

## 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 40° to 360°.

List of contents			
CODE	DESCRIPTION	SLW2	SLW3
PEB20-25M	Black MDPE pipe 20mm x 25m	1	1
FLT20-3F	Compression tee 20mm x ¾" F	1	2
FLE20-3F	Compression elbow 20mm x ¾" F	1	1
FLE20	Compression elbow 20mm	1	1
KHPGJ	Hunter PGJ pop-up sprinkler	2	3
KHSJ12-2	Swing joint	2	3
EPTFE-G	PTFE tape	1	1
FLF20-3	Compression entry adaptor 20mm x ¾" F	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 main pipe supplied in the kit is 20mm MDPE type irrigation pipe (black) and this should be buried at 300mm-400mm depth. 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 at 1m centres.

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 3/4" female stud (FLF20-3) is included to connect to a standard outside tap, timer or solenoid valve manifold.

## Fittings

### Compression type

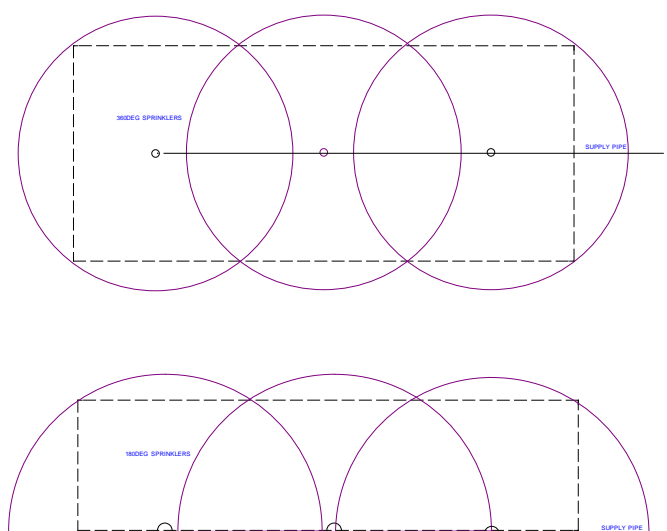
To fit Plassim compression type fittings, first cut the end of the pipe square. Slacken the black cap until it is just holding on the threads, then firmly push the pipe into the fitting ensuring it goes through the internal rubber seal. Finally, tighten the cap hand tight is sufficient.

### 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 systems basic configuration is a single supply pipe running down the centre of the lawn area with either two or three 360deg sprinklers 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 180deg. 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.

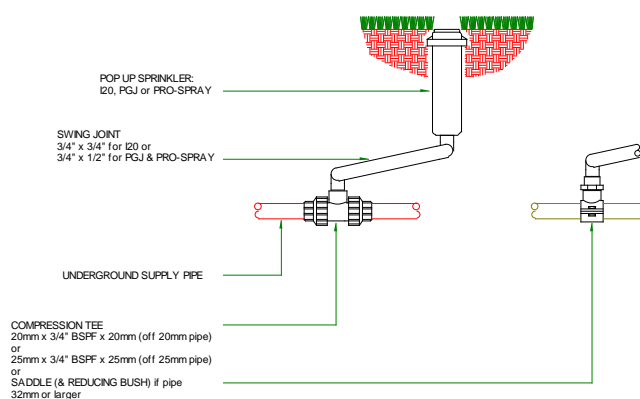
The maximum number of sprinklers that can be run on a single line is three. For SWL6 run as two separate zones. Ensure you have sufficient pressure and flow to run the sprinklers at the radius required.

## 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.

POP UP SPRINKLER CONNECTION DETAIL



At the location required cut the supply pipe and fit the assembly tee as previous instructions. Using the universal joints of the swing joint ensure the sprinklers are set vertically in the ground and the top at a level below the mowing height. The sprinkler should be held in place with compacted earth and the grass cut to allow the central riser free movement.

### Sprinkler adjustment

The sprinkler is pre-fitted with a 1.5 size 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 via the rubber end cap. Insert the white adjustment tool key end into the pull up socket and twist 90 deg. Hold down the outer sleeve of the sprinkler and pull up the centre shaft.

Hold the centre shaft securely and using the hexagonal key end of the adjustment tool insert and locate into the Radius reduction screw. Unscrew anticlockwise until the end of the screw is clear of the plastic nozzle. Prise the plastic nozzle out and insert the specified size nozzle. Screw down the radius reduction screw until the threads just lock the nozzle.

