TECHLINE® HCVXR

17mm DRIPLINE

THE INDUSTRY'S BEST PROTECTION AGAINST ROOT INTRUSION

Cupron® copper oxide is molded into the emitter providing a long lasting solution to root intrusion

HIGH CHECK VALVE IN EACH EMITTER

All emitters turn on and off at the same time holding back up to 8.5' of water making it ideal for elevation changes and high slopes

ANTI-SIPHON FEATURE PROTECTS AGAINST DEBRIS

Emitter outlet is sealed at system shut-down blocking debris from entering the dripline after irrigation

LASER ETCHING ON THE DRIPLINE

Permanent identification of the model, flow rate and emitter spacing right on the dripline for quick and easy reference

SUPERIOR PROTECTION

Netafim's Techline products provide a wide range of CV emitter options to address a variety of installation requirements from flat surfaces, slopes to subsurface (buried). Building on the 15+ years of success with our CV emitter, we've now added Cupron® copper oxide and a high check valve feature to this proven emitter.

Techline® HCVXR is a revolutionary new dripline which provides superior root intrusion resistance. It's also the longest lasting solution that continues to function even after years of use because the Cupron® copper oxide is infused in the material used to make the emitter. In addition to the copper oxide, Techline HCVXR has a unique patented emitter design with physical root barrier for even more root intrusion protection.

FEATURES & BENEFITS

LONG LASTING PROTECTION THROUGHOUT THE LIFE OF THE DRIPLINE
Cupron® copper oxide will not wash off, wear off and does not leach out of the emitter providing superior root intrusion resistance.

HIGH CHECK VALVE IN EACH EMITTER
The high check valve is great on slopes because it holds back 8.5' of water (elevation change) keeping the dripline charged for even distribution of water with no low emitter drainage.

NEW COLOR FOR EASY IDENTIFICATION
The dripline has a new color for easy identification as Techline HCVXR.

FOUR NEW EMITTER FLOW RATES
Achieve maximum design flexibility with four new emitter flow rates - the most options offered in the industry.

Techline HCVXR dripline also has the same superior features and benefits as Techline CV which include:

- **Physical Root Barrier -** the offset flow path, extra large bath area and raised outlet provide additional root intrusion protection
- **Anti-Siphon Feature -** prevents debris from entering the emitter outlet at system shut-down. Surface and subsurface installations don't require air relief valves
- **Pressure Compensating -** delivers precise, equal amounts of water over a broad pressure range
- **Continuous Self-flushing Emitter -** flushes debris as it's detected
- **Laser Etching -** permanent identification for model and flow rate right on the dripline
- **One-Piece Dripline Construction -** reliable, easy installation
- **Flexible UV Resistant Tubing -** bending radius of 7" adapts to any planting area shape

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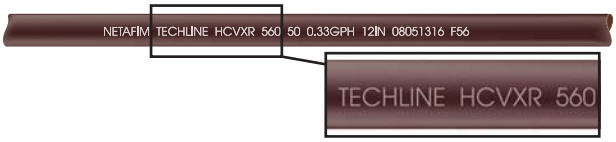
NEW!

LASER ETCHING ON THE DRIPLINE
Now there's a quick and easy way to identify the dripline model, flow rate and emitter spacing - it's permanently etched onto the surface of the dripline.



HERE'S HOW IT WORKS

Cupron® copper oxide (Cu_2O) technology effectively deters roots from growing in the HCVXR emitter. During the manufacturing process, the copper oxide is mixed with the emitter resin material infusing the copper oxide in the emitter. It will not wash off, wear off or leach out of the emitter. The copper colored top portion of the emitter contains the embedded copper oxide.

