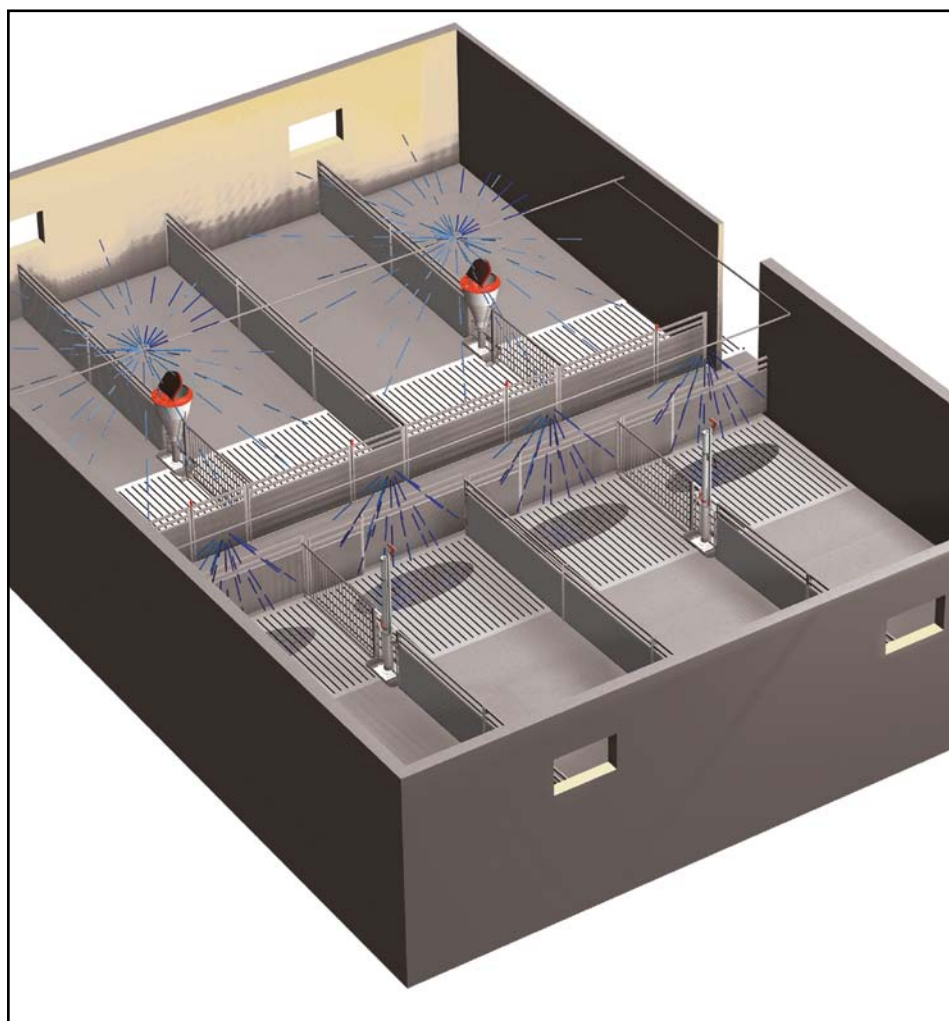


MOUNTING INSTRUCTION

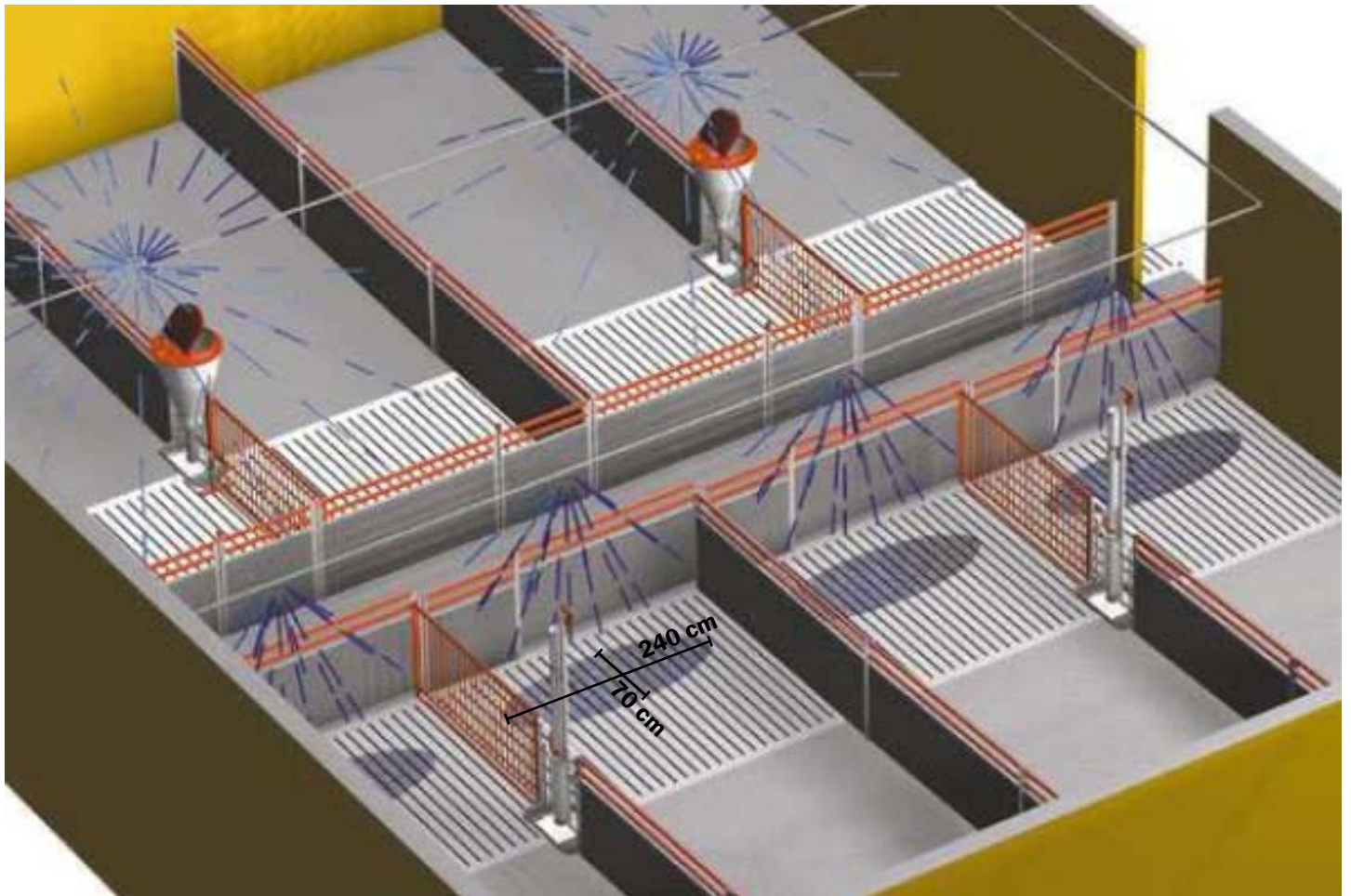


SPRINKLING AND SOAKING



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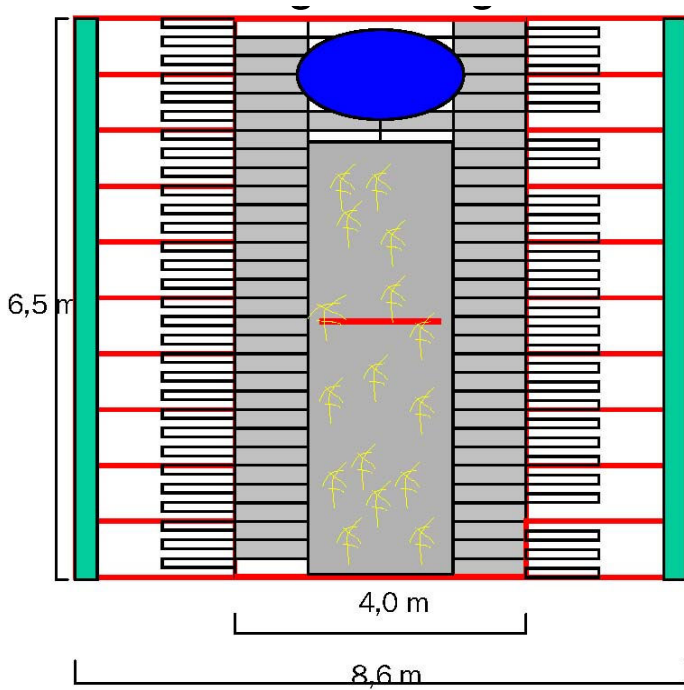
The nozzles sprinkle in a 65° angle providing a showering area of approx. 