Food and Agriculture Organization of the United Nations

МИНИСТАРСТВО ПОЉОПРИВРЕДЕ, ШУМАРСТВА И ВОДОПРИВРЕДЕ

Овај пројекат финансира Европска унија

#ЕУ ЗА ТЕБЕ

Пројекат:

Јачање отпорности сектора пољопривреде на елементарне непогоде

Поступци са стајњаком

Примери добре пољопривредне праксе

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065/6347 552

Ваљево

Октобар. 2024. године

VRSTE STAJNJAKA

TEČNI STAJNJAK

Suspenzija obe faze izlučevina sadrži:

- 5% SM kod svinja
- 7-9% SM kod goveda.

ČVRSTI STAJNJAK

Obe faze izlučevina sa prostirkom sadrži

- 25% SM
- 5 - 8 kg slame/grlo/dan
- 1kg slame : 4 lečne faze

Količine tečnog stajnjaka

Goveda m3/UG

Dnevna količina 55 lit/UG

Odnos faza

Čvrsta : tečna = 3:2

Svinje m3/UG

Dnevna količina 40 lit/UG

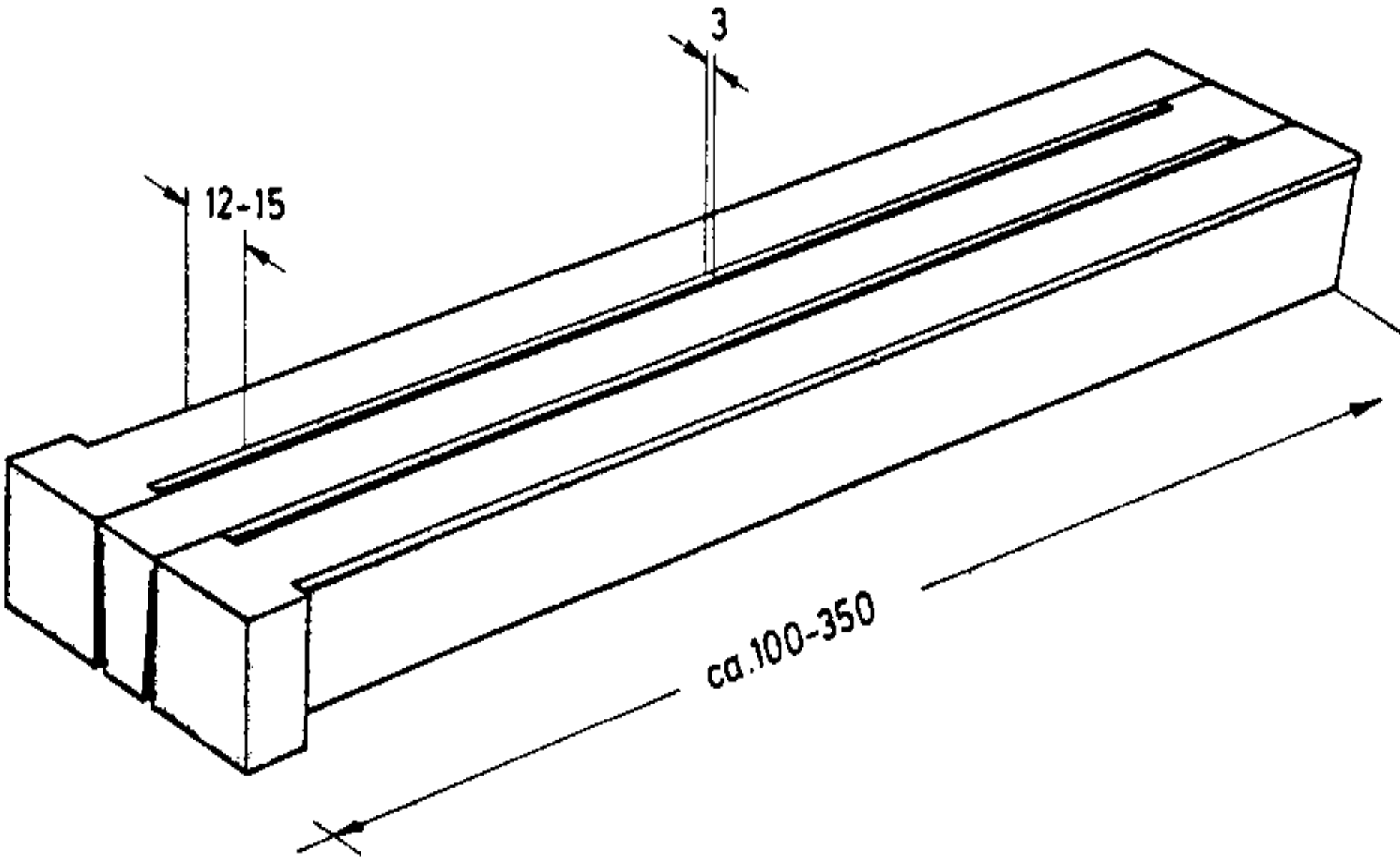
Odnos faza

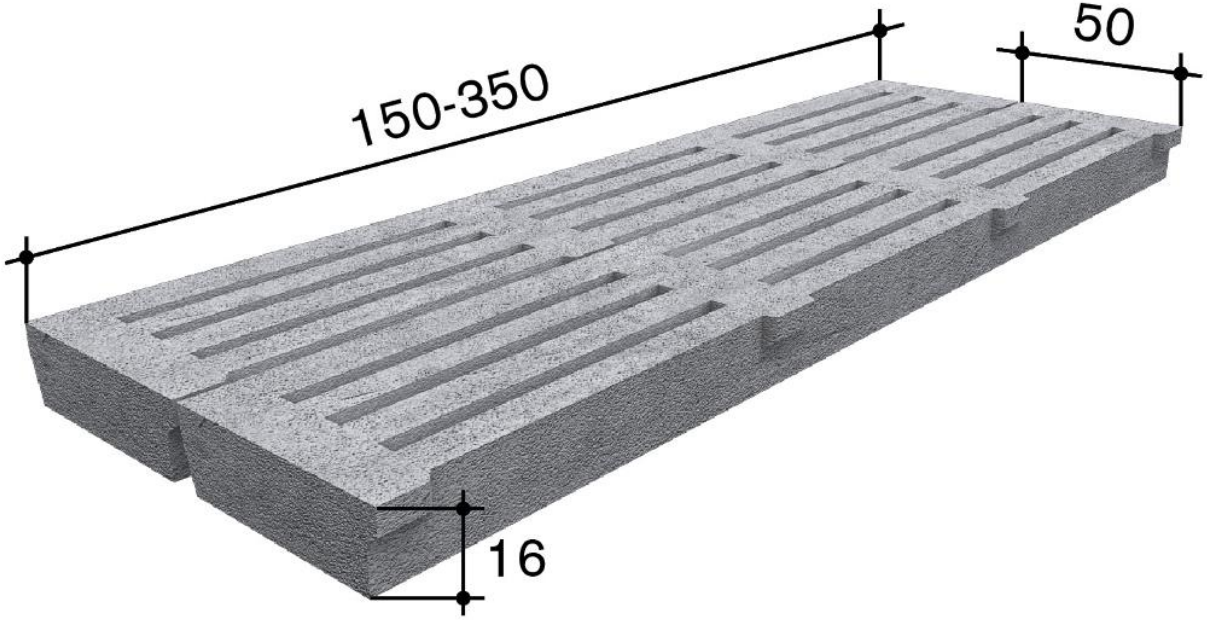
Čvrsta : tečna = 2:3

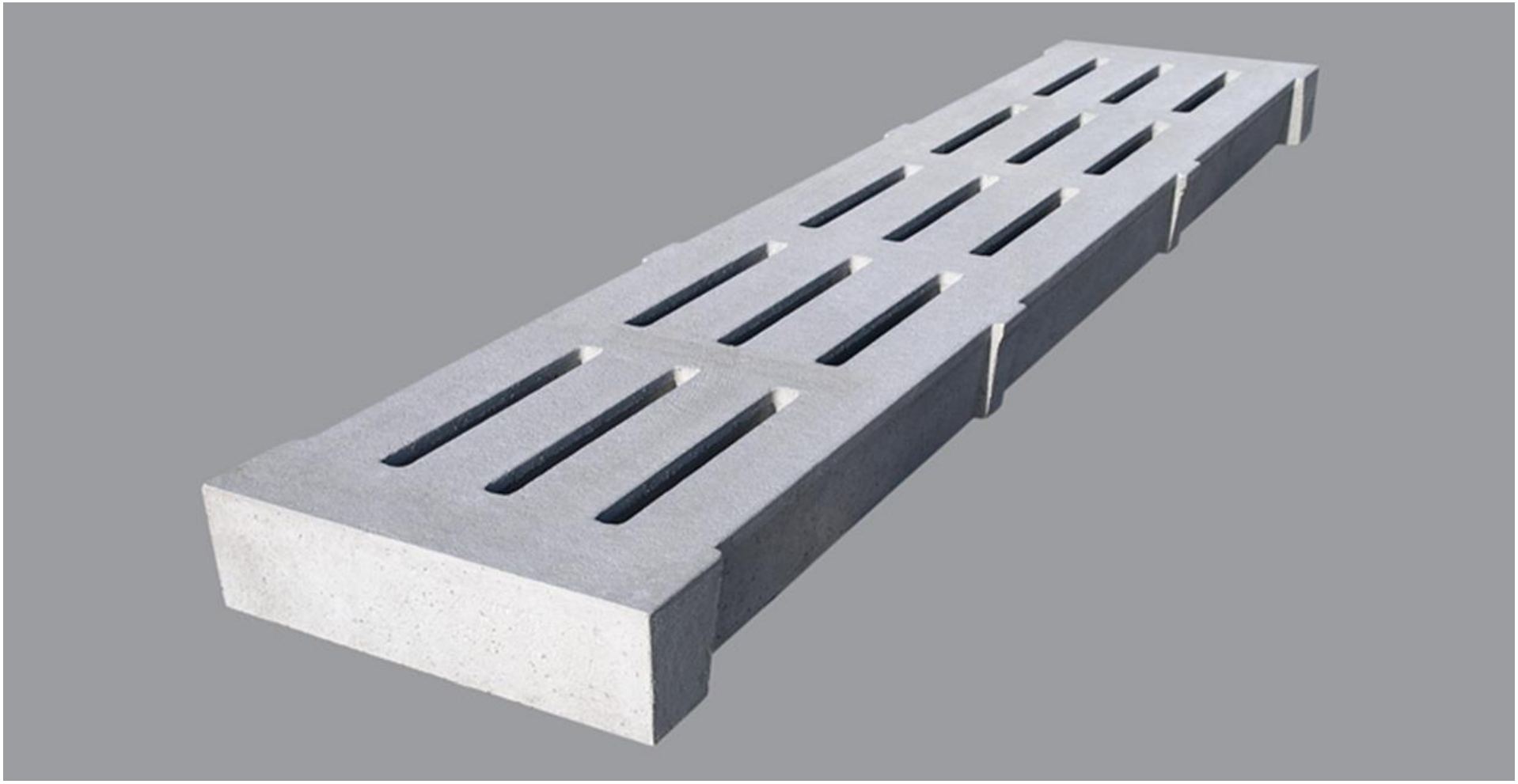
Uticaj sadržaja suve materije na sastav tečnog stajnjaka

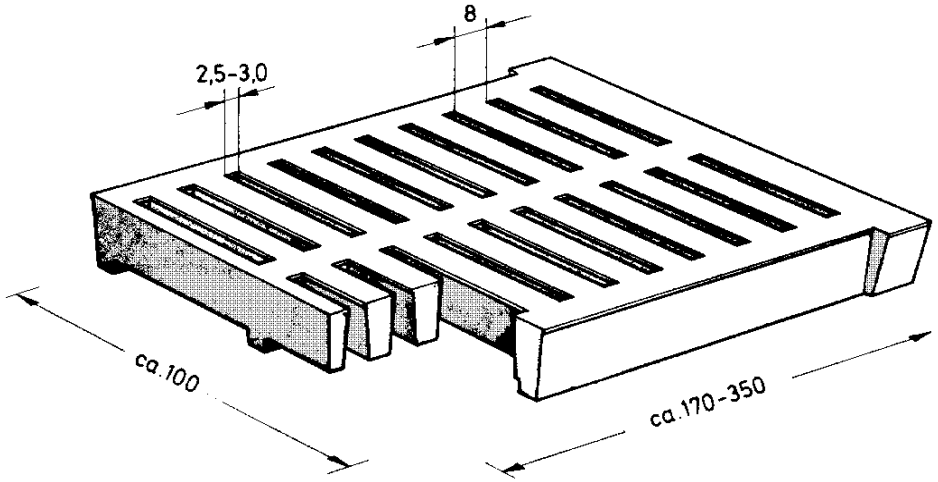
Suva materija (%)	N (kg/m^3)	P_2O_5 (kg/m^3)	K_2O (kg/m^3)	MgO (kg/m^3)	CaO (kg/m^3)
7	6,0	3,2	3,2	1,0	3,0
5	4,0	2,0	2,0	0,7	1,6
3	2,9	1,9	1,7	0,6	1,8
1	0,8	0,6	0,5	0,2	0,5

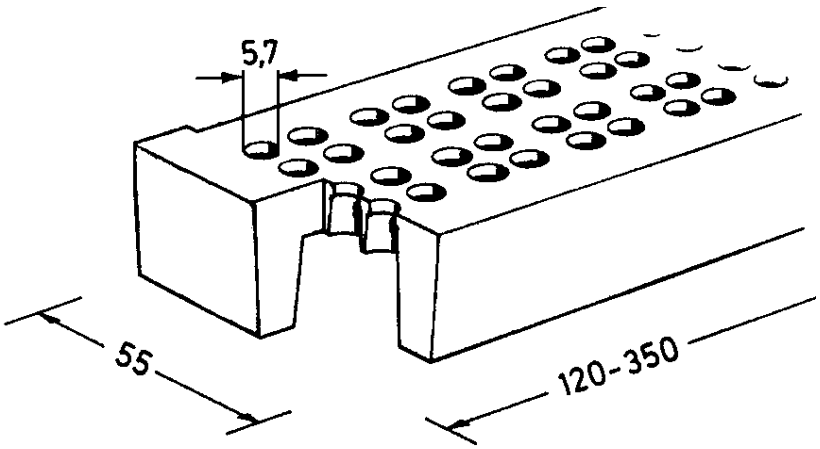
Uslovi za formiranje tečnog stajnjaka: kanali, rešetkasti podovi...