Top with embedded copper oxide

Diaphragm

Bottom with large filtration area

LONG LASTING SOLUTION

APPLICATIONS

- Subsurface or on-surface applications
- Turf, shrubs, trees and flowers
- Sports turf, tennis courts, golf courses
- Slopes
- Curved, angular or narrow planting areas
- High traffic/high liability areas
- Areas subject to vandalism
- At-grade windows
- Green walls, green roofs
- Raised planters

SPECIFICATIONS

- Emitter flows: 0.33, 0.53, 0.77, 1.16 GPH
- Emitter spacings: 12", 18", 24" (24" spacing available on 1,000 coils only)
- Pressure compensation range: 21.8 to 58 psi (stainless steel clamps recommended above 50 psi)
- High Check Valve: holds back 8.5' of water
- Bending radius: 7"
- Maximum recommended system pressure: 58 psi
- Minimum pressure required: 21.8 psi
- Tubing diameter: 0.66" OD; 0.56" ID, 0.050" wall
- Coil lengths: 100', 250', 500', 1,000'
- Recommended minimum filtration: 120 mesh
- Diaphragm: molded silicon

A LITTLE BIT MORE ABOUT CUPRON TECHNOLOGY

Cupron® technology remains effective throughout the life of the product.

- This technology was used in 2010 in the socks given to Chilean Miners on day 36 of being trapped underground. For the miners, these anti-odor socks prevented 99.9% of bacteria and fungi while improving the overall appearance of the skin.

- The Israeli Defense Force became the first army in the world to supply their troops with anti-microbial socks based on this innovative copper technology.

TECHLINE HCVXR-RW

Now available for reclaimed water use - Techline HCVXR dripline with a purple stripe, high check valve and root intrusion protection.

RELIABILITY WITH THE LANDSCAPE INDUSTRY'S LONGEST ROOT INTRUSION WARRANTY

15 YEARS

Netafim stands behind Techline HCVXR with an unprecedented limited warranty for root intrusion. We warrant Techline HCVXR to be free of emitter plugging due to root intrusion for a period of 15 years* from the date of original delivery.

* Refer to the Landscape & Turf Catalog for warranty details

GENERAL GUIDELINES

	TURF												SHRUB & GROUNDCOVER											
	CLAY SOIL			LOAM SOIL			SANDY SOIL			COARSE SOIL			CLAY SOIL			LOAM SOIL			SANDY SOIL			COARSE SOIL		
EMITTER FLOW	0.33 GPH			0.53 GPH			0.77 GPH			1.16 GPH			0.33 GPH			0.53 GPH			0.77 GPH			1.16 GPH		
EMITTER SPACING	18"			12"			12"			12"			18"			18"			12"			12"		
LATERAL (ROW) SPACING	18"	20"	22"	12"	18"	20"	12"	14"	16"	12"	14"	16"	18"	21"	24"	18"	21"	24"	16"	18"	20"	16"	18"	20"
BURIAL DEPTH	Bury evenly throughout the zone from 4"to 6"												On-surface or bury evenly throughout the zone to a maximum of 6"											
APPLICATION RATE (INCHES/HOUR)	0.24	0.21	0.19	0.85	0.56	0.51	1.23	1.05	0.92	1.86	1.60	1.40	0.24	0.20	0.18	0.38	0.32	0.28	0.92	0.82	0.74	1.40	1.24	1.12
TIME TO APPLY ¼" OF WATER (MINUTES)	64	71	78	18	27	30	12	14	16	8	9	11	64	74	85	40	46	53	16	18	20	11	12	13

Following these maximum spacing guidelines, emitter flow selection can be increased if desired by the designer.
1.16 GPH flow rate available for areas requiring higher infiltration rates, such as coarse sandy soils.

TECHNICAL INFORMATION

SPECIFYING MODEL NUMBER

Reference for Ordering Information Chart

SAMPLE MODEL NUMBER

TLHCVXR3-1210

(A) (1) (2) (3)

A Techline HCVXR Dripline = **TLHCVXR**

1 EMITTER FLOW RATE
- 0.33 GPH = **3**
- 0.53 GPH = **5**
- 0.77 GPH = **7**
- 1.16 GPH = **11**

2 EMITTER SPACING
- 12″ = **12**
- 18″ = **18**
- 24″ = **24**

3 COIL LENGTH
- 100′ = **01**
- 250′ = **025**
- 500′ = **05**
- 1,000′ = **10**

TECHLINE HCVXR

MADE WITH POST CONSUMER RECYCLED MATERIAL

RECYCLED CONTENT

Techline HCVXR qualifies for LEED credit 4.2 as it contains a minimum of 20% polyethylene post-consumer recycled material.

