

N E T A F I M U S A

# ARIES™ HEAVYWALL DRIPLINE

INTRODUCING REVOLUTIONARY  
TURBUNEXT™ TECHNOLOGY  
IN A NON-COMPENSATING DRIPPER  
SETTING A NEW STANDARD FOR CLOG  
RESISTANCE AND ENHANCED PERFORMANCE



 **NETAFIM™**  
GROW MORE WITH LESS

## ARIES™ HEAVYWALL DRIPLINE

Netafim introduces the next generation of innovation - TurbuNext™ Technology - a new dripper labyrinth in a smaller dripper. The physical principles of the TurbuNext™ labyrinth provide lower flow rates with a maximum filtration area while maximizing the internal turbulence. All this results in the durability and clog resistance growers need in challenging water conditions. The durability of Aries Heavywall Driplines means enhanced and better performance for a longer length of time. And it fits the widest range of applications.

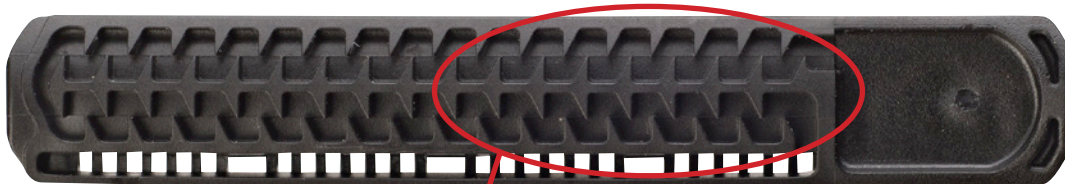
### PRODUCT ADVANTAGES

- Large and wide dripper filtration area ensures optimal performance even under harsh water conditions.
- Injection molded dripper construction provides uniform flow and very low Cv.
- TurbuNext™ labyrinth assures wide water passages, large deep and wide cross section improves clog resistance.
- Consistent, reliable and uniform flow rates.
- Affordably priced for today's economic challenges.
- Available with a wide choice of dripper spacings, flow rates and wall thickness to tailor-make a system for your varied applications, soils and crops.

### ARIES DRIPPER FEATURING TURBUNEXT™

#### INNOVATIVE LABYRINTH PASSAGE

Our patented labyrinth water passage maintains a unique geometric tooth-shaped structure that increases turbulence, enabling the creation of wider, deeper and shorter passages.



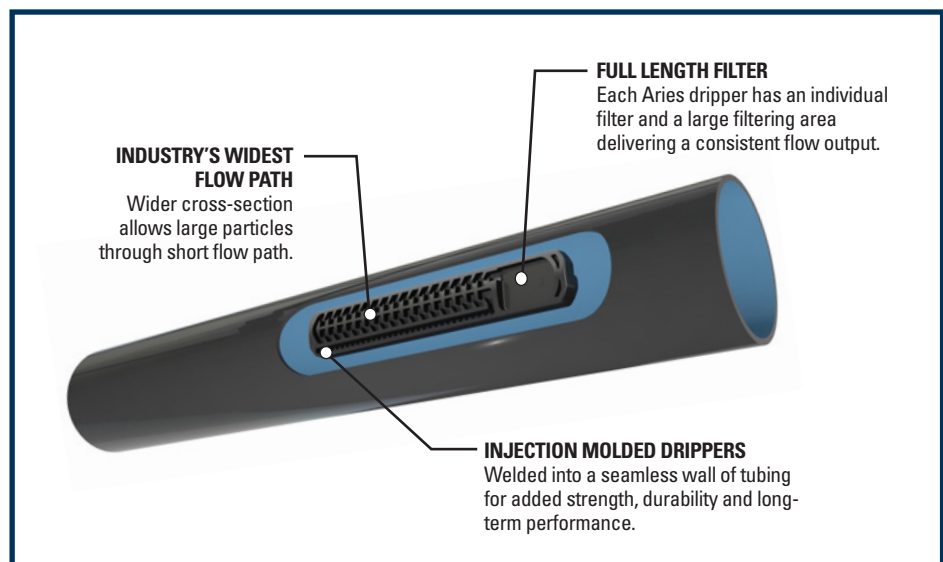
**Wide Flow Path and Angled Teeth** - maximizes water flow velocity while moving faster through the dripper to eliminate clogging.

### APPLICATIONS

- Deciduous and tree irrigation
- On-surface multi-seasonal row crops

### SPECIFICATIONS

- Inside diameter:
  - .540" (45 mil)
  - .620" (45 mil)
  - .690" (48 mil)
  - .820" (60 mil)
- Nominal flow rates (GPH): 0.26, 0.4, 0.5, 0.79, 1.0
- Common spacings: 18", 24", 30", 36", 42", 48", 60" (custom spacings available, call Netafim USA for information)
- Required filtration: 80 mesh
- UV resistant
- Recommended operating pressure: 10 to 30 psi



**NETAFIM OFFERS THE INDUSTRY'S LONGEST WARRANTY**

- **7 YEARS** - Defects in materials and workmanship
- **10 YEARS** - Environmental stress cracking (surface and subsurface applications)