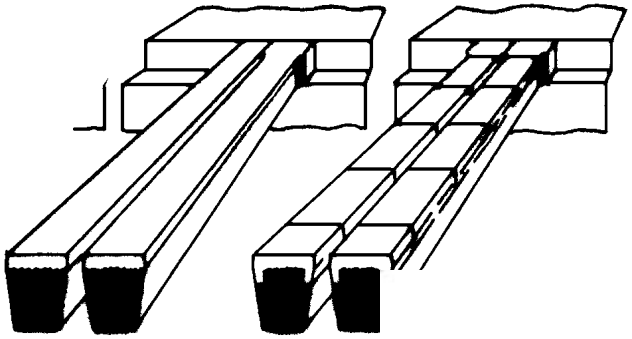

3
12-15
ca.100-350

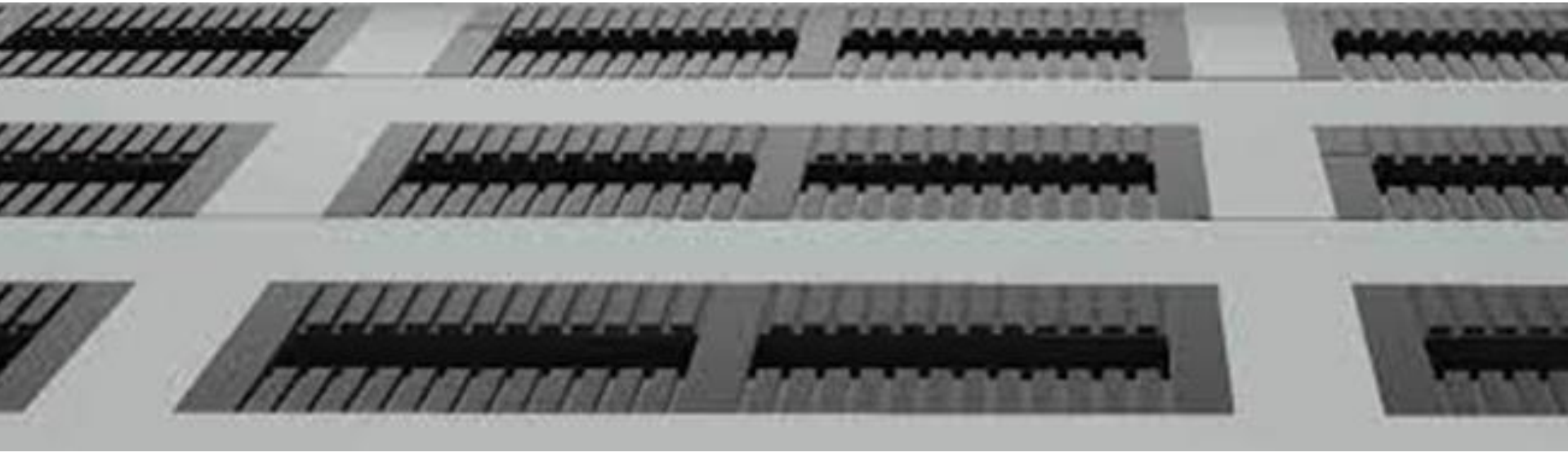

150-350
50
16




8
2,5-3,0
ca.100
ca.170-350

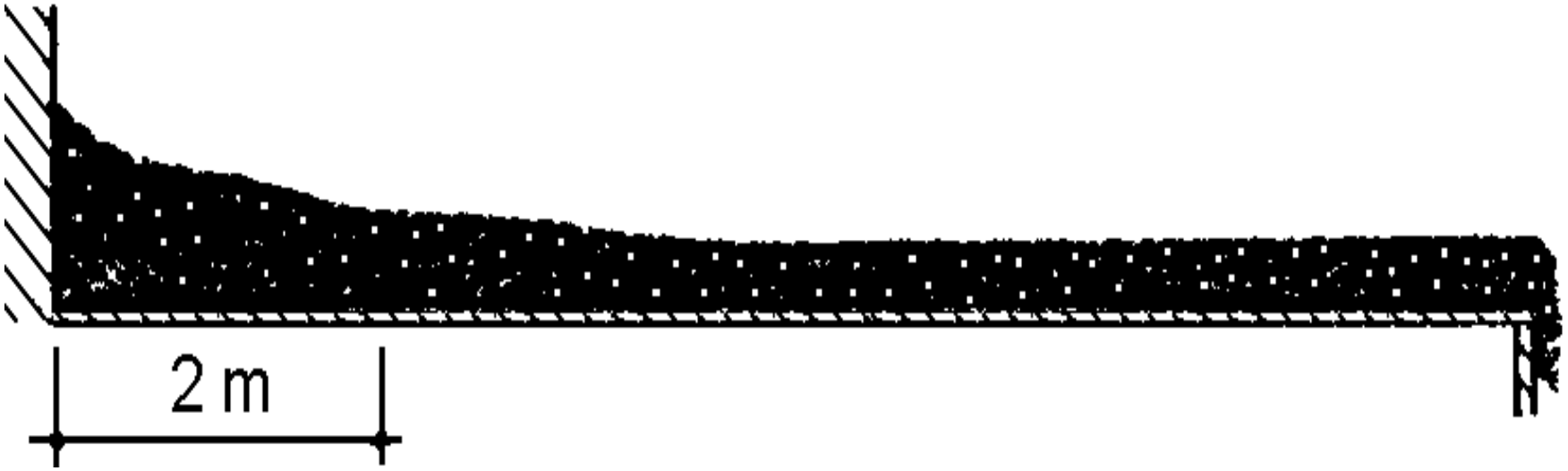

5,7
55
120-350

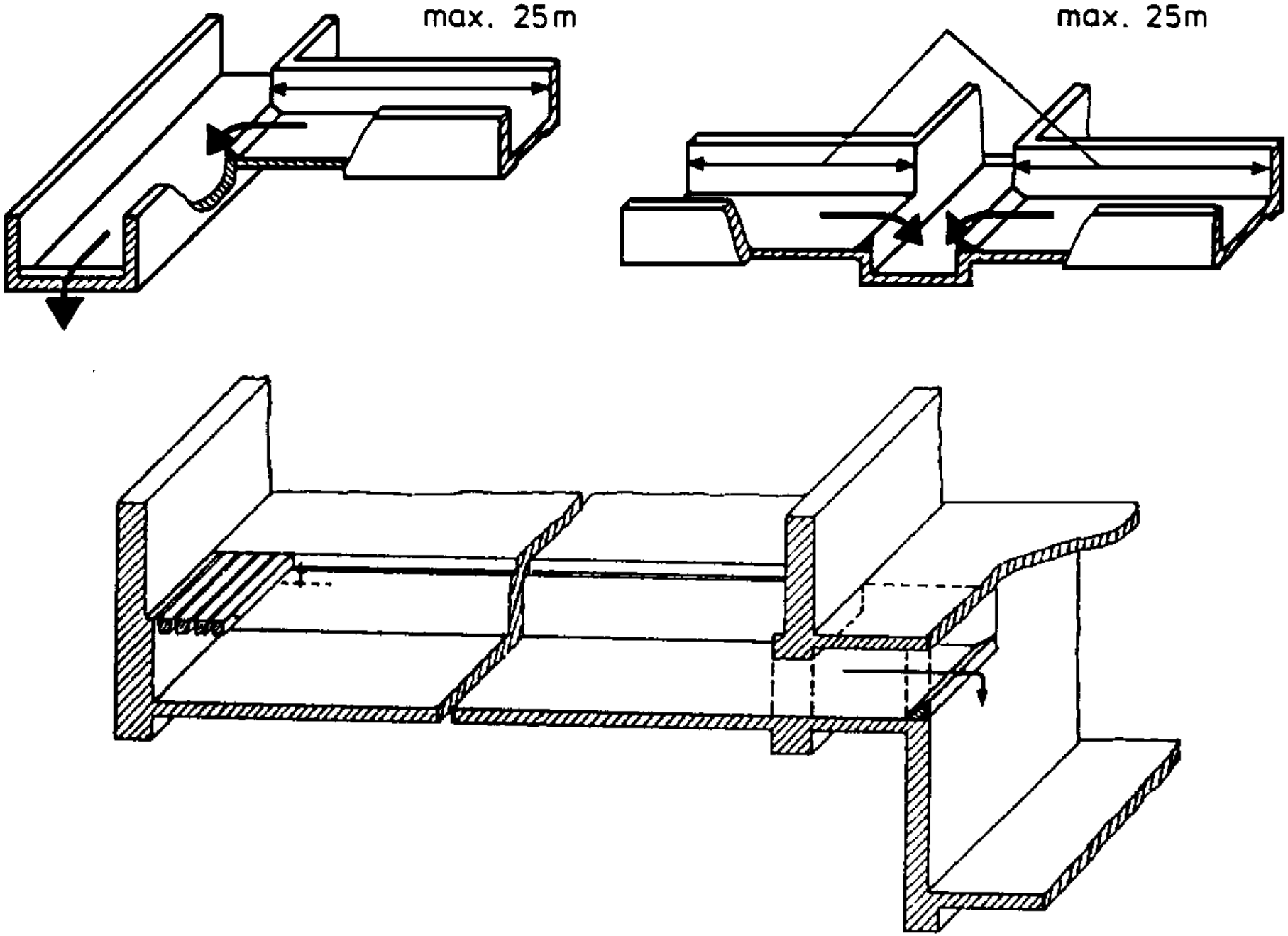


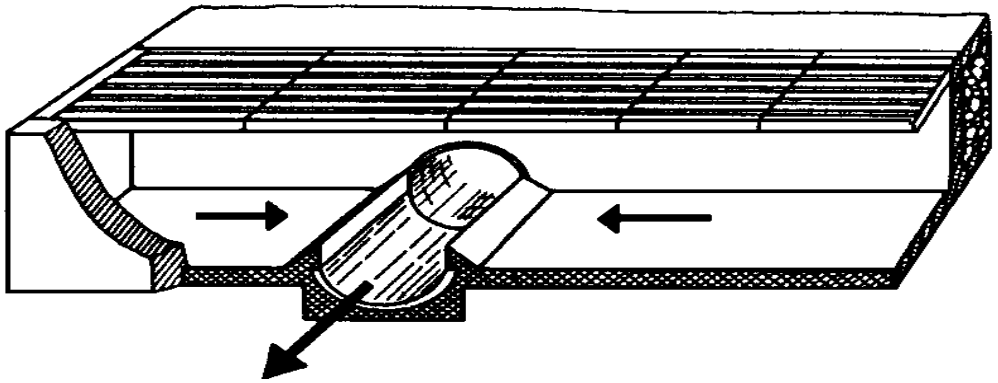


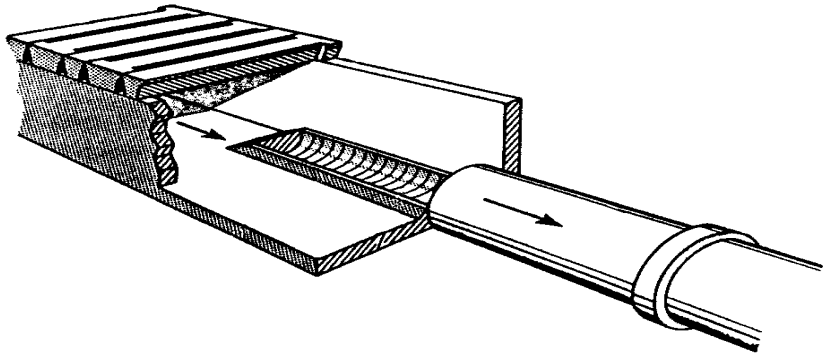
SISTEMI TEČNOG IZĐUBRAVANJA

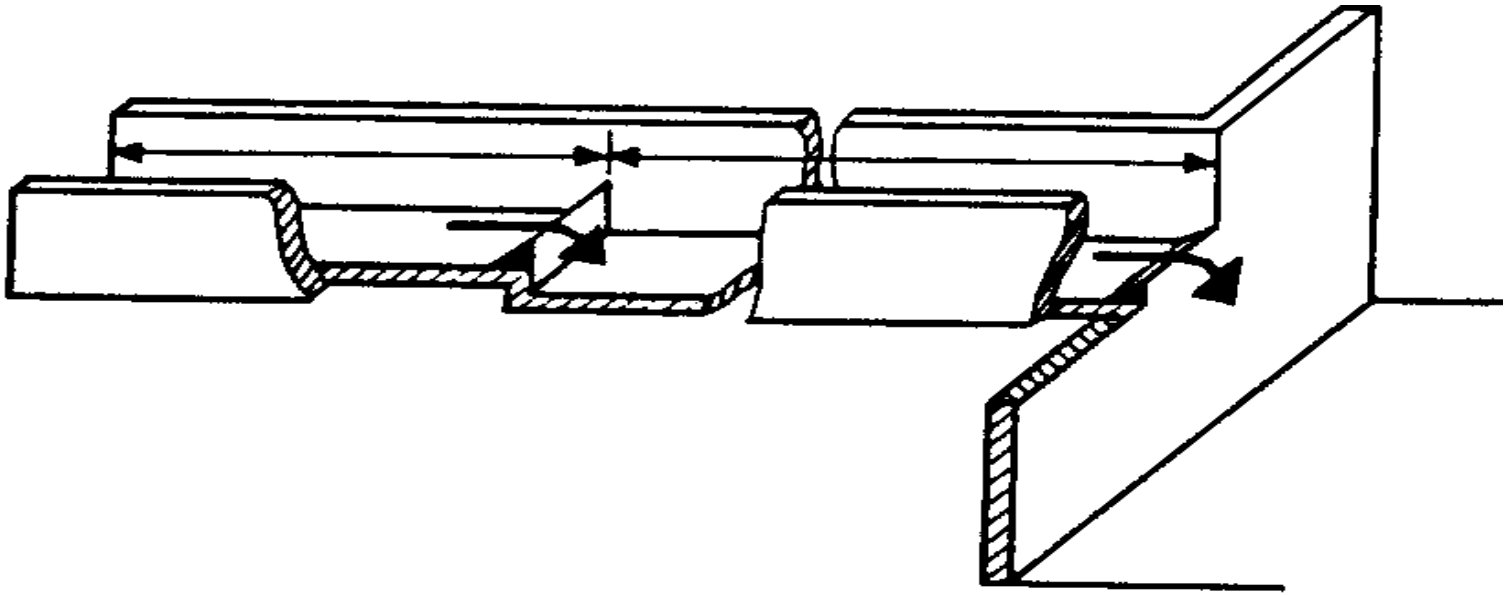
SAMOOTICANJE (ZA GOVEĐI STAJNJAK)

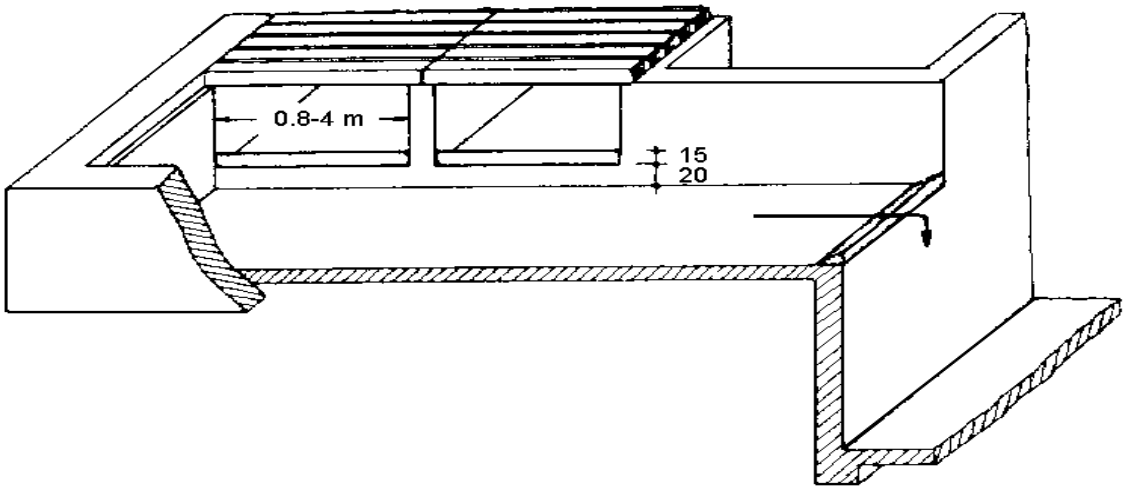


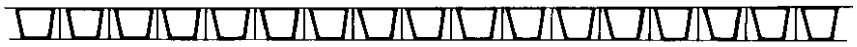

max. 25m
max. 25m

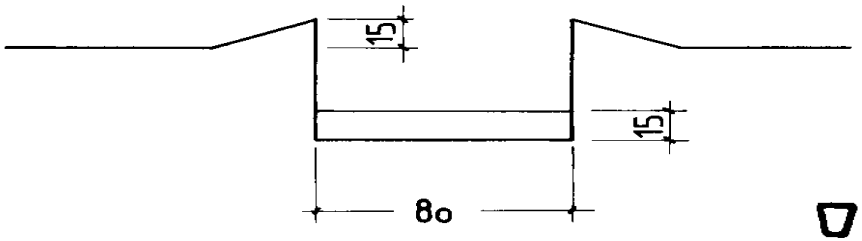


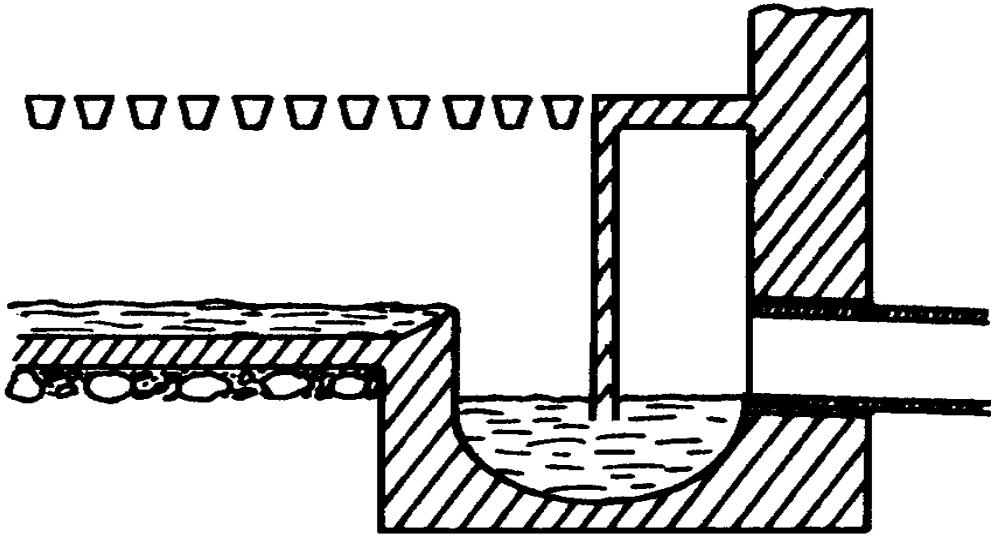




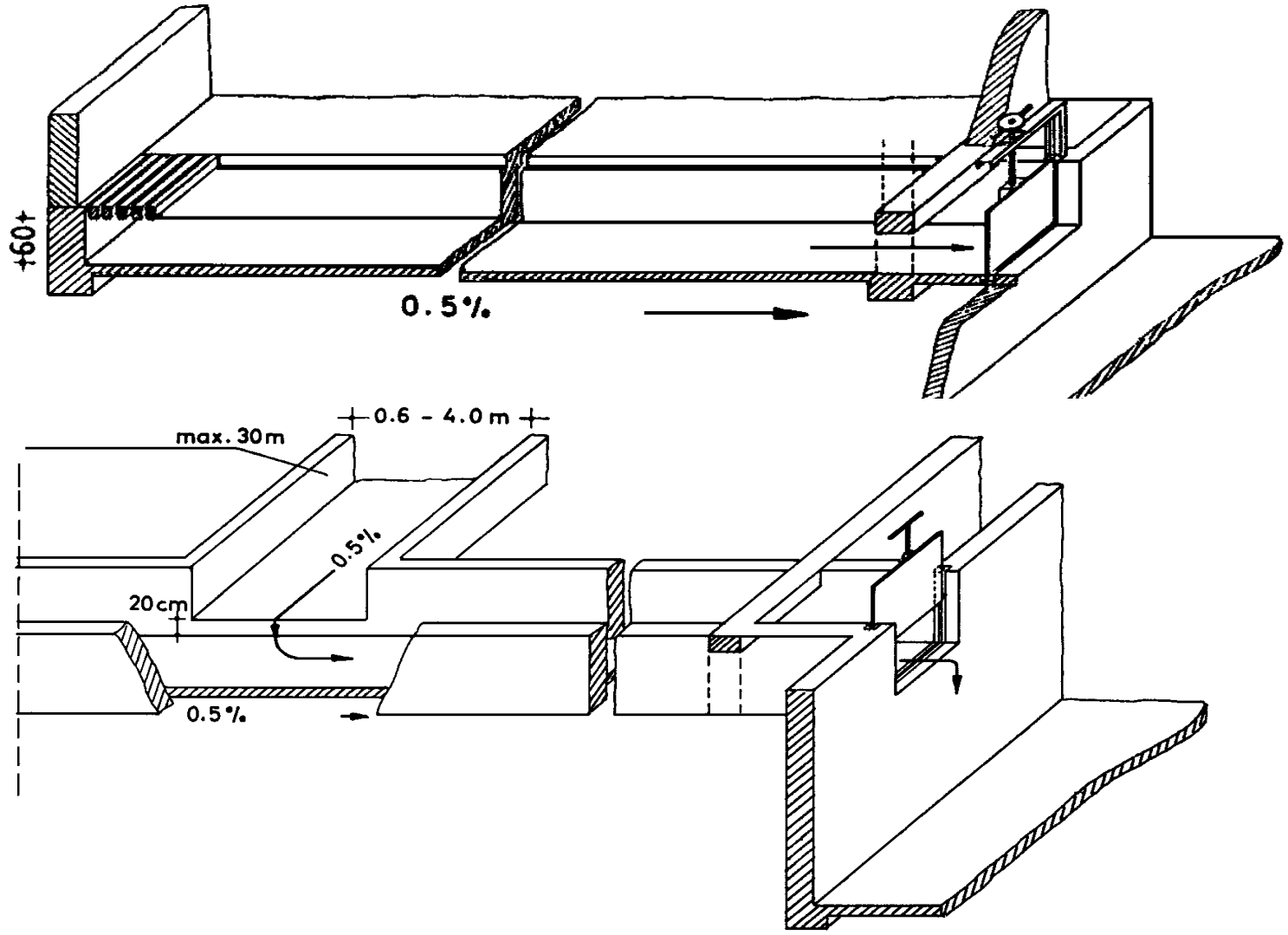

0.8-4 m
15
20

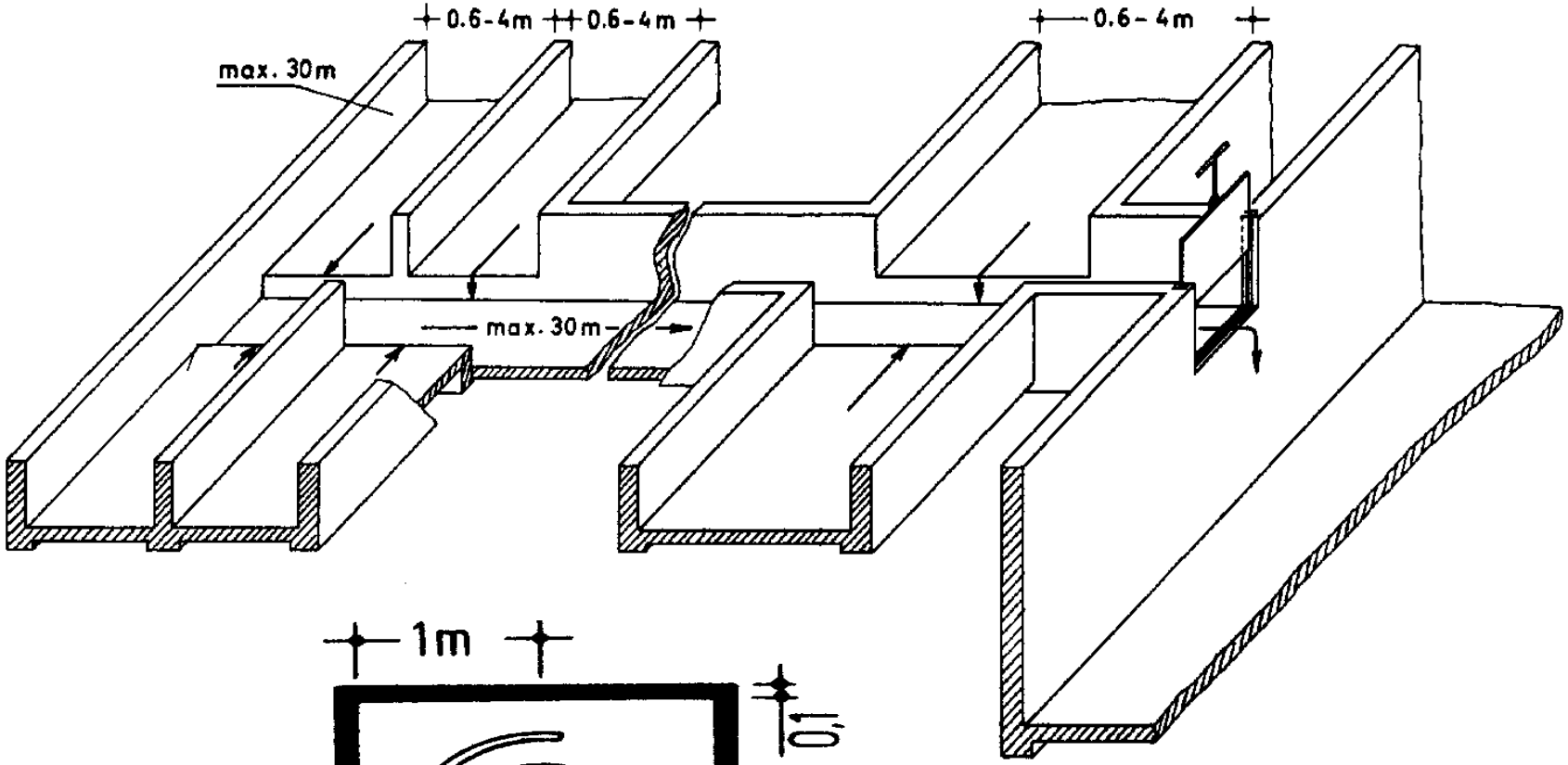


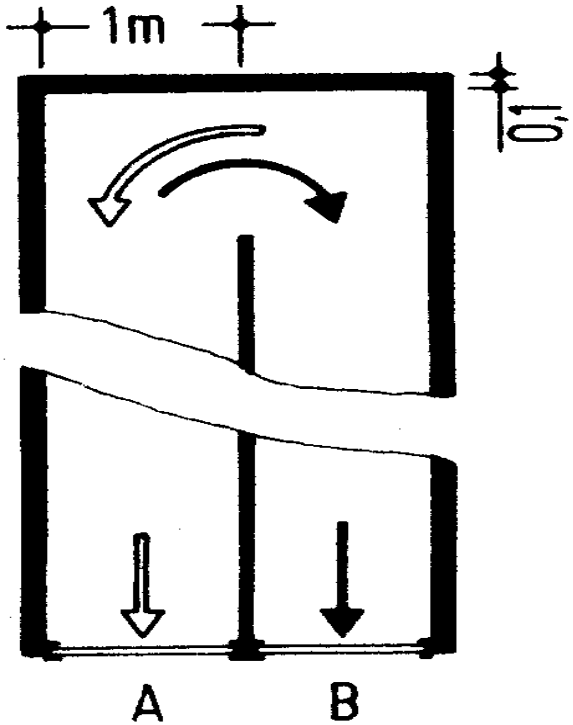

15
15
8o



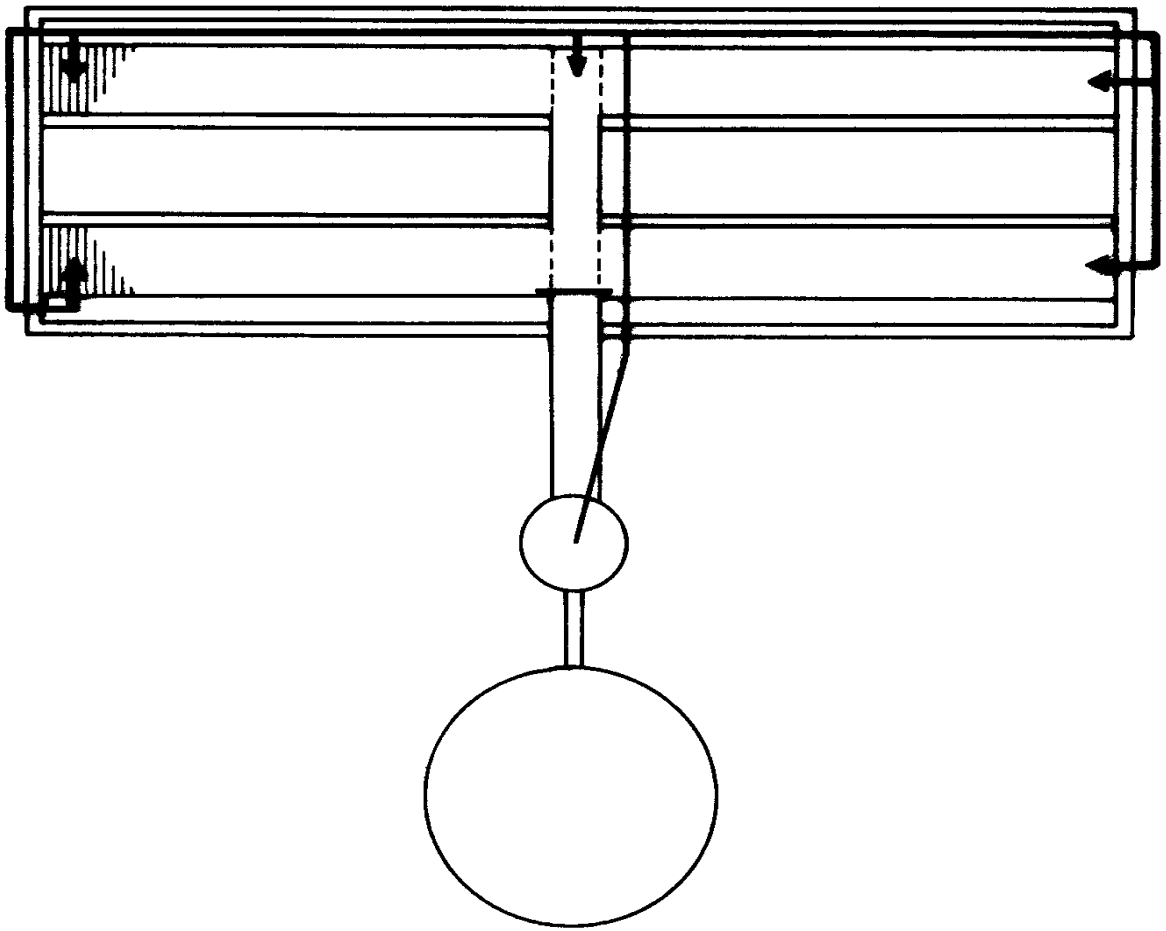
SA USTAVAMA (ZA SVINJSKI STAJNJAK)

