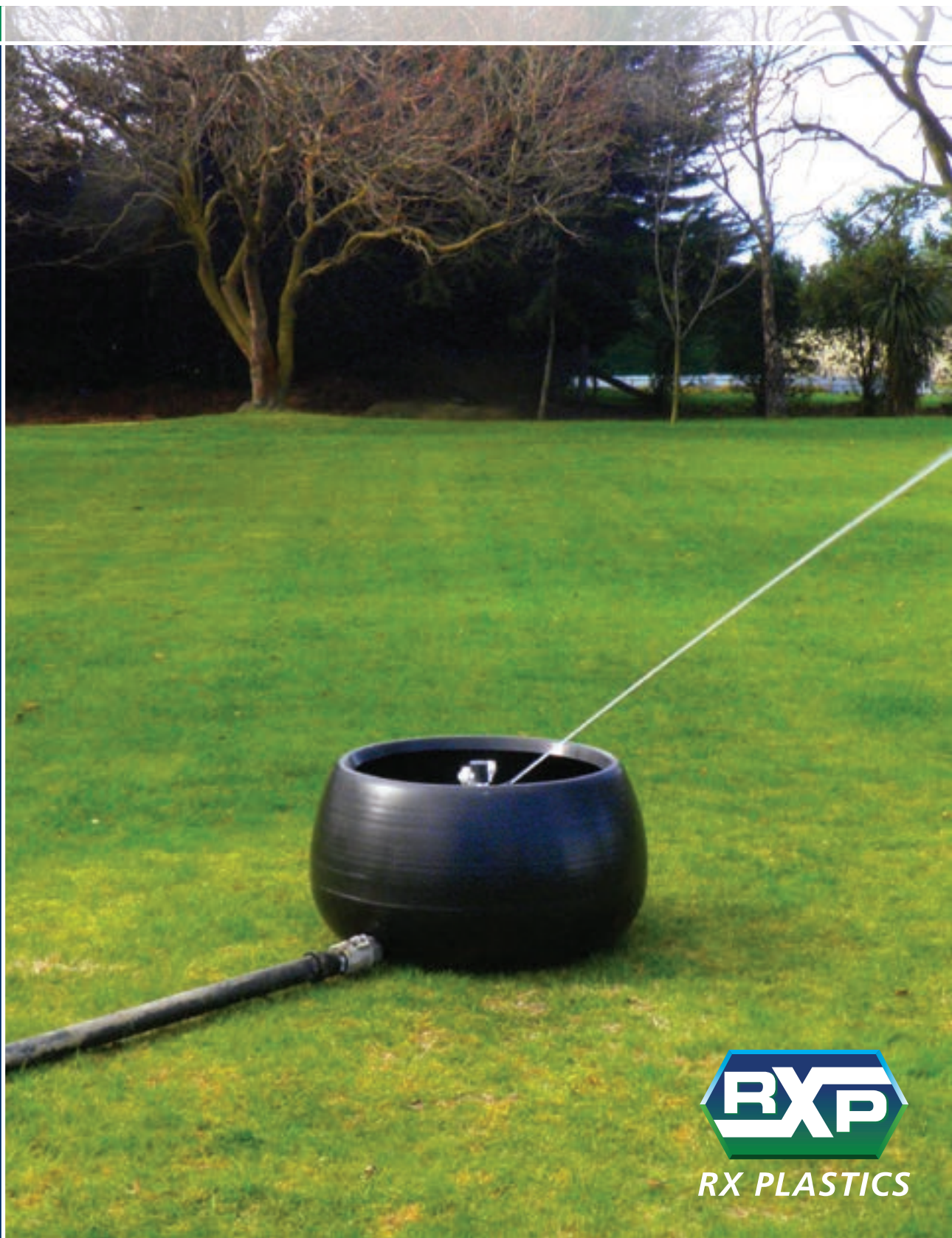




K-Line™ Max Irrigation

The grass is always greener...



an *OAliaxis* company

RX PLASTICS LTD
PO Box 360 Ashburton
Phone +64 3 307 9081
Email sales@rxplastics.co.nz
www.rxplastics.co.nz



RX PLASTICS

K-Line™ Max Irrigation



Whether you are storing, transporting or distributing water or wastewater RX Plastics has the solution for you, with manufacturing facilities New Zealand wide and a selection of strong supporting brands, RX Plastics can assist whatever your requirements.