**DRIPPER DATA / LIGHTWALL LESS THAN 45 MIL**

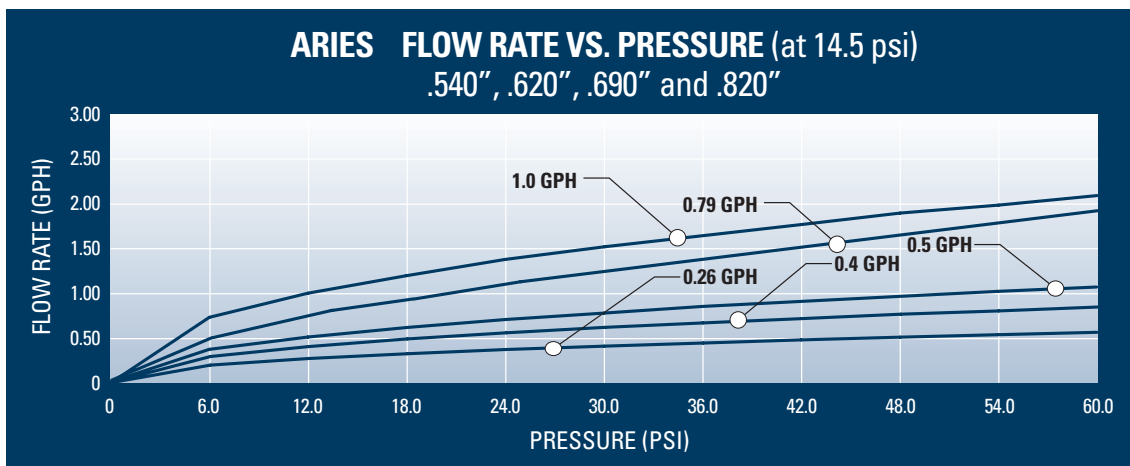
DRIPPER (GPH)	EXPONENT (x)	CONSTANT (k)	REQUIRED FILTRATION
0.26	.46	.077	80 MESH
0.4	.46	.116	80 MESH
0.5	.46	.154	80 MESH
0.79	.46	.232	80 MESH
1.0	.46	.309	80 MESH

**DRIPPER DATA / Kd**

I.D.	WALL THICKNESS	Kd
.540"	35 MIL	0.45
.540"	45 MIL	0.45
.620"	35 MIL	0.25
.620"	45 MIL	0.25
.690"	45 MIL	0.10
.690"	48 MIL	0.10
.820"	45 MIL	0.10
.820"	60 MIL	0.10

**DRIPPER DATA / HEAVYWALL 45 MIL OR GREATER**

DRIPPER (GPH)	EXPONENT (x)	CONSTANT (k)	REQUIRED FILTRATION
0.26	.46	.081	80 MESH
0.4	.46	.124	80 MESH
0.5	.46	.162	80 MESH
0.79	.46	.243	80 MESH
1.0	.46	.324	80 MESH



**PACKAGING INFORMATION**

I.D.	WALL THICKNESS	COIL LENGTH	WEIGHT
.540"	35 MIL	1,000'	27 LBS.
.540"	45 MIL	1,000'	35 LBS.
.620"	35 MIL	1,000'	30 LBS.
.620"	45 MIL	1,000'	39 LBS.
.690"	45 MIL	1,000'	44 LBS.
.690"	48 MIL	1,000'	47 LBS.
.820"	45 MIL	1,000'	51 LBS.
.820"	60 MIL	1,000'	69 LBS.