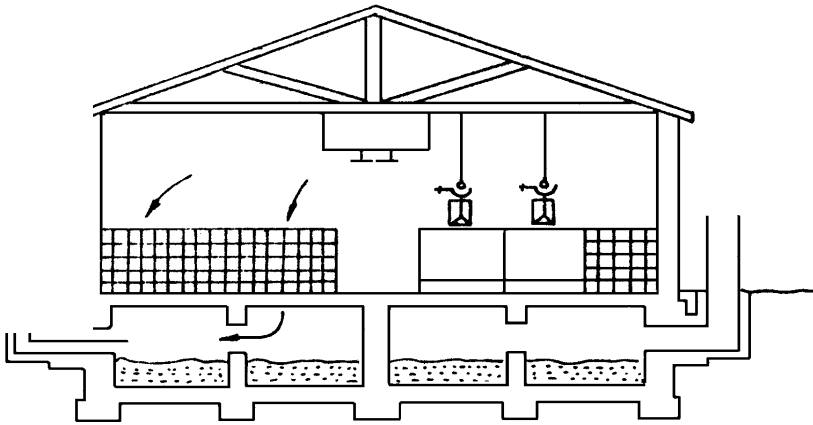



0.6-4m
0.6-4m
0.6-4m
max. 30m
max. 30m

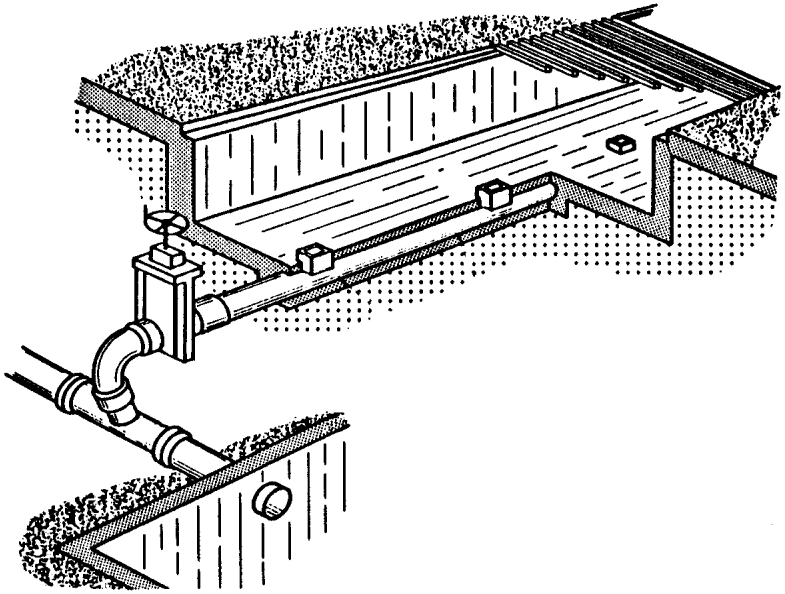

1m
A
B

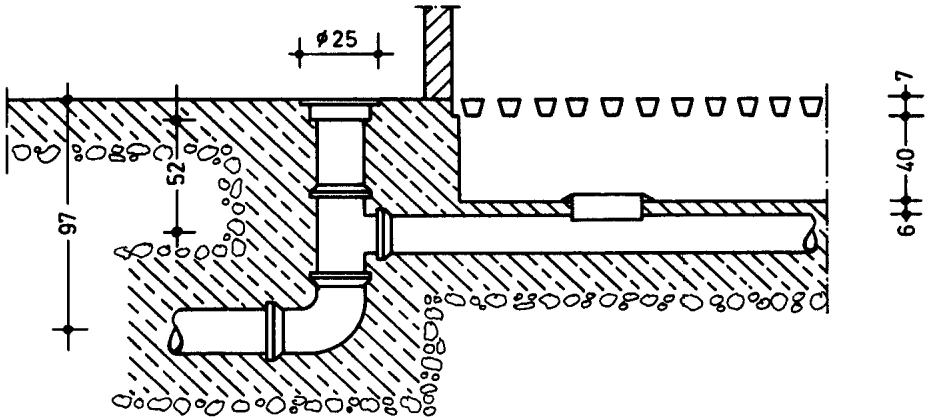
Recirkulaciono ispiranje

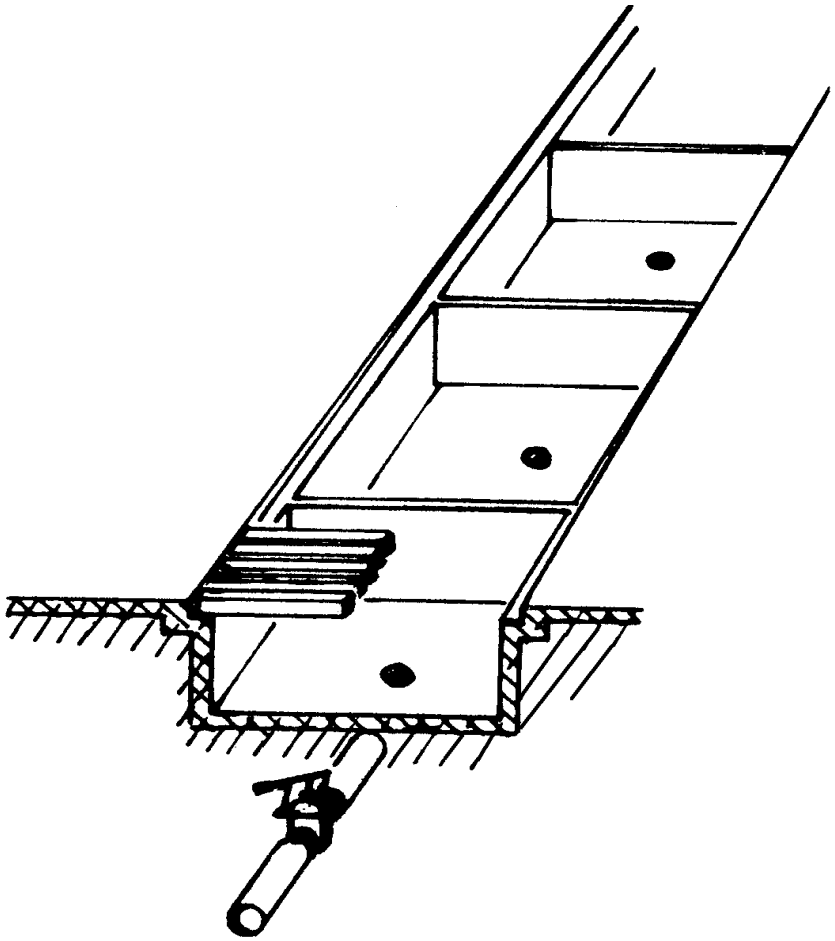


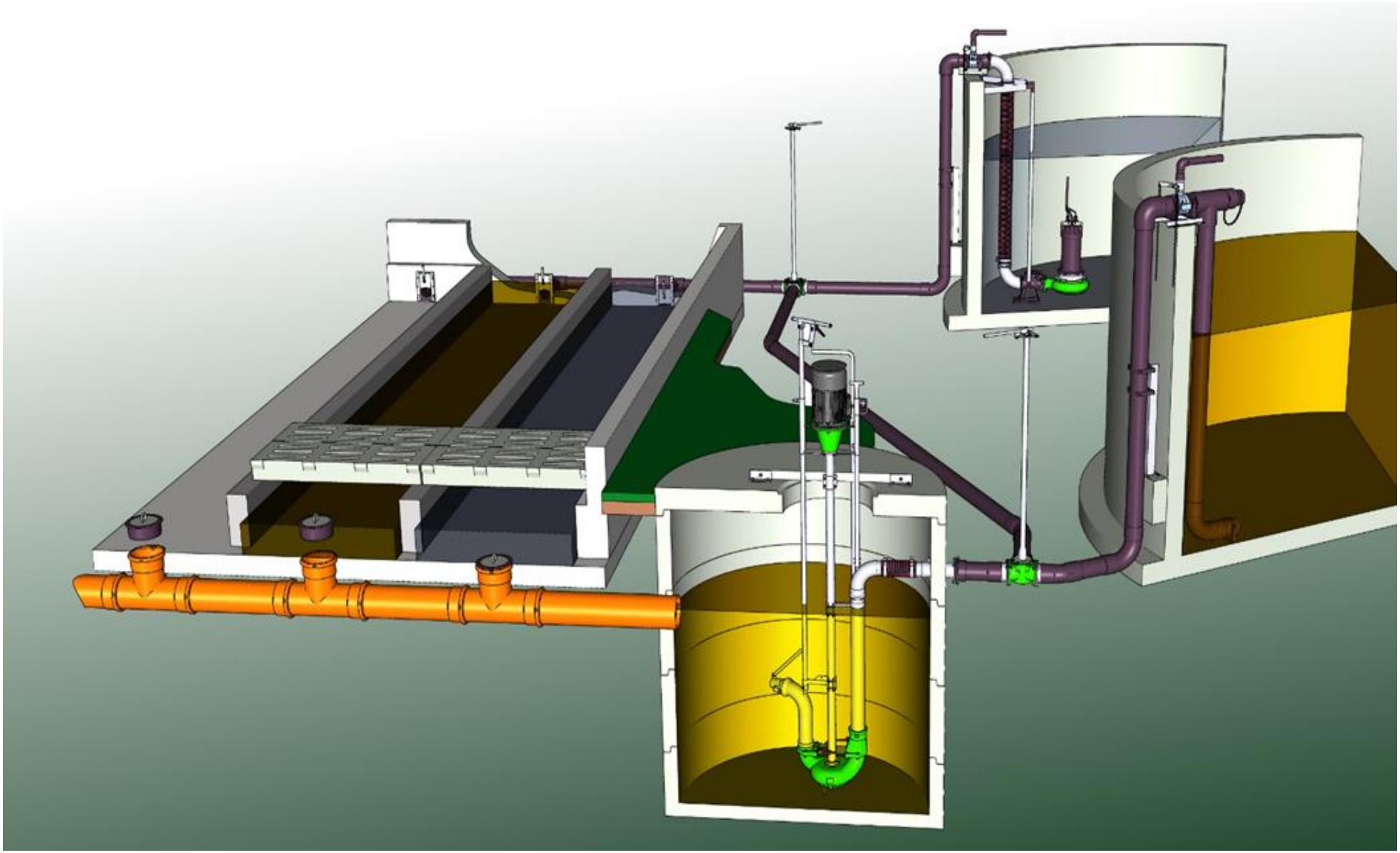


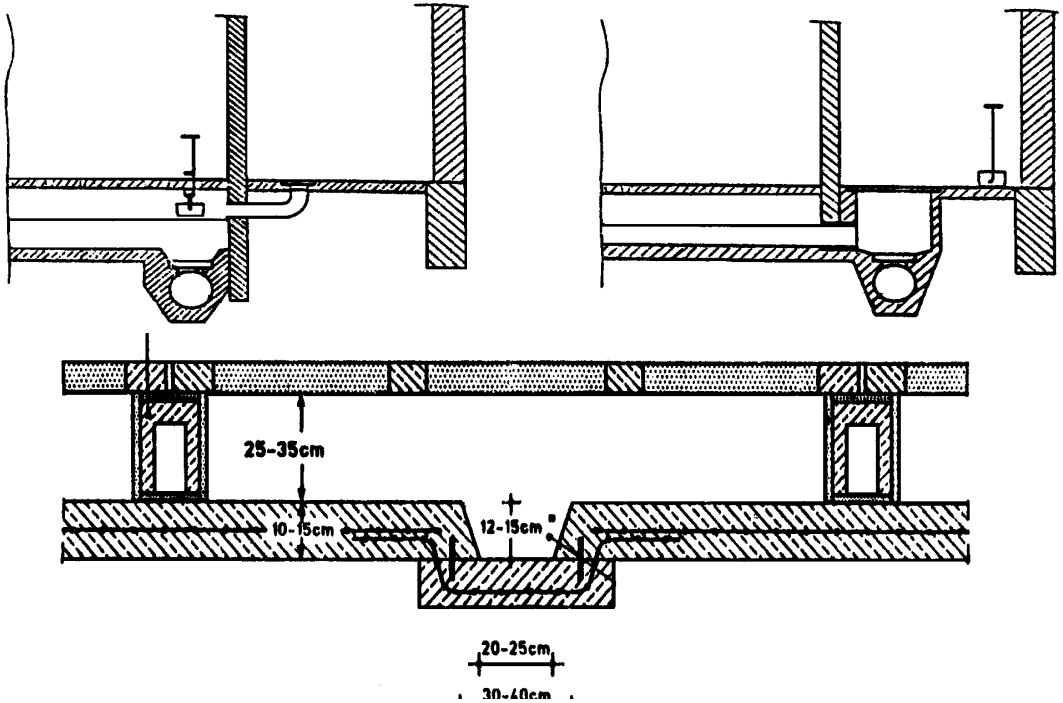
Sistema kada sa čepovima





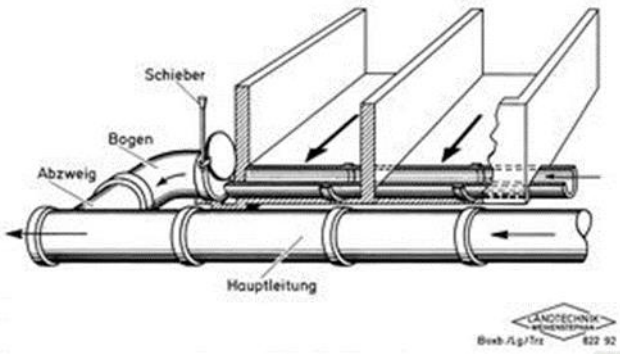


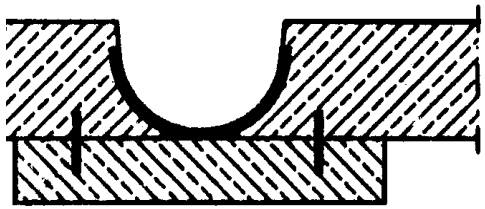


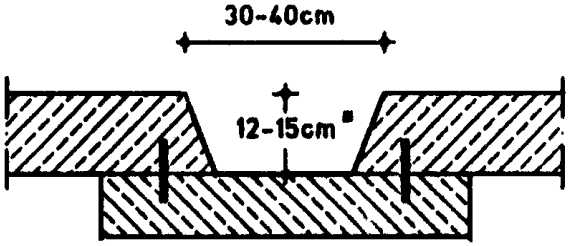


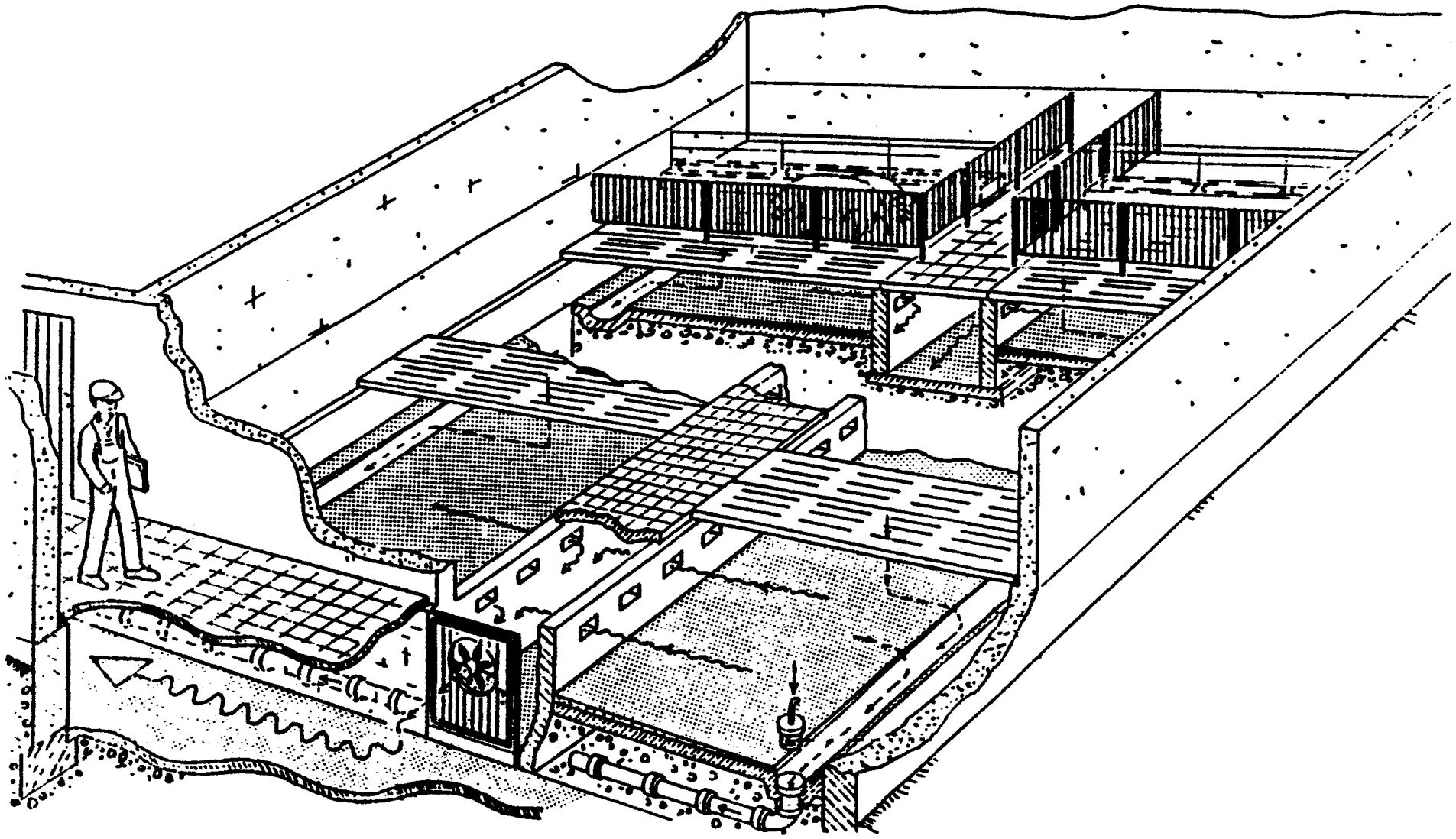
Staumistverfahren

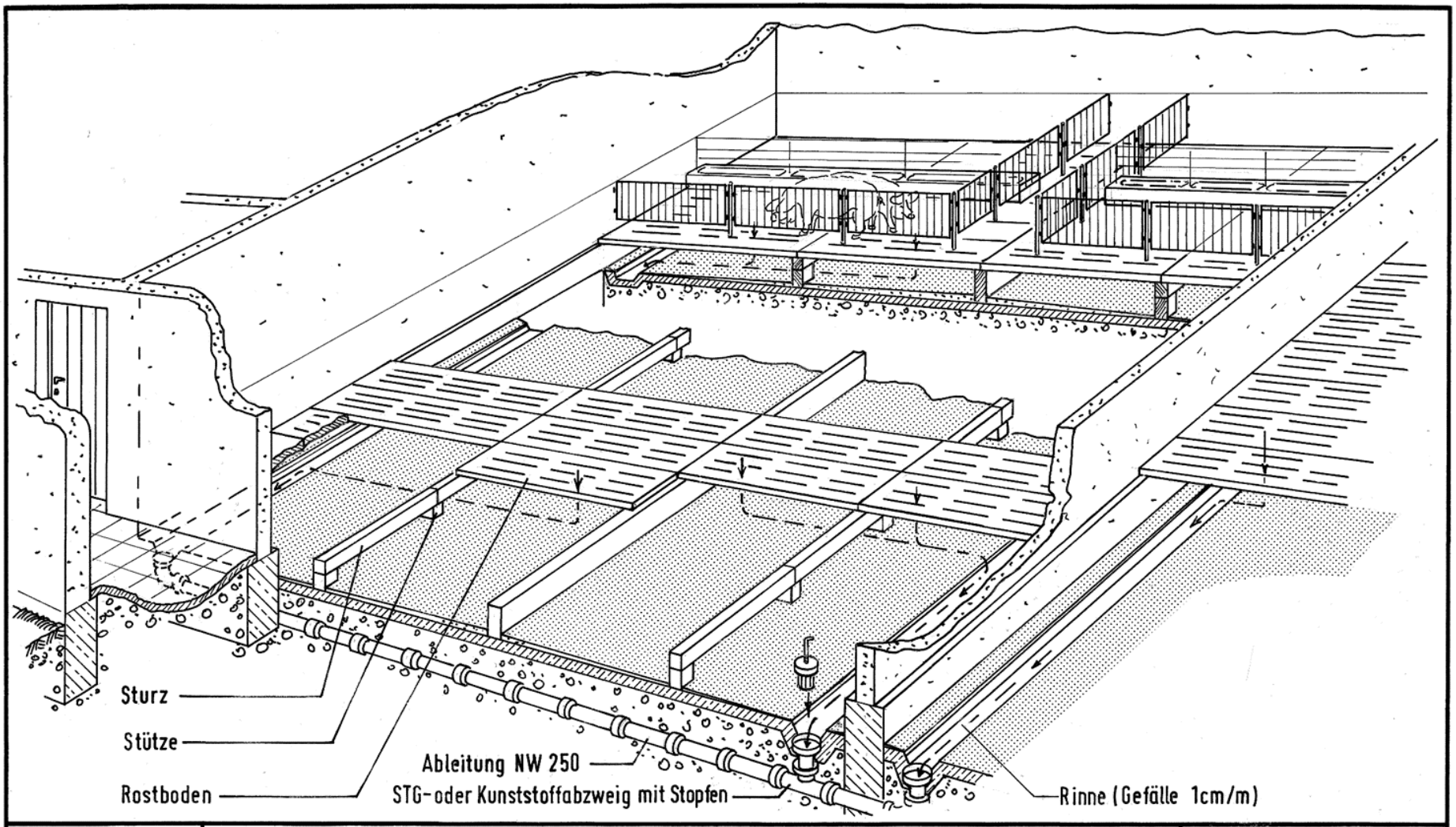
Anschluß eines Stallabteils an die Hauptleitung









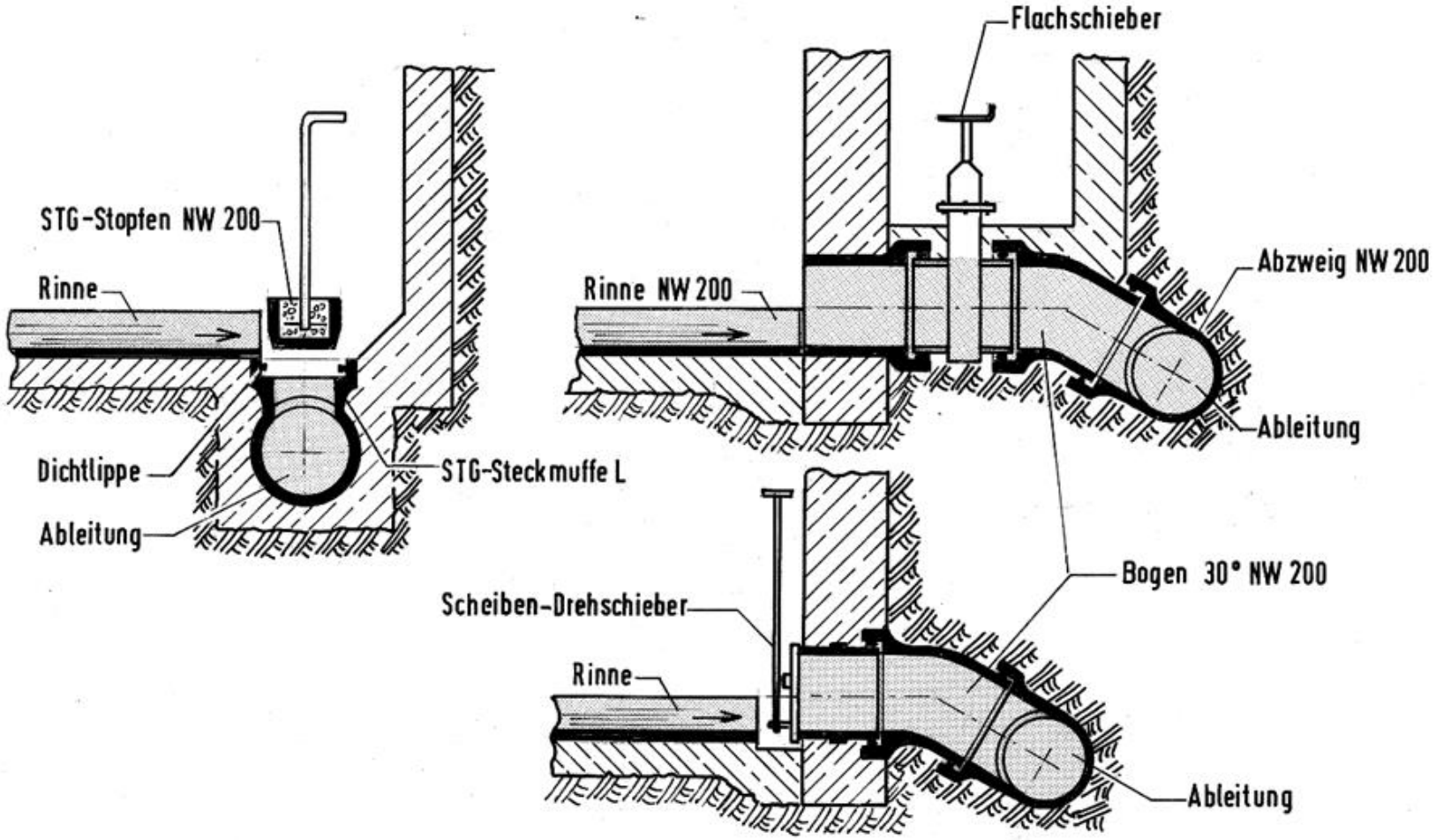


Langenegger

Staukanal-Rinnenentmistung
(Doppelkanal)