Rotate the sprinkler head fully anti-clockwise then fully clockwise. The right hand stop is fixed, if this needs adjusting carefully rotate the whole sprinkler including the body on the swing joint thread if possible if not unscrew the outer cap and lift the inner shaft out then re-insert at the correct position.

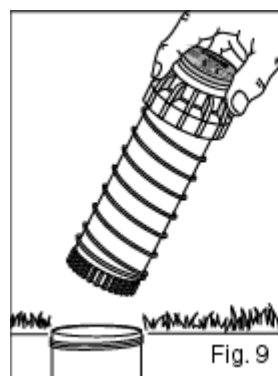
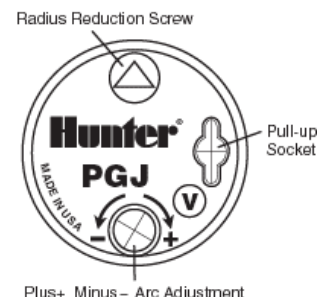


Fig. 9

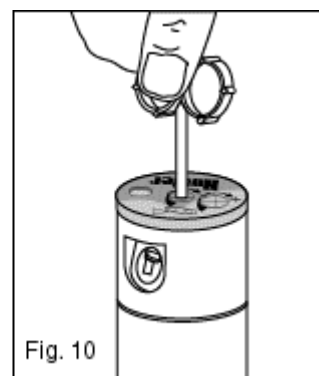


Fig. 10

### 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.

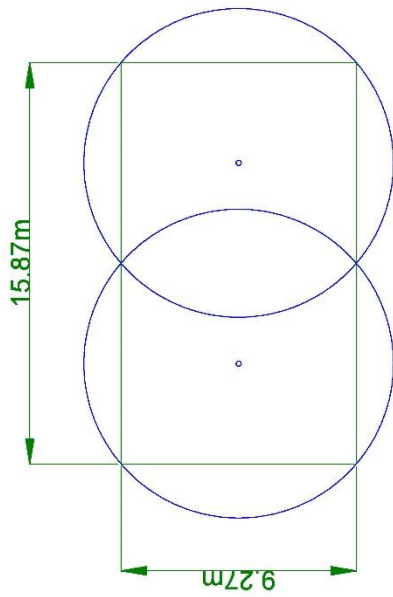
If pressure and flow is not sufficient or if the Water Authority require, a 'Cat 5' pressure booster set can be supplied.

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

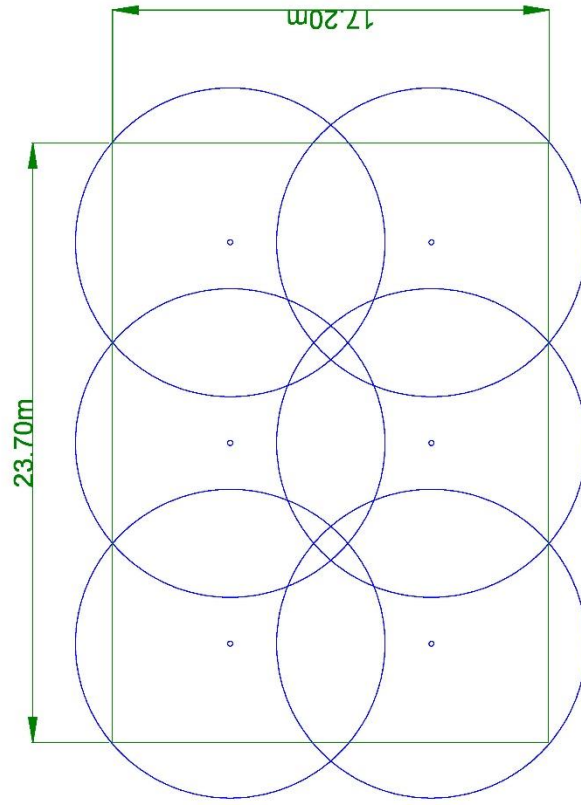
**UK water regulations require backflow prevention. The Local Water Authority must be consulted for specific requirements prior to installing this system.**

ACCESS Irrigation Ltd, Crick, NORTHAMPTON NN6 7XS  
Tel: 01788 823811 Fax: 01788 824256  
web: [www.access-irrigation.co.uk](http://www.access-irrigation.co.uk) e-mail: [sales@access-irrigation.co.uk](mailto:sales@access-irrigation.co.uk)

