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

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

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.

INDUSTRY’S WIDEST FLOW PATH

Wider cross-section allows large particles through short flow path.

FULL LENGTH FILTER

Each Aries dripper has an individual filter and a large filtering area delivering a consistent flow output.

INJECTION MOLDED DRIPPERS

Welded into a seamless wall of tubing for added strength, durability and long-term performance.
ARIES™ HEAVYWALL DRIPLINE

NETAFIM OFFERS THE INDUSTRY’S LONGEST WARRANTY

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

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### DRIPPER DATA / LIGHTWALL LESS THAN 45 MIL

<table>
<thead>
<tr>
<th>Dripper (GPH)</th>
<th>Exponent (x)</th>
<th>Constant (k)</th>
<th>Required Filtration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.26</td>
<td>.46</td>
<td>.077</td>
<td>80 MESH</td>
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<tr>
<td>0.4</td>
<td>.46</td>
<td>.116</td>
<td>80 MESH</td>
</tr>
<tr>
<td>0.5</td>
<td>.46</td>
<td>.154</td>
<td>80 MESH</td>
</tr>
<tr>
<td>0.79</td>
<td>.46</td>
<td>.232</td>
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<tr>
<td>1.0</td>
<td>.46</td>
<td>.309</td>
<td>80 MESH</td>
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### DRIPPER DATA / HEAVYWALL 45 MIL OR GREATER

<table>
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<th>Dripper (GPH)</th>
<th>Exponent (x)</th>
<th>Constant (k)</th>
<th>Required Filtration</th>
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</thead>
<tbody>
<tr>
<td>0.26</td>
<td>.46</td>
<td>.081</td>
<td>80 MESH</td>
</tr>
<tr>
<td>0.4</td>
<td>.46</td>
<td>.124</td>
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</tr>
<tr>
<td>0.5</td>
<td>.46</td>
<td>.162</td>
<td>80 MESH</td>
</tr>
<tr>
<td>0.79</td>
<td>.46</td>
<td>.243</td>
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</tr>
<tr>
<td>1.0</td>
<td>.46</td>
<td>.324</td>
<td>80 MESH</td>
</tr>
</tbody>
</table>

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### DRIPPER DATA / Kd

<table>
<thead>
<tr>
<th>I.D.</th>
<th>Wall Thickness</th>
<th>Kd</th>
</tr>
</thead>
<tbody>
<tr>
<td>.540”</td>
<td>35 MIL</td>
<td>.45</td>
</tr>
<tr>
<td>.540”</td>
<td>45 MIL</td>
<td>.45</td>
</tr>
<tr>
<td>.620”</td>
<td>35 MIL</td>
<td>.25</td>
</tr>
<tr>
<td>.620”</td>
<td>45 MIL</td>
<td>.25</td>
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<tr>
<td>.690”</td>
<td>45 MIL</td>
<td>.10</td>
</tr>
<tr>
<td>.690”</td>
<td>48 MIL</td>
<td>.10</td>
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<tr>
<td>.820”</td>
<td>45 MIL</td>
<td>.10</td>
</tr>
<tr>
<td>.820”</td>
<td>60 MIL</td>
<td>.10</td>
</tr>
</tbody>
</table>

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**ARIES FLOW RATE VS. PRESSURE (at 14.5 psi)**

|.540”, .620”, .690” and .820”

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### PACKAGING INFORMATION

<table>
<thead>
<tr>
<th>I.D.</th>
<th>Wall Thickness</th>
<th>Coil Length</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>.540”</td>
<td>35 MIL</td>
<td>1,000’</td>
<td>27 LBS.</td>
</tr>
<tr>
<td>.540”</td>
<td>45 MIL</td>
<td>1,000’</td>
<td>35 LBS.</td>
</tr>
<tr>
<td>.620”</td>
<td>35 MIL</td>
<td>1,000’</td>
<td>30 LBS.</td>
</tr>
<tr>
<td>.620”</td>
<td>45 MIL</td>
<td>1,000’</td>
<td>47 LBS.</td>
</tr>
<tr>
<td>.690”</td>
<td>45 MIL</td>
<td>1,000’</td>
<td>44 LBS.</td>
</tr>
<tr>
<td>.690”</td>
<td>48 MIL</td>
<td>1,000’</td>
<td>47 LBS.</td>
</tr>
<tr>
<td>.820”</td>
<td>45 MIL</td>
<td>1,000’</td>
<td>51 LBS.</td>
</tr>
<tr>
<td>.820”</td>
<td>60 MIL</td>
<td>1,000’</td>
<td>69 LBS.</td>
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</tbody>
</table>

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### VINELINE VINEYARD 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

20 COILS PER PALLET
**ARIES™ .540” (18 MM, 45 MIL) HEADLOSS AND LATERAL LENGTH**

EQUATION TO CALCULATE
LATERAL LENGTH INLET PRESSURE

\[
\text{Line End Pressure}^* \quad (10 \text{ psi}) \\
+ \quad \text{Pressure Loss (derived from charts)} \\
= \quad \text{Inlet Pressure}
\]

*Minimum pressure at lateral length end = 10 psi.

**Example:**

ARIES .540”

550’ Run

0.26 GPH

24” Spacing

\[
\begin{align*}
10 \text{ psi (end pressure)} \\
+ \quad 3.0 \text{ psi (from graph)} \\
\quad = \quad 13.0 \text{ psi}
\end{align*}
\]
ARIES™ .620” (18MM, 45 MIL) HEADLOSS AND LATERAL LENGTH

EQUATION TO CALCULATE  
LATERAL LENGTH INLET PRESSURE  

<table>
<thead>
<tr>
<th>Line End Pressure* (10 psi)</th>
<th>Pressure Loss (derived from charts)</th>
<th>= Inlet Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 psi</td>
<td>3.5 psi</td>
<td>13.5 psi</td>
</tr>
</tbody>
</table>

Example:  
Aries .620”  
750’ Run  
0.26 GPH  
24” Spacing  

0.26 GPH = 13.5 psi
ARIES™ .690” (20MM, 48 MIL) HEADLOSS AND LATERAL LENGTH

**EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE**

\[
\text{Line End Pressure}^* (10 \text{ psi}) + \text{Pressure Loss} \text{ (derived from charts)} = \text{Inlet Pressure}
\]

*Minimum pressure at lateral length end = 10 psi.

**Example:**

Aries .690”  \(10 \text{ psi} \) (end pressure)

800’ Run  + 7.8 psi (from graph)

0.26 GPH  =  17.8 psi

18” Spacing
ARIES™ .820” (60 MIL) HEADLOSS AND LATERAL LENGTH

EQUATION TO CALCULATE LATERAL LENGTH INLET PRESSURE

\[
\text{Line End Pressure}^* + \text{Pressure Loss (derived from charts)} = \text{Inlet Pressure}
\]

*Minimum pressure at lateral length end = 10 psi.

Example:
Aries .820” 10 psi (end pressure)
1,300’ Run + 4.0 psi (from graph)
0.26 GPH 14.0 psi
24” Spacing
### 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.
- **Screen Filters**: Durable, reinforced stainless steel screens.
- **Manual Disc Filters**: Discs provide depth filtration.
- **Sand Media**: Reliable, corrosion resistant, trouble-free sand media filtration.

#### 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.
- **Continuous Acting**: For high spots where air accumulates.
- **Vacuum Relief and Continuous Acting**: Releases large volumes of air at pump and filter stations and at high elevations in the piping network.
- **Air/Vacuum Vent**: For downstream of valves and at manifolds to break vacuum caused by system draining.