

### A5 PC™ Series Pressure Compensating Ag Dripline



Rain Bird® engineers leveraged over 80 years of irrigation expertise to develop this reliable, durable, and high performing pressure compensating heavy wall dripline. With a low-profile flat-emitter, the A5 PC Ag Dripline provides the ultimate in uniform water distribution.

#### Features

- Grit-tolerant, clog-resistant emitter to ensure water flows to crops no matter if drawn from a well, pond, reservoir, or canal
- Pressure-compensation to maximize uniformity and deliver water and nutrients precisely to each plant
- Resin material resistant to standard agricultural chemicals, UV radiation, and damage that can be caused by farm equipment
- Optional pre-installed low profile vine clips to dramatically reduce installation time and labor cost
- Backed by Rain Bird Customer Satisfaction Policy which provides protection up to 5 years on product workmanship and 7 years on environmental stress cracking

#### Applications

- For traditional surface drip irrigation applications
- For Agriculture, Greenhouse, and Nursery use

- Best suited for permanent crops, orchard and vineyard applications including grapes, hops, stone fruit, almonds, walnuts, pistachios, blueberries, and pecans
- Ideal for high frequency irrigation on flat, sloped or rolling terrain
- For poor quality or challenging water conditions

#### Specifications

##### Operating Range:

- Regulating Pressure: 7 to 60 psi (0.48 to 4.14 bar)
- Water Temperature: Up to 110°F (43.3°C)
- Ambient Temperature: Up to 150°F (65.6°C)

##### Filtration:

- 120 mesh (125 micron) required

##### Nominal Flow Rates:

- 0.31 gph, 0.42 gph, 0.53 gph, 0.61 gph, 1.06 gph (1.2 l/h, 1.6 l/h, 2.0 l/h, 2.3 l/h, 4.0 l/h)

##### Standard Emitter Spacing:

- 18", 24", 30", 36", 42", 48", 60"
- 20cm, 40cm, 45cm, 50cm, 55cm, 60cm, 70cm, 75cm, 100cm
- Custom spacing available

##### Tube Dimensions:

- 16mm, 35mil (OD 0.610", ID 0.540", wall thickness 0.035")
- 16mm, 45mil (OD 0.630", ID 0.540", wall thickness 0.045")
- 18mm, 45mil (OD 0.709", ID 0.619", wall thickness 0.045")
- 20mm, 48mil (OD 0.786", ID 0.690", wall thickness 0.048")

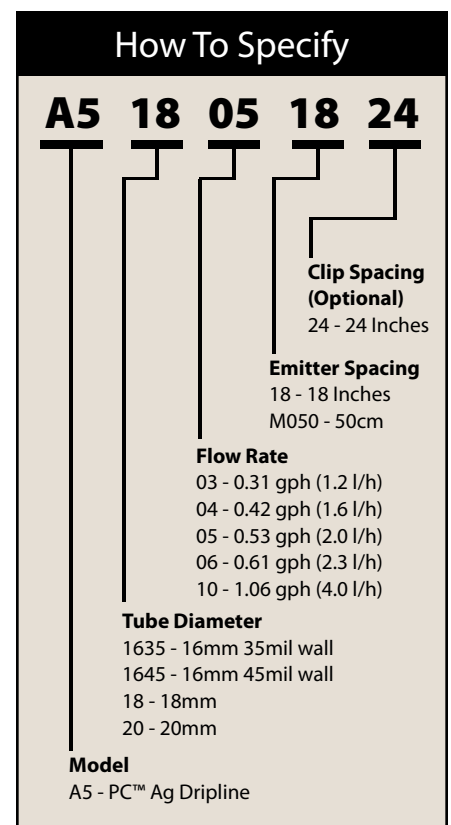
#### Packaging Data

- Standard coil length: 1,000'
- Standard pallet quantity: 16 coils. 18mm & 20mm with clips: 12 coils



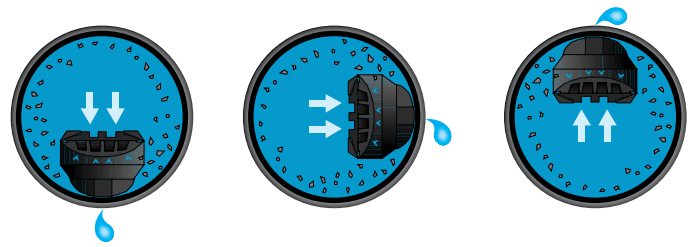
#### Vine Clips

- Factory installed during extrusion, clips reduce labor and installation time in the field
- Improves control of water placement and easily adjustable to direct water droplets on the plant
- Constructed of engineering grade plastic with unparallel strength on the wire
- Low profile for mechanical harvesting