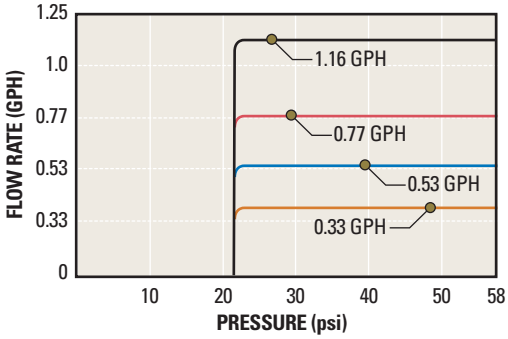
FLOW PER 100 FEET

EMITTER SPACING	0.33 EMITTER		0.53 EMITTER		0.77 EMITTER		1.16 EMITTER	
	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM
12″	33.0	0.55	53.0	0.88	77.0	1.28	116.0	1.93
18″	22.0	0.37	35.3	0.59	51.3	0.86	77.3	1.29
24″	16.5	0.28	26.5	0.44	38.5	0.64	58.0	0.97

ORDERING INFORMATION

FLOW RATE	EMITTER SPACING	COIL LENGTH	MODEL NUMBER
0.33 GPH	12″	100′	TLHCVXR3-1201
		250′	TLHCVXR3-12025
		500′	TLHCVXR3-1205
		1,000′	TLHCVXR3-1210
	18″	100′	TLHCVXR3-1801
		250′	TLHCVXR3-18025
		500′	TLHCVXR3-1805
		1,000′	TLHCVXR3-1810
	24″	1,000′	TLHCVXR3-2410
0.53 GPH	12″	100′	TLHCVXR5-1201
		250′	TLHCVXR5-12025
		500′	TLHCVXR5-1205
		1,000′	TLHCVXR5-1210
	18″	100′	TLHCVXR5-1801
		250′	TLHCVXR5-18025
		500′	TLHCVXR5-1805
		1,000′	THLCVXR5-1810
	24″	1,000′	TLHCVXR5-2410
0.77 GPH	12″	100′	TLHCVXR7-1201
		250′	TLHCVXR7-12025
		500′	TLHCVXR7-1205
		1,000′	TLHCVXR7-1210
	18″	100′	TLHCVXR7-1801
		250′	TLHCVXR7-18025
		500′	TLHCVXR7-1805
		1,000′	TLHCVXR7-1810
	24″	1,000′	TLHCVXR7-2410
1.16 GPH	12″	100′	TLHCVXR11-1201
		250′	TLHCVXR11-12025
		1,000′	TLHCVXR11-1210
	18″	100′	TLHCVXR11-1801
		250′	TLHCVXR11-18025
		1,000′	TLHCVXR11-1810
	24″	1,000′	TLHCVXR11-2410
BLANK TUBING		100′	TLHCVXR001
		250′	TLHCVXR0025
		500′	TLHCVXR005
		1,000′	TLHCVXR010

FLOW RATE VS. PRESSURE



Techline HCVXR emitters open at 21.8 psi and close at 3.64 psi.

MAXIMUM LENGTH OF A SINGLE LATERAL (FEET)

EMITTER SPACING		12″				18″				24″	
EMITTER FLOW (GPH)		0.33	0.53	0.77	1.16	0.33	0.53	0.77	1.16	0.77	1.16
INLET PRESSURE	25 psi	237	173	136	103	335	246	192	146	244	184
	30 psi	327	240	187	142	464	341	266	203	338	258
	35 psi	385	282	221	168	546	401	314	239	400	304
	40 psi	429	315	247	187	611	449	351	267	446	340
	45 psi	467	342	268	203	663	488	381	290	486	370
	50 psi	499	366	287	218	710	521	408	311	520	396
	55 psi	528	387	303	230	752	552	432	329	550	418
	60 psi	554	406	318	241	788	579	453	345	578	440

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