70 x 240 cm. The showering area should not include fixtures, feeders, resting areas and inspection path.

A dry area of a reasonable size is required in front of the resting area so that the pigs do not drag manure and water onto it.

When washing the stable the sprinkling nozzles are dismantled and replaced by soaking nozzles with a showering diameter of 10 m. In order to slowly dissolve all impurities the area is showered in short intervals.

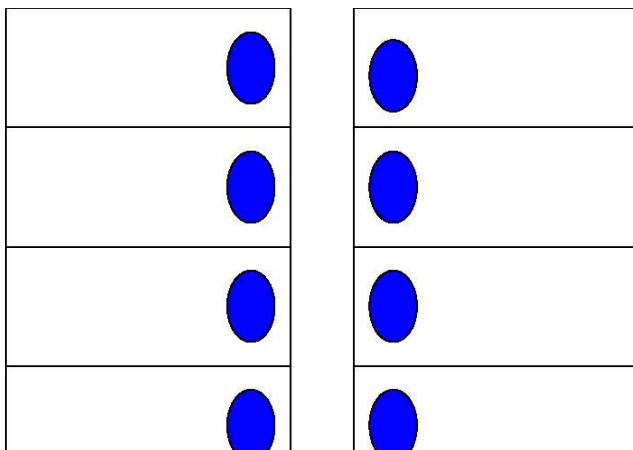
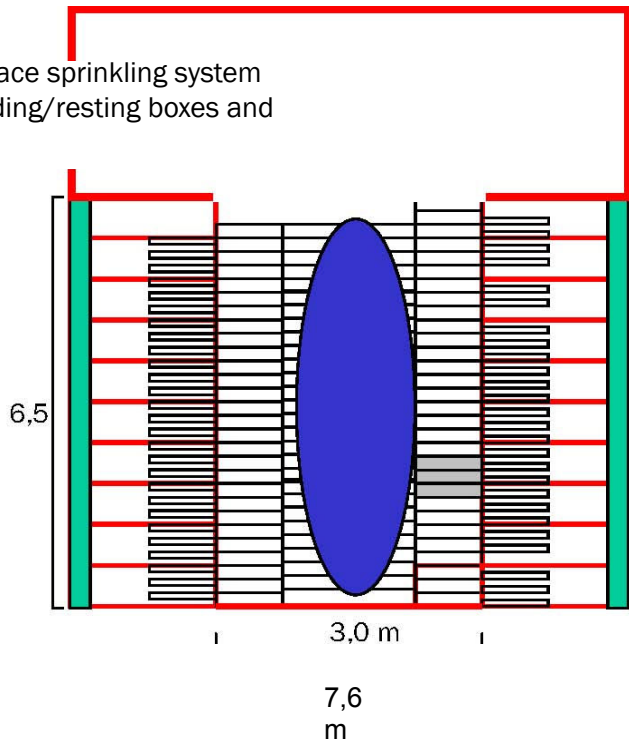
It is advised to use appropriate small amounts of water so no excess water ends up in the manure channels.