## A5 PC™ Series Pressure Compensating Ag Dripline With GritX™ Emitter Technology

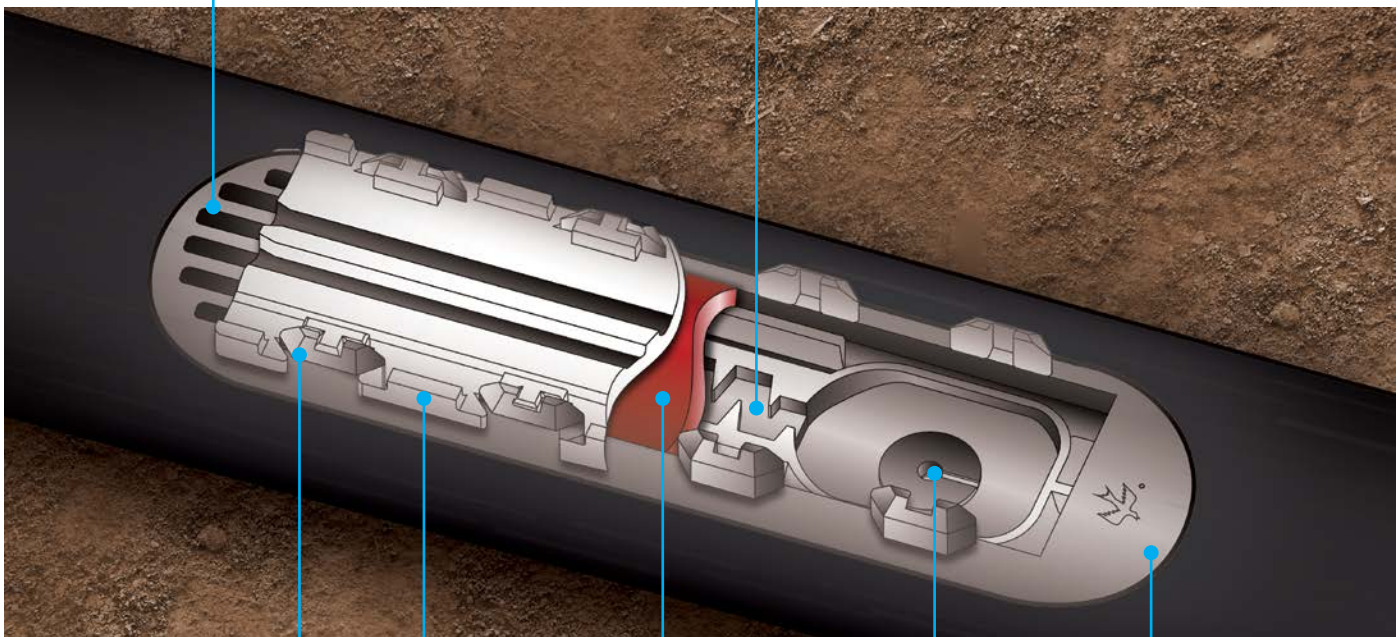
GritX Emitter Technology ensures a steady flow of water to crops by drawing clean water from the center of the tubing rather than the dirtier water near the side walls. Most grit and debris flows along the tubing wall without entering the emitter. The debris that does enter is easily passed through the large inlet filters and along the emitter's wide flow channel. The dual-flushing design forces grit out of the emitter automatically, preventing clogs that can potentially harm crops. The result is a consistent water flow and even distribution of water.



Large center fed inlet for water

Large inlet area let debris pass instead of plugging emitter filter

Wide emitter flow channel to let debris pass instead of plugging the emitter



Reinforced structure improves emitter robustness

Chemical-resistant silicone diaphragm for longer life

Low profile design draws cleanest available water and reduces friction loss

State-of-the-art assembly technology helps resist bending and collapsing

Wide emitter flow channel to let debris pass instead of plugging the emitter

### A5 PC 16 mm Headloss and Lateral Length

#### Calculating Lateral Inlet Pressure

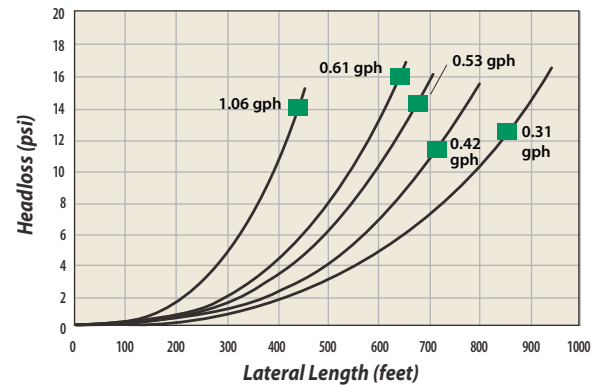
$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \text{Pressure Loss (from graph)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 7 psi.

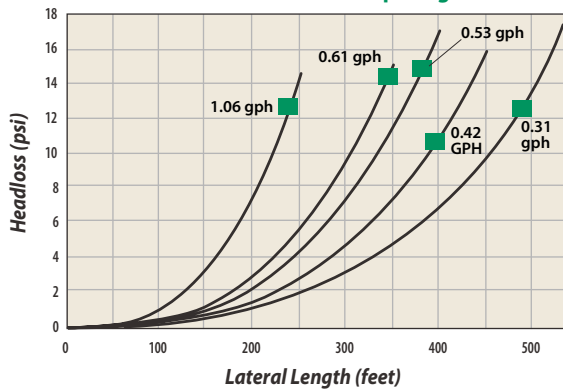
#### Example:

$$\begin{aligned} &\text{A5 PC 18" Spacing} && \mathbf{7 \text{ psi (end pressure)}} \\ &0.53 \text{ gph, 350' Run} && + \mathbf{12 \text{ psi (from graph)}} \\ &\text{Minimum Inlet Pressure} && = \mathbf{19 \text{ psi}} \end{aligned}$$