We've got what you need

RX Plastics has a wide range of products to support your water and wastewater distribution.

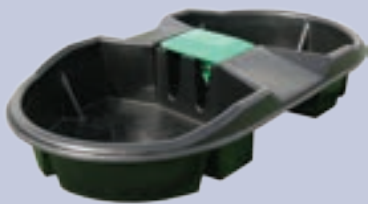


Tanks

RX has tanks from 135 litres - 33,000 litres. Whatever your requirements, RX has it.

Farm Troughs

RX has troughs from 12 litres – 1,200 litres to suit your animals water requirements.



Polyethylene Pipe (Polypipe) and PVC Pipe

RX has a range from 15mm – 450mm to suit many tanks. Pipe is rated 5bar (72 psi) – 25bar (375psi).

What is K-Line™?

- K-Line™ is a flexible hose line sprinkler system originally designed for irrigation. The low application rate makes the K-Line™ system a very efficient use of water. At the heart of the system is a series of tough plastic pods protecting a sprinkler, firmly attached to special K-Pipe™ polyethylene pipe
- K-Line™ provides an excellent method of irrigation options from the many and varied sources
- K-Line™ systems are all designed to operate at low pressure
- K-Line™ provide a number of product choices which gives you maximum flexibility in a customised irrigation system for your farm
- K-Line™ will suit any paddock shape, size or terrain
- K-Line™ is easily moved by any quad-bike or farm vehicle
- K-Line™ is a low application rate system

Farmer Benefits

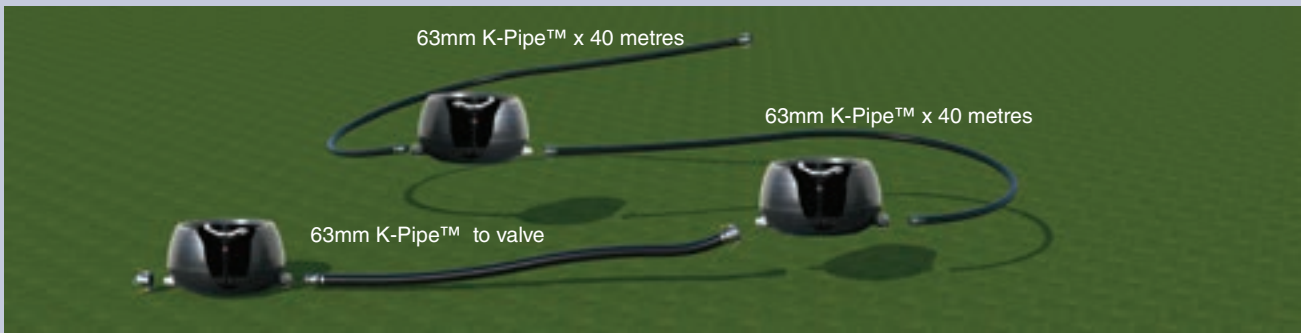
- Low capital cost
- Ease of installation use and shifting
- Tailor application to staff availability
- Low application rate
- Suits all terrain
- Quick to shift
- Waters pasture and crop
- Control of application with automated timers
- Has infinite flexibility to suit any farm, water supply or power supply
- Low maintenance cost
- No irrigation time lost to shifting



