LANDSCAPE & TURF TECHLINE® CV OUICK INSTALL GUIDE

Typical Netafim Techline CV Subsurface Layout Tips and Recommendations

Techline CV can be installed on-surface, under mulch, or buried evenly up to 6". Use guidelines on the back to select which Techline CV to use, and how to apply properly.



Estimating How Much Techline CV to Use

Multiply the square footage of the area x 12, divide that number by the *minimum* recommended row of spacing from the General Guidlines Chart. (See back of sheet for more information.)

Fittings

- Techline/Techline CV fittings are recommended. They are the fastest to install, most economical and do not require clamps at pressures less than 50 psi.
- 1/2" Poly insert fittings with clamps can be used.
- 700 Series compression fittings can also be used.

Low Volume Control Zone

Pre-assembled valve, filter and pressure regulator is more convenient to use than separate valve, filter and pressure regulator.

Two Versions:

- LVCZ10075-LF (0.25 - 4.4 GPM)
- LVCZ10075-HF (3.5 - 17.6 GPM)

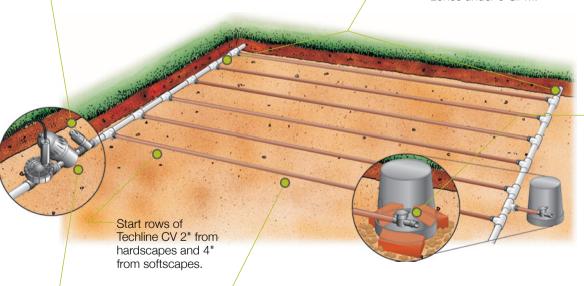
Pressure Regulating Valve (PRV)

Install after the zone valve and filter.

- Use PRV075LF20V2K from .25 4.4 GPM
- Use PRV075HF45V2K from 3.5 17.6 GPM
- Use PRV15045V2K from 7 35 GPM

Supply & Exhaust Headers

Most often used in subsurface systems. They may not be necessary if Techline CV is laid on-surface. Use Techline or Techline CV Blank Tubing as supply and exhaust headers on zones under 5 GPM.



Line Flushing Valves

Use TLSOV or TLFIG8.

- Normally placed along exhaust header or at the point farthest away from the source.
- Install in a valve box with a gravel sump.
- An automatic line flushing valve may be used but some water may drain from it after zone shutdown.

Filters — Staples - Use 1 TLS6 staple for:

- Placed before or after the zone valve.
- 3/4" filter up to 13 GPM1" filter up to 26 GPM
- 1 1/2" Filter up to 35 GPM
- Use 120 or 140 mesh
- Netafim sells a large variety of filters - up to 6,500 GPM - call Netafim USA for more information.

- Every 3' of Techline CV in sand, every 4' in
- loam and every 5' in clay.

 Use 2-staples over each tee, elbow or cross.
- Use 2-staples over each tee, elbow or cross.
 Caution Landscape fabric staples and other non-stainless steel staples rust away quickly and are not recommended.



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Steps to Choosing and Applying Netafim Techline CV

To determine the proper Techline CV to use on your project, you will need to know the following:

- 1. What are you irrigating shrubs and ground cover or turf areas?
- 2. What type of soil do you have clay, loam or sand?
- 3. How many square feet are going to be irrigated?

Use this simple formula for calculating approximately how much Techline CV to use in the area:

- Multiply the square footage of the area x 12.
- Divide that number by the *minimum number of inches* apart the rows should be (also called Techline CV Lateral Spacing).

This number is found on the Techline CV General Guidelines Chart. While this quick formula is not meant to replace an actual design and take-off, you will have a fairly accurate idea of how many feet of dripperline you will need.

Refer to the Techline CV General Guidelines Chart.

For example, when irrigating shrubs in loam soil, choose Techline CV with 0.4 GPH (gallons per hour) drippers and 18" dripper spacings (drippers are spaced 18" apart inside the tubing). **Note:** the box on the General Guidelines chart highlighting the .4/18" column.

This chart gives you important information including:

- How many inches apart the rows will go (18" 24")
- To what depth you can bury the Techline CV (a maximum of 6")
- What the application rate is (.29 in/hour with rows 18" apart and .21 in/hour with rows 24" apart)
- How long to run the zone to apply 1/4" of water (52 minutes for rows spaced 18" apart and 71 minutes for rows spaced 24" apart)

Refer to the Techline CV Maximum Length of Laterals Chart.

Based on the Techline CV you choose (for our continuing example we will use .4/18" Techline CV) this chart will tell you how far you can run a length of Techline CV.

Note: The maximum length of each lateral is dependent on the pressure at the beginning of the lateral. If the pressure is 45 psi, you can safely run a .4/18" Techline CV lateral up to 664'. If the pressure is 25 psi, the maximum length of the run is 459'.

The Techline CV Flow per 100' Chart tells you how many GPM the Techline CV will use. **Note:** .4/18 example - every 100' will use 26.67 GPH or 0.44 GPM.

	TECHLINE® CV General Guidelines										
Г		Turf			Shrub and Ground Cover						
		Clay Soil	Loamy Soil	Sandy Soil	Clay Soil	Loamy Soil	Sandy Soil				
	Dripper Flow	0.26 GPH	0.4 GPH	0.6 GPH	0.26 GPH	0.4 GPH	0.6 GPH				
	Dripper Interval	18"	12"	12"	18"	18"	12"				
	Lateral (Row) Spacing	18" - 22"	18" - 22"	12" - 16"	18" - 24"	18" - 24"	16" - 20"				
	Burial Depth	On-surface or bury evenly throughout the zone to a maximum of 6 inches									
	Application Rate (in./hr.)	.1915	.4335	.9672	.1914	.2921	.7258				
	Time to Apply 1/4" of Water (in minutes)	79 - 100	35 - 43	16 - 21	79 - 107	52 - 71	21 - 26				

Maximum spacing recommendations: Following these spacing guidelines, dripper flow selection can be increased if desired by the designer.

TECHLINE® CV Maximum Length of a Single Lateral (feet)											
Techline Cv Dripper Spacing											
Inlet Pressure (psi)	12"			18"				24"			
15	127	109	86	65	177	151	120	91	152	116	
25	427	325	256	194	604	459	361	274	458	348	
35	539	409	322	244	763	579	456	346	580	440	
45	618	469	369	280	877	664	523	397	666	506	
Dripper Flow Rate (GPH)	0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9	

TECHLINE® CV Flow (per 100 feet)											
Dripper Spacing	0.26 GPH Dripper		0.4 GPH Dripper		0.6 GPH	Dripper	0.9 GPH Dripper				
12"	26.40 GPH	0.44 GPM	40.00 GPH	0.67 GPM	61.00 GPH	1.02 GPM	92.00 GPH	1.53 GPM			
18"	17.58 GPH	0.29 GPM	26.67 GPH	0.44 GPM	41.00 GPH	0.68 GPM	61.00 GPH	1.02 GPM			
24"	N/A	N/A	N/A	N/A	31.00 GPH	0.51 GPM	46.00 GPH	0.77 GPM			



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