ACCESS LAWN WATERING SYSTEM

Description of kits SLW2/SLW3/SLW6
All kits include Hunter PGJ type rotary pop up sprinklers, with a radius of 4.3m – 11.3m. The sprinklers have arc adjustment from 40º to 360º.

List of contents				
CODE	**DESCRIPTION**	**SLW2**	**SLW3**	**SLWXS**
PEB20-25M	Black MDPE pipe 20mm x 25m	1	1	-
FLF20-3	Compression entry adaptor 20mm x ¾"F	1	1	-
FLT20-3F	Compression tee 20mm x ¾"F	1	2	-
FLE20-3F	Compression elbow 20mm x ¾"F	1	1	1
FLT20	Compression tee 20mm	1	1	-
FLE20	Compression	1	1	
FLK20	Compression coupling	-	-	1
KHPGJ	Hunter PGJ pop-up sprinkler	2	3	1
KHSJ12-2	Swing joint	2	3	1
EPTFE-G	PTFE tape	1	1	-
KHKEY	Hunter adjustment key	1	1	-

Note: SLW6 consists of 2 x SLW3 kits.

Supply requirements
The system will require a minimum pressure of 1.7 bar at the sprinkler head and a flow according to the chosen nozzle (multiply by number of sprinklers for total flow rate). It is very important to measure the available water supply pressure and flow to ensure the required sprinklers can be run.

PGJ specification				
	Pressure: 1.7 bar		**Pressure: 2.8 bar**	
Nozzle	**Radius**	**Flow (L/H)**	**Radius**	**Flow (L/H)**
0.75	4.3	130	4.9	170
1.0	5.2	180	5.8	230
1.5	6.1	270	6.7	340
2.0	7.0	340	7.6	450
2.5	7.9	460	8.5	570
3.0	8.8	510	9.4	680
4.0	9.8	800	10.4	910
5.0	10.7	1020	11.3	1140

System supply
The supply pipe supplied in the kit is black 20mm MDPE and as this will be drained down ibn the winter a depth of 300mm will be sufficient. If in a heavy traffic area, the pipes should be laid 600mm deep. Where several pipes are laid in the same trench, they should be taped together.

When back filling trenches, care must be taken to avoid large stones or rocks pressing directly on the pipe. A cushioning layer of 100mm of sand or gravel should be used around the pipe if this is a problem. Before covering the pipe, we recommend pressure testing the system. If this

is not possible, the pipework may be covered but all fittings should be left exposed for later inspection. Always tape over the ends of the pipe to prevent any dirt ingress. The pipe should be unrolled cartwheel fashion to avoid twisting. A 20mm x ¾" female stud **(FLF20-3)** is included to connect to a standard outside tap, timer or solenoid valve manifold. The elbow **(FLE20)** included in the kit should be fitted below the tap.

Fittings

Compression type

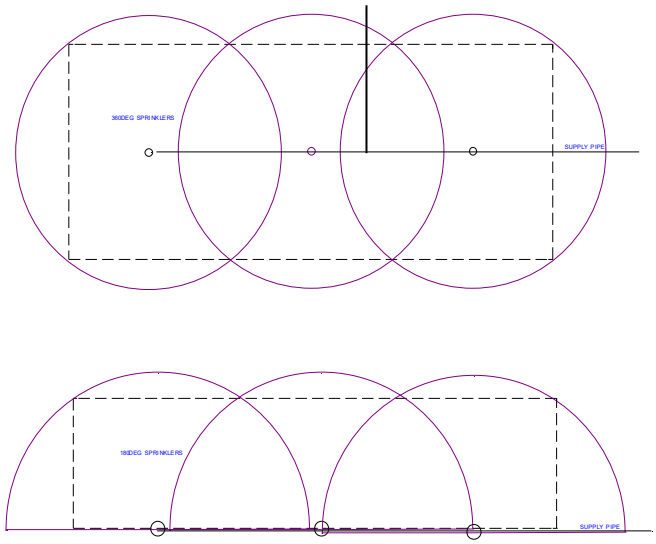
To fit Plassim compression type fittings, first cut the end of the pipe square and chamfer the edge using pipe chamfering tool or the blade edge of the pipe cutters. Slacken the black cap until it is just holding on the threads, then firmly push the pipe into the fitting ensuring it goes through the internal rubber seal. Finally, tighten the cap hand tight is sufficient. (FLCHAM & FLCUT tools not supplied in kit)

Threaded type

All threaded joints need to be sealed using PTFE tape, **(EPTFE-G)** allow 50% overlap and wind around the thread in a clockwise direction.