K-Line™ Max⁷⁰ Irrigation components



- | | | | |
|---|---|---|---|
| <p>1</p>  | <p>RX PP Riser
for 800mm x 50mm
thread, both ends</p> | <p>5</p>  | <p>3 x U Bolts
6 x Brass nuts
4 x Spacers</p> |
| <p>2</p>  | <p>CAM51A
Female threaded
adaptor</p> | <p>6</p>  | <p>2 x PTSB63
63mm Plassim saddle
bare top</p> |
| <p>3</p>  | <p>KLTPS63
63mm x 25mm
Plassim 2 bolt
saddle with
insert top</p> | <p>7</p>  | <p>7025 S Senninger
5.56 - 9.53mm
nozzles specifically
for irrigation
applications</p> |
| <p>4</p>  | <p>CAM51D
Female threaded
coupling</p> | <p>8</p>  | <p>1 x SEN70.Adaptor
Standard riser
1"x1" suits Senninger
70 series sprinkler</p> |



Layout of the system

The shift pattern is quite different compared to Std or Mid K-Line™ irrigation system. With a Std or Mid irrigation system it is important to shift the system when it is running. This is not practical with the Max system as it is too heavy. The K-Line™ Max lines therefore should be shifted when they are not running. The K-Line™ Max lines themselves should be made with 63mm K-Pipe™ tubing and should match the K-Line™ Max⁷⁰ pod. This allows the same M & F fittings at each end, so the lines can be connected to the submain at either end of the line with the male adaptor. The Max K-Lines™ need to be pulled directly from one end to the other, because the lines are short and have only a few pods. This process is very easy. The process works for paddocks of all shapes and sizes.

The simple process

Go to the submain valve point (1) to isolate the system. Remove the tow hook from the line end (2). Uncouple the feedline from the first K-Line™ Max⁷⁰ pod (3), then connect the tow hook onto the K-Line™ Max⁷⁰ then tow (dead pull) towards point (G). The K-Line™ will end up in position (B). Unhook, then re-couple the K-Line™ back at the feedline.