20 COILS PER PALLET

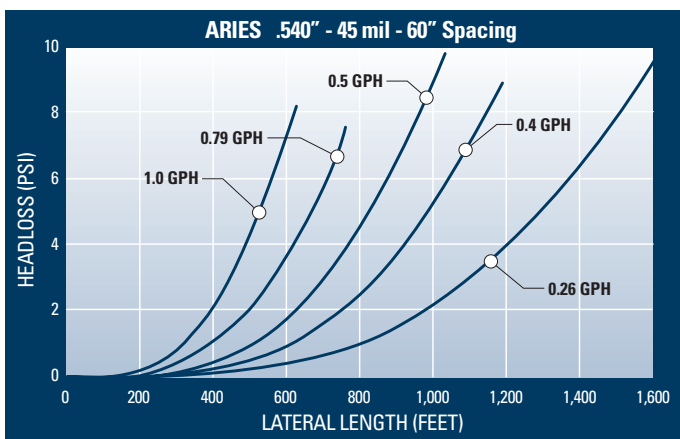
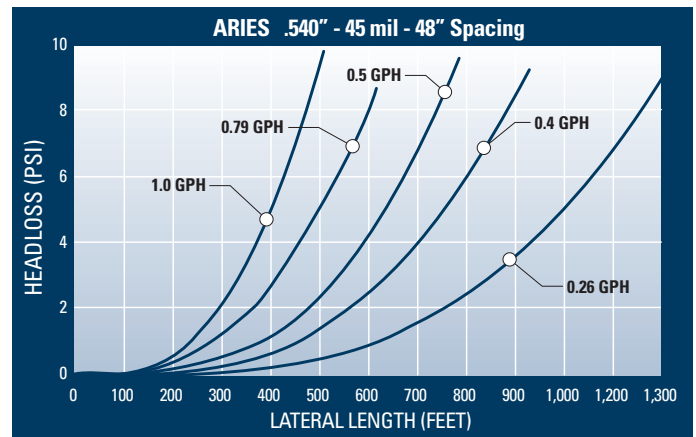
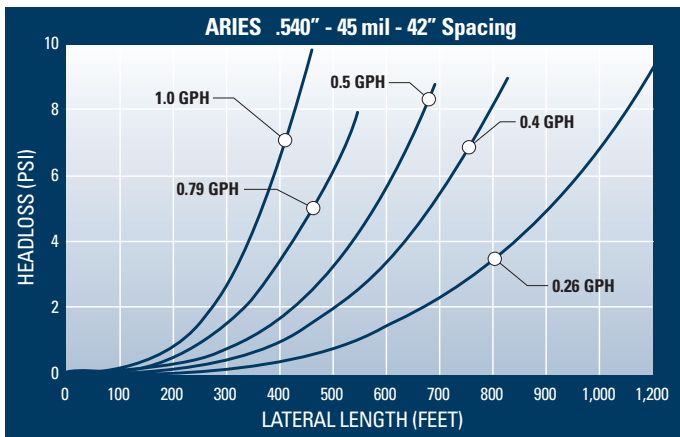
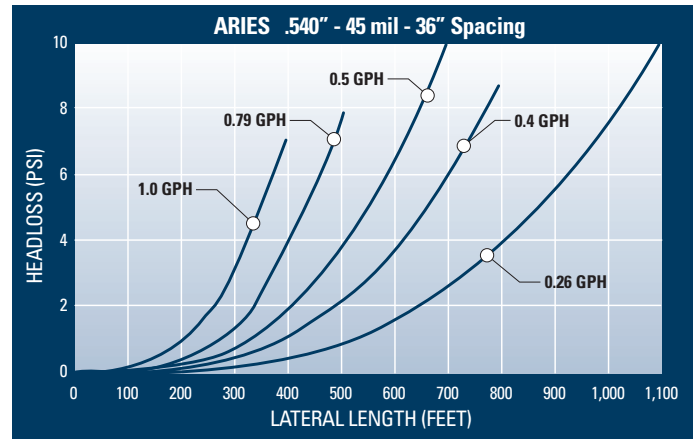
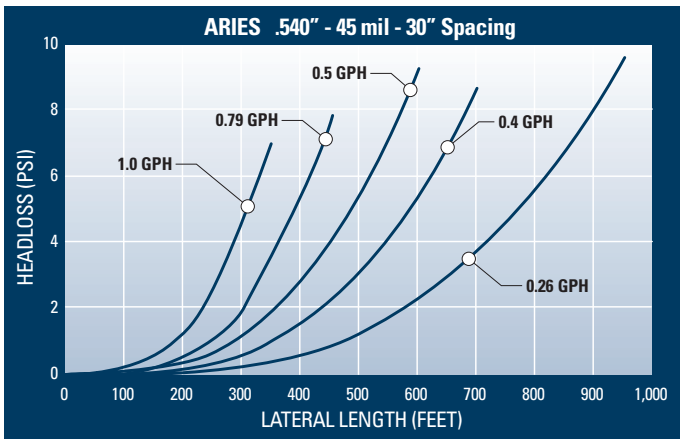
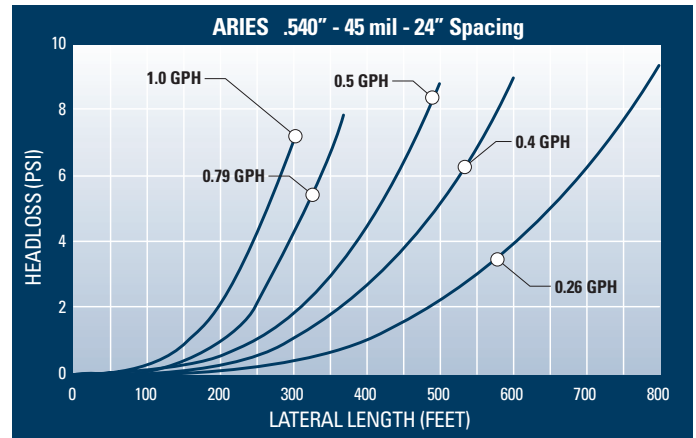
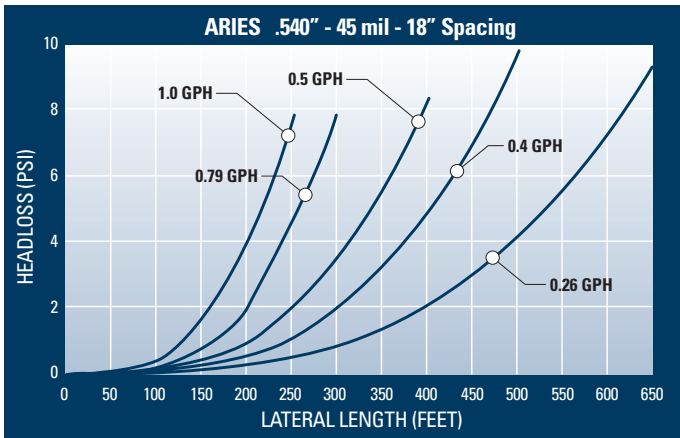