System layout

The system pipework can be configured for end or centre feed using the tee **(FLT20)** supplied. Gently sweep the pipes at any corners. The basic configuration is a single supply pipe running down the centre of the lawn area with sprinklers set at 360° and spaced according to chosen radius. In order to achieve an even coverage in this configuration the sprinklers will inevitably overthrow into the surrounding areas. It is also possible to configure the system along the perimeter of the lawn area using the sprinklers set at 180°. There are some sample layouts at the end of this document.



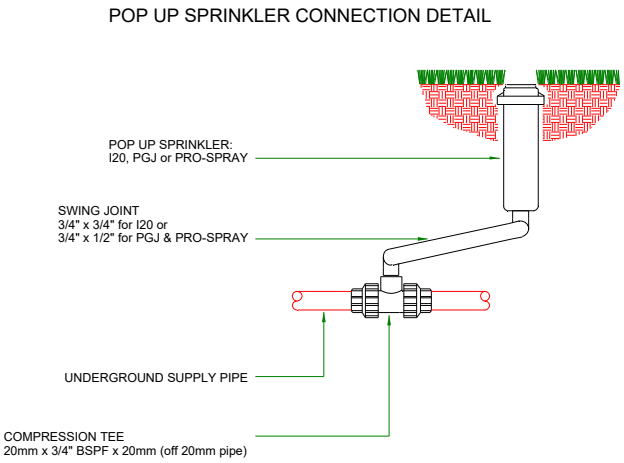
To ensure the system will provide the coverage you require it is best to do a scale plan of the lawn area and layout the sprinklers to make sure they cover sufficiently. Note that sprinklers by design have a wider wetting area than the specified effective watering radius and for even coverage some overlap is desirable.

Ensure you have sufficient pressure and flow to run the sprinklers at the chosen radius required.

SLWXS

This kit provides an extra sprinkler assembly with compression elbow and a compression pipe coupler for extension of the supply pipe.

Pop-up assembly

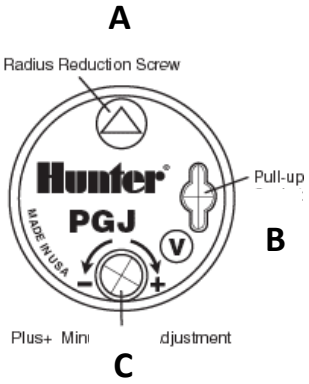


The centre sprinkler body is connected to the main supply pipe via threaded tee **(FLT20-3F)** and a swing joint **(KHSJ12-2)**.

The end of run sprinkler uses an elbow **(FLE20-3F)** instead of a tee. These should be pre-assembled using PTFE tape to seal the threads.

At the sprinkler location cut the supply pipe if required and fit the sprinkler assembly as previous instructions. Using the universal joints of the swing joint set the sprinkler vertically in the ground and the top below the grass mowing height. The pop-up sprinkler body is held in place with compacted earth.

Sprinkler adjustment



The sprinkler is pre-fitted with a 1.5 nozzle. This can be left in for testing and setting up purposes and the correct size fitted after installation.

Final adjustments should be carried out when the sprinkler is installed and set at the correct soil level. All adjustments are made **through** the rubber end cap, using either the metal or plastic end of the Hunter key **(KHKEY)**.

Firstly, insert the plastic end into **B** and twist 90°. Hold down the sprinkler outer flange and pull up the centre shaft, now hold the shaft securely and after twisting 90° remove the key.

Nozzle replacement:
Using the metal end of the key insert and locate into **A**. Turn anticlockwise until the end of the screw is clear of the red nozzle (Fig. 10). Use the end of the key to prise out the nozzle. Use your thumb to push the new nozzle firmly in. Turn the key clockwise until the threads lock the top of the nozzle, but don't interfere with the spray outlet.

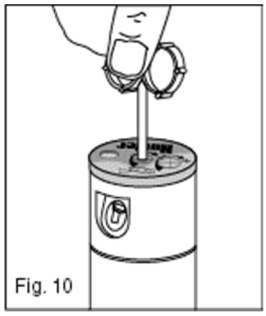


Fig. 10

Arc adjustment:
Insert the plastic end of the key into the **C**. Rotate the sprinkler head fully anticlockwise then fully clockwise. This right hand stop is **fixed**, if this needs adjustment simply turn the shaft itself against the 'ratchet' mechanism to the right position. Turn the key clockwise **+** to increase the arc anticlockwise **-** to reduce the arc.

