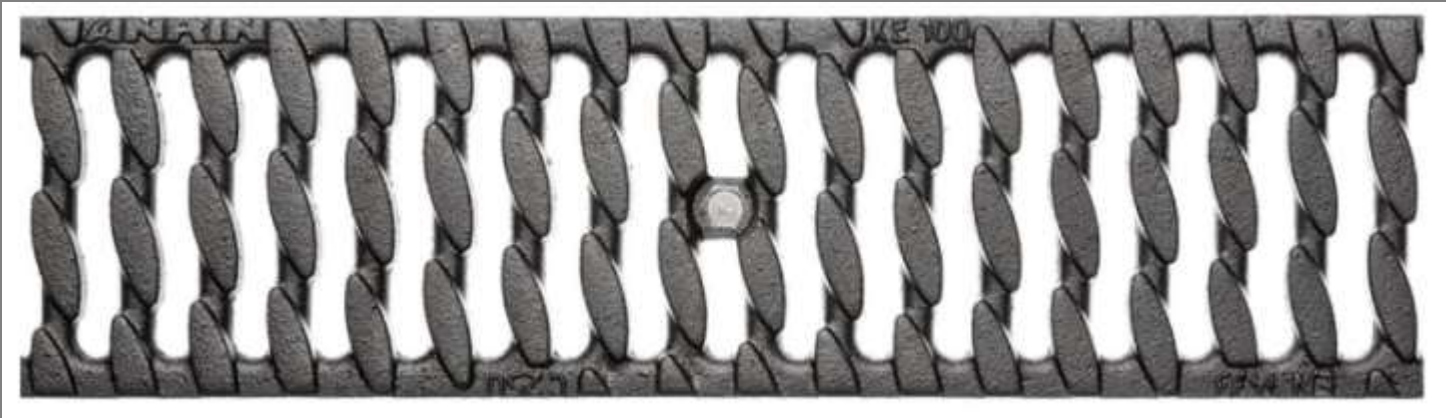


Slope or not?



OvalGrip

- 15-20% more effective!
- Exclusive design



The basis polymer concrete

Composite of naturally existing mineral quartzes and reaction-resins.

Main characteristics:

- great field of applications chemical-resistant, ultra-strong
- durable resistant against frost and de-icing salt
- low-maintenance high self-cleaning effect
- easy handling low weights of elements
- ecological suited for potable water, recyclable



Technical data:

- Bending strength: > 22 N/mm²
- Compressive strength: > 90 N/mm²
- Modulus of elasticity: ca. 25 kN/mm²
- Density: 2,1 – 2,3 g/cm³
- Water penetration depth: 0 mm



SELF

Channel for easy installations

- Only without slopes
- Complete with sumpunits
- Width 100-200mm
- Loadclass up to B125 (SELF200 up to C250)
- 6, 8, 10 and 15 cm height
- Three different gratings
- SELF 100=4,5 l/s
- UniLink system



ANRIN UNILINK Joint System

- Patented, innovative joint system
- Independent of laying direction
- Allows independent planning
- No additional adaptors
- For watertight sealing



ANRIN



KE

- Reinforced channels
- Loadclass up to E600
- 100-200mm width
- With or without slopes
- Sumpunits
- Designgratings
- From 6cm heights
- KE-100 No. 0 = 6 l/s
- KE-150 No. 0 = 10 l/s
- KE-200 No. 0 = 15 l/s

