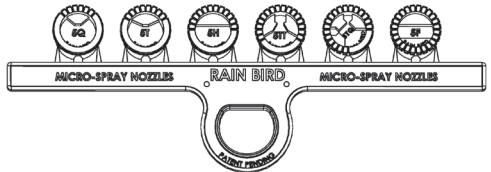
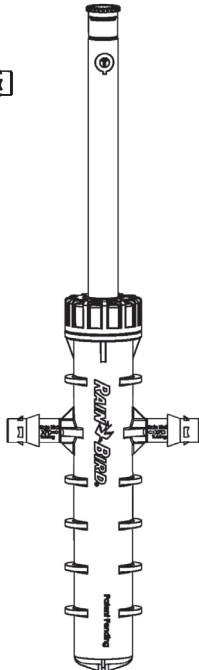
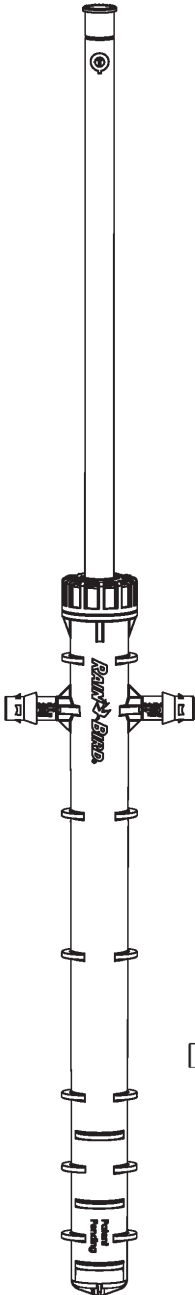
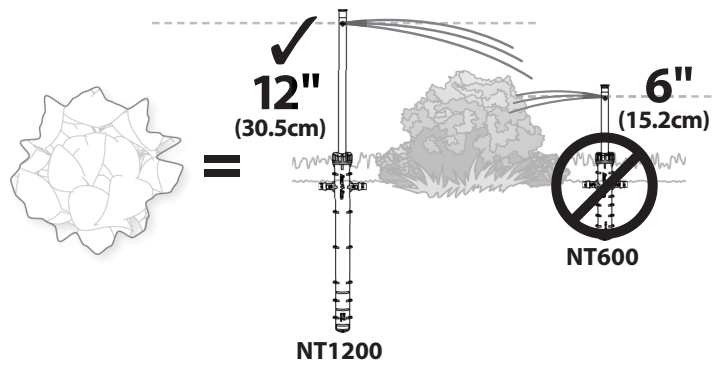
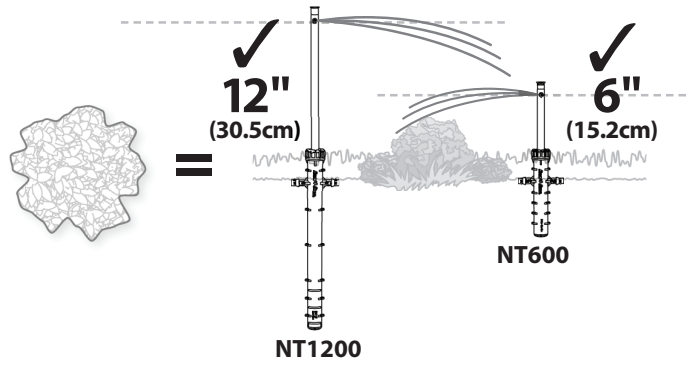
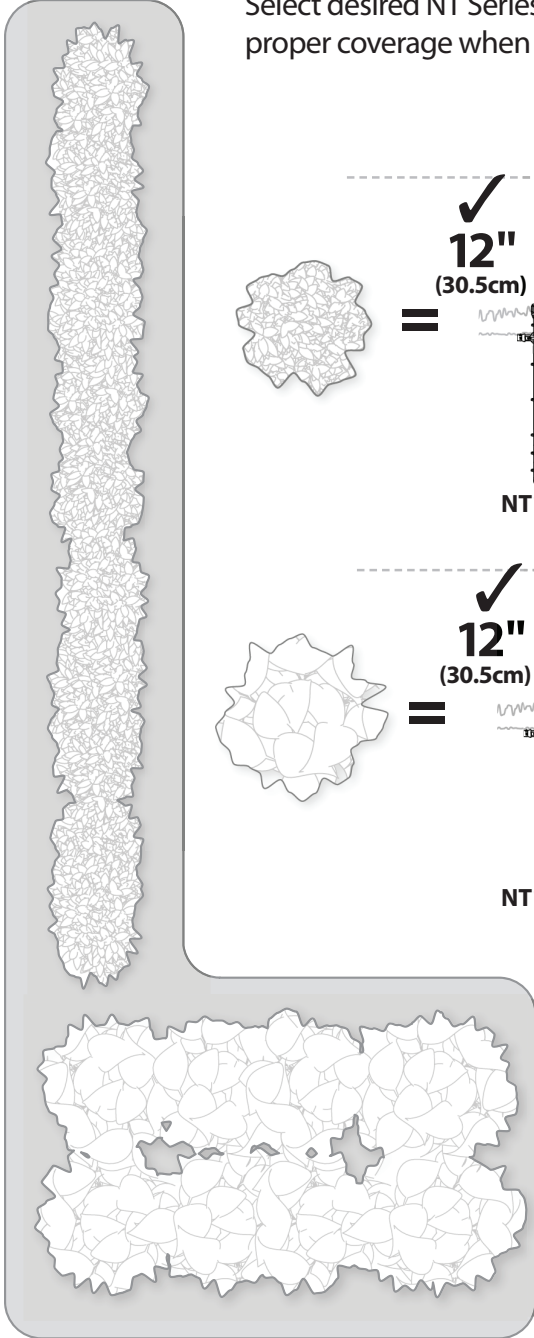




NT Series Micro Pop-Up Installation Instructions

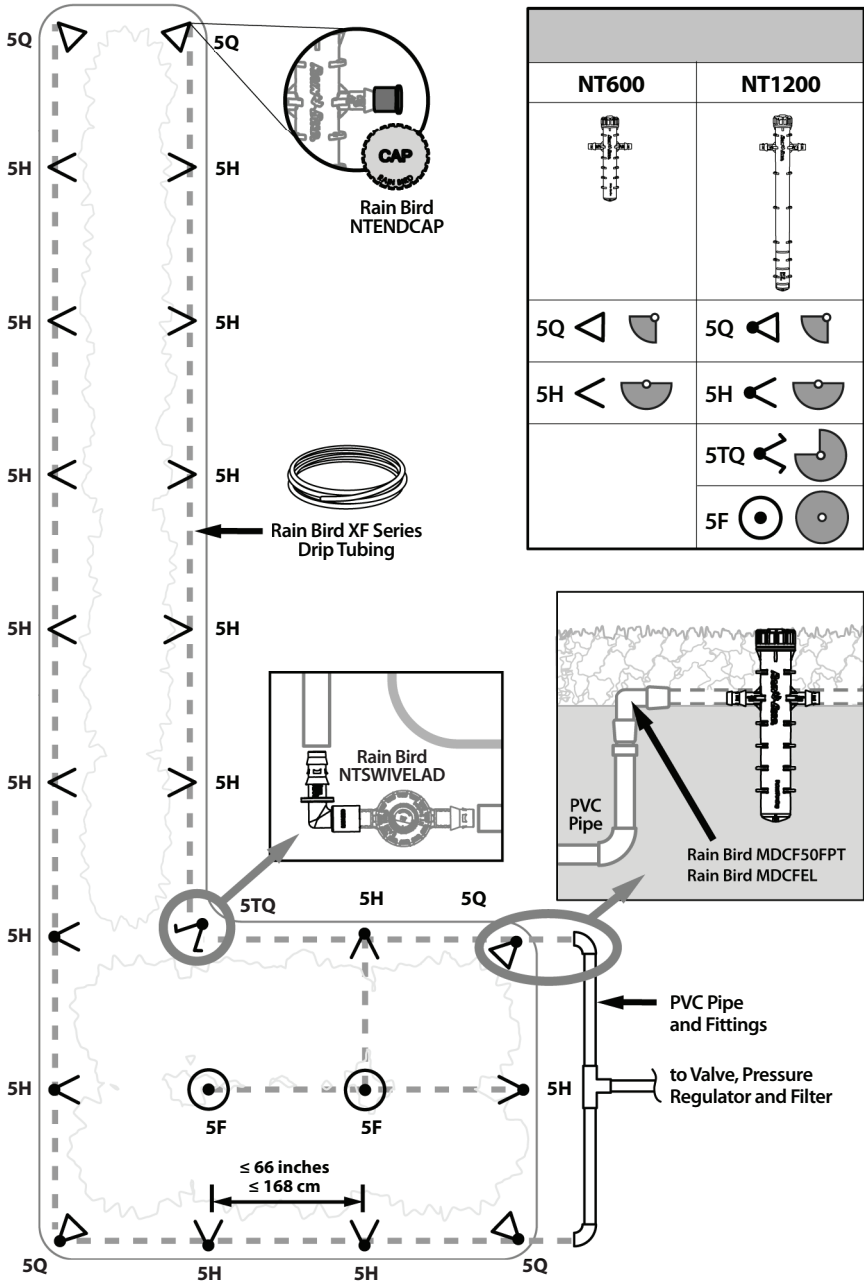


Select desired NT Series pop-up height to assure proper coverage when the plant material matures.



Prepare a layout of the NT Series to assure proper coverage.

Note: To assure proper coverage when using micro-spray nozzles, do not space NT Series Micro Pop-Ups more than 66 inches (168cm) apart.



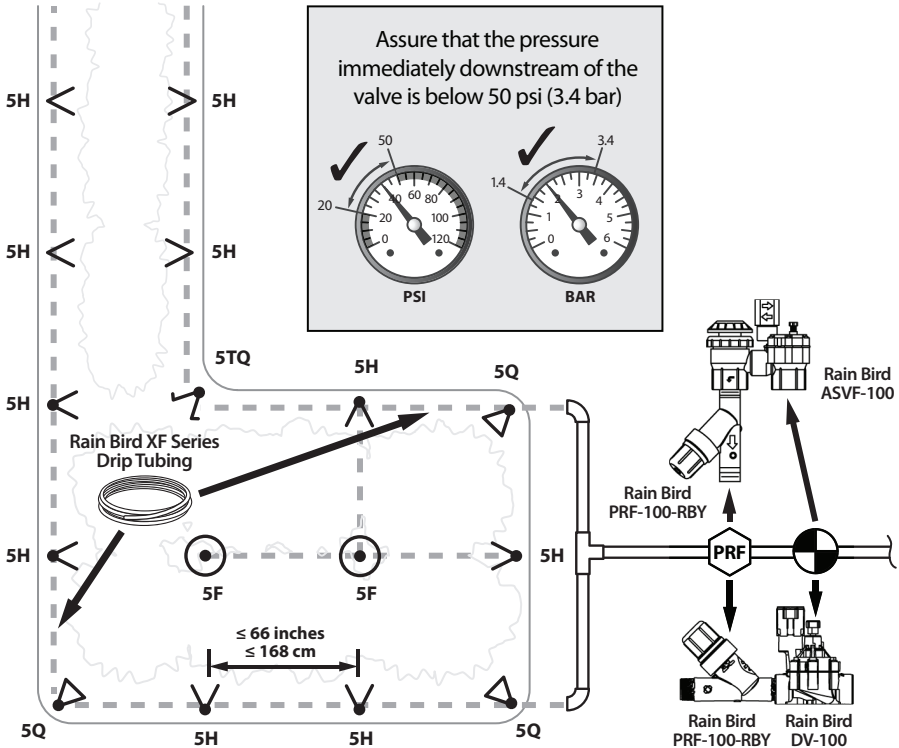
Determine the maximum number of NT Series units that can be placed on a Rain Bird XF Series drip tubing lateral. For specific pressure loss calculations, a tool can be found at www.rainbird.com/ntseries.

Rules of Thumb:

1. If most of the micro-spray nozzles are 5Q, 5T, 5H or 5TT, then you can use up to (15) NT600's or up to (10) NT1200's per lateral line.
2. If most of the micro-spray nozzles are 5TQ or 5F, then you can use up to (8) NT600's or up to (5) NT1200's per drip lateral line.
3. If most of the micro-stream nozzles are non 3F, then you can place up to (15) NT600's or (10) NT1200's per drip lateral line.
4. If most of the micro-stream nozzles are 3F, then you can place up to (8) NT600's or (5) NT1200's per drip lateral line.

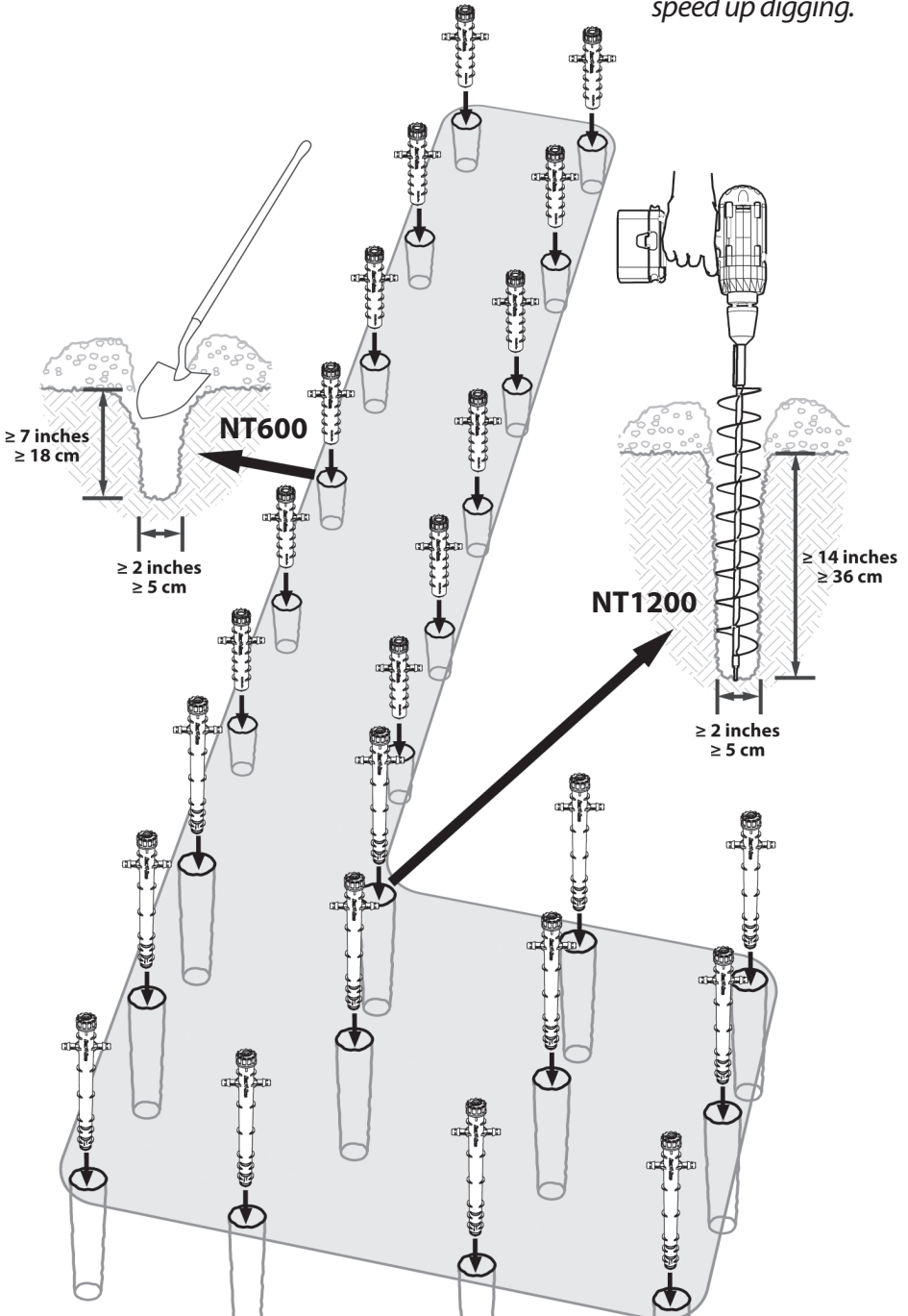
Assumptions:

1. The pressure at the first NT Series unit is approximately 40 psi (2.8 bars)
2. Average spacing between the NT Series units does not exceed 66 inches (168 cm).
3. The area in which the NT Series units are installed is relatively flat.
4. Rain Bird XF Series blank drip tubing is being used as the lateral between the NT Series units.

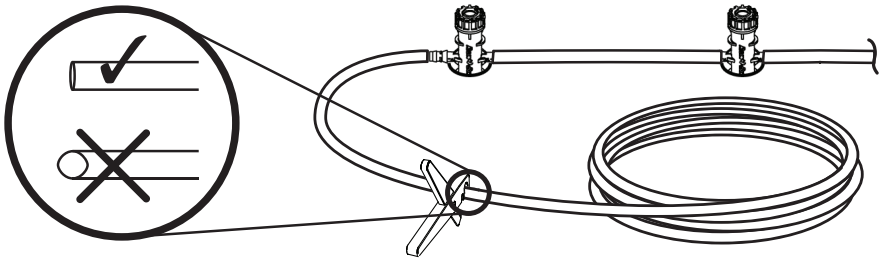


Dig a hole large enough to accommodate either an NT600 or NT1200 unit.

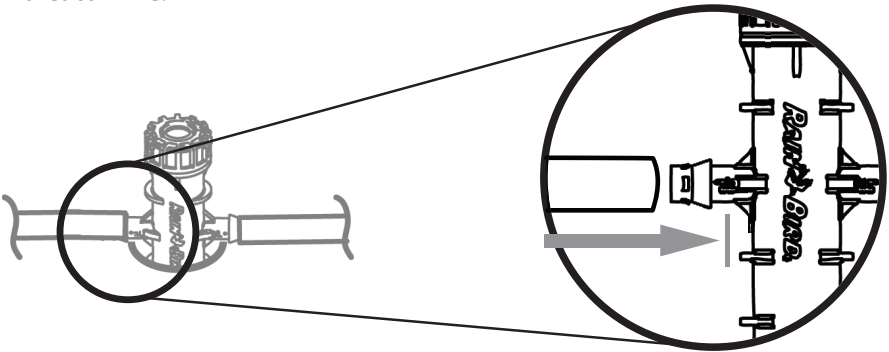
Note: An auger bit attached to a drill can speed up digging.



Assure that tubing is cut squarely and not at a severe angle.

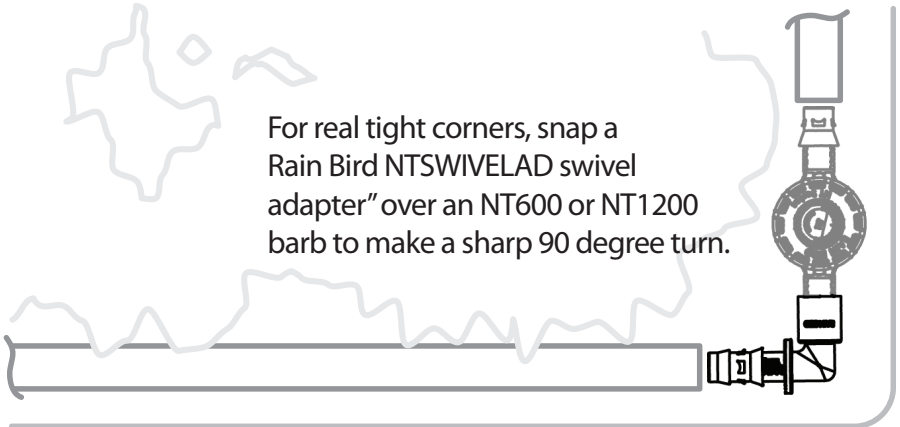


Assure that the tubing is inserted all the way over the barb to the indicator line.

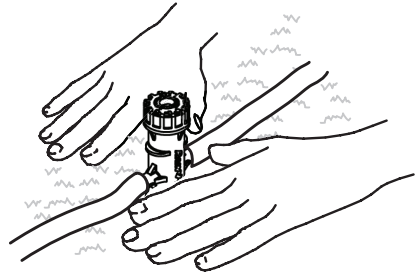
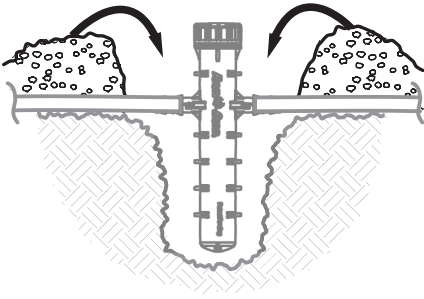


Rain Bird® XF Series Tubing

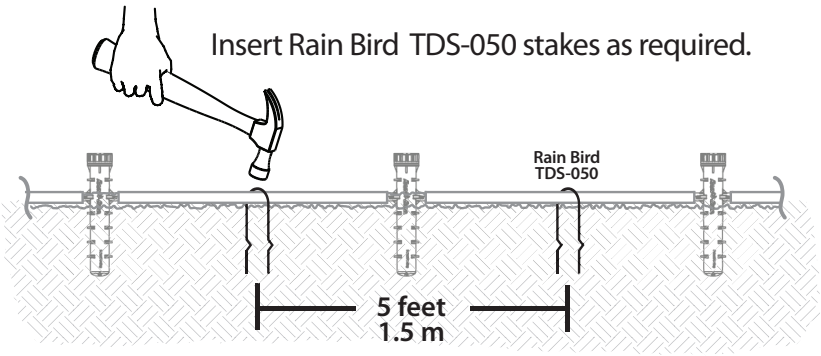
For real tight corners, snap a Rain Bird NTSWIVELAD swivel adapter" over an NT600 or NT1200 barb to make a sharp 90 degree turn.



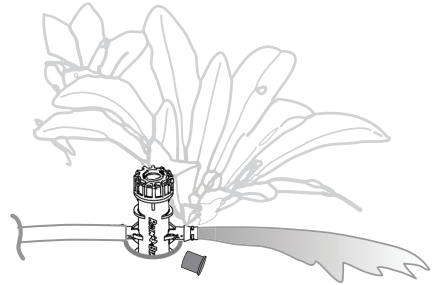
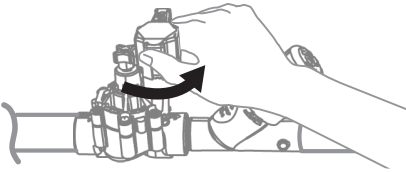
Place the loose soil into the hole and compact to finish grade.



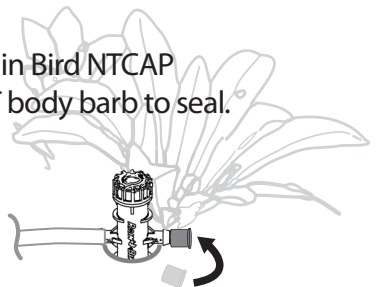
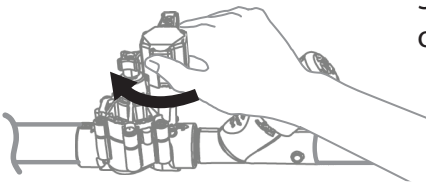
Insert Rain Bird TDS-050 stakes as required.



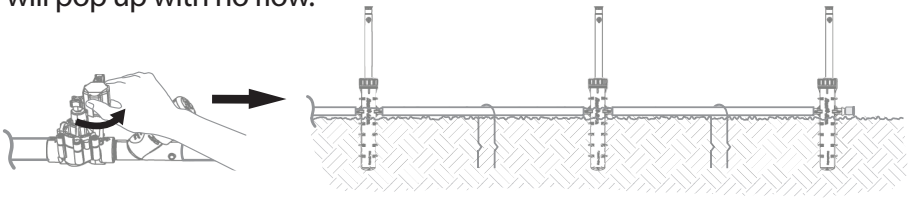
Flush debris from system.