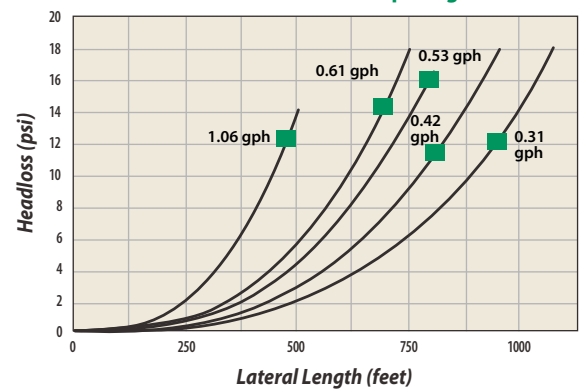
A5 PC - 16mm - 36" Spacing



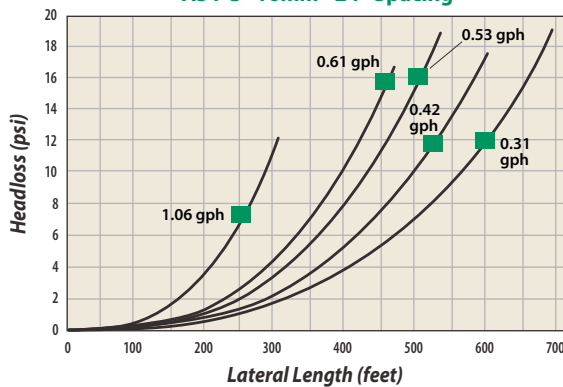
A5 PC - 16mm - 18" Spacing



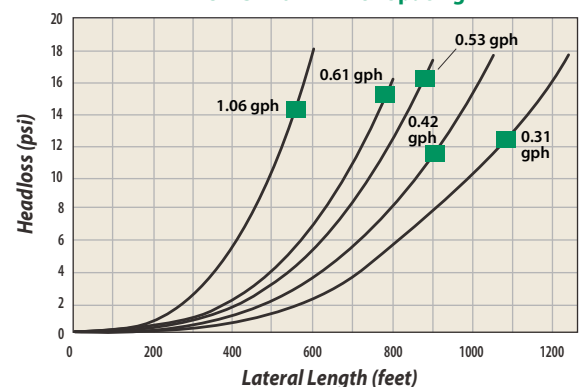
A5 PC - 16mm - 42" Spacing



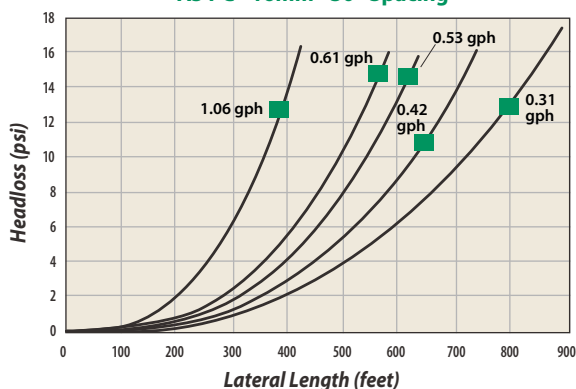
A5 PC - 16mm - 24" Spacing



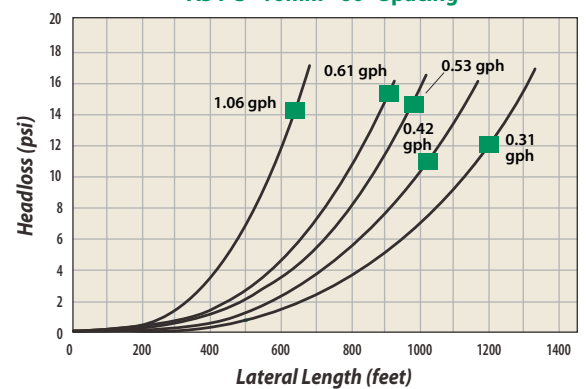
A5 PC - 16mm - 48" Spacing



A5 PC - 16mm - 30" Spacing



A5 PC - 16mm - 60" Spacing



### A5 PC 16mm Headloss and Lateral Length

#### Calculating Lateral Length Inlet Pressure

$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \text{Pressure Loss (from graph)} \\ &= \text{Inlet Pressure} \end{aligned}$$

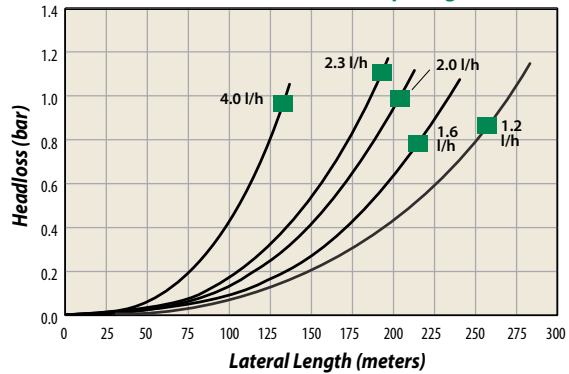
\*Minimum pressure at lateral length end = 0.48 bar.

#### Example:

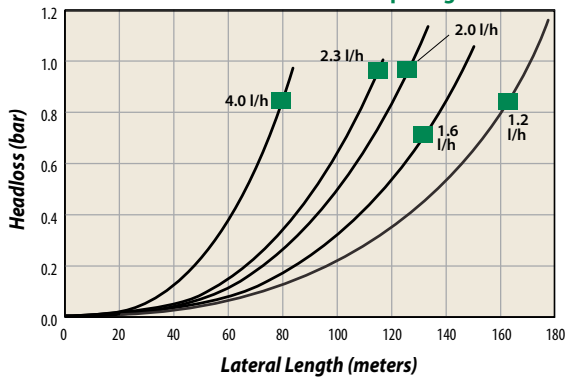
A5 PC 0.45m Spacing  
 2.0 l/h, 106.7m (350') Run  
 Minimum Inlet Pressure = **1.30 bar**