In finishing pens floored partly with slats, the sprinkling system is adjusted so that the slats are showered without including the fixtures, feeders, resting areas and inspection path.



III. 1. Example of how to place sprinkling system in gestation pens with two rows of feeding/resting boxes.

III. 2. Example of how to place sprinkling system in gestation pens with feeding/resting boxes and nesting area next to them.



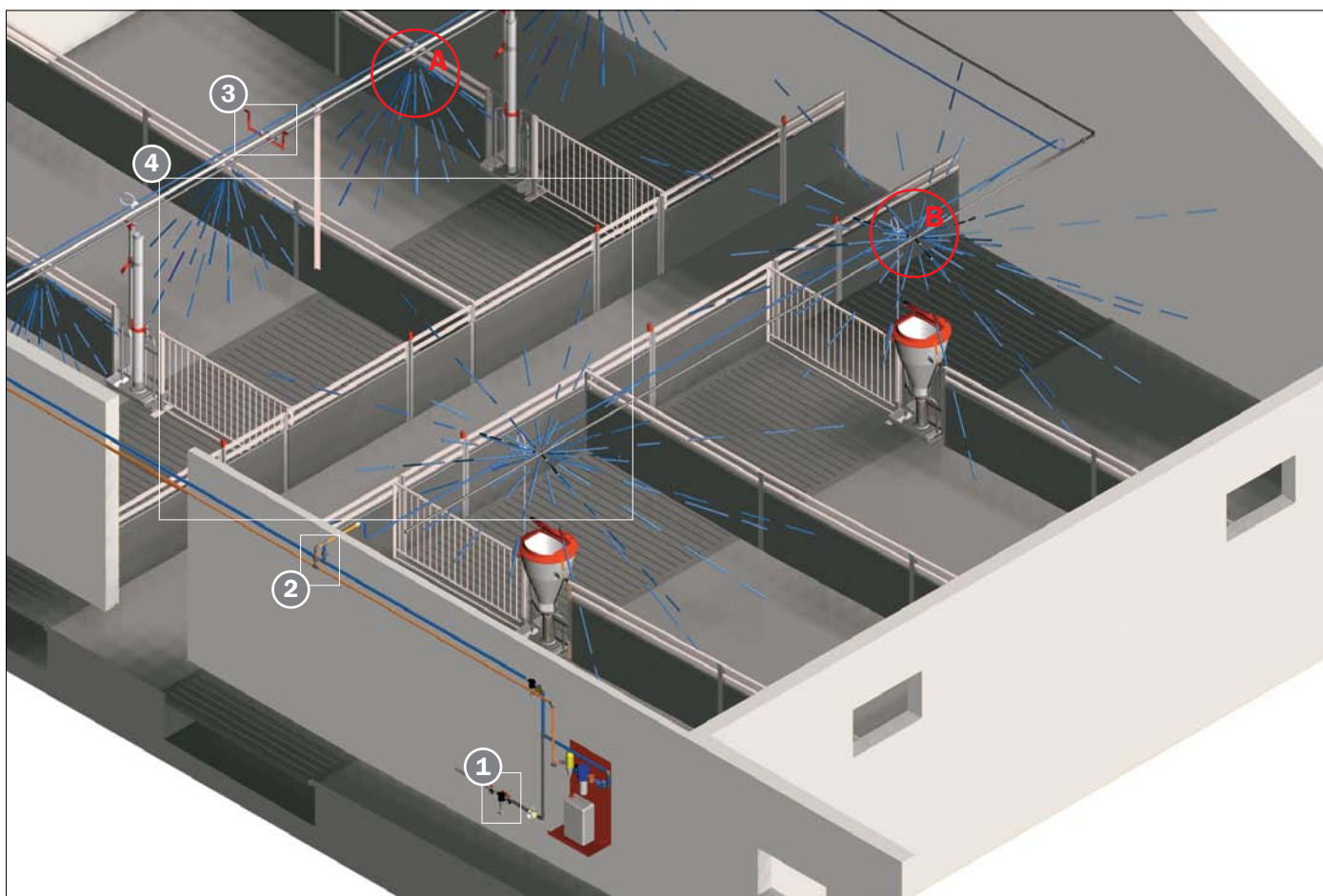
III. 3. Example of how to place sprinkling system in piglet-, FRATS- and finishing pens.

