

UniRam™ HCNL

Integral pressure-compensated, continuously self-flushing, anti-siphon and anti-drain mechanism dripper, ideal for greenhouses, deciduous plantations and tree irrigation, and permanent applications that require intensive irrigation scheduling in complex topographies.

→ 16009 - 16010 - 16012 - 20010 - 20012



Pressure-compensated




Anti-drain mechanism



Self-flushing mechanism

/ Benefits & Features

- **Pressure-compensated** Precise and equal amounts of water delivered over a broad pressure range, ensuring 100% uniformity of water and nutrient distribution along the laterals.
- **Anti-siphon mechanism** Prevents contaminants from being drawn into the dripper, making it ideal for sub surface applications.
- **Anti-drain mechanism (HCNL)** Eliminates drainage and refill effect, and improves efficiency in pulse irrigation even in steep topography.
- **Continuously self-flushing** Flushes debris throughout operation, while ensuring constant dripper operation even in challenging water quality.
- **Physical root barrier** Better protection against root intrusion, utilizing unique dripper design that creates physical barriers protecting the dripper from root growth into its labyrinth.
- **Wide filtration area** Ensures optimal performance even under harsh water conditions, preventing the entrance of sediment into the labyrinths.
- **Wide water passages** TurboNet™ labyrinth ensures wide water passages, large deep and wide cross-section that improves clogging resistance. The water is drawn into the dripper from the stream center, preventing the entrance of sediments into the drippers.
- **Hybrid (optional)**  New patented add-on to UniRam™, features an on line saddle that allows to combine the benefits of an integral dripper to connect Netafim™ press fit adaptors and prevents drop migration on slopes in certain conditions*.

*Please contact your Netafim™ local representative to get more information on the drop migration feature.

/ Specifications

- Pressure-compensated range: 1.5 - 4.0 bar.
- Largest filter in the industry. Recommended filtration: 130 micron / 120 mesh. Filtration method selected based on the kind and concentration of dirt particles contained in the water. Wherever sand exceeding 2 ppm exists in the water, a Hydrocyclone should be installed before the main filter. Where sand/silt/clay solids exceed 100 ppm, pre treatment it should be applied following Netafim™ expert instructions.
- Double TurboNet™ labyrinth with large water passage.
- Weldable into thick wall driplines (0.90, 1.00, 1.20 mm).
- Injected dripper, very low CV with injected silicon diaphragm.
- High UV resistant. Resistant to standard nutrients used in agriculture.
- Compliance ISO 9261 international standards.

→ Drippers technical data

Flow rate* (l/h)	Working pressure range (bar)	Water passages dimensions width-depth-length (mm)	Filtration area (mm²)	Constant K	Exponent* X	Recommended filtration (micron)/(mesh)	Shut off pressure (bar)
0.85	1.5 – 4.0	0.70 x 0.65 x 40	110	0.85	0	130/120	0.25
1.25		0.83 x 0.74 x 40	130	1.25	0	130/120	0.25
2.00		1.09 X 0.76 x 40	130	2.00	0	130/120	0.25
2.90		1.26 x 0.93 x 40	130	2.90	0	130/120	0.25
4.40		1.59 x 1.07 x 40	150	4.40	0	130/120	0.25

* Within working pressure range

→ Driplines technical data

Model	Inside diameter (mm)	Wall thickness (mm)	Outside diameter (mm)	Max. working pressure (bar)	Max. flushing pressure (bar)	KD
16009	14.20	0.90	16.00	3.0	3.9	1.30
16010	14.20	1.00	16.20	3.5	4.6	1.30
16012	14.20	1.20	16.60	4.0	5.2	1.30
20010	17.50	1.00	19.50	3.5	4.6	0.40
20012	17.50	1.20	19.90	4.0	5.2	0.40

→ Driplines package data (on bundled coil)

Model	Wall thickness (mm)	Distance between drippers (m)	Coil length (m)	Average* coil weight (kg)	Coils in a 40 feet container (units)	Total in a 40 feet container (m)
16009	0.90	0.15 to 1.00	500	20.3	330	165000
16010	1.00	0.15 to 1.00	500	22.2	330	165000
16012	1.20	0.15 to 1.00	400	21.2	352	140800
20010	1.00	0.15 to 1.00	300	17.4	330	99000
20012	1.20	0.15 to 1.00	300	20.2	330	99000

* Calculated weight average. For further details see "Average Coil Weight Disclaimer"

Driplines featuring the Hybrid configuration are supplied in 300 meter coils for 16 mm models and 200 meter coils for 20 mm models.