LANDTECHNIK WEIHENSTEPHAN

Ke 892 164



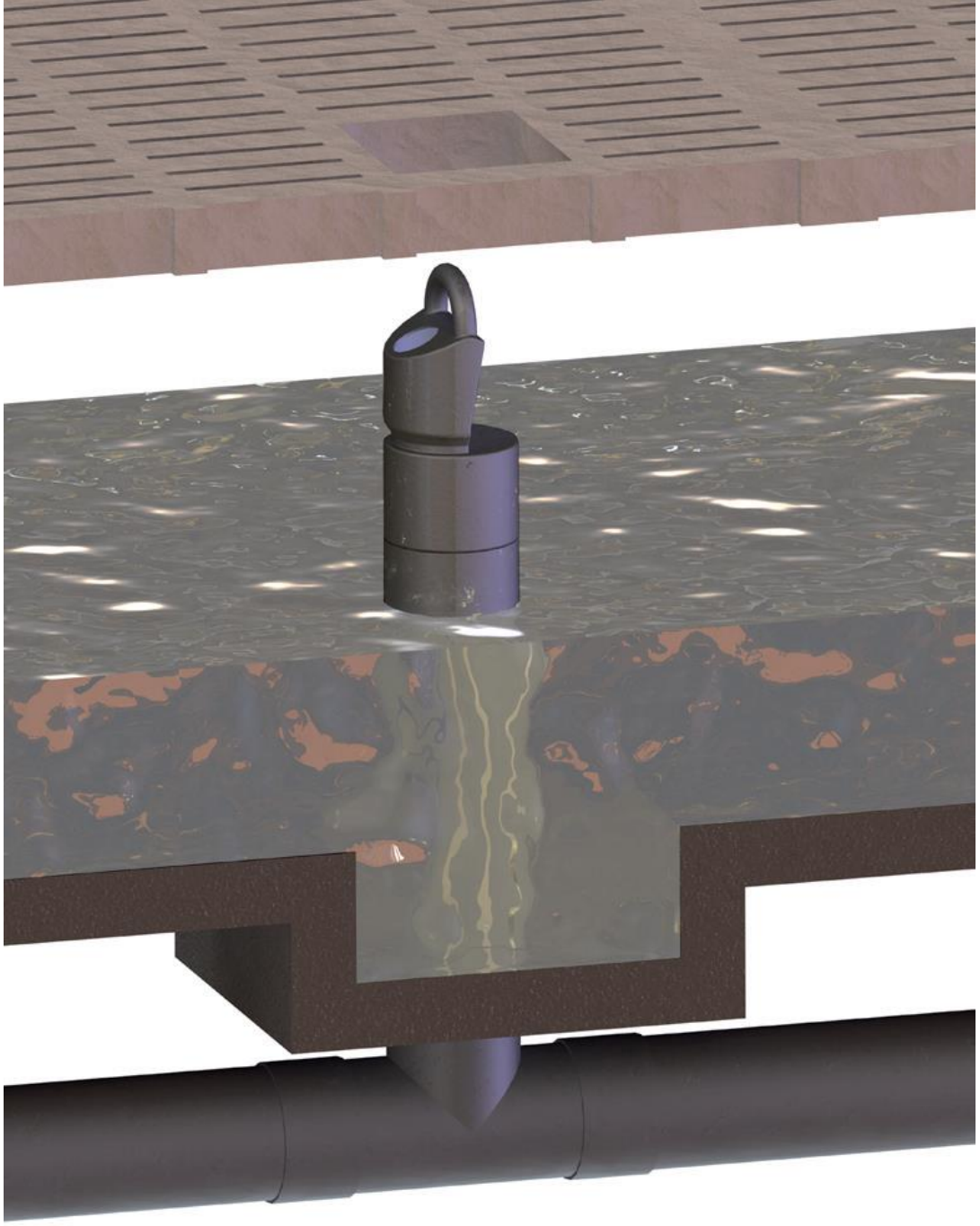
Boxberger
Langenegger

Staukanal-Rinnenentmistung

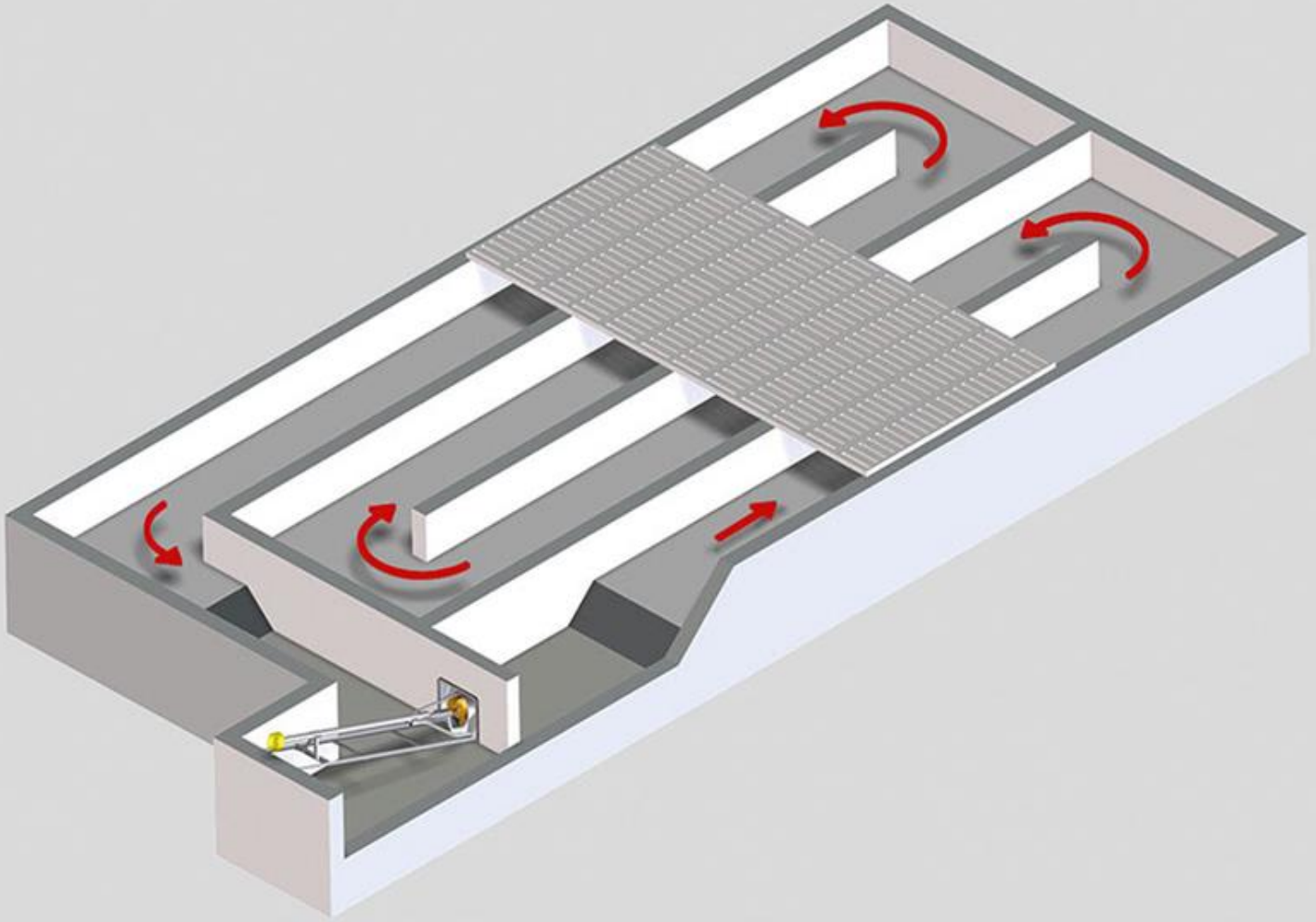
Absperrschieber-und Ableitungsanordnung

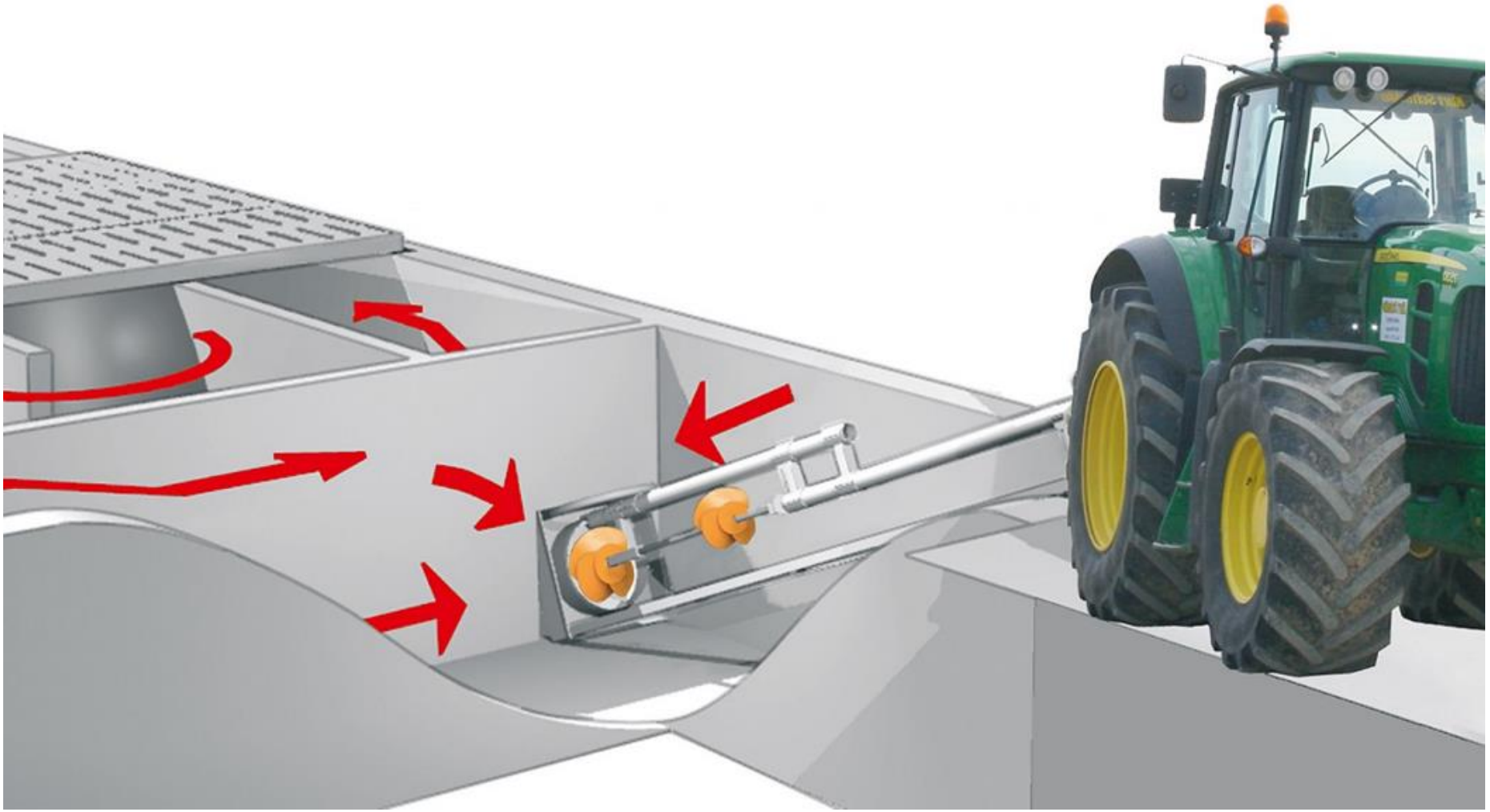
LANDTECHNIK WEIHENSTEPHAN

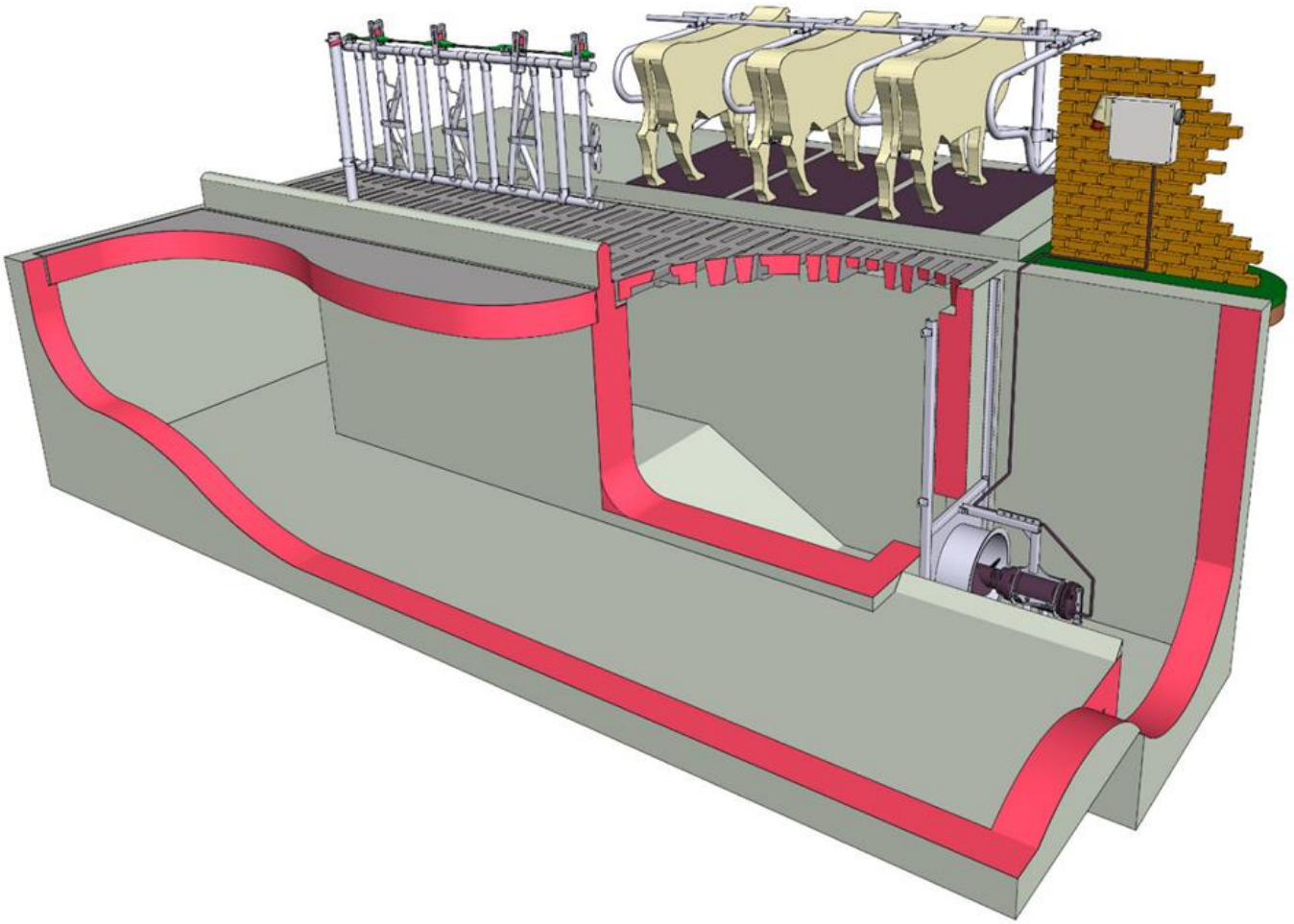
Ke 87243

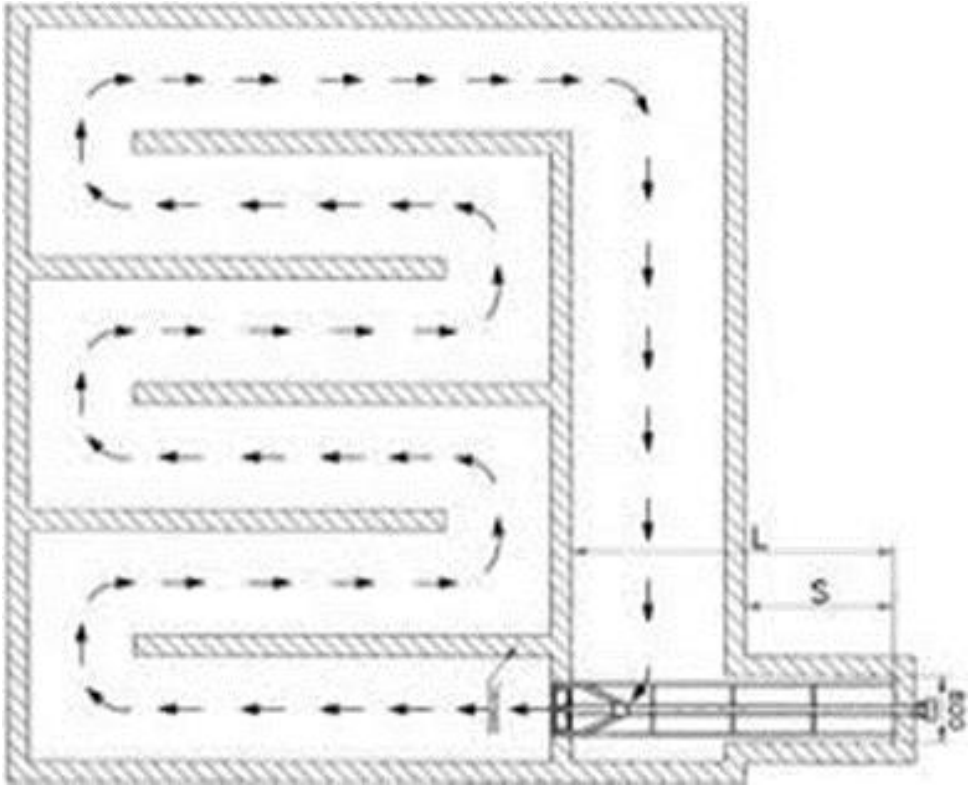


Slalom sistem sa prinudnim kretanjem





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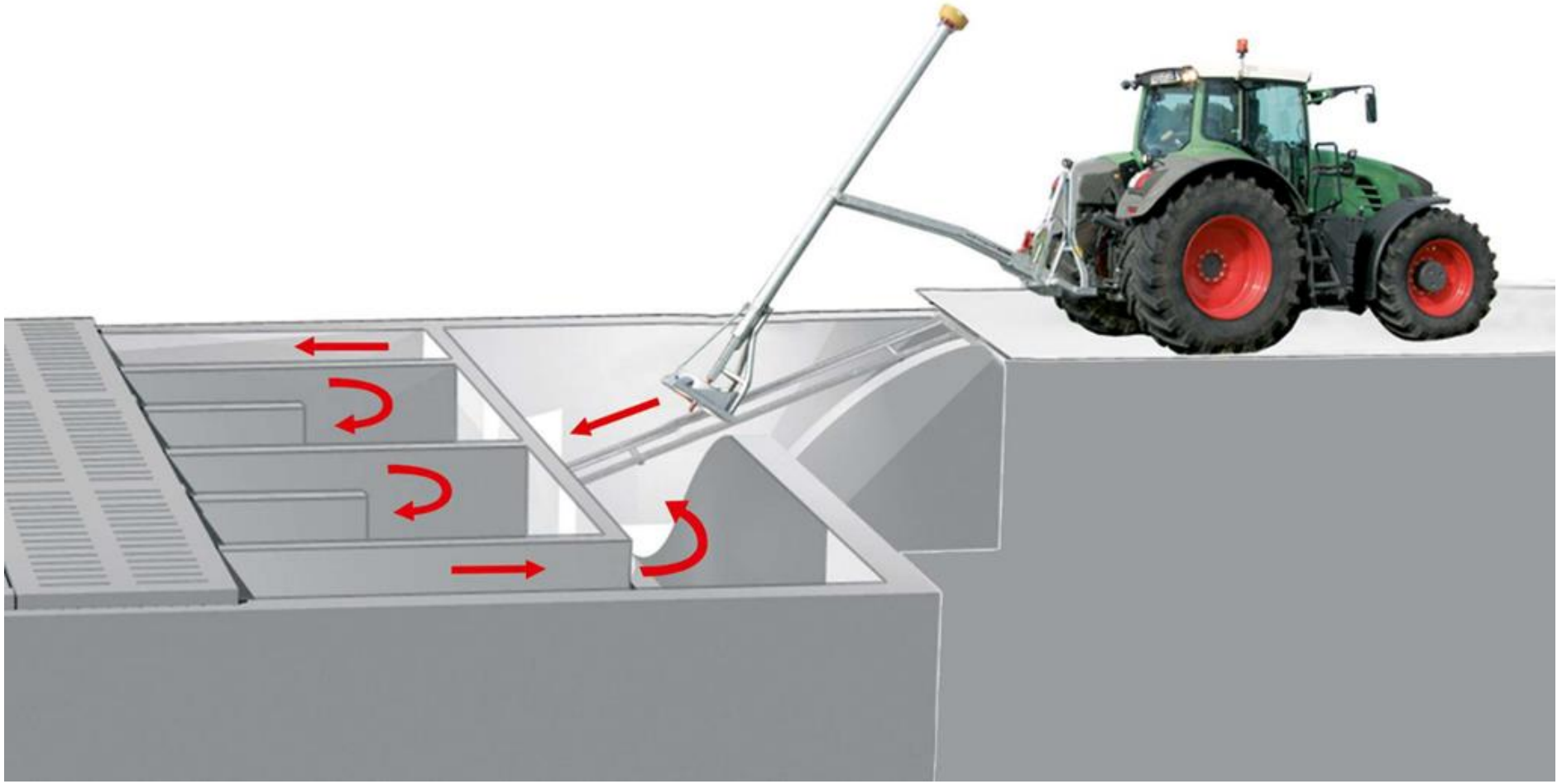
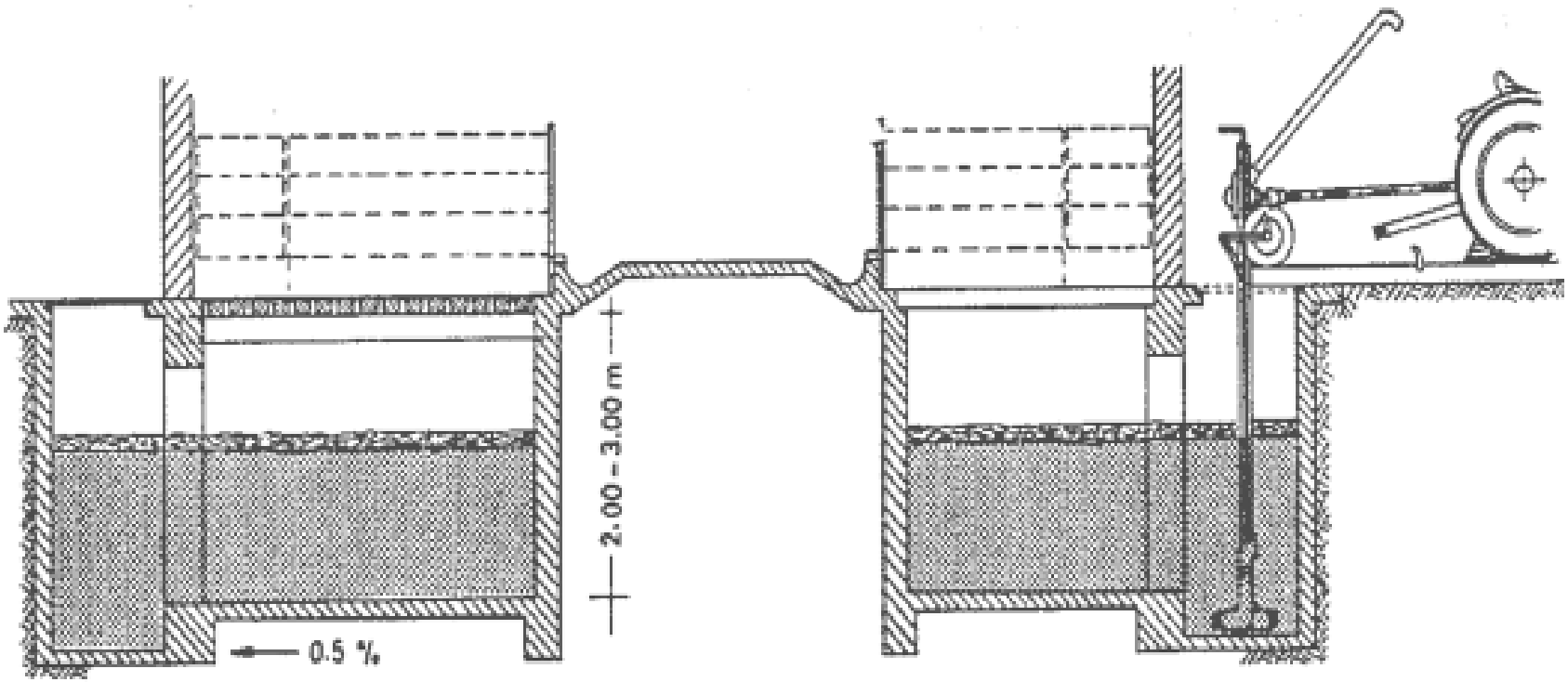
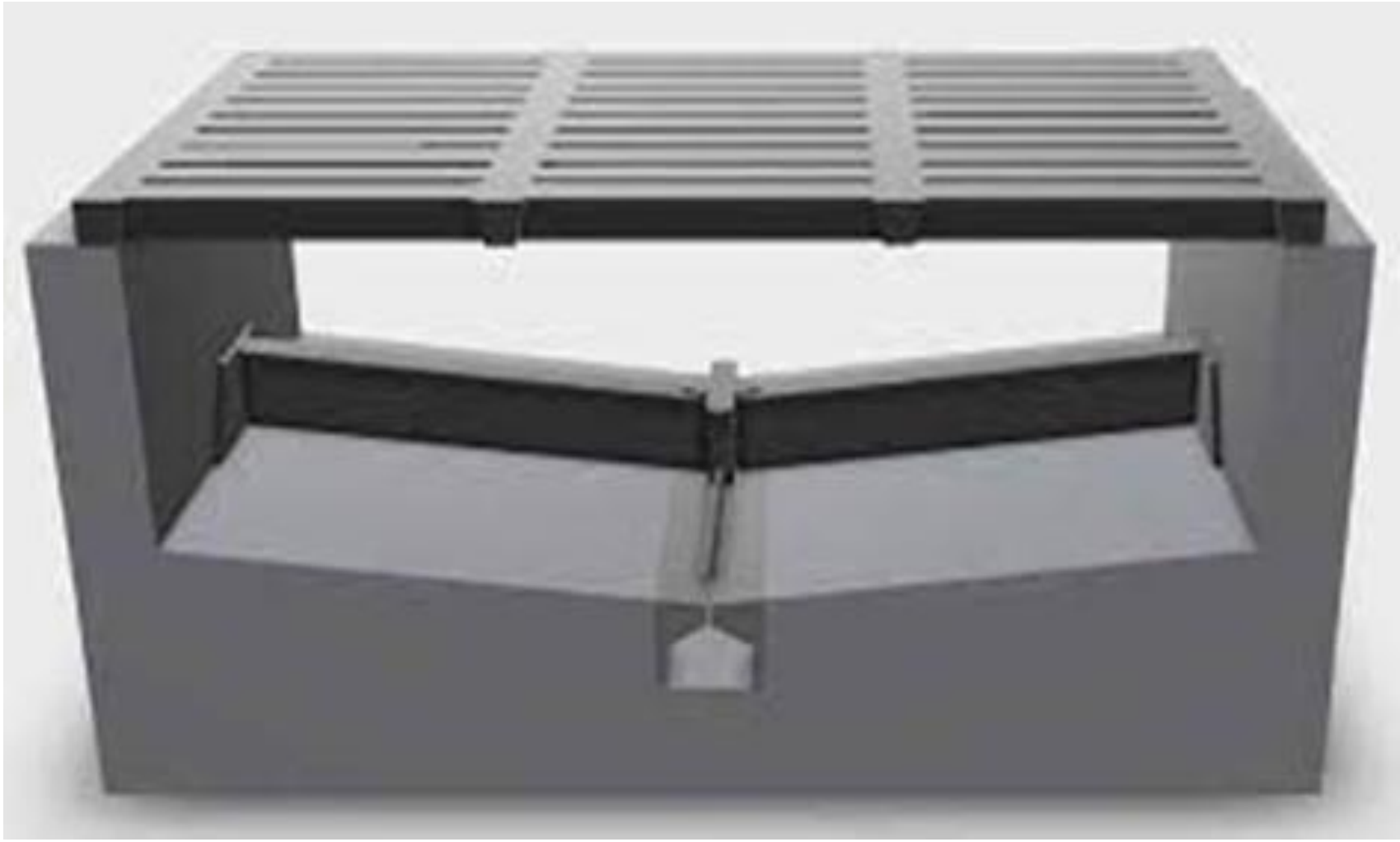
S