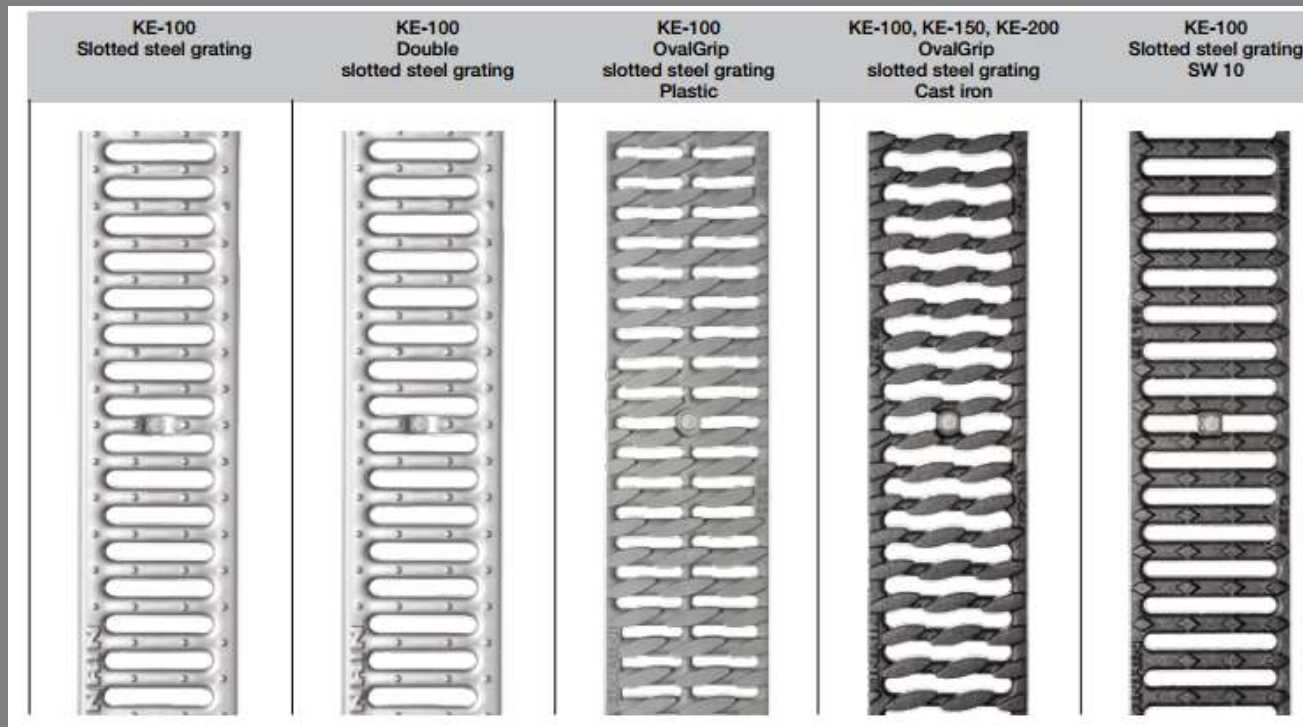


0 Punkt završeno o Chebské farmašti
4 Erste Erwähnung der Egerer Pfarrei
7 The Cheb parish first mentioned

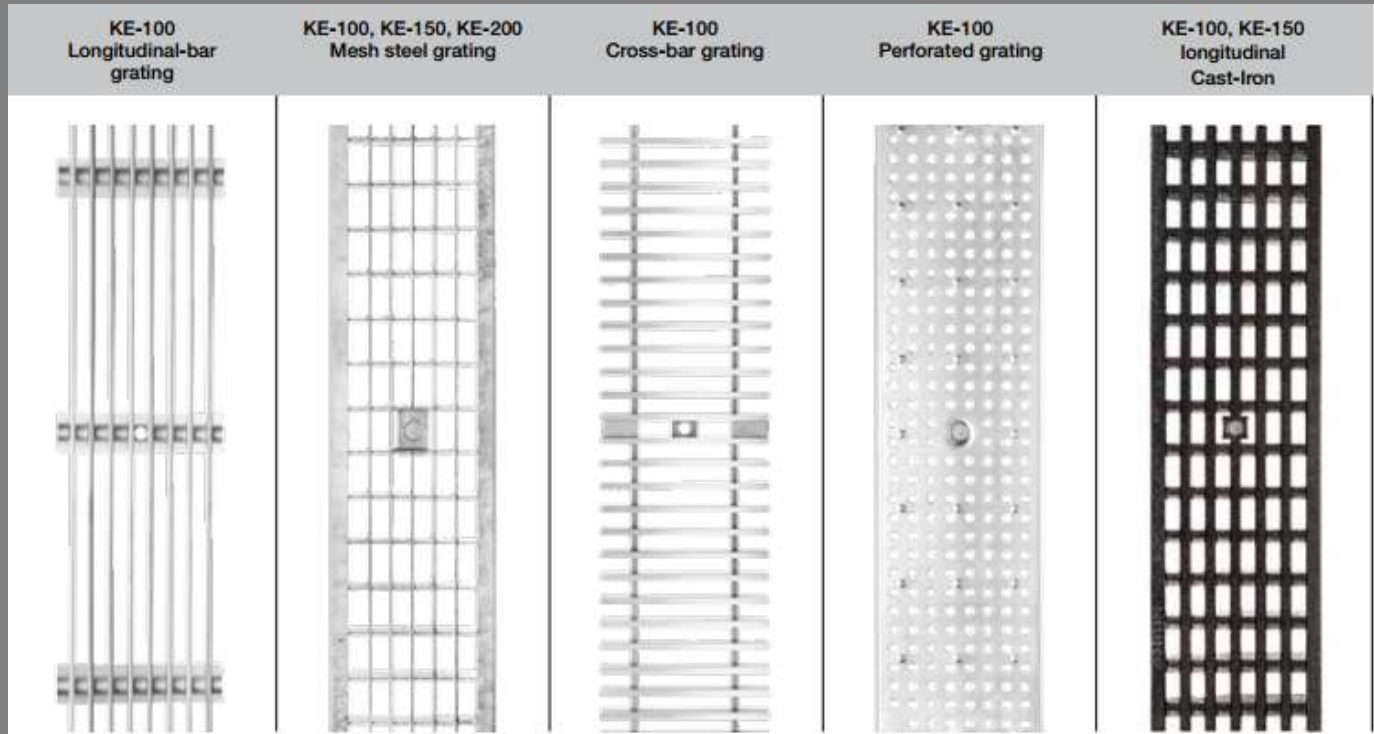
1146

ANRIN

Other KE gratings



Other KE gratings



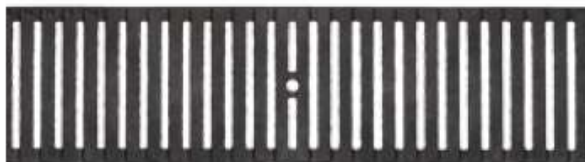
KE Design gratings



Designgaller, LEAF, obehandlad gjutjärn
Belastningsklass: C250, Längd: 50 cm, SW 11 mm



Designgaller, CELTIC, gjutjärn, pulverlackerad i svart
Belastningsklass: C250, Längd: 50 cm, SW 9 mm



Slitsat galler, HEELGUARD, gjutjärn, pulverlackerad i svart.
Belastningsklass: D 400*, Längd: 50 cm, SW 6 mm



Designgaller, MASSIV 32, obehandlad gjutjärn
Belastningsklass: E 600*, Length: 50 cm, SW 11 mm

SF

- Cast iron reinforced channels
- Loadclass up to F900
- 100-300mm width
- Flexible sumpunits
- From 10 cm heights
- RapidLock feature
- SF-100 No. 0 = 6 l/s
- SF-150 No. 0 = 10 l/s
- SF-200 No. 0 = 15 l/s



SF - RapidLock

- Self-locking
- Easy to open
- Locking mechanism in cast iron



ANRIN



Z-channel

- For discrete installation
- Galvanised steel or stainless steel
- With cleaning units
- Z-Channels = max. 1,0 l/s



ANRIN



ANRIN



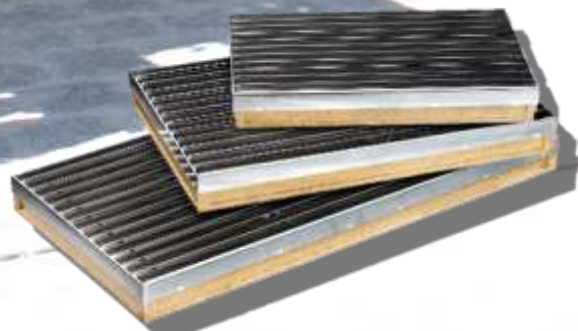
Sumpunits

- Two dimensions