**VINELINE VINELINE SOLUTIONS**

Pre-Installed Adjustable Dripline Ring

- Easily adjustable - moves from one end of the dripline to the other preventing water migration
- Economical - saves labor costs
- Available for .540", .620" and .690" sizes.
- Pre-installed at Netafim USA

# ARIES™ .540" (18 MM, 45 MIL) HEADLOSS AND LATERAL LENGTH



## EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE

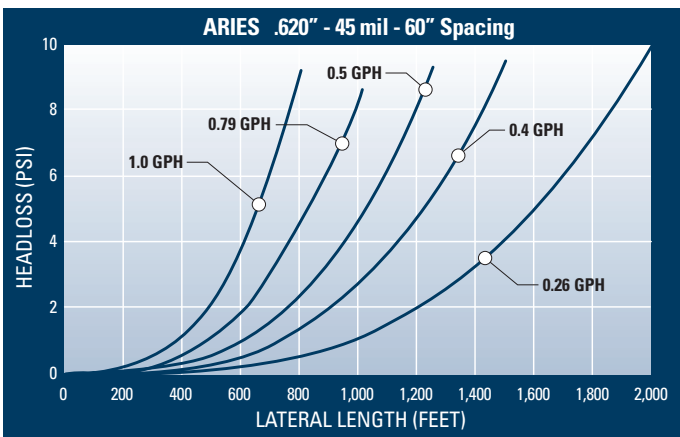
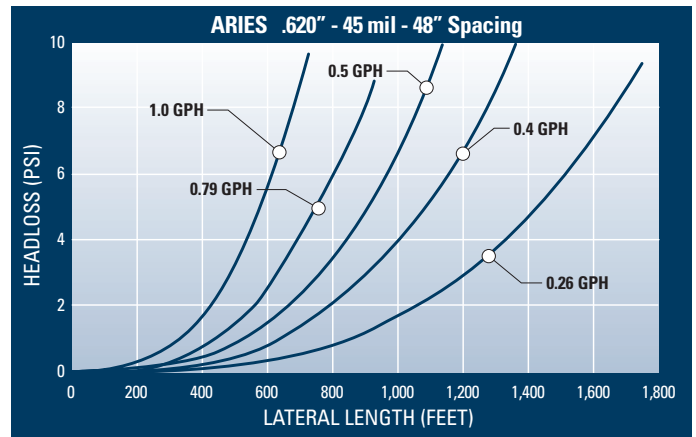
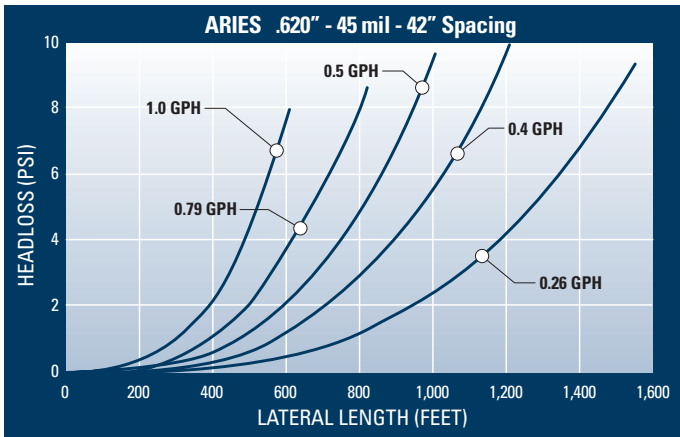
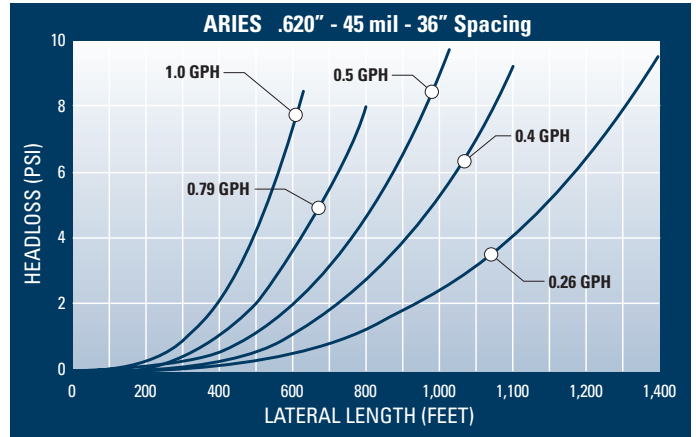
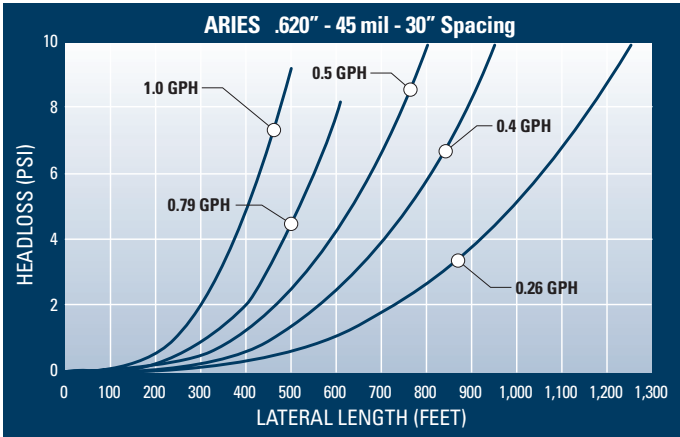
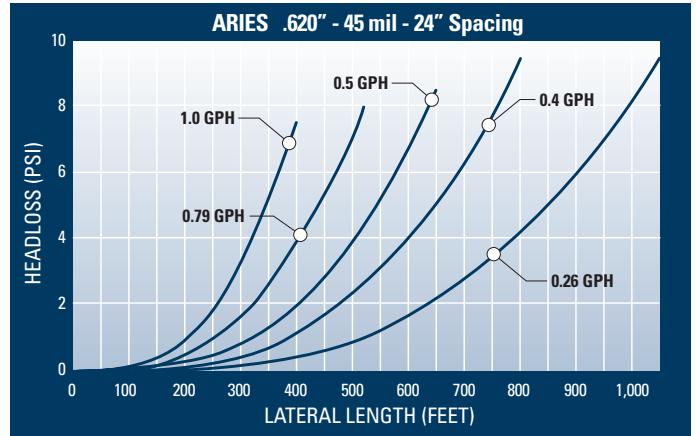
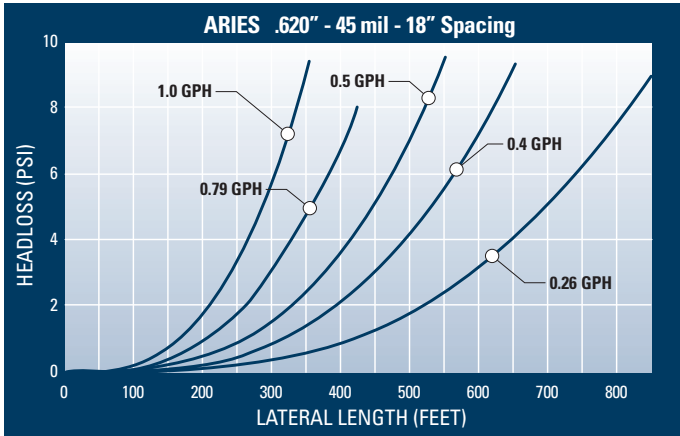
$$\begin{aligned} &\text{Line End Pressure* (10 psi)} \\ &+ \text{Pressure Loss (derived from charts)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 10 psi.