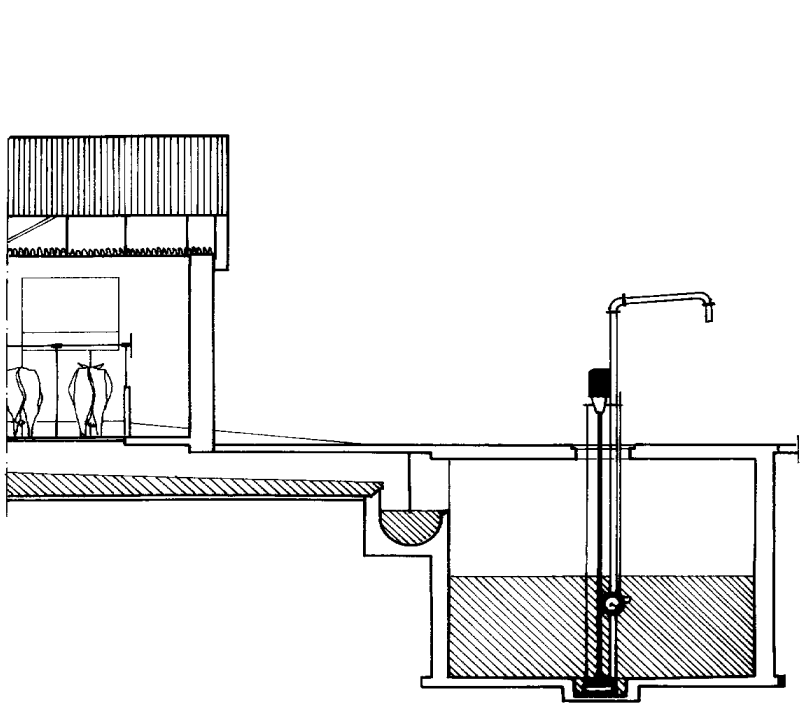
Duboki bazeni sistem sve u nutra sve napolje

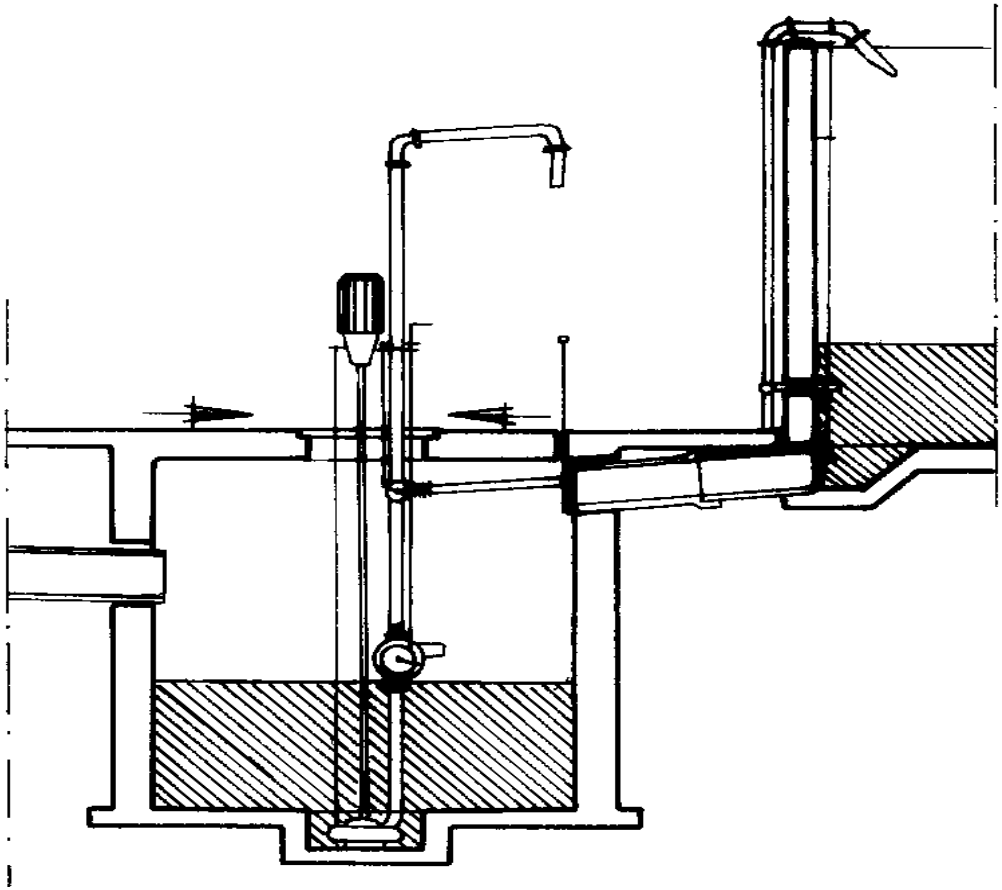


Hidromehanički sistem

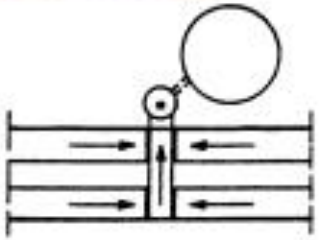


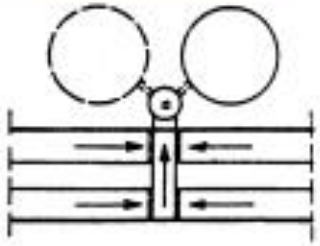
Prijemni bazen

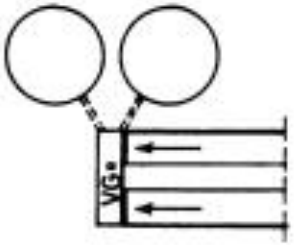


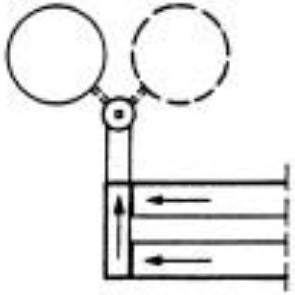


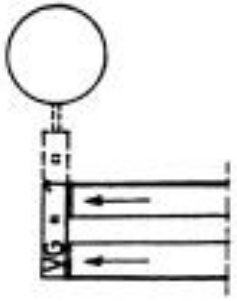
Lager bazen











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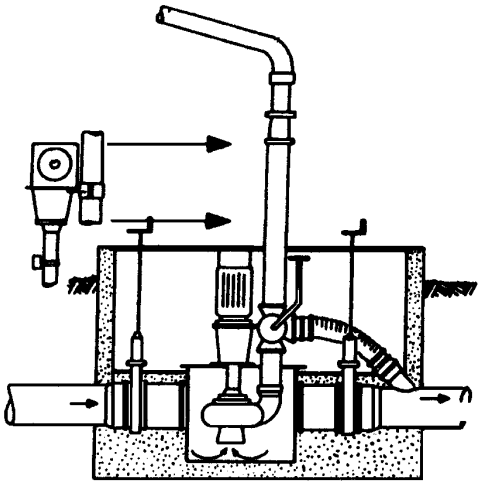
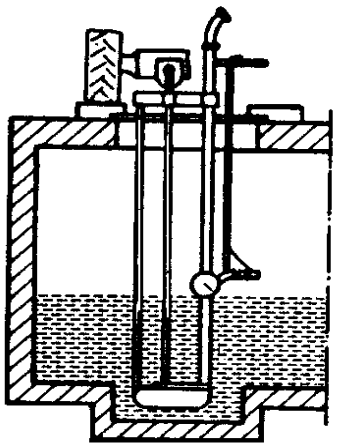
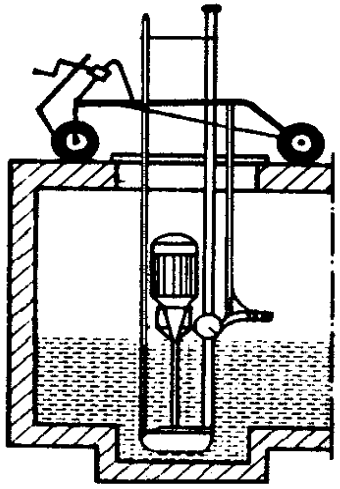
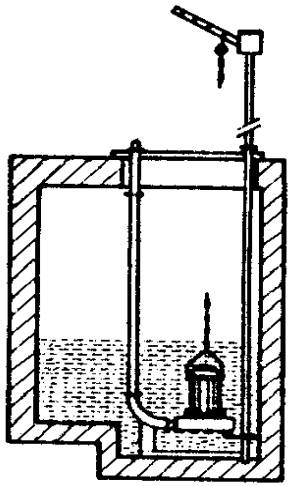
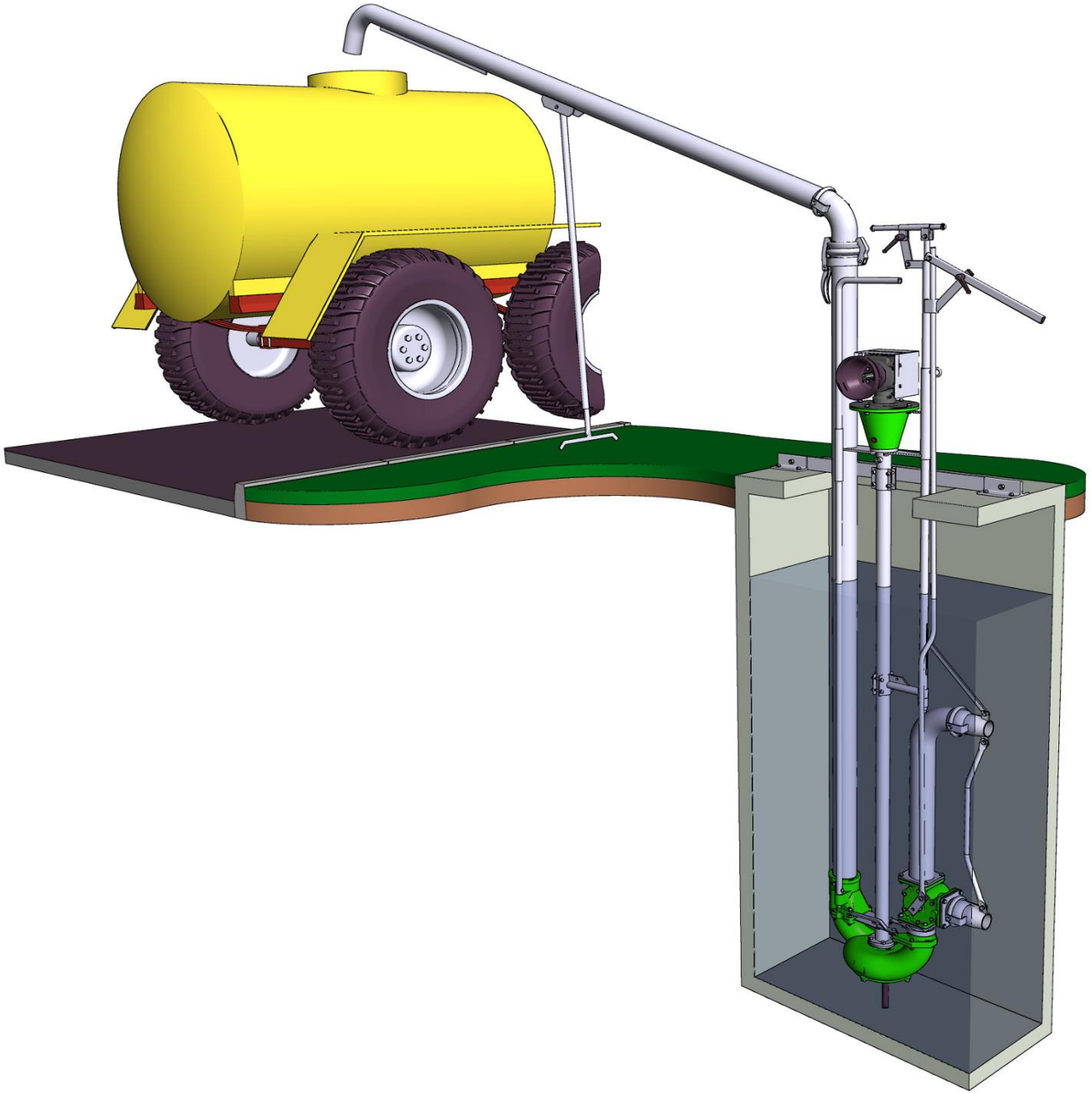


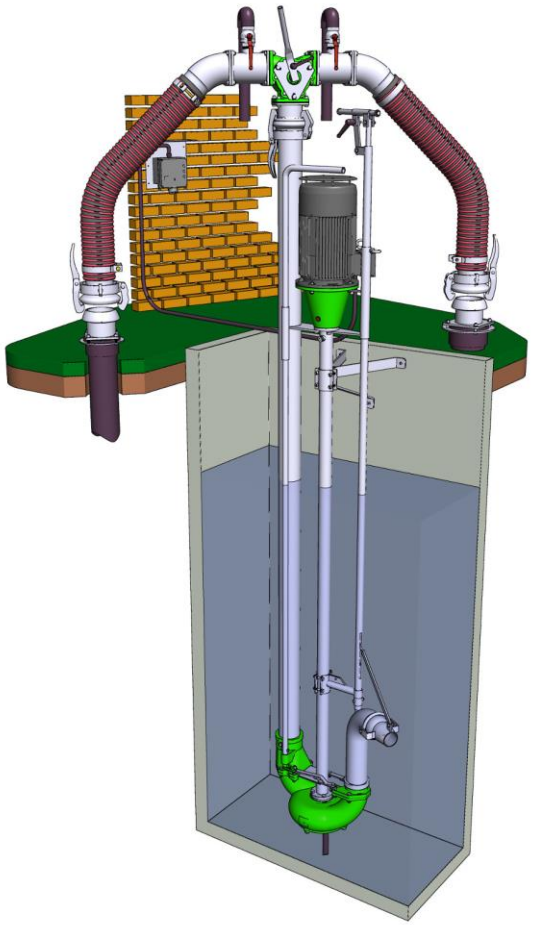


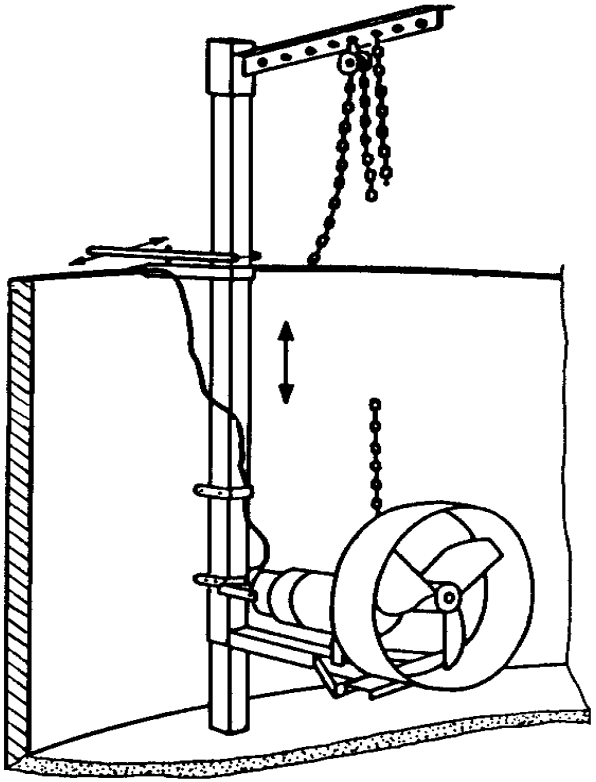


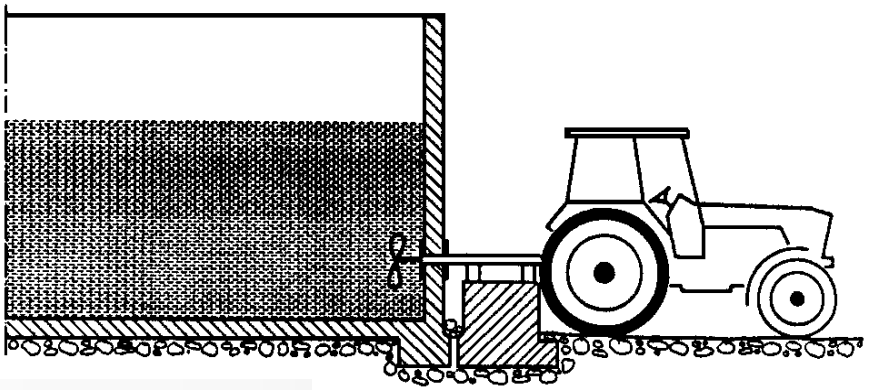


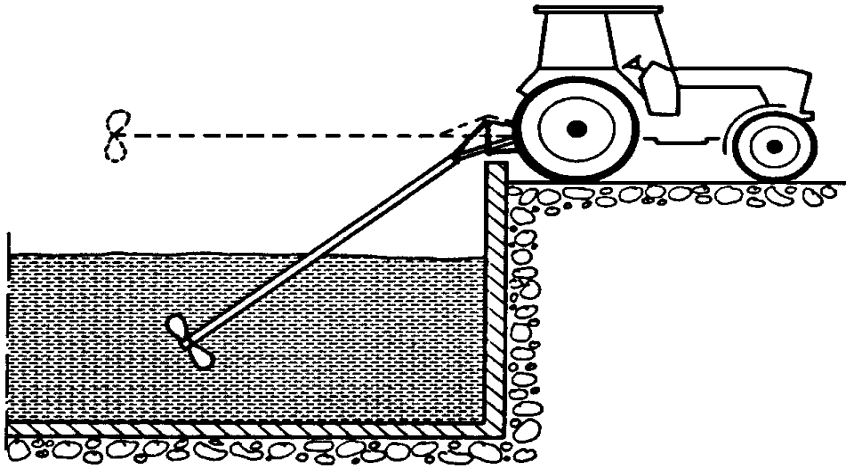
Oprema u bazenu za lagerovanje

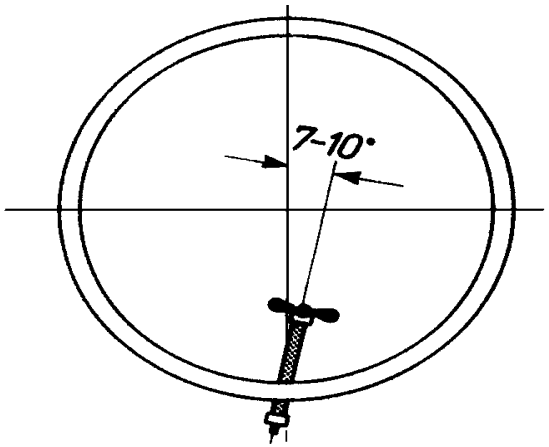


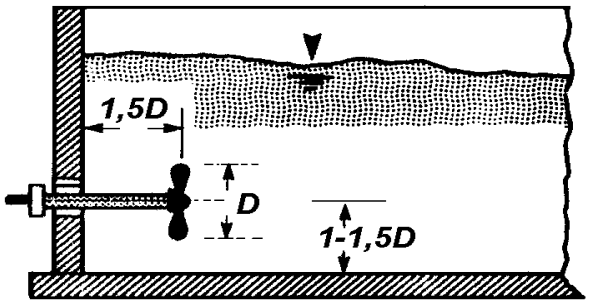






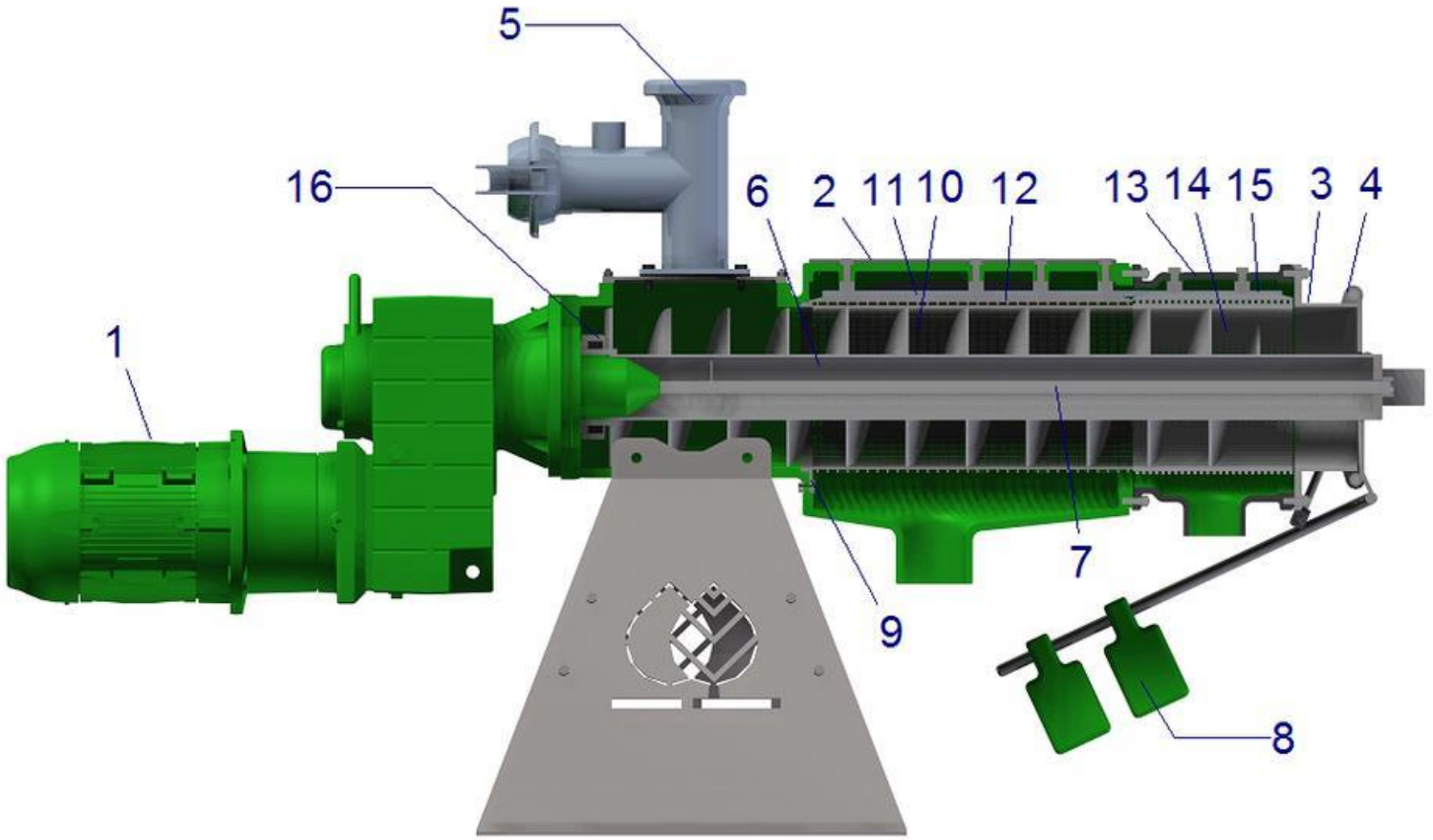


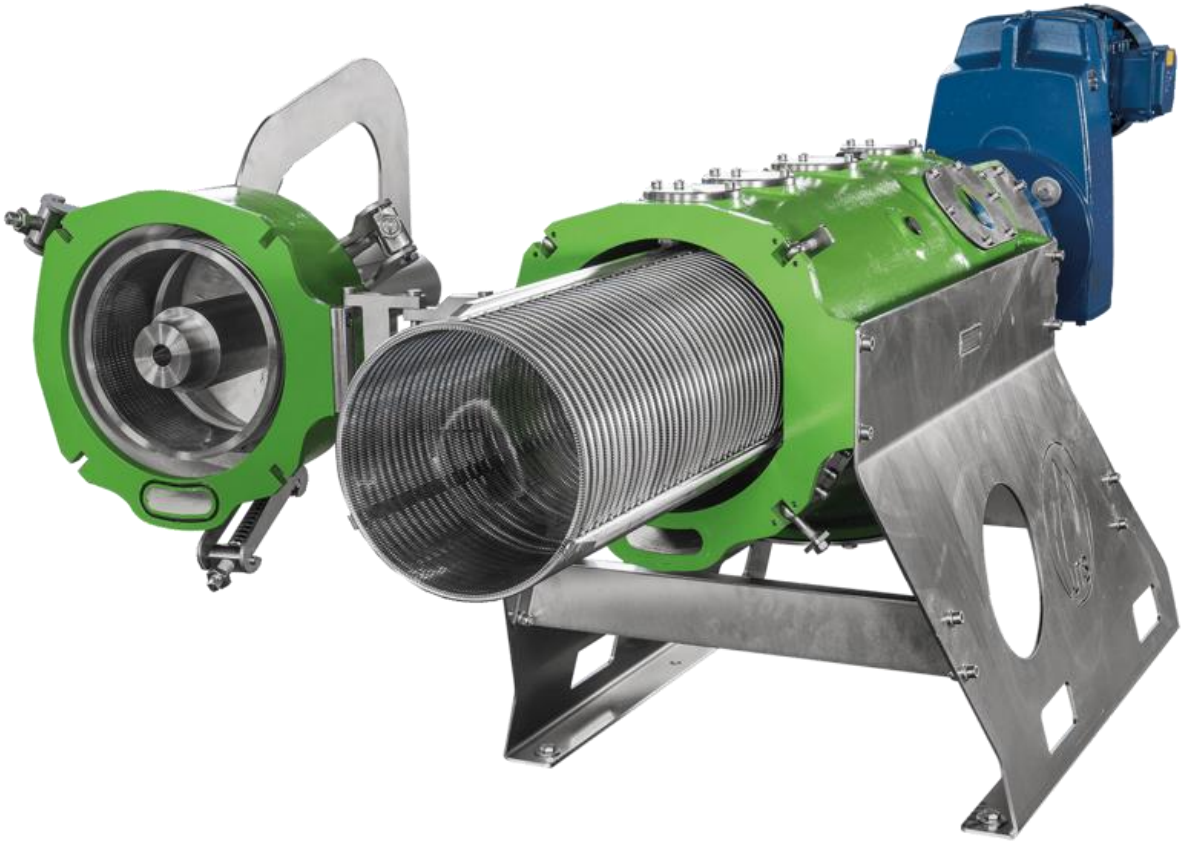

7-10°


1,5D
D
1-1,5D


GROWI
GROWI

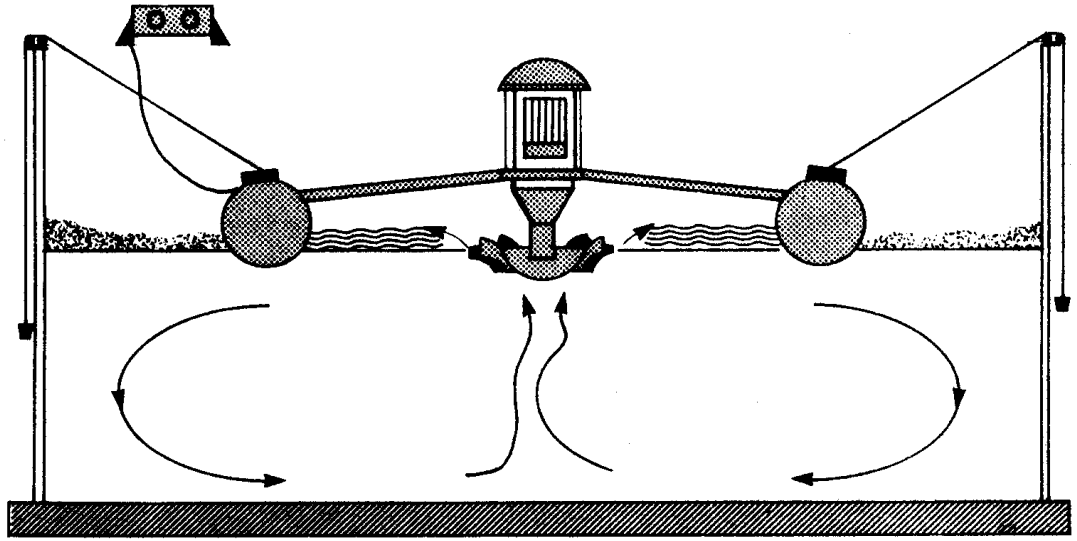
SEPARATORI

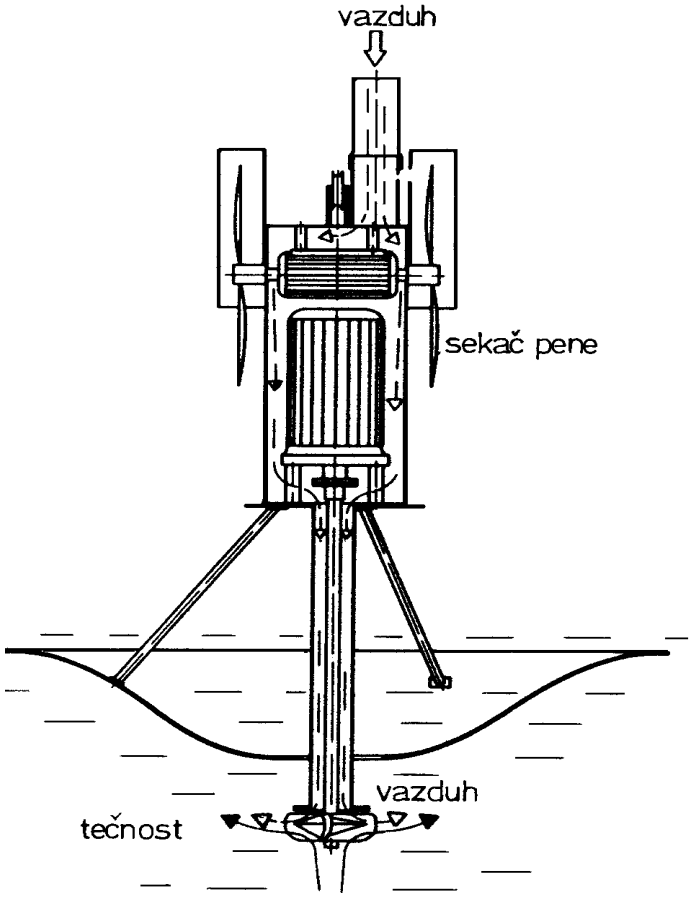




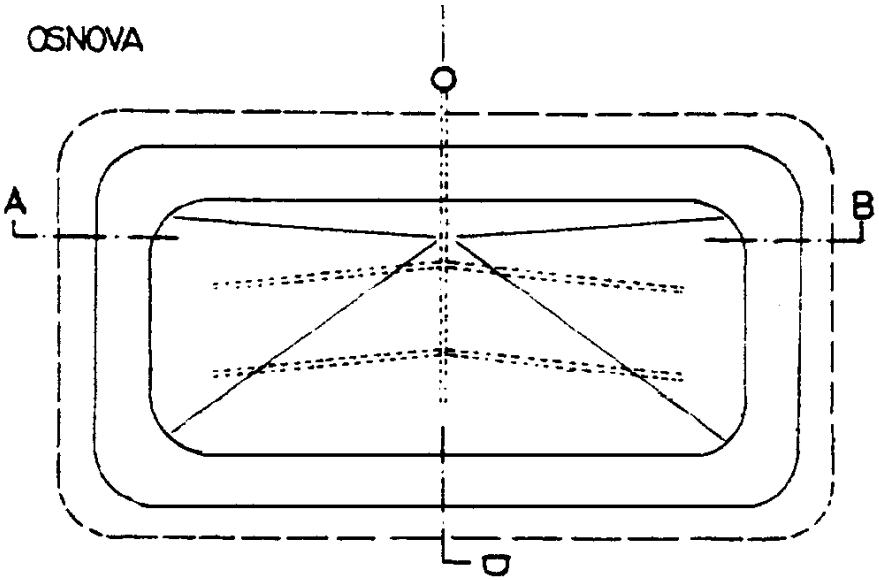

garant

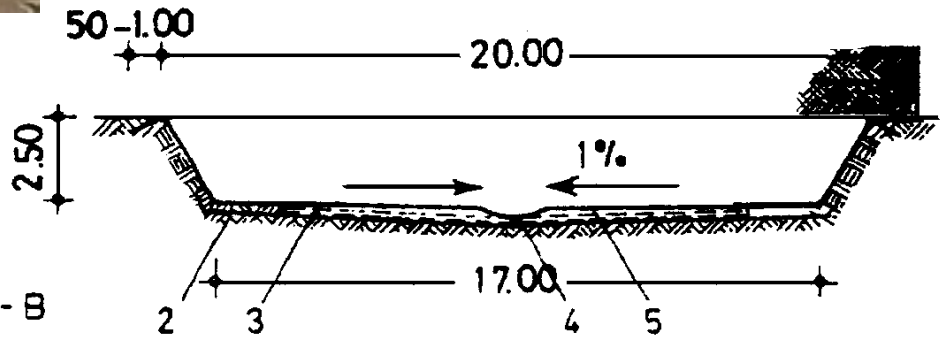
AERATORI





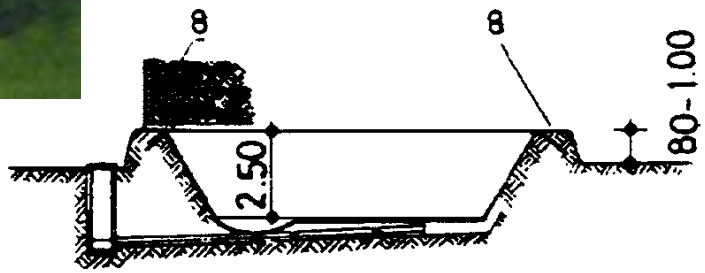
RECIPIJENTI ZA LAGEROVANJE

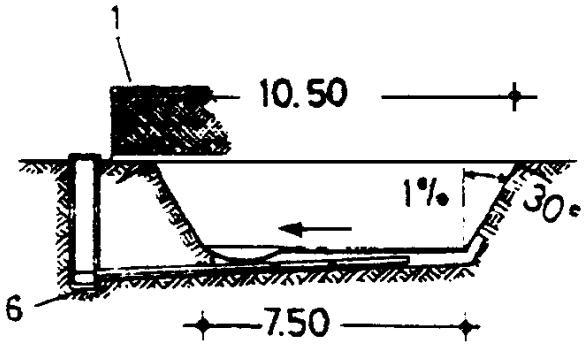

OSNOVA
A
B
C
D

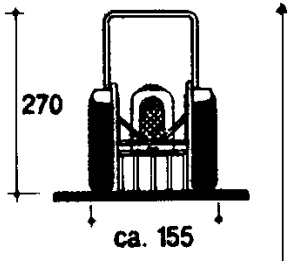

50-1.00
20.00
2.50
1%
17.00
2
3
4
5

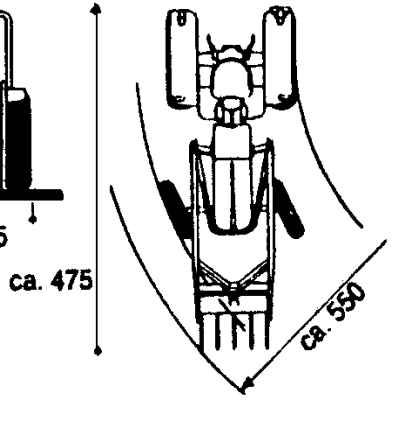
SEK A-B

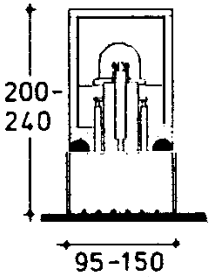
SEK C-D

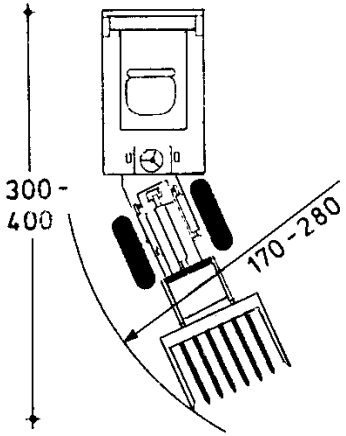

8
8
80-1.00
2.50

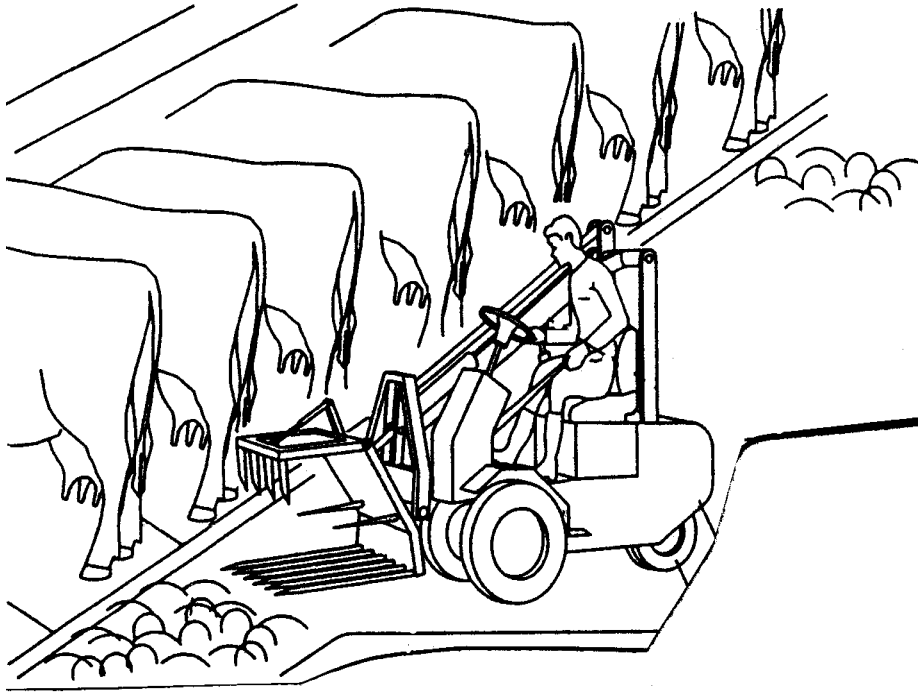

1
10.50
1%
30°
6
7.50

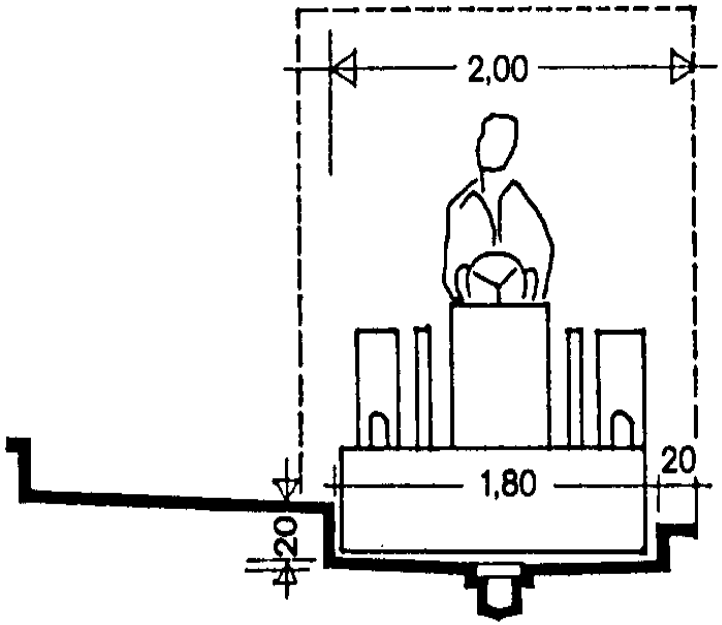

270
ca. 155

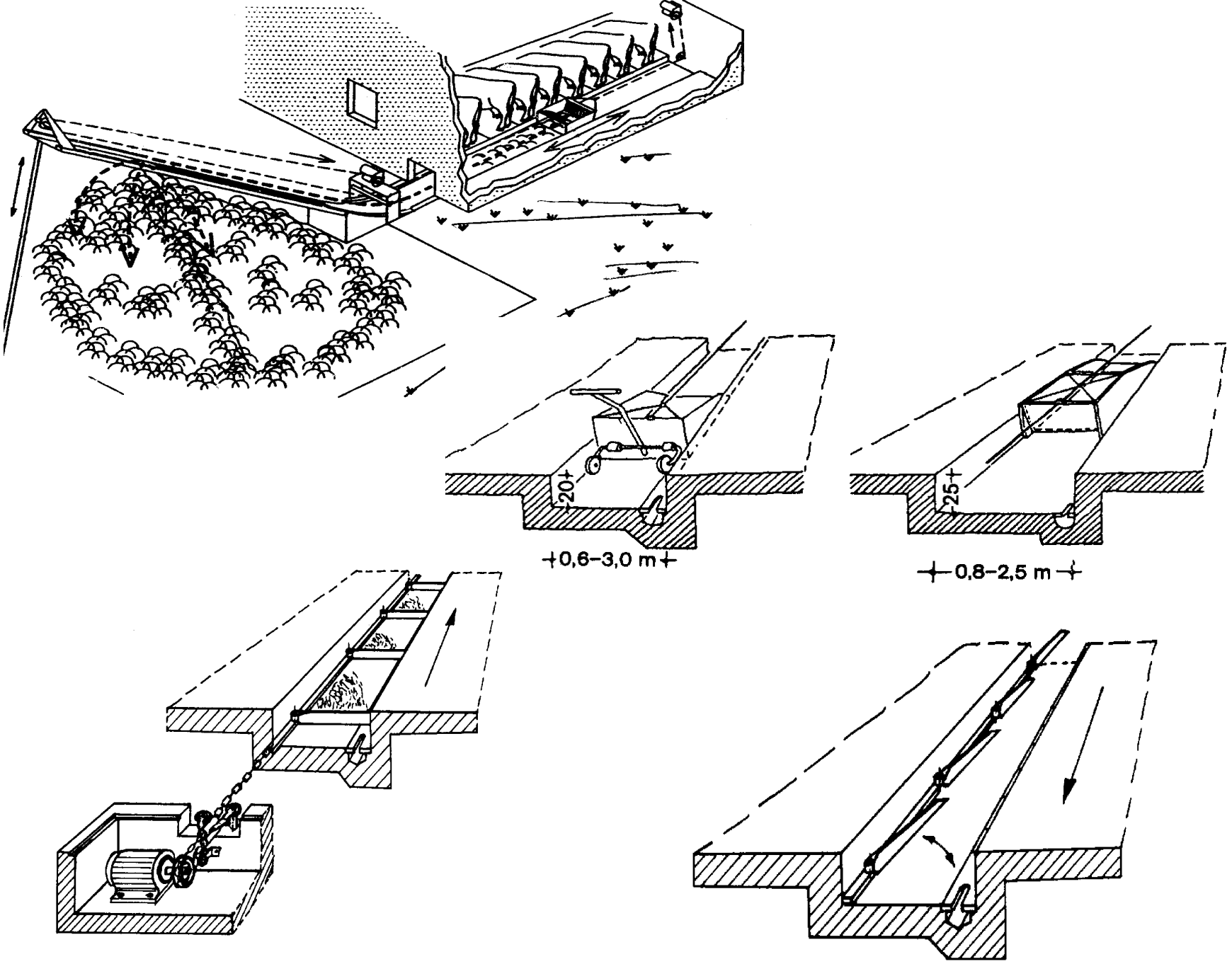

ca. 475
ca. 550

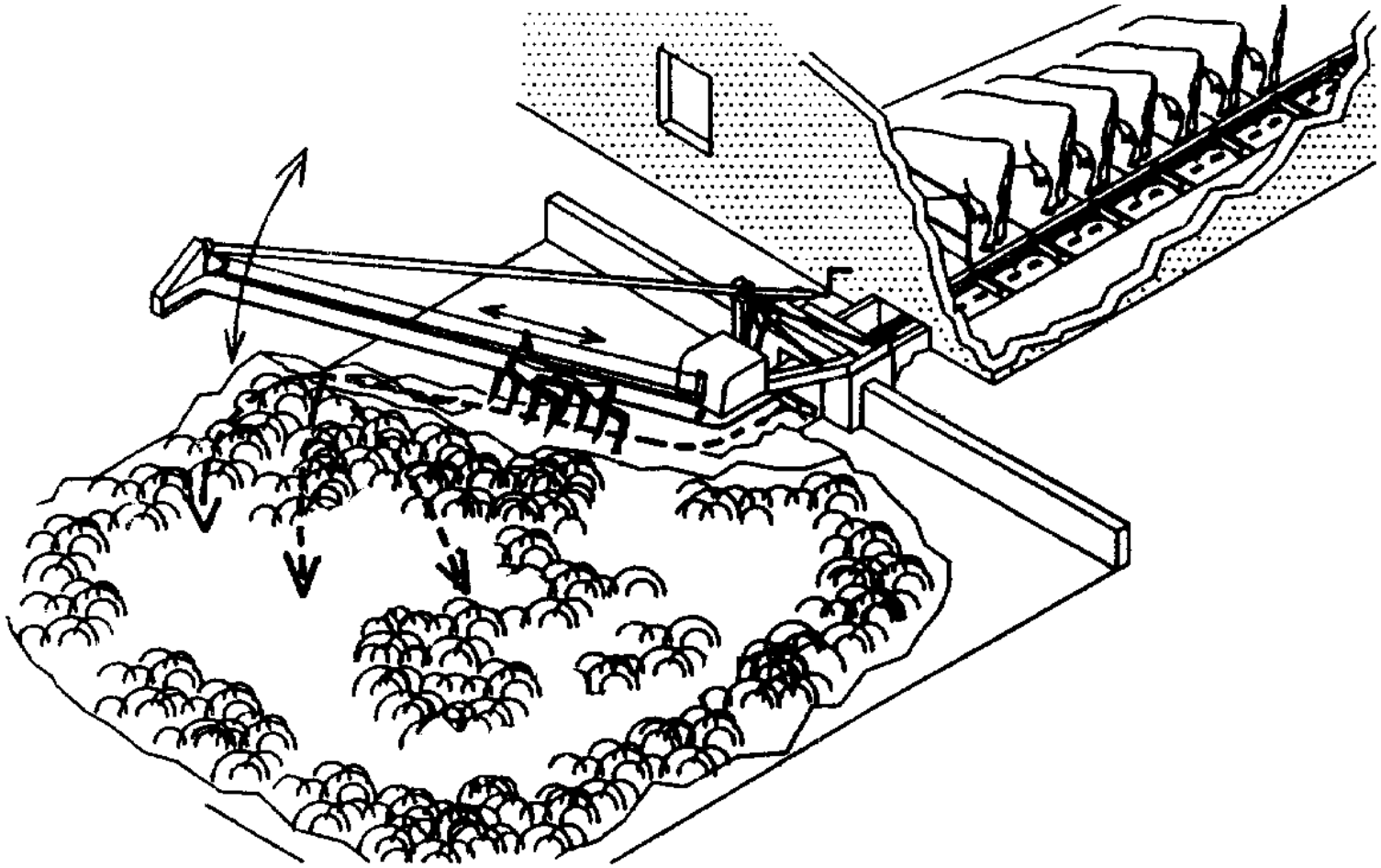

200-
240
95-150

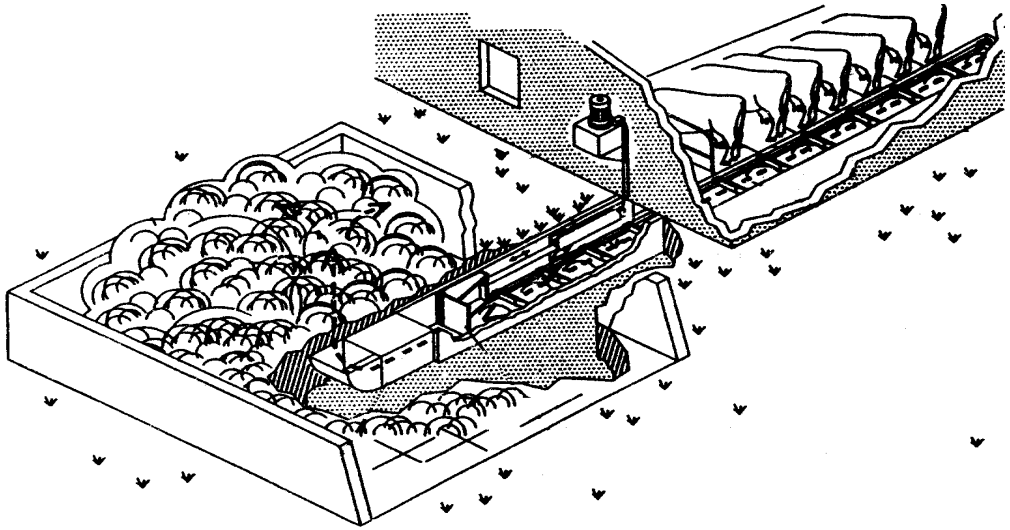

300-
400
170-280

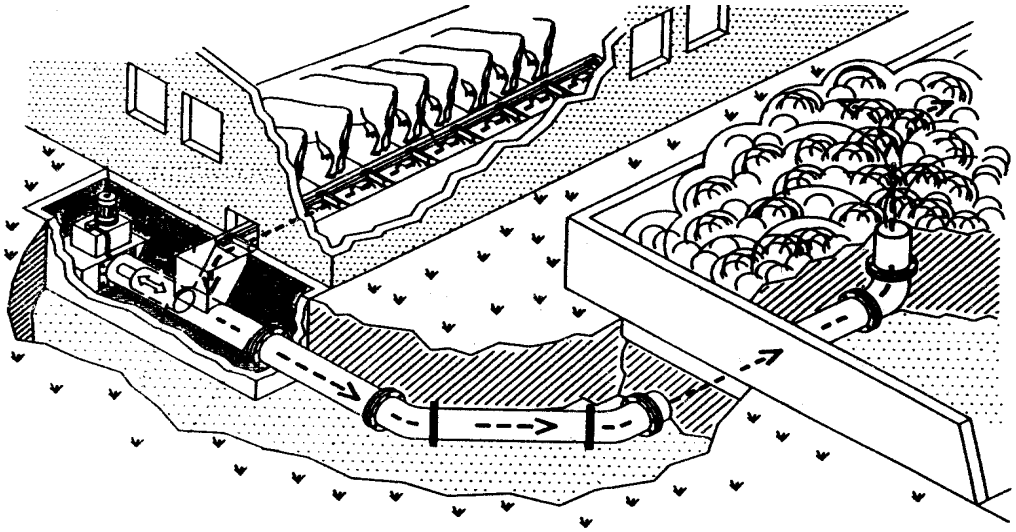


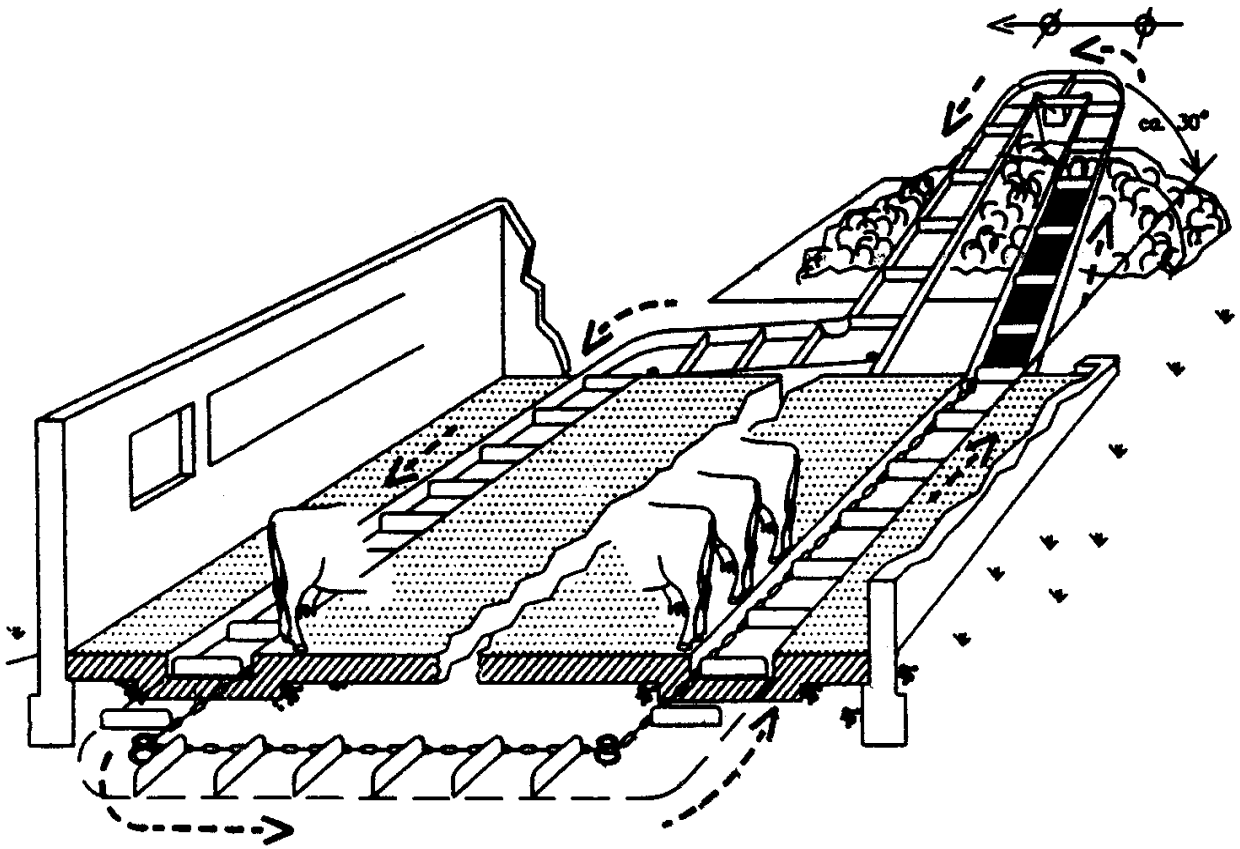

2,00
1,80
20
20

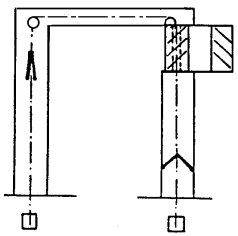

20
0,6–3,0 m
25