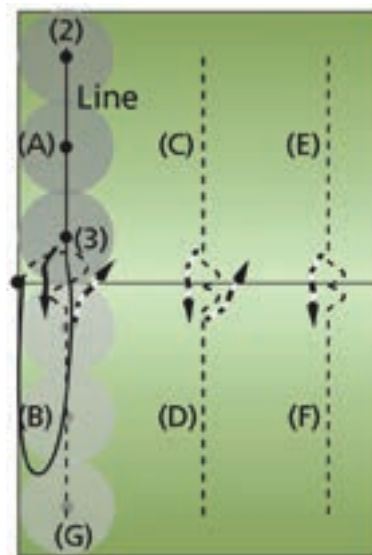


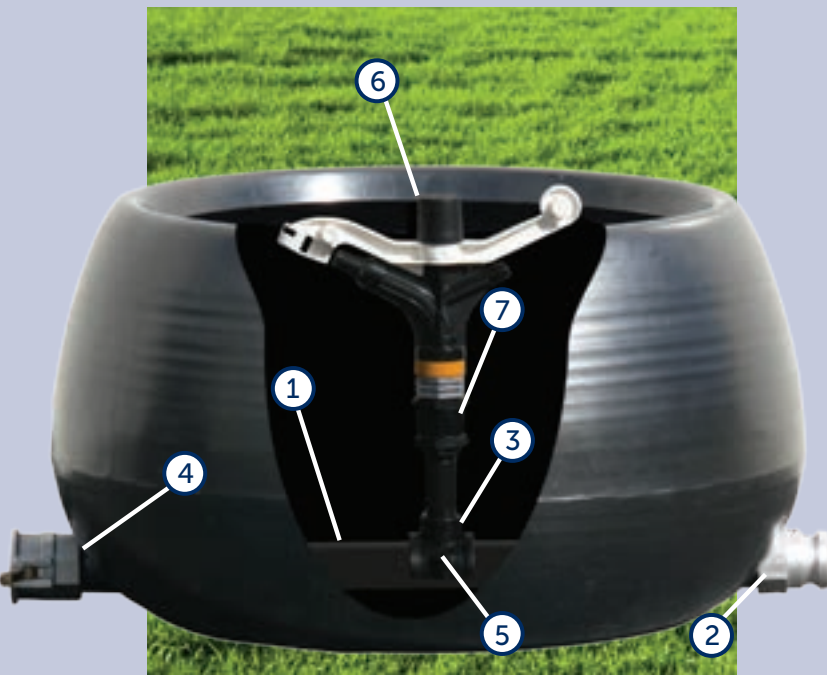
Figure 1

Shifting rotation within a typical paddock (3 pods)
Line moves;
A to B
B to C
C to D
D to E
E to F

Repeat this shifting process for the line until the field has been irrigated completely (position (F)). When the field has been irrigated completely, disconnect the sprinkler lines from the riser and also from the feed line, tow the sprinkler line into a new paddock and you're ready to start the irrigation rotation again.



K-Line™ Max⁸⁰ Irrigation components



- 1** **RX PP Riser**
 for 800mm x 50mm
 thread, both ends
- 2** **CAM51A**
 Female threaded
 adaptor
- 3** **KLTPS63**
 63mm x 25mm
 Plassim 2 bolt
 saddle with
 insert top
- 4** **CAM51D**
 female threaded
 coupling
- 5** **3 x U Bolts**
6 x Brass nuts
4 x Spacers
- 6** **2 x PTSB63**
 63mm Plassim saddle
 bare top
- 7** **8025 S Senninger**
 9.53 - 15.88mm
 nozzles specifically for
 irrigation applications
- 8** **1 x SEN80.Adapator**
 Standard riser
 1 1/4" x 1" suits
 Senninger 80 series
 sprinkler



Layout of the system

The shift pattern is quite different compared to Std or Mid K-Line™ irrigation system. With a Std or Mid irrigation system it is important to shift the system when it is running. This is not practical with the Max system as it is too heavy.

The K-Line™ Max lines therefore should be shifted when they are not running. The K-Line™ Max lines themselves should be made with 63mm K-Pipe™ tubing and should match the K-Line™ Max⁸⁰ pod. This allows the same M & F fittings at each end, so the lines can be connected to the any lengths of K-Pipe™.

The Max K-Line™ needs to be pulled directly from one end to the other, because the lines are short and only have one pod. This process is very easy. The process works for paddocks of all shapes and sizes.

The simple process

Move the single pod up to 40 metres. Work in a 40 x 35 grid will achieve excellent uniformity. When the field has been irrigated completely, disconnect the K-Line™ Max⁸⁰ pod from the feed line, tow the sprinkler line into a new paddock and you're ready to start the irrigation rotation again.

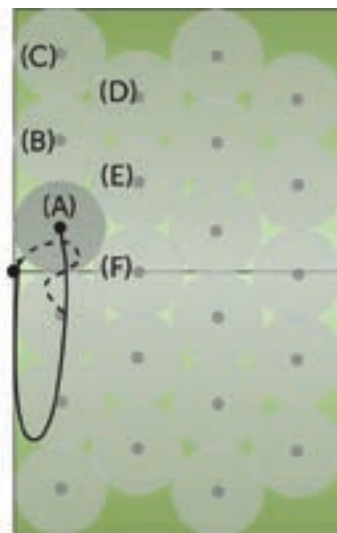


Figure 2

Shifting rotation
 within a typical
 paddock (single pod)
 Line moves;

- A to B
- B to C
- C to D
- D to E
- E to F..



K-Line™ Max Irrigation

Production Benefits

- Farmers say that K-Line™ provides them with greater pasture growth rates
- K-Line™ provides a more uniform application compared to travelling irrigators
- More grass from less water
- Very flexible which allows the system to match available water
- Low cost production

Why use K-Line™ Max?