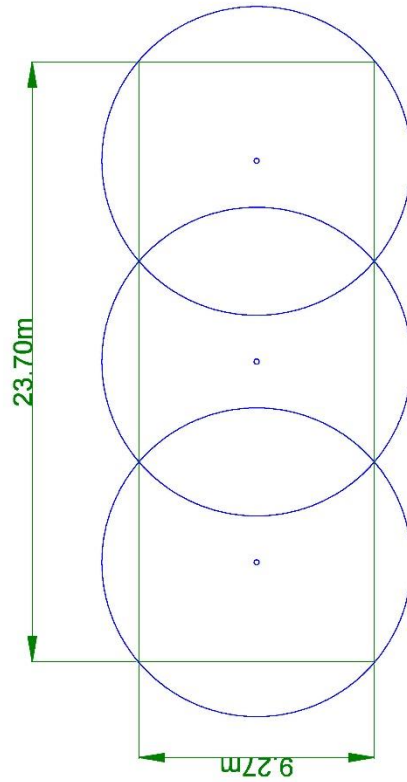
1.5 nozzle 1.7 bar pressure  
Overlap on 130% of radius



**SLW2**



**SLW6**

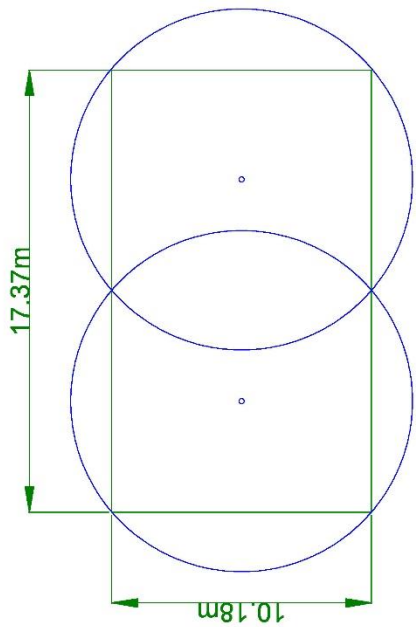


**SLW3**

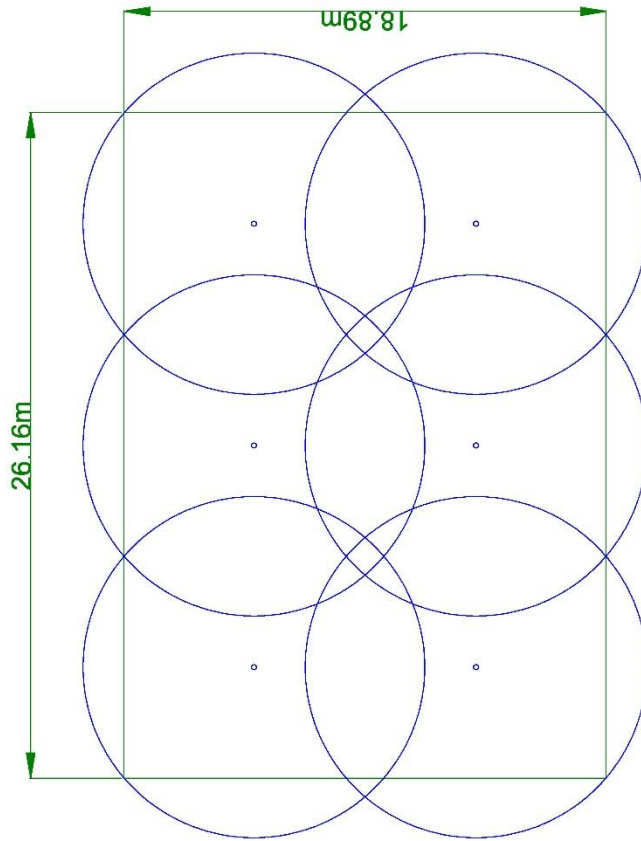
I115-sprinkler kits  
drawing  
Rev: 0 Sept 2018  
\\instructions\commercial  
1.7 bar