**0.48 bar (end pressure)**  
**+ 0.82 bar (from graph)**

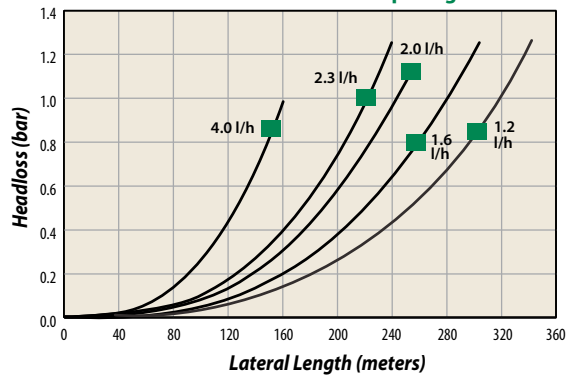
A5 PC - 16mm - 0.90m Spacing



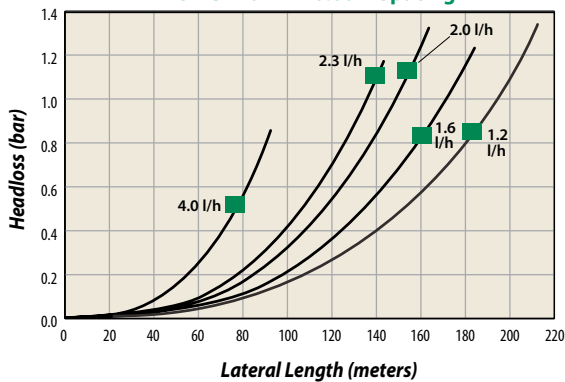
A5 PC - 16mm - 0.45m Spacing



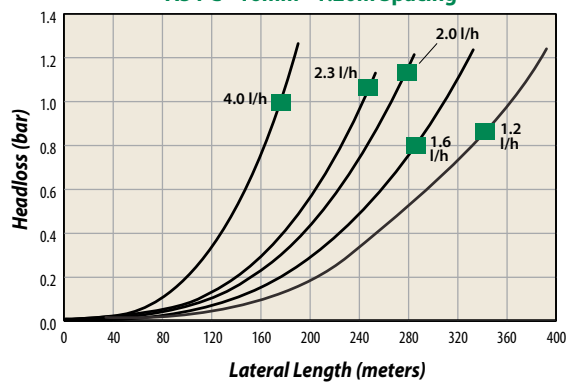
A5 PC - 16mm - 1.05m Spacing



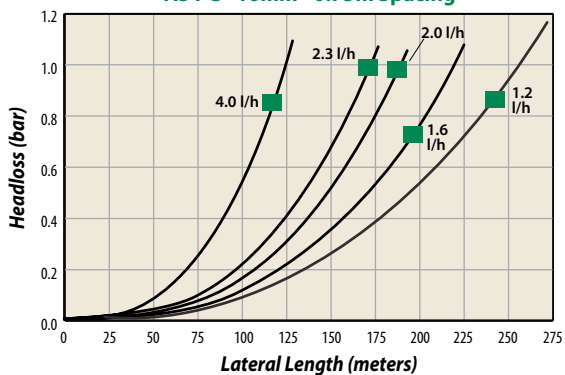
A5 PC - 16mm - 0.60m Spacing



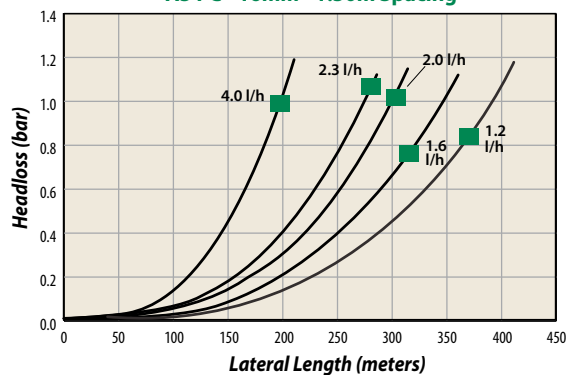
A5 PC - 16mm - 1.20m Spacing



A5 PC - 16mm - 0.75m Spacing



A5 PC - 16mm - 1.50m Spacing



**A5 PC 18 mm Headloss and Lateral Length**

**Calculating Lateral Length Inlet Pressure**

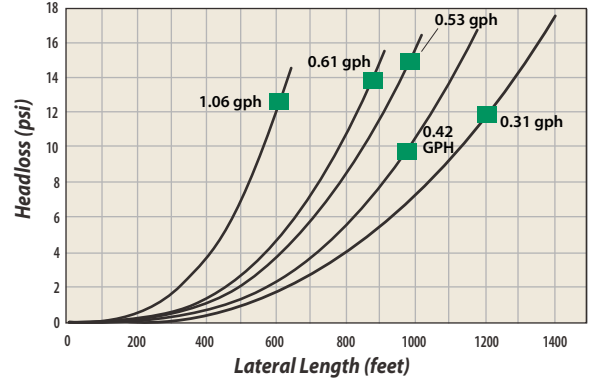
$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \frac{\text{Pressure Loss (from graph)}}{\phantom{}} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 7 psi.

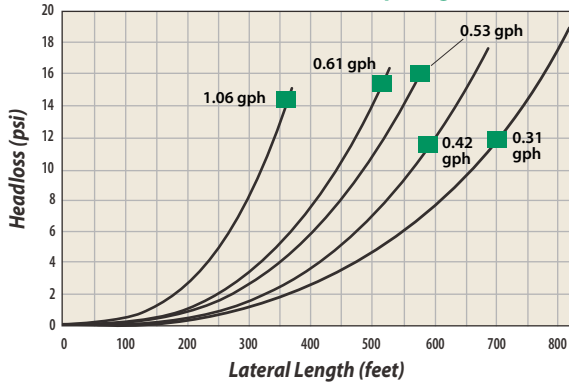
**Example:**

$$\begin{aligned} &\text{A5 PC 18" Spacing} && \mathbf{7 \text{ psi (end pressure)}} \\ &0.53 \text{ gph, 500' Run} && + \mathbf{11 \text{ psi (from graph)}} \\ &\text{Minimum Inlet Pressure} && = \mathbf{18 \text{ psi}} \end{aligned}$$