- Low cost application
- Cost effective
- Large nozzle to eliminate blockages if waters not clean
- Easily separated by camlocks and shifted individually
- Low maintenance cost

Senninger Sprinkler

- The full-circle sprinklers distribute water over a large diameter
- Senninger sprinklers achieve low application rates
- Outlasts and costs less than brass or aluminium sprinklers
- Built for strength and durability using high-impact engineering-grade thermoplastics and top quality stainless steel components
- Built-in hex wrench for easy in-the-field maintenance
- Standard lower bearing pipe thread:-
 - Senninger 8025 – 1 ¼" male thread
 - Senninger 7025 – 1" male thread
- 25° angle for maximum distance of throw
- Single nozzle design minimises clogging

Figure 3. Pressure and flows of the Senninger 7025 Sprinkler

Pressure (Bar)	2.50	2.75	3.00
#14 Nozzle (5.56mm)			
(m ³ /hr)	1.88	1.97	2.05
Diameter (metres)	34.3	34.7	35.1
#16 Nozzle (6.35mm)			
(m ³ /hr)	2.48	2.60	2.75
Diameter (metres)	36.3	37.0	37.6
#18 Nozzle (7.14mm)			
(m ³ /hr)	3.07	3.23	3.37
Diameter (metres)	38.4	39.0	39.6
#20 Nozzle (7.94mm)			
(m ³ /hr)	3.68	3.86	4.03
Diameter (metres)	40.5	41.3	42.0
#22 Nozzle (8.73mm)			
(m ³ /hr)	4.42	4.64	4.84
Diameter (metres)	42.2	43.8	45.3
#24 Nozzle (9.53mm)			
(m ³ /hr)	5.15	5.39	5.63
Diameter (metres)	43.6	45.0	46.3

Sprinkler Operation

- The Senninger sprinklers have a range of nozzles from 5.43mm to 15.88mm in size
- Figure 3 shows the flow rate and diameter of throw of the K-Line™ Max⁷⁰ sprinkler nozzles
- Figure 4 shows the flow rate and diameter of throw of the K-Line™ Max⁸⁰ sprinkler nozzles
- Complete flow rates: 2 – 20 m³/h



Figure 4. Pressure and flows of the Senninger 8025 Sprinkler

Pressure (Bar)	2.50	2.75	3.00
#24 Nozzle (9.53mm)			
(m ³ /hr)	5.45	5.71	5.97
Diameter (metres)	39.5	40.7	41.9
#26 Nozzle (10.32mm)			
(m ³ /hr)	6.43	6.64	6.94
Diameter (metres)	41.9	43.2	44.4
#28 Nozzle (11.11mm)			
(m ³ /hr)	7.34	7.70	8.04
Diameter (metres)	43.7	45.0	46.2
#30 Nozzle (11.91mm)			
(m ³ /hr)	8.32	8.73	9.12
Diameter (metres)	45.3	46.5	47.7
#32 Nozzle (12.7mm)			
(m ³ /hr)	9.47	9.93	10.38
Diameter (metres)	46.2	47.4	48.6
#34 Nozzle (13.49mm)			
(m ³ /hr)	10.69	11.21	11.71
Diameter (metres)	47.1	48.3	49.5
#36 Nozzle (14.29mm)			
(m ³ /hr)	12.00	12.58	13.14
Diameter (metres)	47.7	48.9	50.1
#38 Nozzle (15.08mm)			
(m ³ /hr)	12.93	13.56	14.16
Diameter (metres)	48.3	49.6	50.8
#40 Nozzle (15.88mm)			
(m ³ /hr)	-	15.20	15.88
Diameter (metres)	-	50.7	51.4



For more information or to request a brochure on our other products and services, freephone 0800 288 558 or visit our website: www.rxplastics.co.nz



RX PLASTICS LTD
PO Box 360 Ashburton
Phone +64 3 307 9081
Email sales@rxplastics.co.nz
www.rxplastics.co.nz

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