Testing the system

After the system has been fully installed run each zone to ensure the sprinklers pop-up and cover the required area. Fine adjustment of the sprinklers can be done whilst it is running. Manually turn the sprinkler left and right to check arc but do not force it against its natural operating direction.

Check that there are no leaks on the pipework or associated fittings and rectify if necessary.

Operating the system

Recommended watering times

Hunter PGJ sprinklers (full circle)	45 minutes per day
Hunter PGJ sprinklers (half circle)	20 minutes per day
Hunter PGJ sprinklers (quarter circle)	10 minutes per day

It is best to water the lawn area early morning if practicable. The above times are for guidance only and may need to be altered according to season, plant type, aspect etc. the daily operating time can be split if required. If watering every other day or weekly multiply daily rate accordingly.

Maintenance

The system is not designed to run through the winter months and should be drained down if practicable. The supply connection should be disconnected and any water drained out.

Options

Extra pipe and fittings are available to change the layout if required, however additional pipework will reduce the pressure in the system.

The addition of a battery timer will enable the system to be automated. A rain sensor is also available to ensure watering does not take place during periods of sufficient rainfall.

If pressure and flow is not sufficient or if the Water Authority require, a 'CAT 5' pressure booster set can be supplied.

If you have any queries regarding this kit or options available, please contact our sales department.

UK water regulations require backflow prevention. The Local Water Authority must be consulted for specific requirements prior to installing this system.