- Including bucket for easy cleaning
- Outlet Width DN 110 = 6 l/s
- Outlet Width DN 160 = 12 l/s
- Outlet Width DN 200 = 60 l/s



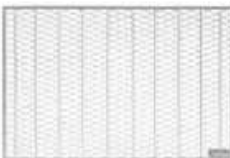
ANRIN



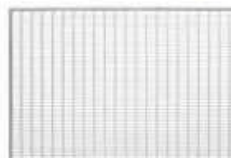


Cover gratings

Diamond grating,
galvanised



Mesh steel grating
MW 9 x 30, galvanised



Aluminium grating
with rubber strips



Aluminium grating
with needle-felt strips



ANRIN Sport

- Complete range for sport arenas
- Following IAAF's standards

ANRIN Sport Drainage Systems



ANRIN Sport
Drainage system 125
For sports arenas with
a raised turf field:



For sports arenas with
a equal height turf field:



Turf edge plate
For the external bordering of
running tracks:



ANRIN Sport
Tray channel drainage system
for type C and D sports arenas:



ANRIN Sport granulate tray channel
For rectangular synthetic
Turf fields:



ANRIN Sport drainage system
NW 100 / 125 synthetic turf:



Clamp stone



ANRIN Sport soft kerbing



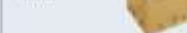
ANRIN Sport sand trap channel



ANRIN Sport spot intakes



ANRIN Sport cable distribution
shaft



ANRIN



ANRIN



Kiitos

- Mikael Holmberg
- Anrin Nordic
- Mail: mikael.holmberg@anrin.se
- Phone: +46 768-693535
- Local contact in Finland:

