LANDSCAPE & TURF

NETAFIM™
GROW MORE WITH LESS

TECHLINE CV QUICK INSTALL GUIDE

Estimating How Much Techline CV to Use

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

Fittings

- Techline CV fittings are recommended. They are the fastest to install, most economical and do not require clamps at pressures less than 50 psi.
- ½" Poly insert fittings with clamps can be used.
- 700 Series compression fittings can also be used.

Low Volume Control Zone Kit

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

Two Models Available:

- Model # LVCZS8010075-LF (0.25 - 4.4 GPM)
- Model # LVCZS8010075-HF (4.5 - 17.6 GPM)

SUBSURFACE LAYOUT

LAYOUT TIPS AND RECOMMENDATIONS

Techline CV can be installed subsurface buried evenly up to 6". Use guidelines to select which Techline CV to use and how much to apply properly.

LOW VOLUME CONTROL ZONE KIT
For easy installation of a valve, disc filter and pressure regulator valve (PRV)* use Netafim's Low Volume Control Zone Kit. Models are available with a pre-assembled with 1" Control Valve, ¾" Disc Filter and High/Low Flow Pressure Regulator.
Low Flow (0.25 - 4.4 GPM)
LVCZS8010075-LF
High Flow (4.5 - 17.6 GPM)
LVCZS8010075-HF

SUPPLY & EXHAUST HEADERS
Most often used in subsurface systems. Use Techline CV Blank Tubing if zone is under 5 GPM or PVC/PE pipe if above.

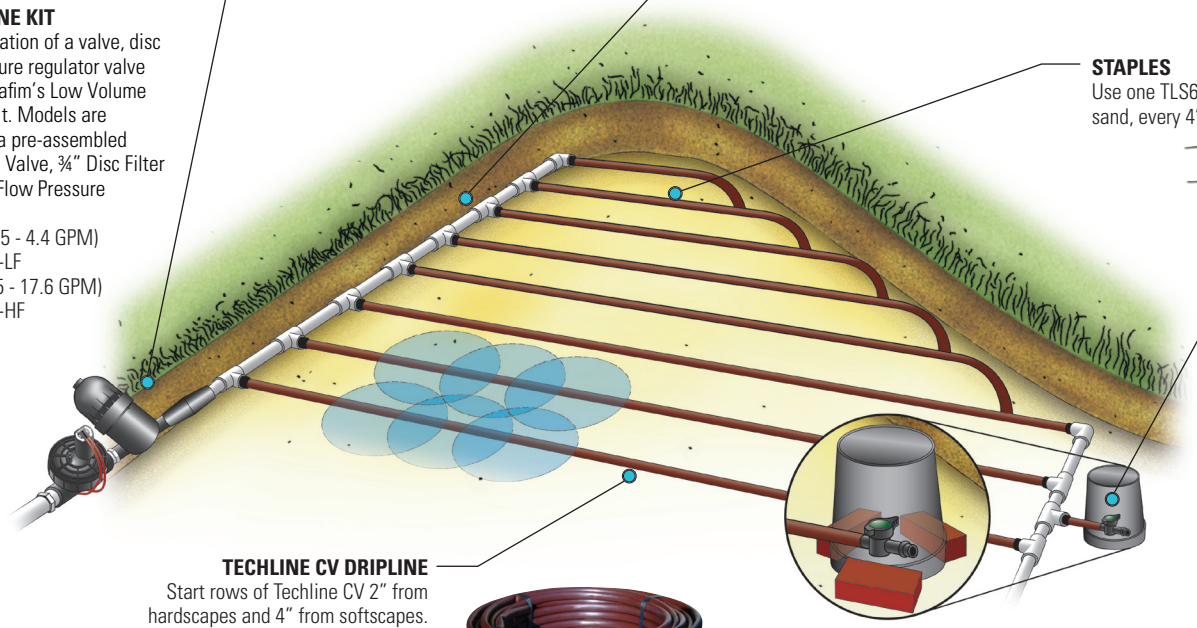

½" MPT Adapter
TL050MA


Insert Adapter for 1" or Larger PE
TLIAPE-B


Insert Adapter for 1½" or Larger PVC
TLIAPVC-B

STAPLES
Use one TLS6 staple every 3' of Techline CV in sand, every 4' in loam and every 5 ' feet in clay.


6" Soil Staple
TLS6



MANUAL FLUSH VALVE
Use TLSOV or TLFIG8.
Normally placed along exhaust header or at the point farthest away from the control zone kit.
Install in the valve box with a gravel sump.


Shut-off Valve
TLSOV


Figure 8 Line End
TLFIG8

TECHLINE CV DRIPLINE
Start rows of Techline CV 2" from hardscapes and 4" from softscapes.


Techline CV Dripline
TLCV

STEPS FOR CHOOSING AND APPLYING 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 Lateral (Row) spacing)

This number is found in the 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 dripline you will need.

Refer to the General Guidelines Chart

For example, when irrigating shrubs in loam soil, choose Techline CV with 0.4 GPH (gallons per hour) emitters and 18" emitter spaces (emitters are spaced 18" apart inside the tubing). Note: the box in the General Guidelines chart highlighting the 0.4/18" 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 (0.29 in/hour with rows 18" apart and 0.21 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 Maximum Length of a Single Lateral Chart

Based on the Techline CV you choose (for our continuing example we will use 0.4/18" 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 0.4/18" Techline CV lateral up to 664'. If the pressure is 25 psi, the maximum length of the run of 459'.
The Flow per 100 Feet Chart tells you how many GPM (gallons per minute) and GPH (gallons per hour) the Techline CV will use.
Note: 0.4/18" example - every 100' will use 26.67 GPH or 0.44 GPM.

PRODUCT SELECTION GUIDELINE CHARTS

GENERAL GUIDELINES

	TURF												SHRUB & GROUNDCOVER											
	CLAY SOIL			LOAM SOIL			SANDY SOIL			COARSE SOIL			CLAY SOIL			LOAM SOIL			SANDY SOIL			COARSE SOIL		
EMITTER FLOW	0.26 GPH			0.4 GPH			0.6 GPH			0.9 GPH			0.26 GPH			0.4 GPH			0.6 GPH			0.9 GPH		
EMITTER SPACING	18"			12"			12"			12"			18"			18"			12"			12"		
LATERAL (ROW) SPACING	18"	20"	22"	18"	20"	22"	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)	0.19	0.17	0.15	0.45	0.41	0.37	0.96	0.83	0.72	1.44	1.24	1.08	0.19	0.16	0.14	0.29	0.24	0.21	0.72	0.64	0.58	1.08	0.96	0.87
TIME TO APPLY ¼" OF WATER (MINUTES)	81	90	99	33	37	41	16	18	21	10	12	14	81	94	108	53	61	70	21	23	26	14	16	17
Following these maximum spacing guidelines, emitter flow selection can be increased if desired by the designer. 0.9 GPH flow rate available for areas requiring higher infiltration rates, such as coarse sandy soils.																								

Note: 0.4, 0.6 and 0.9 GPH are nominal flow rates. Actual flow rates used in the calculations are 0.42, 0.61 and 0.92 GPH.

MAXIMUM LENGTH OF A SINGLE LATERAL (FEET)

EMITTER SPACING		12"				18"				24"	
EMITTER FLOW (GPH)		0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE	20 psi	320	235	185	135	455	330	260	195	330	245
	25 psi	405	295	235	175	575	420	330	250	420	315
	35 psi	515	375	295	225	730	535	420	320	535	405
	45 psi	590	435	340	260	840	615	485	370	620	470

FLOW PER 100 FEET

EMITTER SPACING	0.26 EMITTER		0.4 EMITTER		0.6 EMITTER		0.9 EMITTER	
	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM
12"	26.40	0.44	42.00	0.70	61.00	1.02	92.50	1.54
18"	17.58	0.29	28.00	0.47	40.67	0.68	61.67	1.03
24"	Not Standard		Not Standard		30.50	0.51	46.25	0.77

NETAFIM COIL LABEL CODE KEY

FLOW RATE / SPACING	12"	18"	24"
0.26	▼	■	●
0.4	▼	■	●
0.6	▼	■	●
0.9	▼	■	●

Netafim Coil Label Code Key
Each coil has a label that is coded with color and graphic shapes for easy flow rate and emitter spacing identification. The Flip Side of the label includes a quick Station Run Time Guide.

FITTINGS


Insert Coupling
Model TLCOUP


Insert Elbow
Model TLELL


Insert Tee
Model TLTEE


Insert Cross
Model TLCROS


½" MPT Adapter
Model TL050MA


¾" MPT Adapter
Model TL075MA


Combination Tee
Ins x Ins x ¾" FPT
Model TL075FTEE


¾" MPT X "V"
Model TL2W075MA


Drill Bit for PVC
Insert Adapter
Model TDBIT16.5


In-Line Check Valve
½" MPT
Model TLCV050M1-B

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