Irrigation systems should only be installed by a competent person

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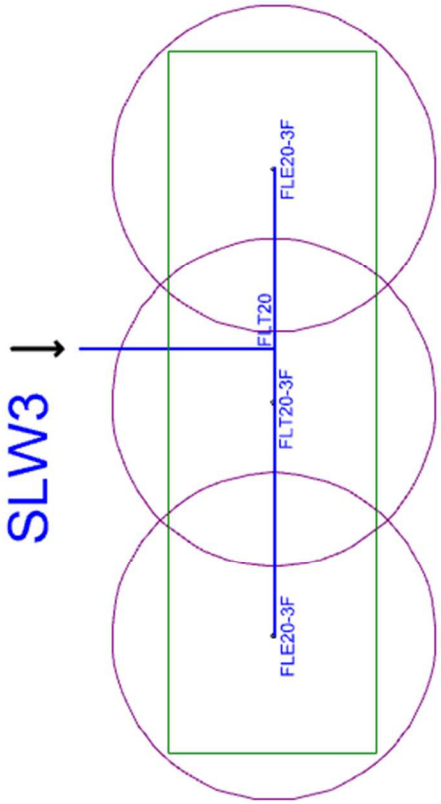
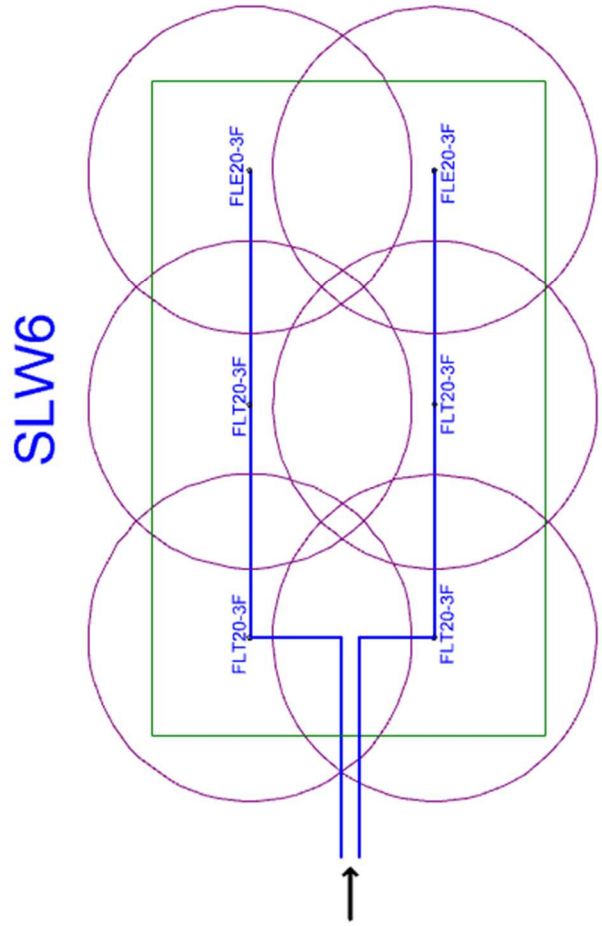
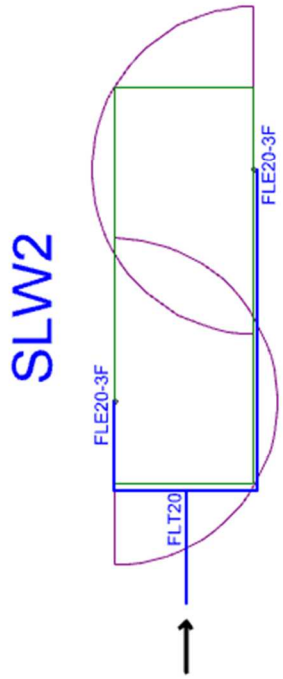
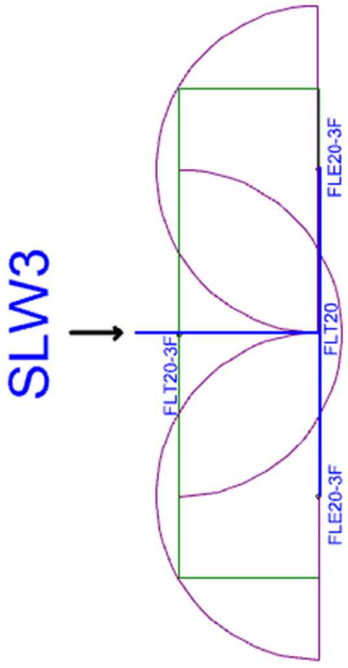
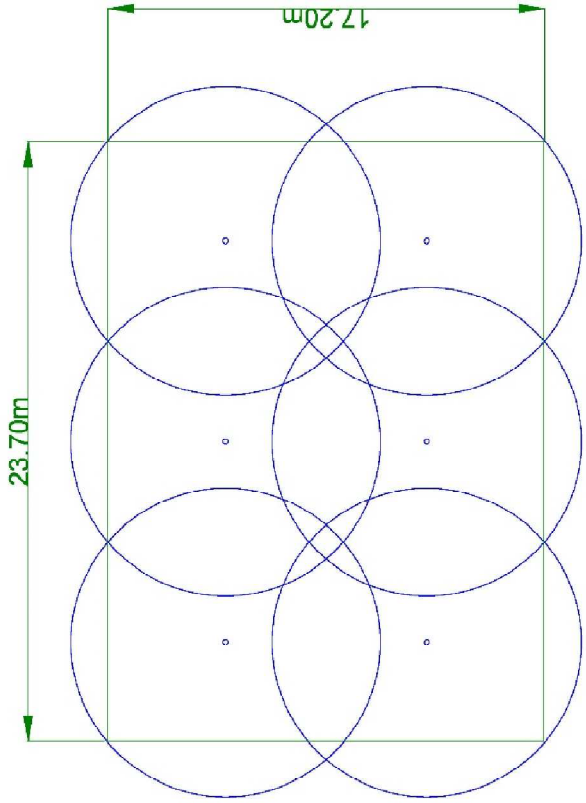

SLW3
FLE20-3F
FLT20
FLT20-3F
FLE20-3F


SLW6
FLE20-3F
FLE20-3F
FLT20-3F
FLT20-3F
FLT20-3F
FLT20-3F


SLW2
FLE20-3F
FLE20-3F
FLT20


SLW3
FLE20-3F
FLT20
FLT20-3F
FLE20-3F

1.5 nozzle 1.7 bar pressure
Overlap on 130% of radius



SLW6

I115-sprinkler kits
drawing
Rev: 0 Sept 2018
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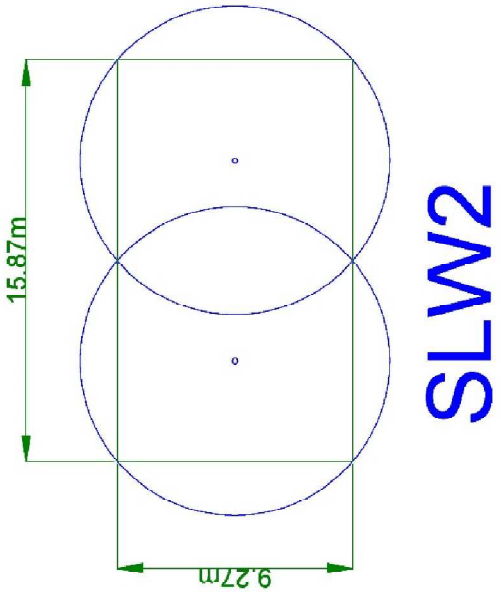
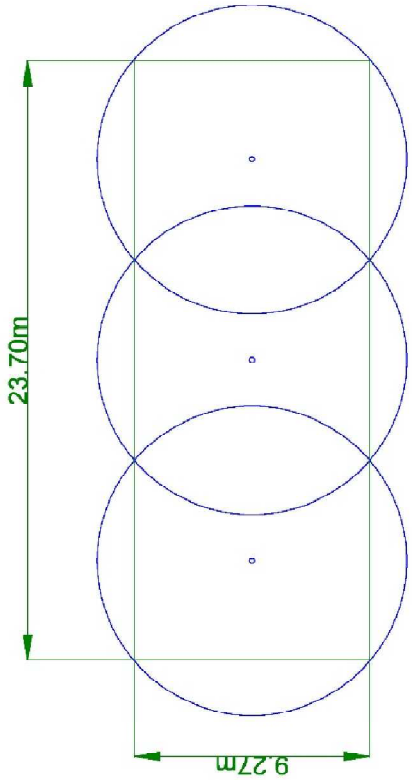
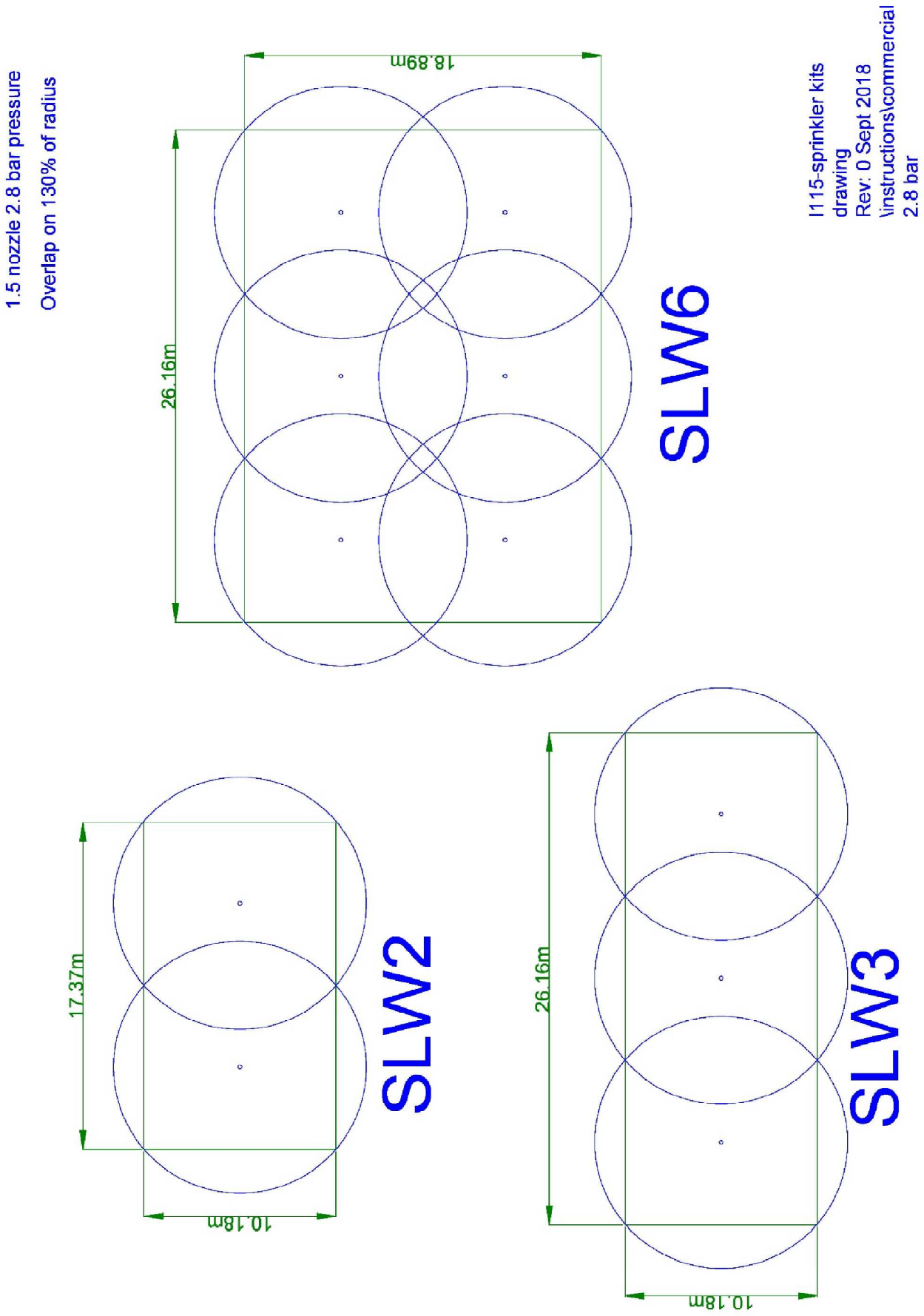
1.7 bar



SLW2



SLW3


1.5 nozzle 2.8 bar pressure
Overlap on 130% of radius
I115-sprinkler kits
drawing
Rev: 0 Sept 2018
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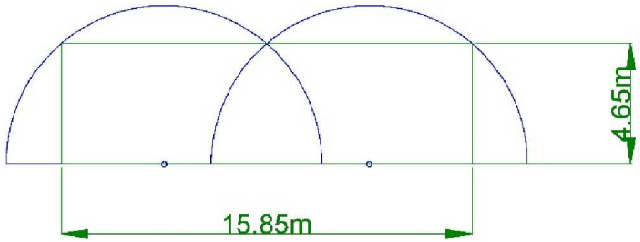
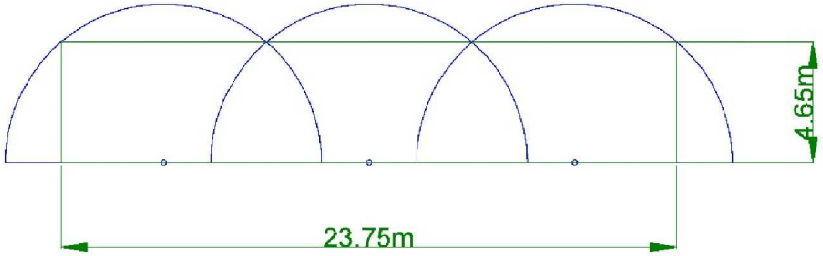
2.8 bar
18.89m
26.16m
SLW6
17.37m
10.18m
SLW2
26.16m
10.18m
SLW3

1.5 nozzle 1.7 bar pressure

Half Circle



SLW2



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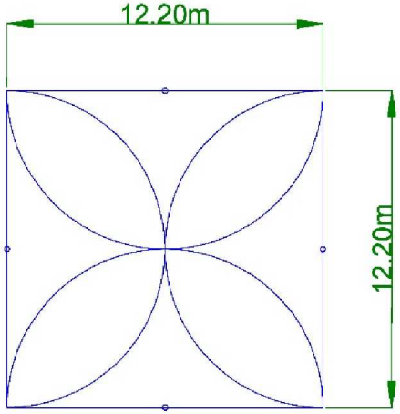
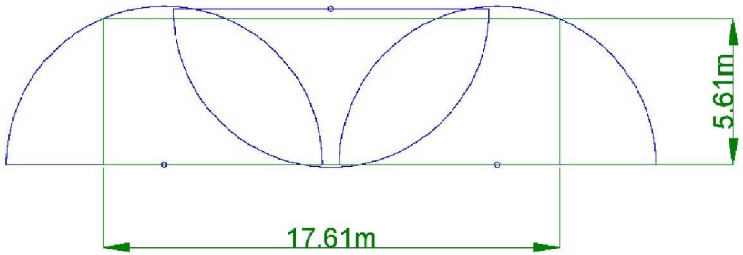
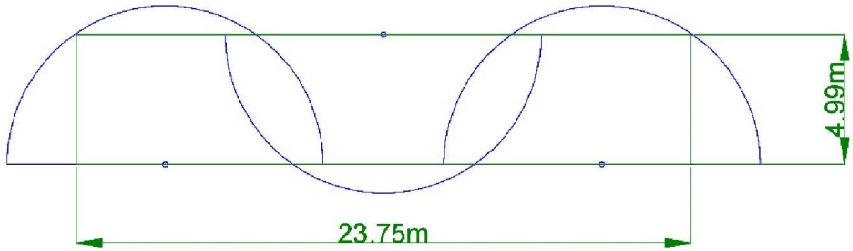


SLW2 x 2



SLW3



SLW3

I115-sprinkler kits drawing
Rev: 0 Sept 2018
\instructions\commercial
1.7 bar half circle

I115