0,8–2,5 m

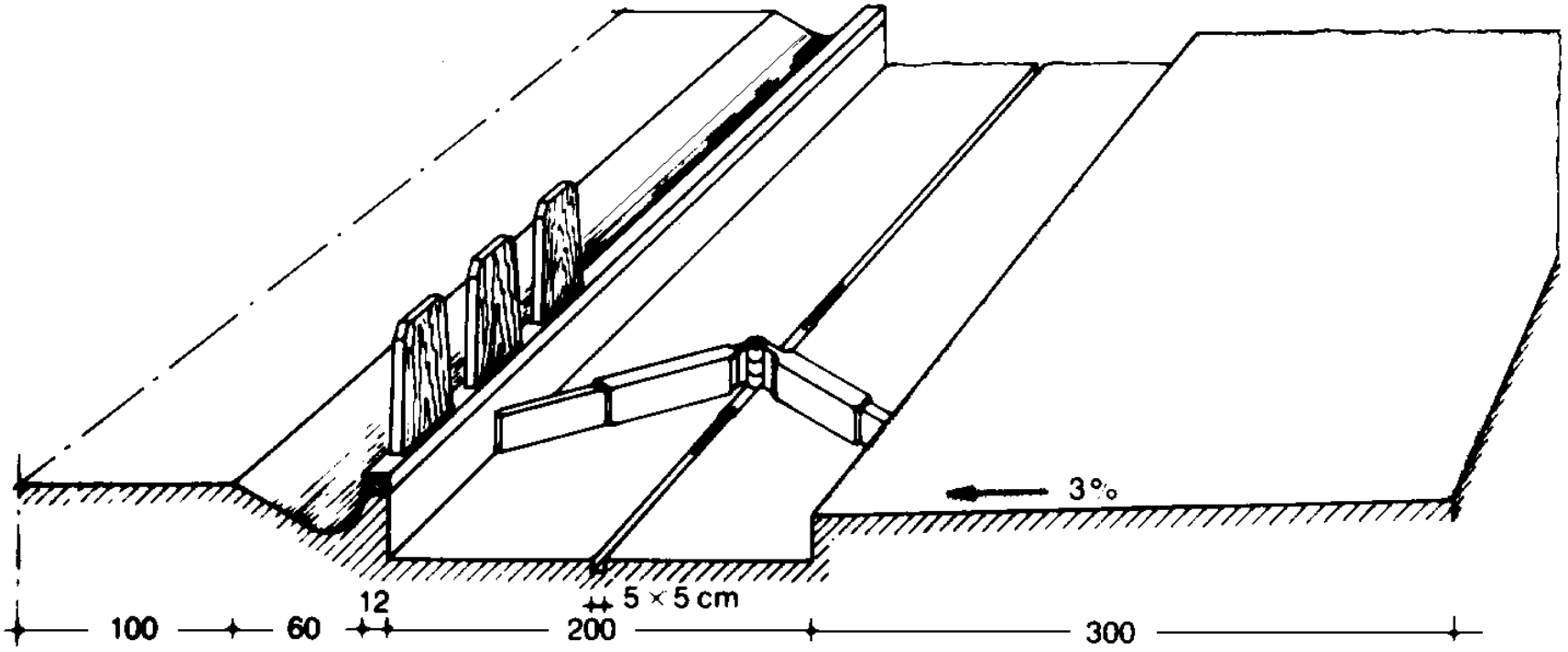


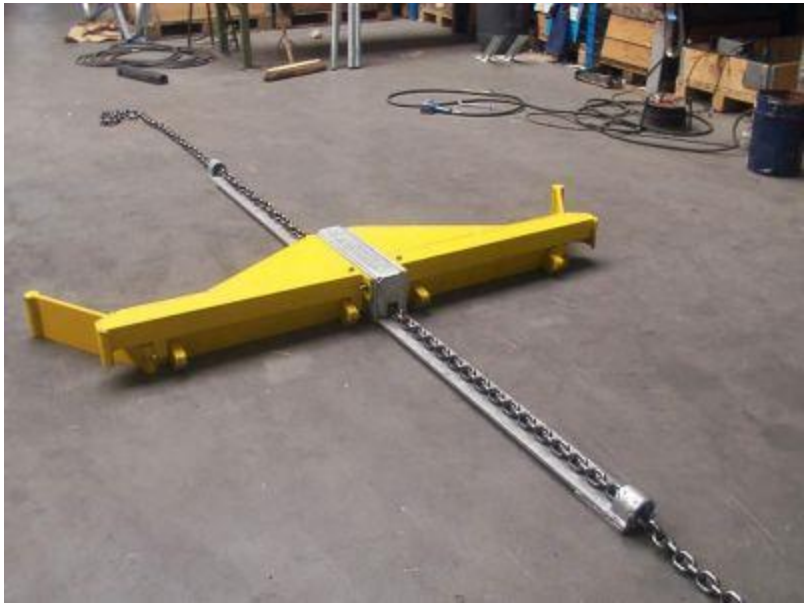


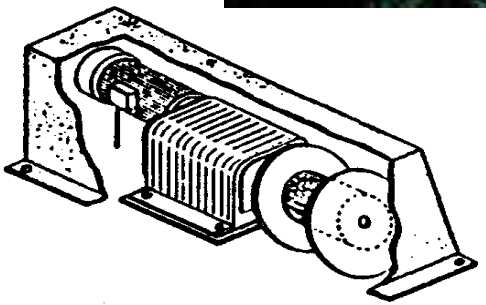


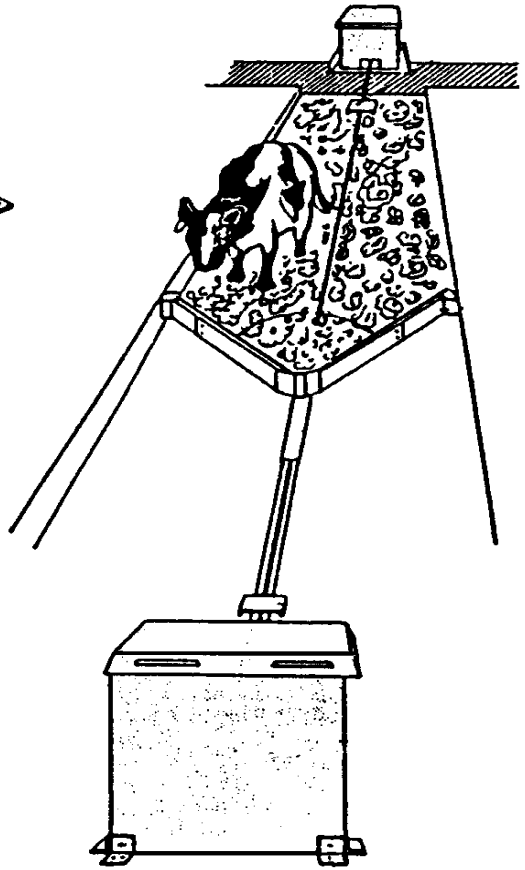

ca. 30°

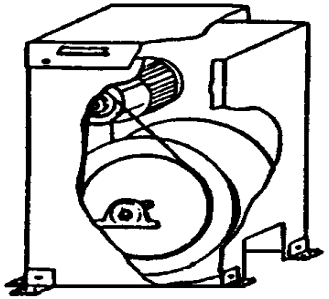


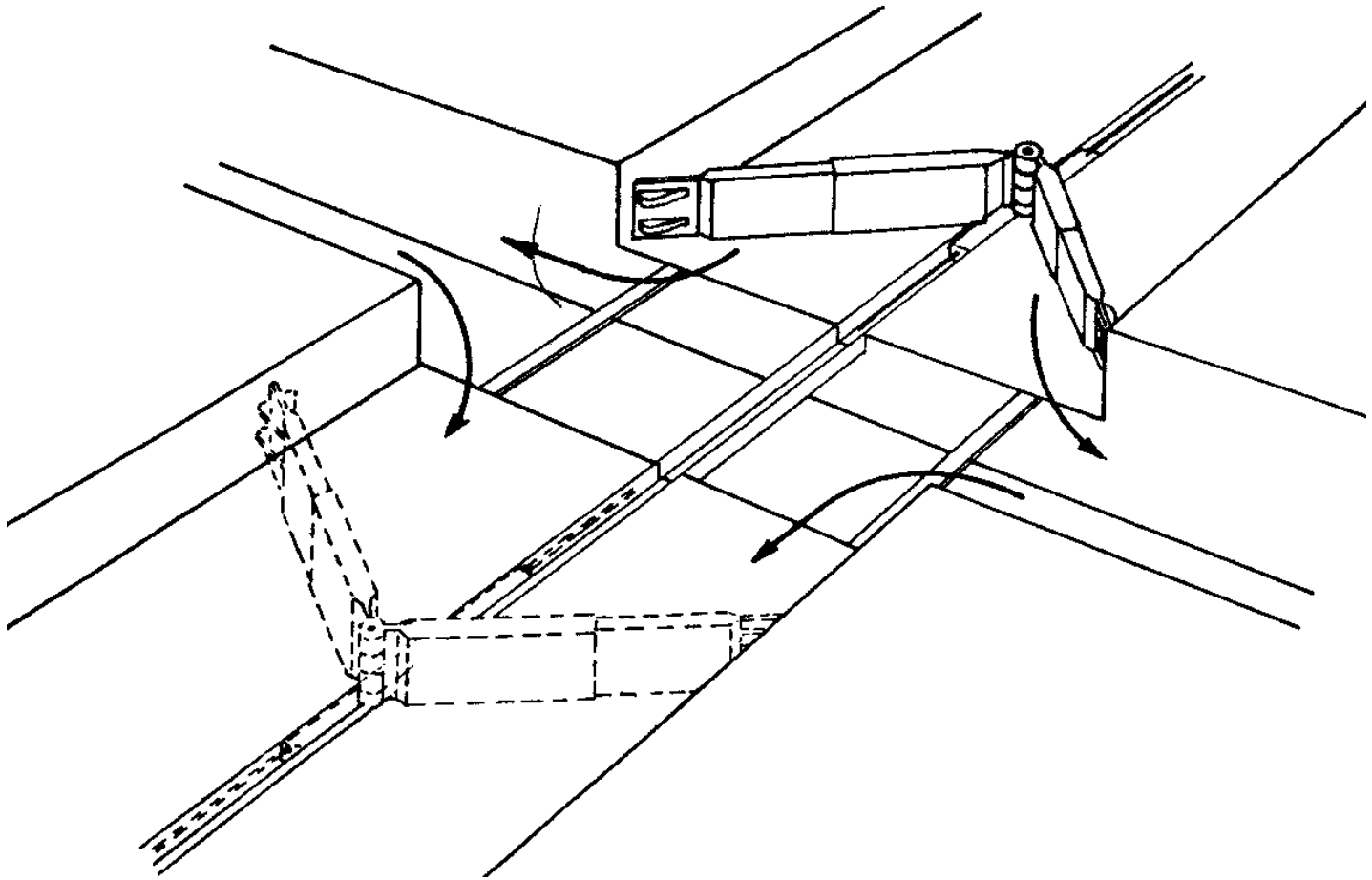

3 %
12
5 × 5 cm
100
60
200
300

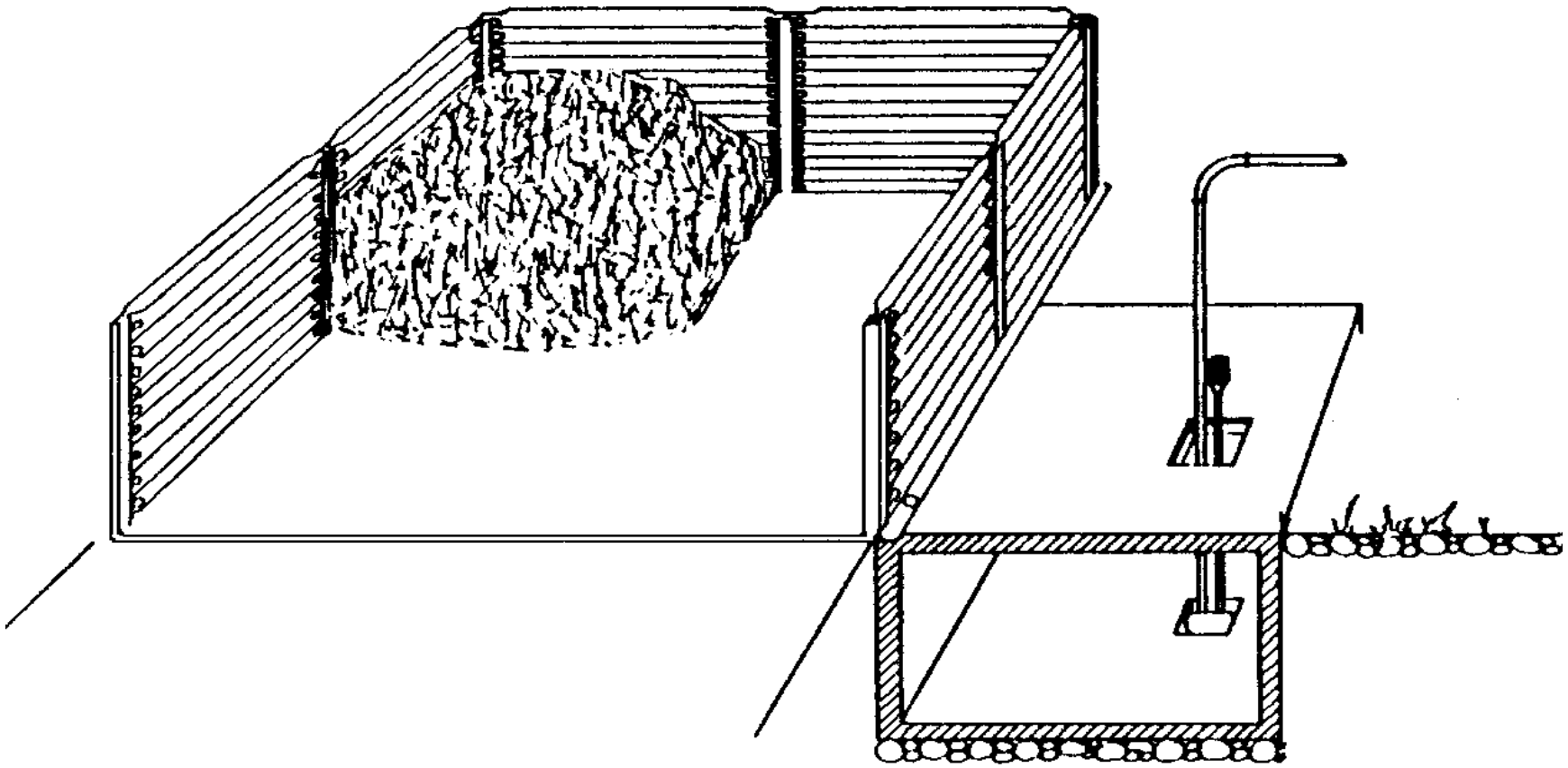


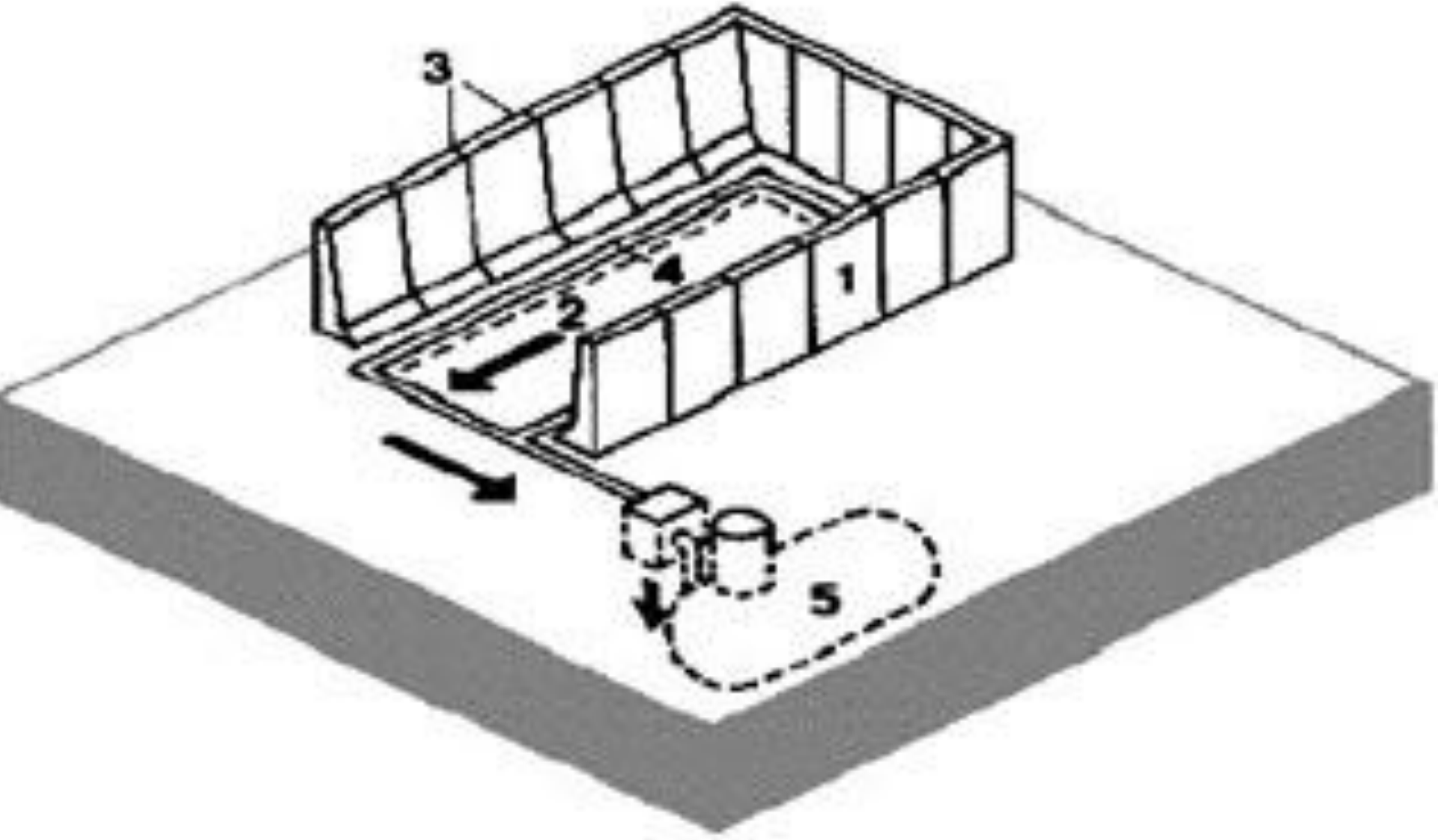











3
4
1
2
5

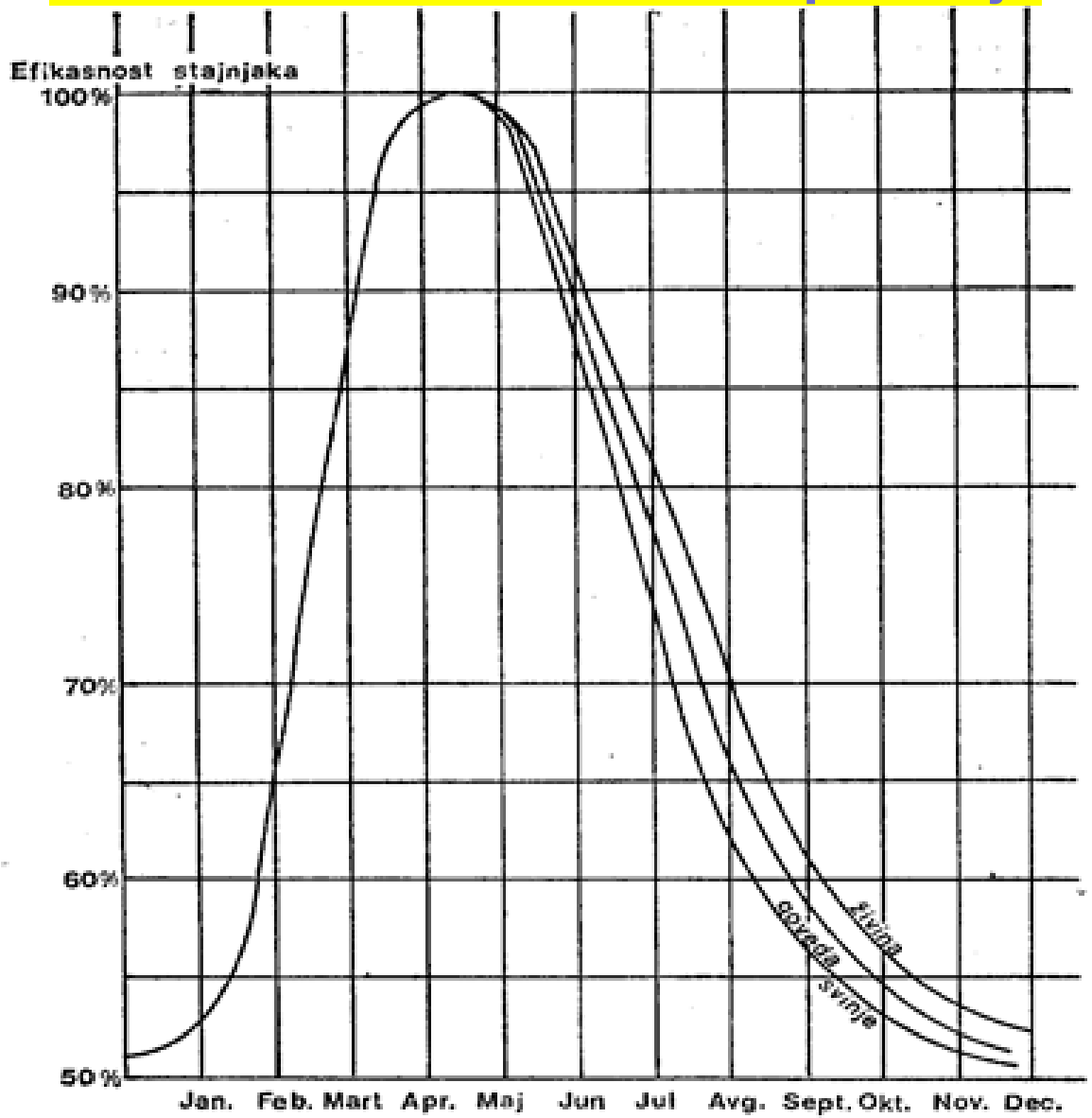

18/07/2008


2007 10 11


09/06/2008

Aplikacija tečnog stajnjaka

Iskorišćenje sadržaja tečnog stajnjaka u zavisnosti od vremena aplikacije



Povoljni i nepovoljni periodi iznošenja tečnog stajnjaka prema iskorišćenju azota kod pojedinih kultura

■ Dobro □ Nije dobro

	Juli	Avg.	Sept.	Okt.	Nov.	Dec.	Jan.	Feb.	Mart	April	Maj	Juni
Ozima pšenica		□	□	□	□	□	□	■	■	■	■	■	■	■	■	□	□
Jara pšenica								□	□	□	■	■	■	■	■	■	■	□	□
Kukuruz								□	□	□	□	■	■	■	■	■	■		
Repa								□	□	□	■	■	■	■	■				
Krompir								□	□	□	■	■	■	■	■				
Uljana repica	■	■	■	■	■	■		■	■	■	■	■	■						
Livade	■	■	■	■	■	□	□	□	□	□	■	■	■	■	■	■	■	■	■
Postrni usev	■	■	■	■	■	■	■												
Strnjika	□	□	□	□	□	□	□	□	□										

Značaj aplikacije na normu tečnog stajnjaka po jedinici površine

Vrsta kulture	Tip zemljišta	Norma tečnog stajnjaka prema vremenu iznošenja (m^3/ha) Jan. Febr. Mart Apr. Maj Jun Jul Avg. Sept. Okt. Nov. Dec.
Ozima pšenica	- +	< 20 - 30 >…… < 20 - 30 >…… ……<
Jara pšenica	- +	……< 20 - 40 >……. ……< 20 - 40 >