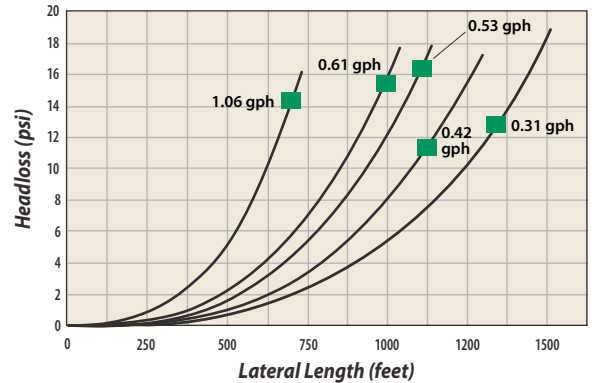
**A5 PC - 18mm - 36" Spacing**



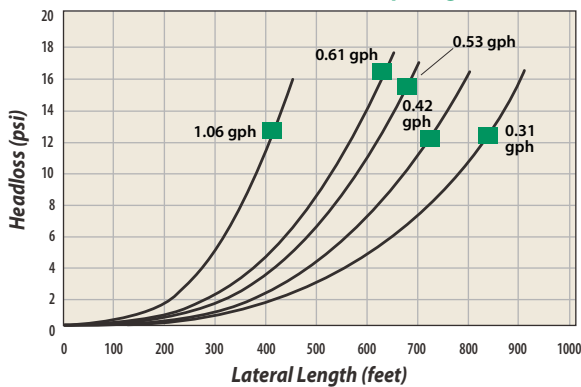
**A5 PC - 18mm - 18" Spacing**



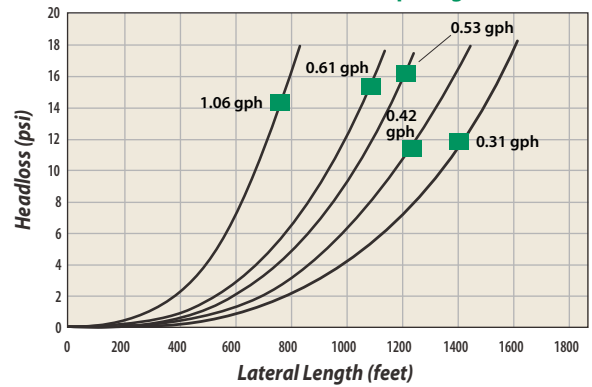
**A5 PC - 18mm - 42" Spacing**



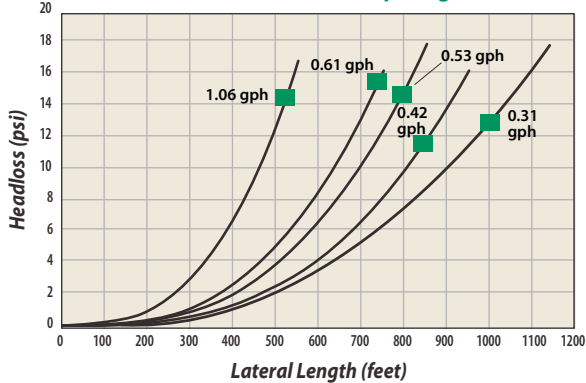
**A5 PC - 18mm - 24" Spacing**



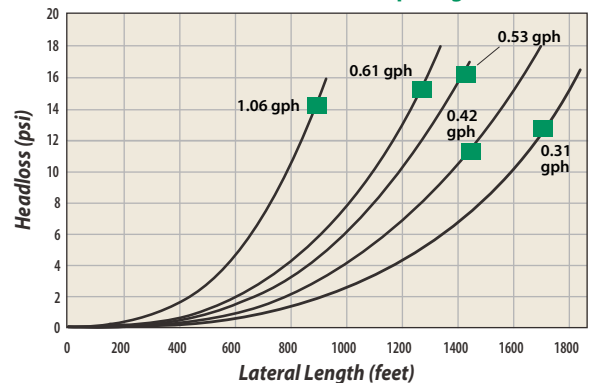
**A5 PC - 18mm - 48" Spacing**



**A5 PC - 18mm - 30" Spacing**



**A5 PC - 18mm - 60" Spacing**



### A5 PC 18mm Headloss and Lateral Length

#### Calculating Lateral Length Inlet Pressure

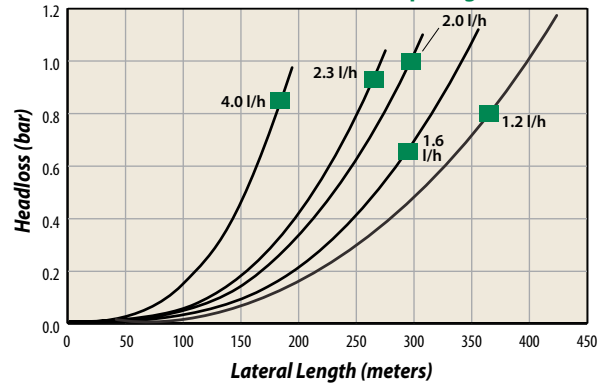
$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \text{Pressure Loss (from graph)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 0.48 bar.

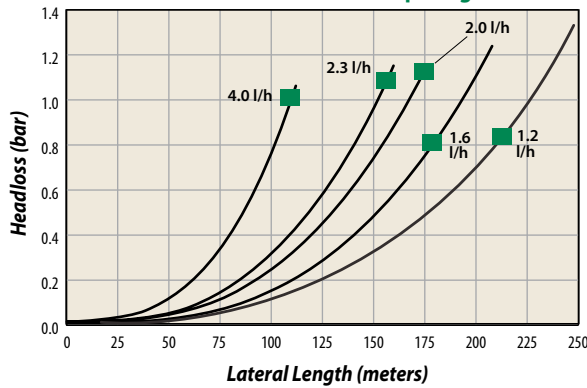
#### Example:

A5 PC 0.45m Spacing                    **0.48 bar (end pressure)**  
 2.0 l/h, 152.4m (500') Run        **+ 0.75 bar (from graph)**  
 Minimum Inlet Pressure                **= 1.23 bar**