Sprinkling system with 32 mm PVC pipe suspended by wires, and with flat water nozzle.
The flat water nozzle in the check valve can be replaced with a soaking nozzle.

For easier replacement of the nozzles and to ensure an optimized spreading of water, the pipes are mounted in a height of 200-240 cm. We recommend a mounting height of 220 cm. This provides a spreading of water of approx. 240x70 cm. (A - sprinkling).

When replaced with soaking nozzles, a circular spreading area with a diameter of 10 m is attained (B - soaking).

The recommended water pressure is 2,5 - 3 bar.



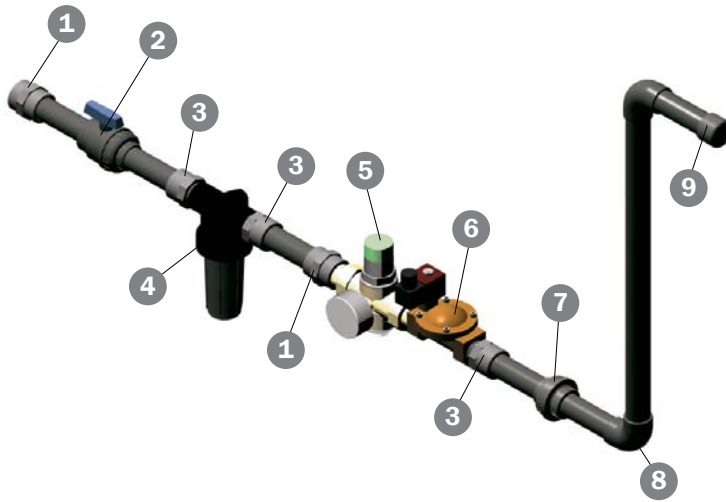
1 Water supply
Item no. 60404

2 Mixing system
Item no. 20000055 (PVC pipe 32 mm)

3 Mounting on ceiling or wall
Item no. 60450 (wire)
Item no. 3900084 (pipe fitting for wall)

4 Soaking/sprinkling

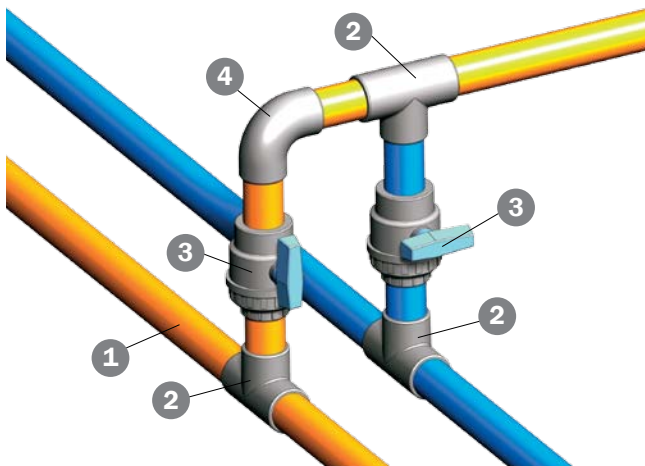
1 - WATER SUPPLY



Nr.	Item no.	Description	PCS.
-	60404	Complete set with 230 V solenoid valve, consists of:	
1	23900343	32 mm-1" PVC threaded socket	2
2	23900358	PVC ball valve 32 mm	1
3	60190	32 mm 1" joint/male thread connector	3
4	93775	Front filter	1
5	93800	Reducing valve with sift 1"	1
6	93820	Solenoid valve 1" 230 volt	1
7	23900345	PVC Union 32 mm	1
8	23900338	PVC angle, 90°, 32 mm	2
9	23900344	PVC screw cap, 32 mm	1
Spare parts			
-	12400030	Sirai socket for solenoid valve, grey	-

The front filter should always be mounted on the sprinkling- and soaking system. Furthermore, it is recommended to mount the reducing valve in order to secure a stable water pressure.

2 - MIXING SYSTEM



MIXING SYSTEM

Nr.	Vare	Betegnelse
1	20000055	PVC pipe w/socket 32 mm (pr. m)
2	23900340	T-fitting PVC 90° 32 mm TN16
3	23900358	PVC ball valve 32 mm
4	23900338	PVC angle, 90°, 32 mm

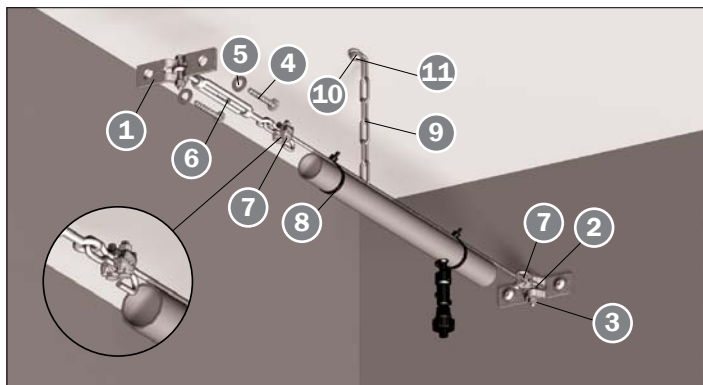
The orange pipes indicate enriched water.
The blue pipes indicate clean water.
(The pipes are always supplied in grey.)

3 - MOUNTING ON CEILING OR WALL

SUSPENSION FOR WIRE

Water pipes for sprinkling and soaking can be attached to a spring wire fastened to the outer walls.

For spans of more than 6 m, it is necessary to shore up the spring wire.



SUSPENSION FOR WIRE			
No.	Item no.	Description	PCS.
-	60450	Suspension kit for wire , consists of:	
1	92580	Wall bracket, galvanised	2
2	30306040	Set screw M6X40 stainless steel	2
3	33506010	Nut M6 A2, wax, DIN 934	2
4	67444	Button head 10X70 TORX 50 RF	4
4	39900001	Wall plug 12X60 mm	4
5	68746	Washer 10 mm, stainless steel	4
6	0591-171	Turn buckle, stainless steel	2
7	0591-174	Wire lock 5 mm, stainless steel	2
8	76200023	Cable tie 300x4,8 mm	11