Uljana repica	- +	…….< 20 - 40 >…. ….< 20 - 30 >……. ……..< 20 - 40 >…… …..< 20 - 40 > ….
Šećerna repa	- +	……< 20 - 60 >……< 40 - 60 >…….. ……..< 40 - 60 >……..…< 40 - 60 >……
Stočna repa	- +	…….< 50 - 80 >……< 30 - 50 >……. ……..< 50 - 80 >……< 30 - 50 >…….
Kukuruz	- +	……< 40 - 70 >…….. ……< 40 - 80 >……..
Krompir	- +	……< 20 - 40 >….. ……< 20 - 50 >……..
Livade	- +	…….< 20 - 20 >……< 20 >…..< 20 >……
Strnjika	- +	< 30 - 50 >…… < 30 - 60 >……

– lako zemljište + teško zemljište


Agrar


Pilegi


ZUNHAMMER


ZUNHAMMER
VOGELSANG


ZUNHAMMER
ULRICH HELMCKE


ZUNHAMMER
GÜLLE-TECHNIK
ZUNHAMMER
40


KAWECO
KAWECO


ZUNHAMMER


garant


CLAAS
KAWECO
CLAAS


KAWECO
KAWECO
VOLMER

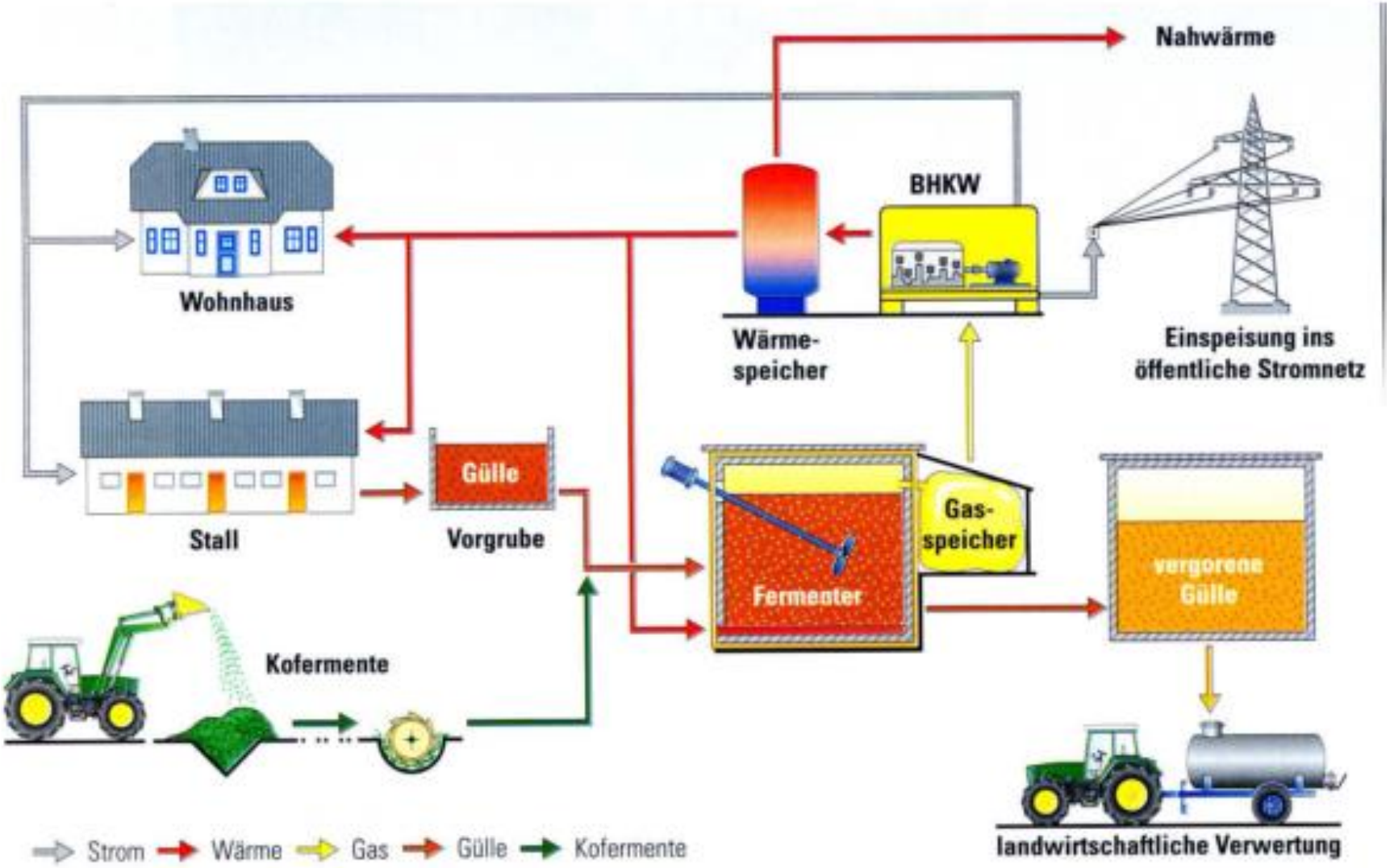

pathfinder


ARION
CLAAS
15500

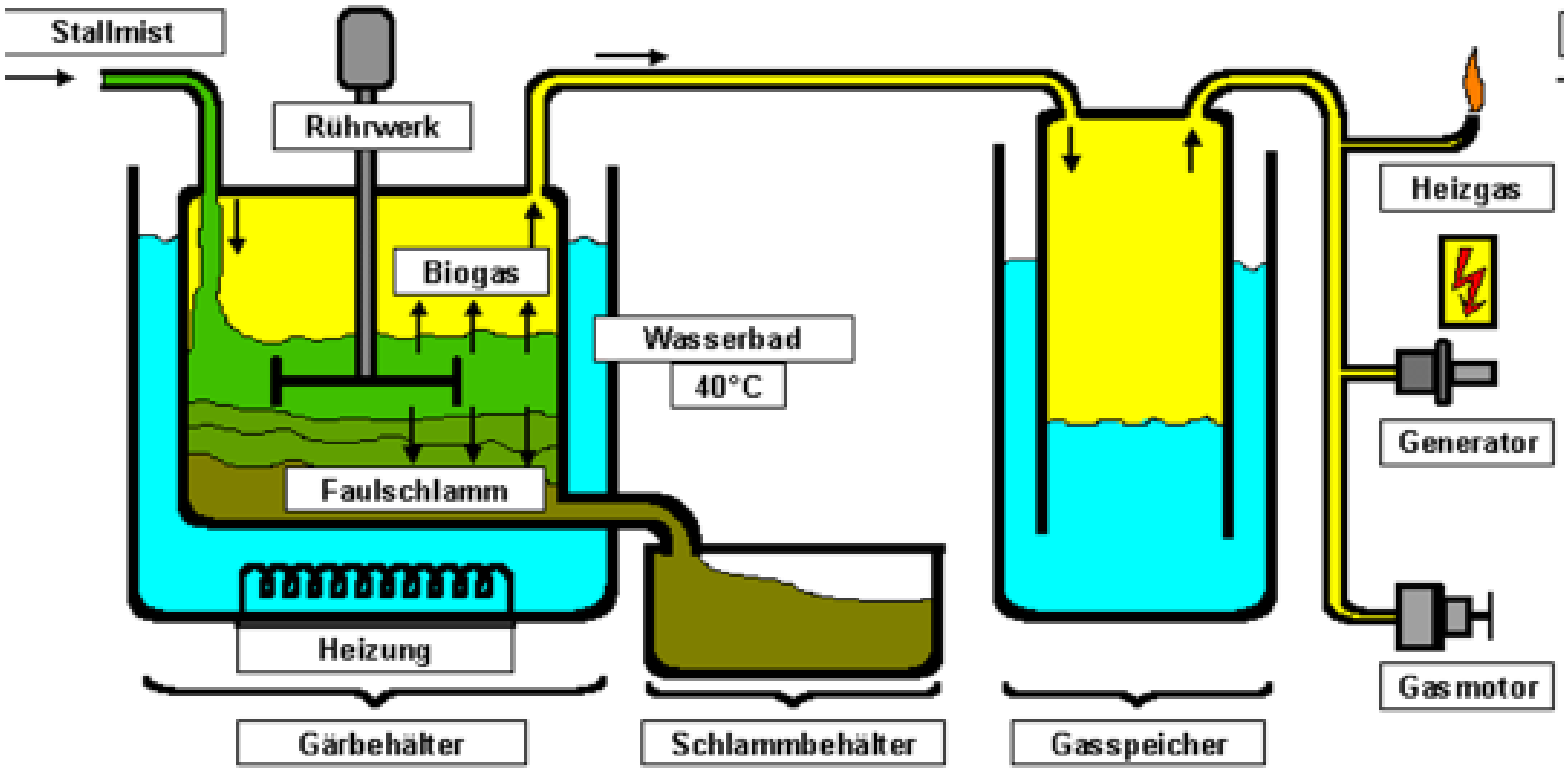

veenhuis

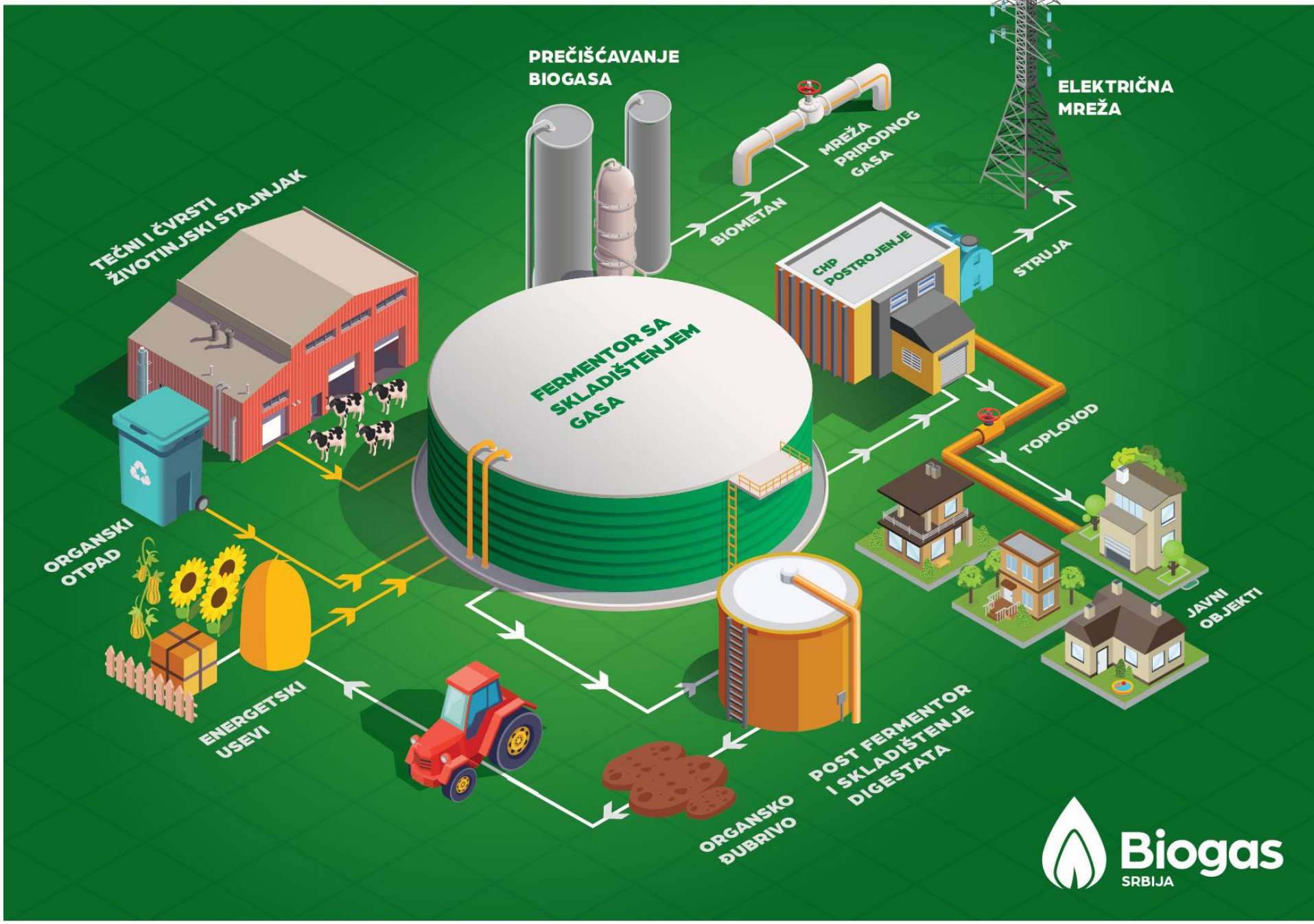

Agrometer
SRS 1200


A G R
Ø R


Nahwärme
BHKW
Wohnhaus
Wärme-
speicher
Einspeisung ins
öffentliche Stromnetz
Gülle
Stall
Vorgrube
Gas-
speicher
Fermenter
vergorene
Gülle
Kofermente
landwirtschaftliche Verwertung
Strom
Wärme
Gas
Gülle
Kofermente

Funktionsweise einer Biogasanlage




PREČIŠĆAVANJE BIOGASA
ELEKTRIČNA MREŽA
MREŽA PRIRODNOG GASA
BIOMETAN
TEČNI I ČVRSTI ŽIVOTINJSKI STAJNJAK
CHP POSTROJENJE
STRUJA
FERMENTOR SA SKLADIŠTENJEM GASA
TOPLOVOD
ORGANSKI OTPAD
JAVNI OBJEKTI
ENERGETSKI USEVI
POST FERMENTOR I SKLADIŠTENJE DIGESTATA
ORGANSKO ĐUBRIVO
Biogas
SRBIJA

Hvala na pažnji