**I115**

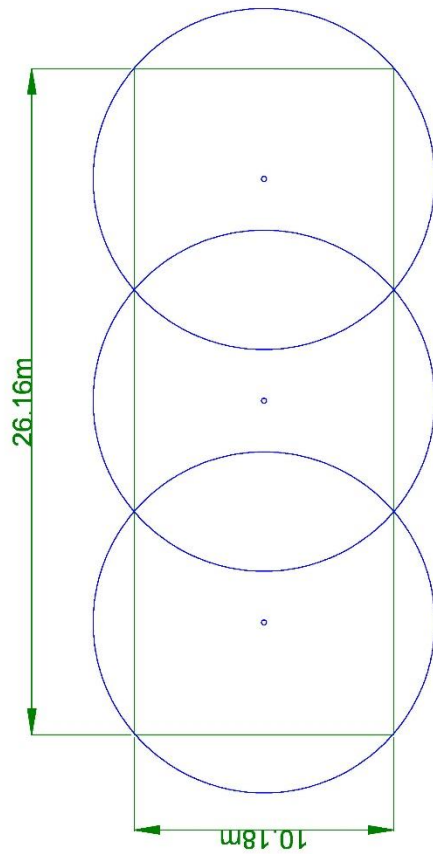
1.5 nozzle 2.8 bar pressure  
Overlap on 130% of radius



**SLW2**



**SLW6**

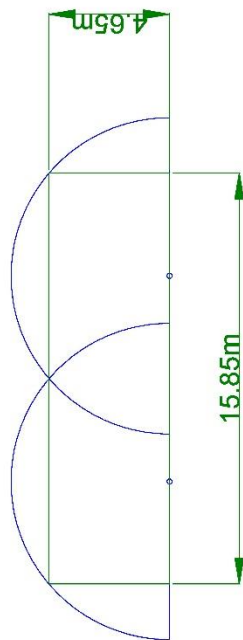


**SLW3**

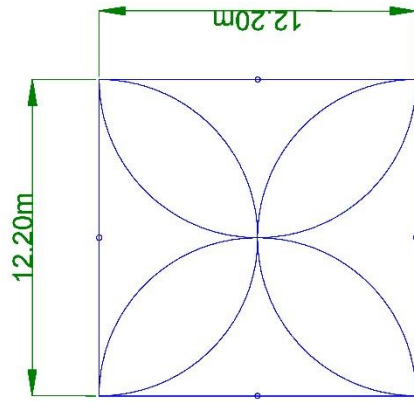
**I115**

I115-sprinkler kits  
drawing  
Rev: 0 Sept 2018  
\\instructions\commercial  
2.8 bar

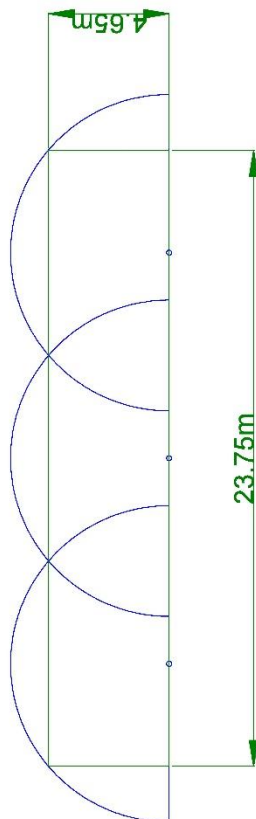
1.5 nozzle 1.7 bar pressure  
Half Circle



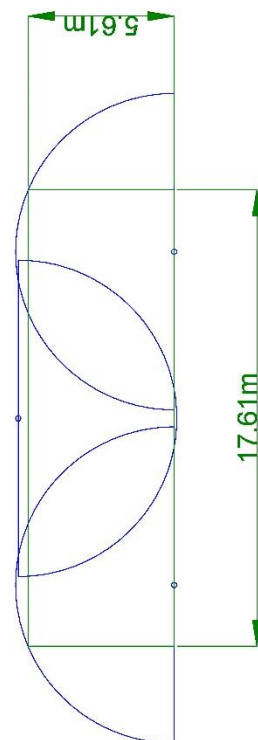
SLW2



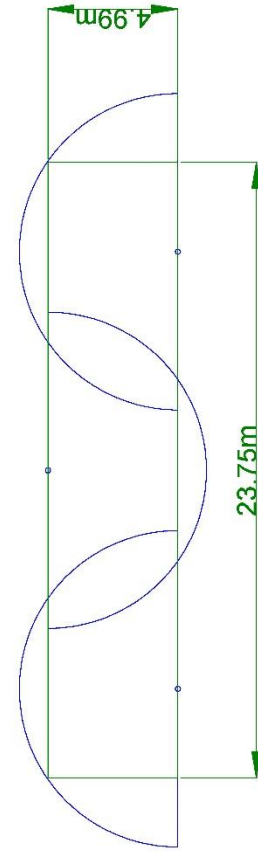
SLW2 x 2



SLW3



SLW3



SLW3

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

I115