**Example:**  
 Aries .540"  
 550' Run  
 0.26 GPH  
 24" Spacing

$$\begin{aligned} &10 \text{ psi (end pressure)} \\ &+ 3.0 \text{ psi (from graph)} \\ &= 13.0 \text{ psi} \end{aligned}$$

# ARIES™ .620" (18MM, 45 MIL) HEADLOSS AND LATERAL LENGTH



## EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE

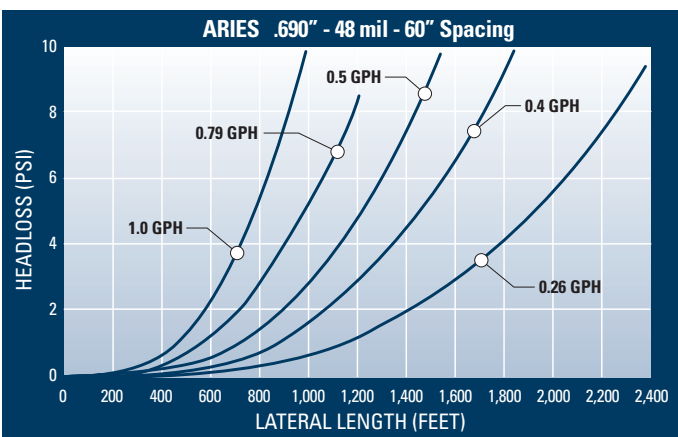
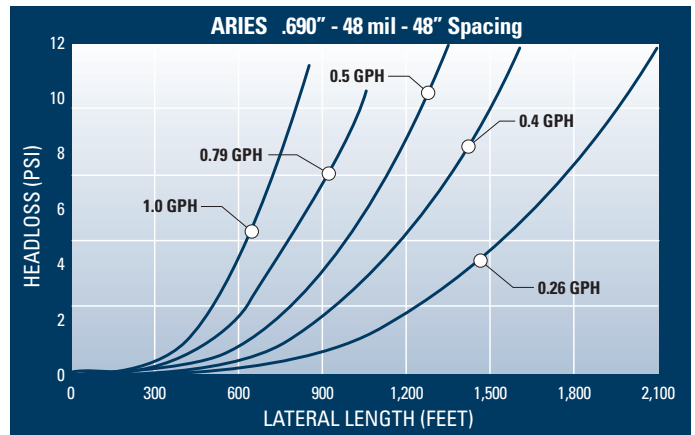
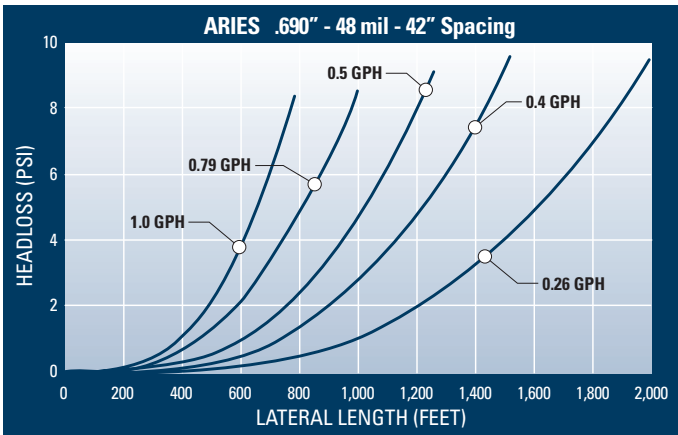
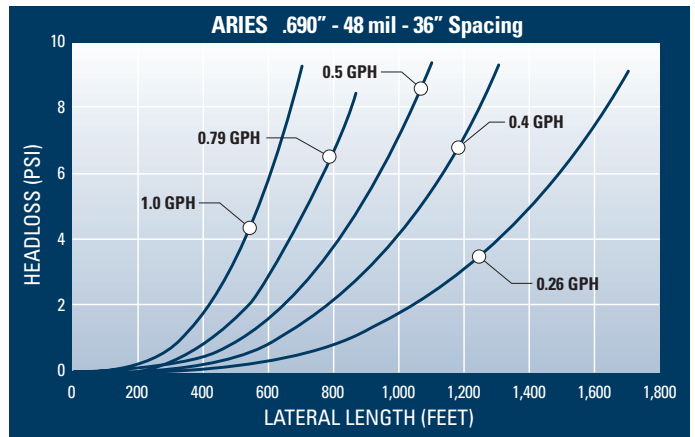
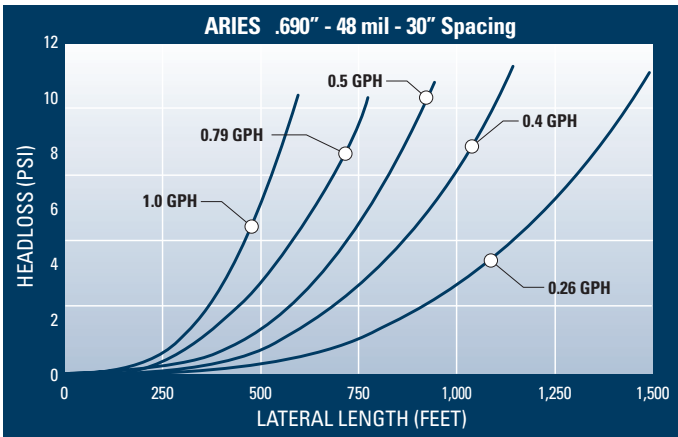
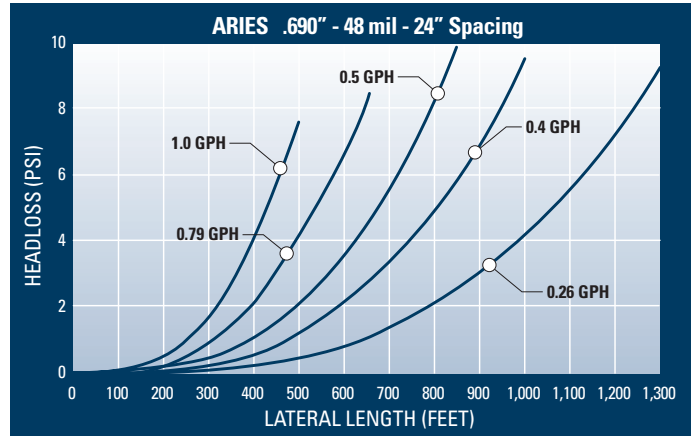
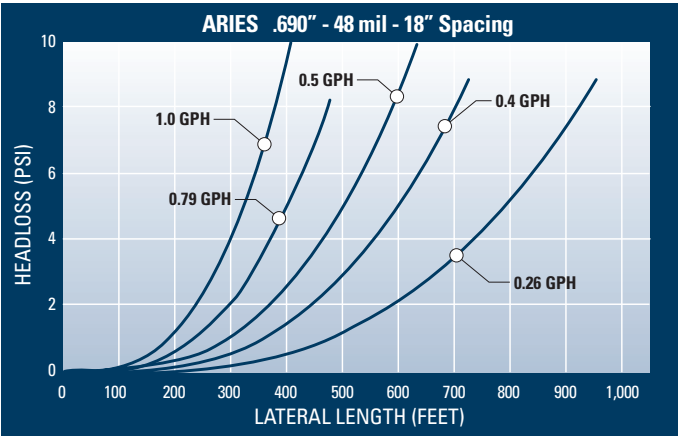
$$\begin{aligned} & \text{Line End Pressure* (10 psi)} \\ & + \text{Pressure Loss (derived from charts)} \\ & = \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 10 psi.