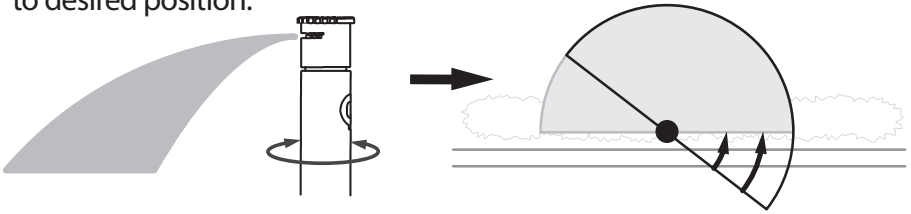
Snap Rain Bird NTCAP onto NT body barb to seal.



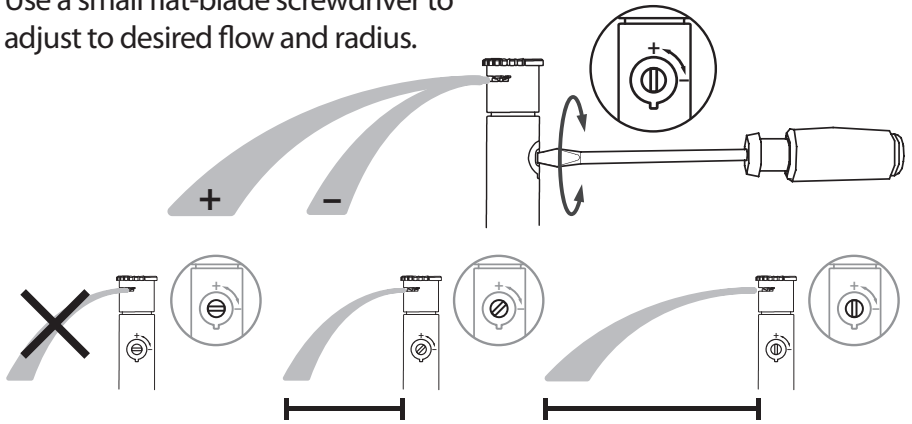
Turn on zone and all NT stems will pop up with no flow.



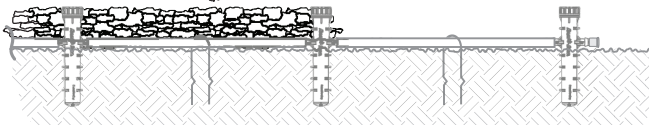
Use the ratchet mechanism to align nozzle pattern to desired position.



Use a small flat-blade screwdriver to adjust to desired flow and radius.



















You are now finished installing and fine tuning the system. Cover the tubing with 2 to 3 inches (10.2 to 12.4 cm) of wood mulch, soil, or rock mulch.





















NT Series Micro-Spray Nozzle Performance

			psi	 inches	 GPH	 in/hr	 in/hr
		5Q	20	48	5.0	2.01	2.31
			25	54	5.5	1.74	2.01
			30	61	6.5	1.60	1.85
			35	66	7.3	1.54	1.77
			20	48	6.7	2.00	2.31
		5T	25	54	7.3	1.74	2.01
			30	61	8.6	1.60	1.85
			35	66	9.7	1.54	1.77
			20	48	10.0	2.01	2.31
		5H	25	54	11.0	1.74	2.01
			30	61	13.0	1.61	1.86
			35	66	14.6	1.55	1.79
			20	48	13.3	2.01	2.32
		5TT	25	54	14.7	1.74	2.01
			30	61	17.2	1.60	1.85
			35	66	19.3	1.54	1.78
			20	48	15.0	2.01	2.31
		5TQ	25	54	16.5	1.74	2.01
			30	61	19.4	1.60	1.85
			35	66	21.8	1.54	1.77
			20	48	20.0	2.01	2.31
		5F	25	54	22.0	1.74	2.01
			30	61	25.8	1.60	1.85
			35	66	29.0	1.54	1.77
			20	48	20.0	2.01	2.31

