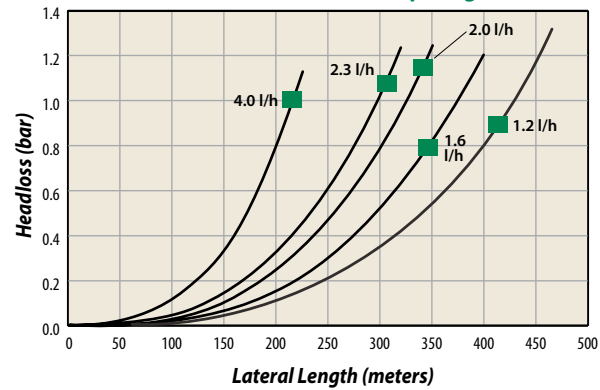
A5 PC - 18mm - 0.90m Spacing



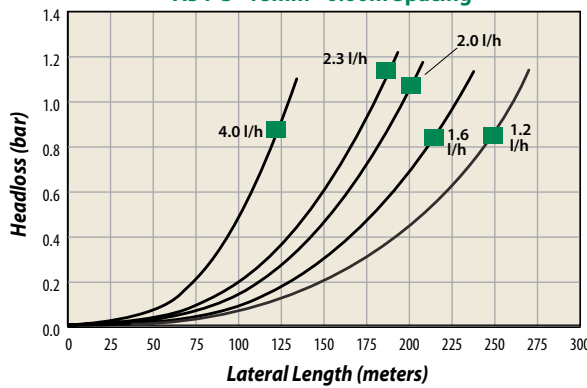
A5 PC - 18mm - 0.45m Spacing



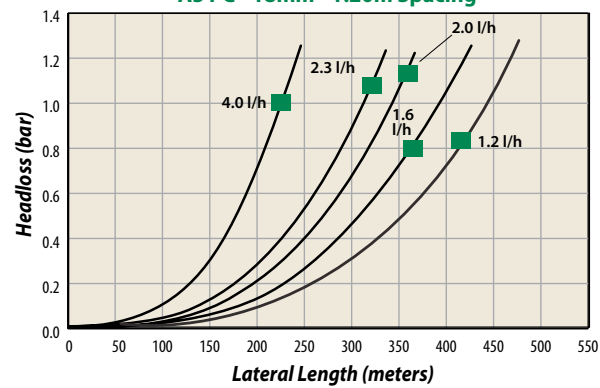
A5 PC - 18mm - 1.05m Spacing



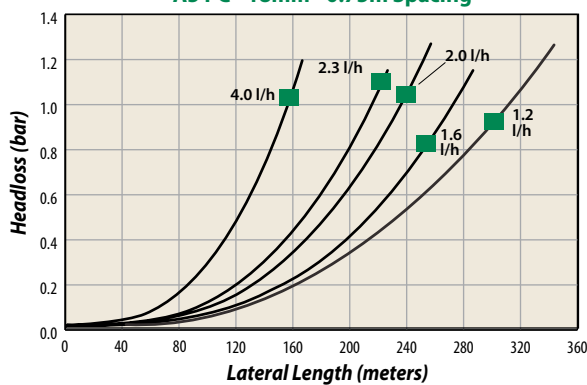
A5 PC - 18mm - 0.60m Spacing



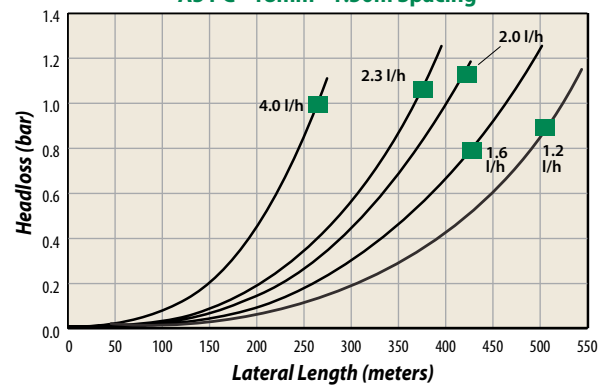
A5 PC - 18mm - 1.20m Spacing



A5 PC - 18mm - 0.75m Spacing



A5 PC - 18mm - 1.50m Spacing



### A5 PC 20 mm Headloss and Lateral Length

#### Calculating Lateral Length Inlet Pressure

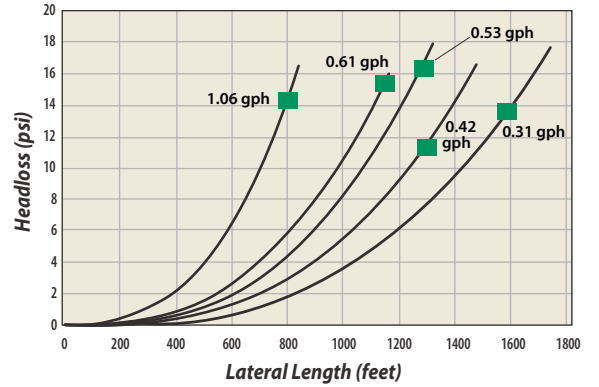
$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \text{Pressure Loss (from graph)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 7 psi.