### Example:

Arises .620"	<b>10 psi</b> (end pressure)
750' Run	+ <b>3.5 psi</b> (from graph)
0.26 GPH	= <b>13.5 psi</b>
24" Spacing	

# ARIES™ .690" (20MM, 48 MIL) HEADLOSS AND LATERAL LENGTH



## EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE

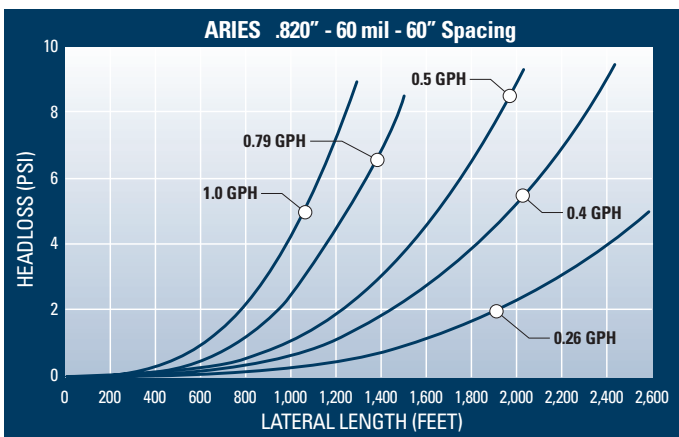
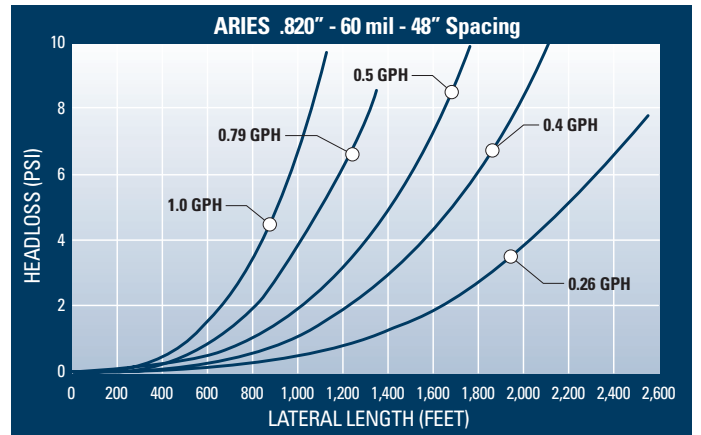
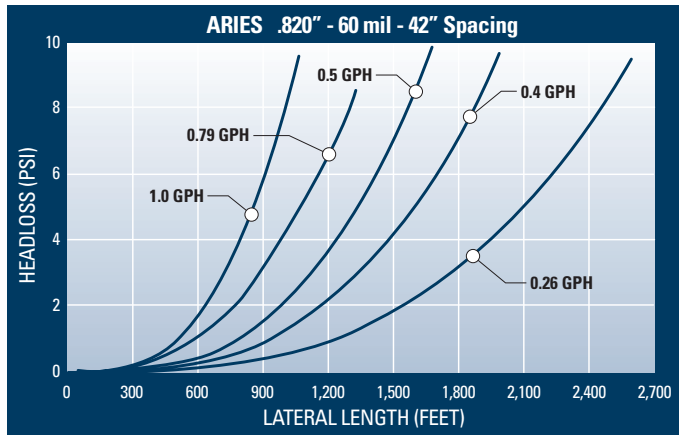