METRIC

			bar	 cm	 l/h	 mm/hr	 mm/hr
		5Q	1.4	121.9	19.0	50.7	58.5
			1.7	137.1	20.9	44.1	50.9
			2.1	154.9	24.5	40.5	46.8
			2.4	167.6	27.6	38.9	44.9
			1.4	121.9	25.3	50.7	58.5
		5T	1.7	137.1	27.8	44.0	50.8
			2.1	154.9	32.6	40.5	46.7
			2.4	167.6	36.7	38.9	44.9
			1.4	121.9	38.0	50.7	58.5
		5H	1.7	137.1	41.8	44.1	50.9
			2.1	154.9	49.4	40.8	47.1
			2.4	167.6	55.5	39.2	45.2
			1.4	121.9	50.7	50.8	58.6
		5TT	1.7	137.1	55.8	44.1	50.9
			2.1	154.9	65.4	40.5	46.8
			2.4	167.6	73.5	38.9	44.9
			1.4	121.9	57.0	50.7	58.5
		5TQ	1.7	137.1	62.7	44.1	50.9
			2.1	154.9	73.5	40.5	46.8
			2.4	167.6	82.7	38.9	44.9
			1.4	121.9	76.0	50.7	58.5
		5F	1.7	137.1	83.6	44.1	50.9
			2.1	154.9	98.0	40.5	46.8
			2.4	167.6	110.2	38.9	44.9
			1.4	121.9	76.0	50.7	58.5




















per
nozzle

NT Series Micro-Stream Nozzle Performance

			psi	 inches	 GPH
		3Q	20	24	6.6
			25	30	7.2
			30	36	7.8
			35	42	8.4
		3H	20	24	10.8
			25	30	12.0
			30	36	13.2
			35	42	14.4
		3F	20	24	20.4
			25	30	22.8
			30	36	24.6
			35	42	26.4
		3EST	20	24	6.6
			25	30	7.2
			30	36	7.8
			35	42	8.4
		3CST	20	24	10.8
			25	30	12.0
			30	36	13.2
			35	42	14.4
		3SQ	20	24	7.2
			25	30	8.4
			30	36	9.0
			35	42	10.2
		3TRI	20	24	5.4
			25	30	6.0
			30	36	6.6
			35	42	7.2

NT Series Micro-Stream Nozzle Performance

				METRIC		
				bar	 cm	per nozzle  l/h
		3Q	1.4	45.7	20.4	
			1.7	61.0	25.0	
			2.1	76.2	27.3	
			2.4	91.4	29.5	
		3H	1.4	45.7	34.1	
			1.7	61.0	40.9	
			2.1	76.2	45.4	
			2.4	91.4	50.0	
		3F	1.4	45.7	68.1	
			1.7	61.0	77.2	
			2.1	76.2	86.3	
			2.4	91.4	93.1	
		3EST	1.4	45.7	20.4	
			1.7	61.0	25.0	
			2.1	76.2	27.3	
			2.4	91.4	29.5	
		3CST	1.4	45.7	34.1	
			1.7	61.0	40.9	
			2.1	76.2	45.4	
			2.4	91.4	50.0	
		3SQ	1.4	45.7	25.0	
			1.7	61.0	27.3	
			2.1	76.2	31.8	
			2.4	91.4	34.1	
		3TRI	1.4	45.7	18.2	
			1.7	61.0	20.4	
			2.1	76.2	22.7	
			2.4	91.4	25.0	



www.rainbird.com/ntseries

Rain Bird Corporation

6991 E. Southpoint Road
Tucson, AZ 85756
Phone: (520) 741-6100
Fax: (520) 741-6522

Rain Bird Corporation

970 West Sierra Madre Avenue
Azusa, CA 91702
Phone: (626) 812-3400
Fax: (626) 812-3411

Rain Bird International, Inc.

1000 West Sierra Madre Ave.
Azusa, CA 91702
Phone: (626) 963-9311
Fax: (626) 852-7343

Rain Bird Technical Services

(800) RAINBIRD (1-800-724-6247)
(U.S. and Canada)

Specification Hotline

800-458-3005 (U.S. and Canada)

The Intelligent Use of Water™

www.rainbird.com