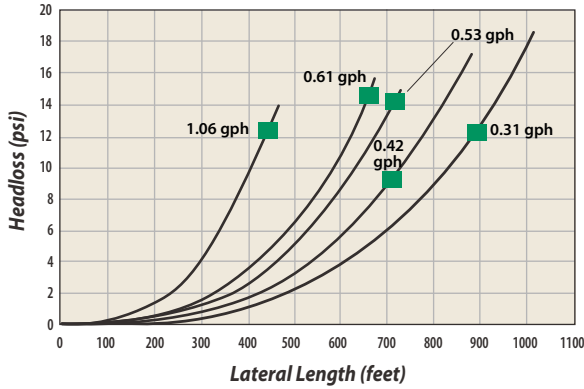
#### Example:

$$\begin{aligned} &\text{A5 PC 18" Spacing} && \text{7 psi (end pressure)} \\ &\text{0.53 gph, 700' Run} && + \text{14 psi (from graph)} \\ &\text{Minimum Inlet Pressure} && = \text{21 psi} \end{aligned}$$

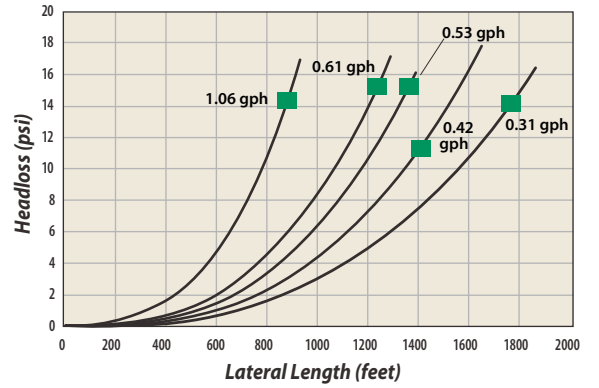
A5 PC - 20mm - 36" Spacing



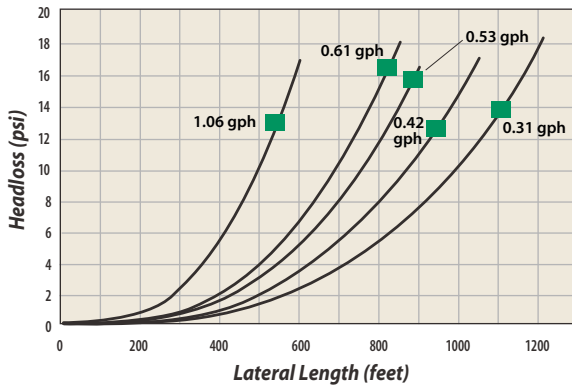
A5 PC - 20mm - 18" Spacing



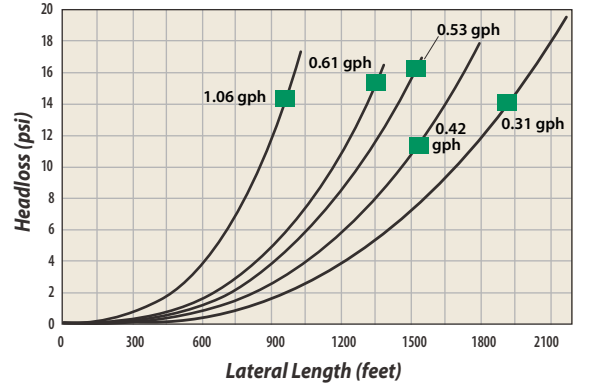
A5 PC - 20mm - 42" Spacing



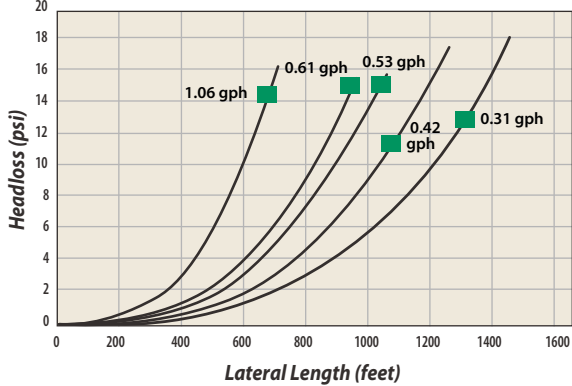
A5 PC - 20mm - 24" Spacing



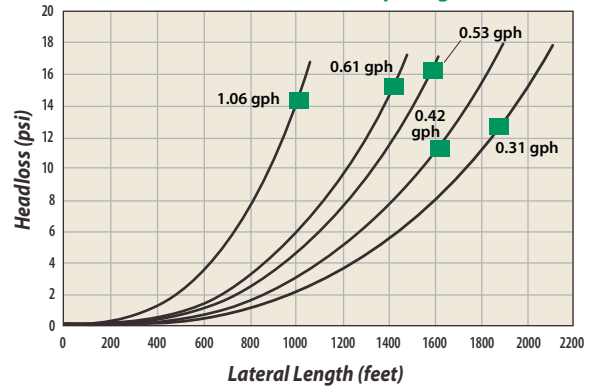
A5 PC - 20mm - 48" Spacing



A5 PC - 20mm - 30" Spacing



A5 PC - 20mm - 60" Spacing



### A5 PC 20mm Headloss and Lateral Length

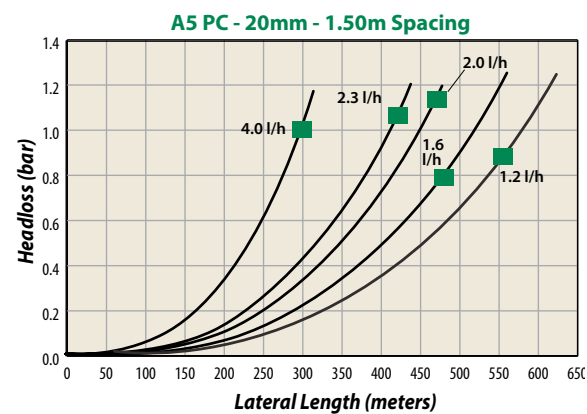
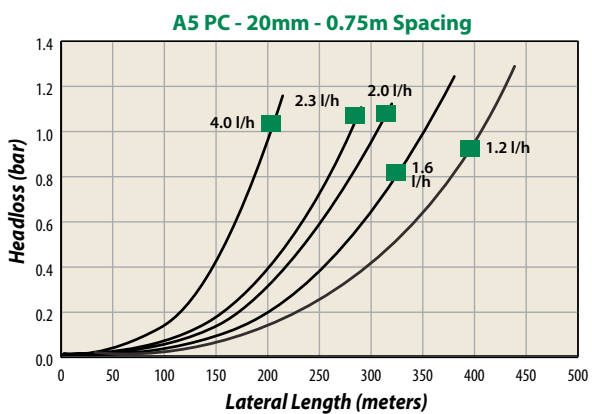
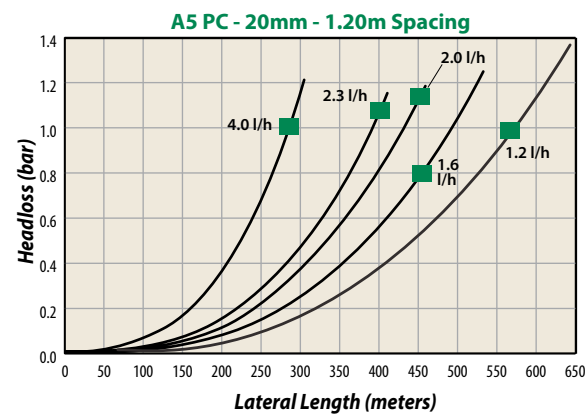
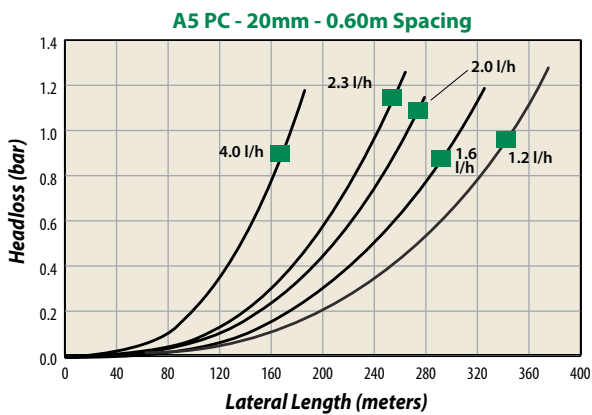
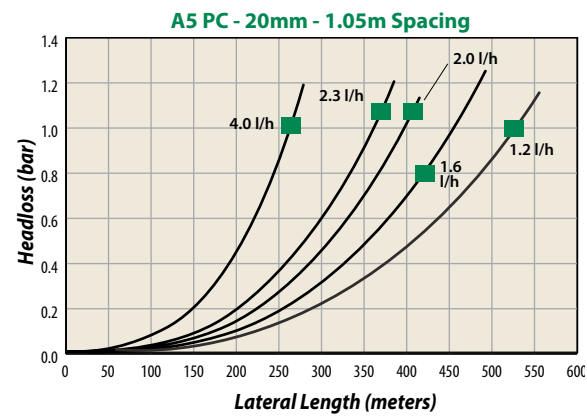
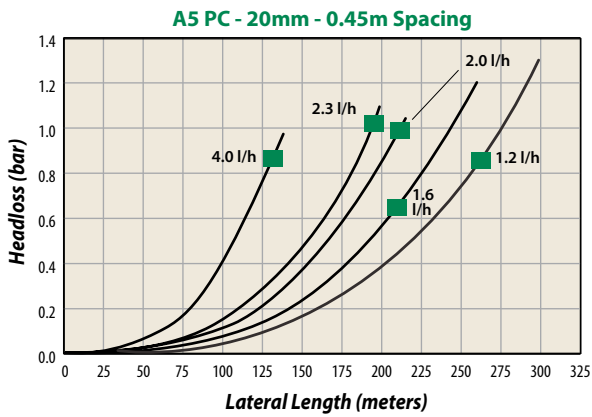
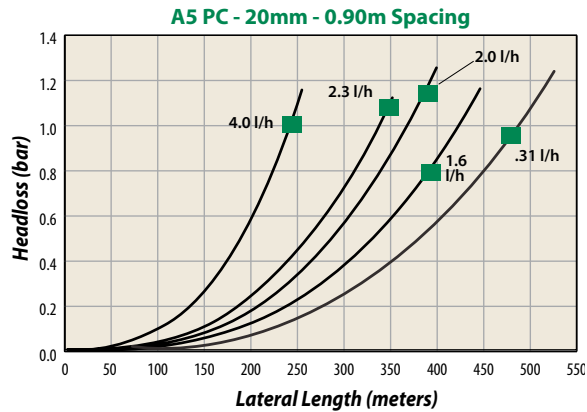
#### Calculating Lateral Length Inlet Pressure

$$\begin{aligned} &\text{Line End Pressure*} \\ &+ \text{Pressure Loss (from graph)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 0.48 bar.