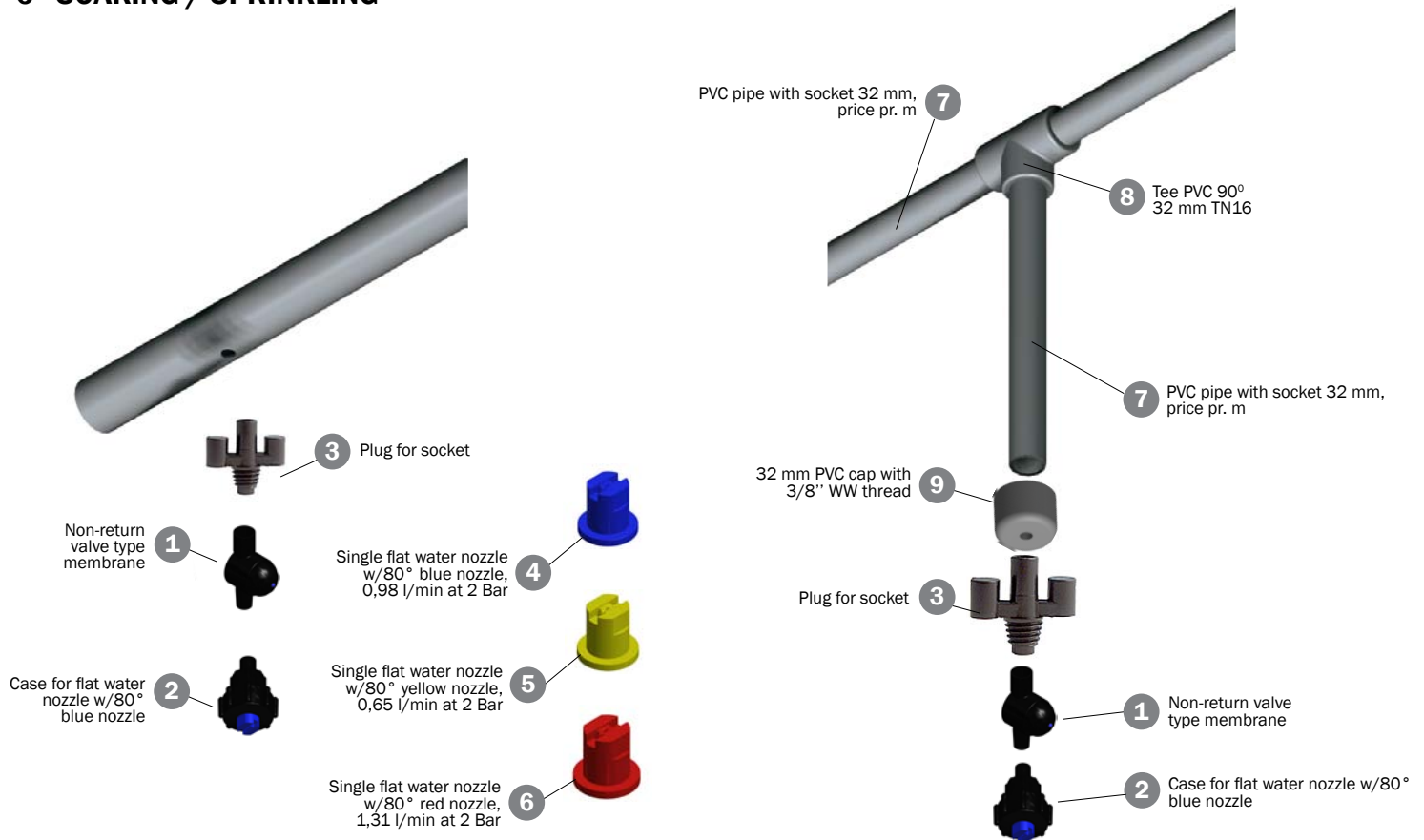
For spans more than 6 m			
No.	Item no.	Description	PCS.
9	09000024	Chain, galvanised, price pr. m.	1
10	67114	5 x 50 chip screw	1
11	68695	5 mm washer, galvanised	1

CEILING- AND WALL SUSPENSION



No.	Item no.	Description	PCS.
-	3900084	Pipe fittings kit for Ø32 mm PVC pipe on wall:	
1	23900387	Pipe hanger with fastening lock Ø32mm	1
2	25000039	Chipboard screw 5x50 us TORX A2	1
3	9961004	Wall plug 6x30 mm	1