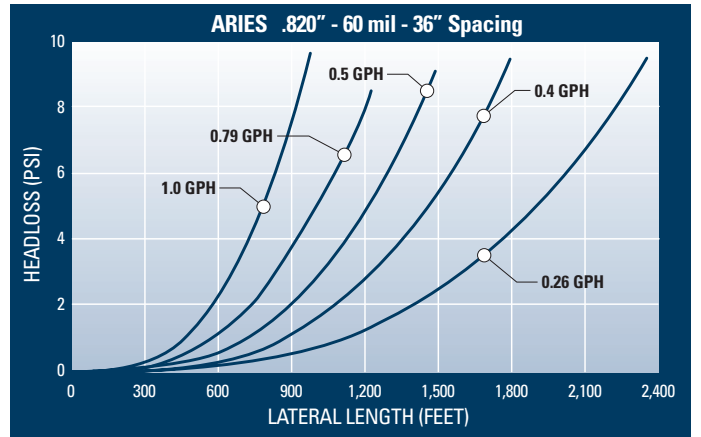
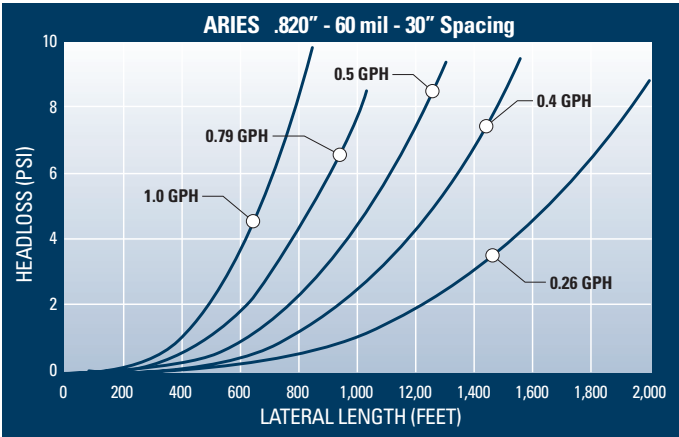
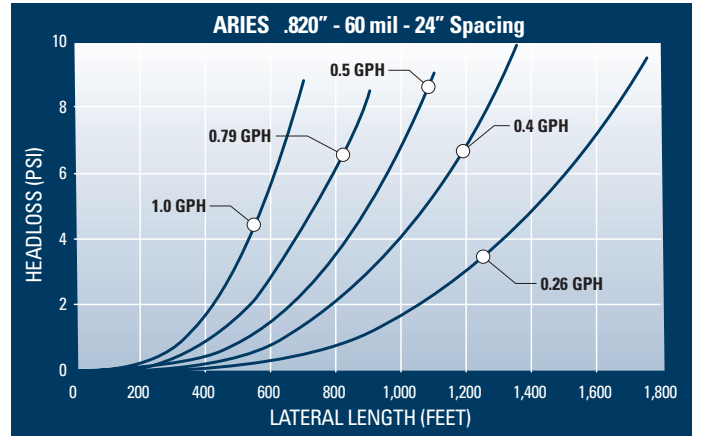
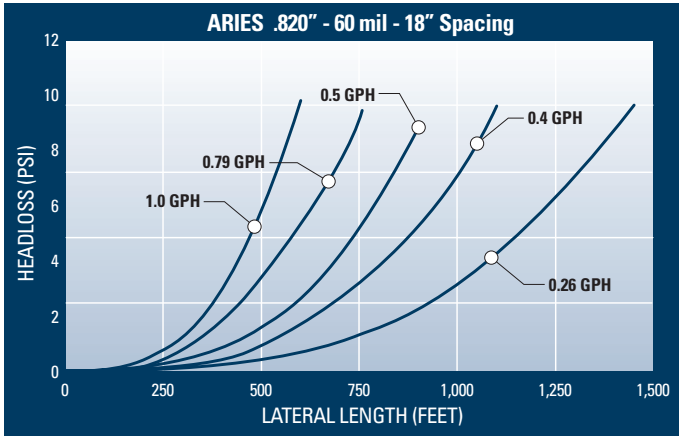
$$\begin{aligned} & \text{Line End Pressure* (10 psi)} \\ & + \text{Pressure Loss (derived from charts)} \\ & = \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 10 psi.