#### Example:

$$\begin{aligned} &\text{A5 PC 0.45m Spacing} && \mathbf{0.48 \text{ bar (end pressure)}} \\ &\text{2.0 l/h, 213.4m (700') Run} && \mathbf{+ 0.95 \text{ bar (from graph)}} \\ &\text{Minimum Inlet Pressure} && \mathbf{= 1.43 \text{ bar}} \end{aligned}$$





## A legacy of agricultural innovation.



Rain Bird has a rich history serving the agricultural community. Beginning in 1933 with the invention of the original horizontal action impact drive sprinkler by a Glendora, California citrus farmer (U.S. Patent #1,997,901), Rain Bird revolutionized the food production industry and ushered in a new era in irrigation, worldwide. The original impact sprinkler was designated a historical landmark in 1990 by the American Society of Agricultural Engineers.

For over eighty years, we've been developing new and innovative products that water more intelligently and our work is not done yet. Rain Bird has been awarded hundreds of patents for innovative irrigation products and technologies that are used in over 130 countries to irrigate nearly every imaginable crop. Rain Bird is committed to The Intelligent Use of Water™, bringing its expertise and knowledge to further increase irrigation efficiency, minimize maintenance costs and enhance the health of crops.

**Visit [www.rainbird.com/ag](http://www.rainbird.com/ag) for more information.**



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