6 - SOAKING / SPRINKLING



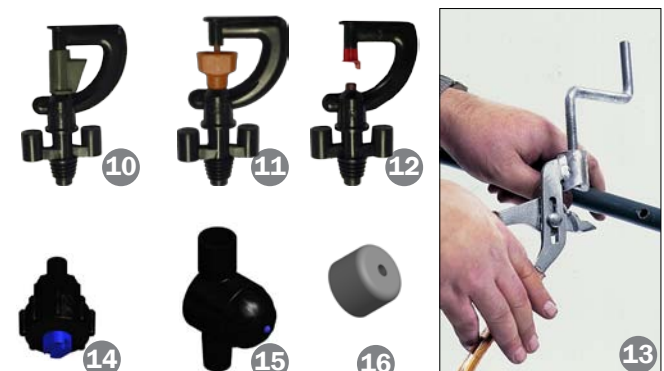
NOZZLES		
No.	Description	ill.
9960715	Non-return valve type membrane	1
9960700	Case for flat water nozzle w/80° blue nozzle	2
9960701	Flat water nozzle w/80° blue nozzle, 0,98 l/min at 2 Bar	4
9960698	Flat water nozzle w/80° yellow nozzle, 0,65 l/min at 2 Bar	5
9960699	Flat water nozzle w/80° red nozzle, 1,31 l/min at 2 Bar	6

NOZZLE KITS (T-fitting and pipes)		
No.	Description	ill.
9960446	Dysesæt T-stykke til 32 mm rør, består af:	-
9960715	Non-return valve type membrane	1
9960700	Case for flat water nozzle w/80° blue nozzle	2
60720	Plug for socket	3
23900340	Tee PVC 90° 32 mm TN16	8
9960600	32 mm PVC cap with 3/8" WW thread	9
20000055	PVC pipe with socket 32 mm, price pr. m	7

NOZZLE KIT in 32 mm PVC pipe		
No.	Description	ill.
9960440	Nozzle set direct to 32mm pipe:	-
9960715	Non-return valve type membrane	1
9960700	Case for flat water nozzle w/80° blue nozzle	2
60720	Plug for socket	3

NOZZLE for nozzle kit Replacement of flat water nozzle		
No.	Description	ill.
9960705	Soaking nozzle yellow 360°, water at 2 Bar 90 l pr. hour, sprads 9 m at 1,8 m height	10
9960709	Soaking nozzle orange 360°, water at 2 Bar 120 l pr. hour, spreads 8,5 m at 1,8 m height	11
9960712	Sprinkling nozzle brown 180°, water at 2 Bar 43 l pr. hour, spread 6 m at 1,8 m height	12

Additional parts and spare parts		
Nr.	Betegnelse	Billede
9960700	Case for flat water nozzle w/80° blue nozzle	2
60720	Plug for socket	3
60725	Drill- and cutting tool for nozzles	13
9960702	Case for flat water nozzle with click	14
9960715	Non-return valve type membrane	15
9960600	32 mm PVC cap with 3/8" WW thread	16



TIPS

- For easier replacement of the nozzles we recommend a mounting height of max. 220 cm.

To avoid or remedy calcium accumulating in nozzles:

- Purchase a spare set of nozzles and descale nozzles according to a defined schedule
- Use soft water through demineralization
- Ensure a sufficient and even water pressure by using the reducing valve and pipes of the right size
- Mount the front filter to reduce the risk of the nozzles being plugged by water impurities

Operation

- To reduce the risk of water drifting, it is best to have large water drops from the sprinkling- and soaking system. This is ensured by a relatively high water amount at a low pressure (2,3 bar). The required water amount depends on the ventilation system and the interior plan of the stable. A nozzle performance of 0,51 l/min is recommended for stables with a diffuse ventilation. For stables with jet ventilation and natural ventilation it is recommended to double this value.

- Clogged nozzles can be cleaned with acetic acid or another descaling agent. It is recommended to always have a spare set of clean nozzles ready for use.

- When installing pigs in cleaned pens, it is recommended to sprinkle the manure area in order to get the pigs to use it as intended.

It can be beneficial to shower the pens frequently during the first couple of days after installing the pigs. Eventually, the intervals are adjusted to the pigs behavior.

It is recommended to shower regularly and to vary the intervals according to the outdoor temperature.

Moreover, we refer to: *“Overbrusningsanlæg i svinestalde en oversigt over nytteværdi, funktion og brug”* (Landsudvalget for Svin, Den rullende Afprøvning, erfaring nr. 9910).