**Example:**  
Aries .690"  
800' Run  
0.26 GPH  
18" Spacing

$$\begin{aligned} & \mathbf{10 \text{ psi}} \text{ (end pressure)} \\ & + \mathbf{7.8 \text{ psi}} \text{ (from graph)} \\ & = \mathbf{17.8 \text{ psi}} \end{aligned}$$

# ARIES™ .820" (60 MIL) HEADLOSS AND LATERAL LENGTH



## EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE

$$\begin{aligned} &\text{Line End Pressure* (10 psi)} \\ &+ \text{Pressure Loss (derived from charts)} \\ &= \text{Inlet Pressure} \end{aligned}$$

\*Minimum pressure at lateral length end = 10 psi.

**Example:**  
Aries .820"  
1,300' Run  
0.26 GPH  
24" Spacing

$$\begin{aligned} &10 \text{ psi (end pressure)} \\ &+ \underline{4.0 \text{ psi (from graph)}} \\ &= \underline{14.0 \text{ psi}} \end{aligned}$$

# ARIES™ HEAVYWALL DRIPLINE

## NETAFIM SYSTEM COMPONENTS

To achieve maximum performance and increase the longevity of your Aries Heavywall Dripline and the complete irrigation system, include the following high quality Netafim system components.

### FILTERS

Many factors should be considered when selecting a filter system including: flow rate, quality of incoming and discharged water and the type of dripper - the smaller the flow path, the more critical the required filtration. Netafim offers disc, sand and screen filters to fit all applications.



**APOLLO DISC FILTER**  
Discs provide depth filtration for high flow water systems



**MANUAL DISC FILTERS**  
Discs provide depth filtration



**SAND MEDIA**  
Reliable, corrosion resistant, trouble-free sand media filtration



**SCREEN FILTERS**  
Durable, reinforced stainless steel screens

### VALVES

Manufactured from high quality materials, Netafim offers control valves in nylon, pvc, iron and bronze materials. They provide superior hydraulic performance and are available in multiple sizes and control functions to meet any application.



**IRON VALVES**  
Straight flow patterns for low friction loss



**SERIES 80 VALVES**  
Electric 2-Way valve with flow control



**PVC VALVES**  
High resistance to corrosive water

### WATER METERS

Reliable and accurate Water Meters are specifically designed for irrigation systems to provide the most accurate and reliable flow readings. Water meters can be the most accurate and easiest method for measuring water flow in the pipelines and improving efficiency. Netafim offers Water Meters with and without straightening vanes and in multiple sizes.



**OCTAVE ULTRASONIC WATER METER**  
Double beam ultrasonic sensors provide highly accurate flow data



**WST WATER METER**  
Low wear, long-life impeller shaft and bearings

### AIR VENTS

Air/Vacuum Relief Air Vents ensure maximum protection of an irrigation system with proper sizing and placement. A properly vented irrigation system will extend the life of the drippers and prevent potential clogging. Netafim offers Air Vents in many styles and sizes.



**VACUUM RELIEF AND CONTINUOUS ACTING**  
Releases large volumes of air at pump and filter stations and at high elevations in the piping network



**CONTINUOUS ACTING**  
For high spots where air accumulates



**AIR/VACUUM VENT**  
For downstream of valves and at manifolds to break vacuum caused by system draining



**NETAFIM USA**  
5470 E. Home Ave.  
Fresno, CA 93727  
CS 888 638 2346  
www.netafimusa.com