



R

PERFORMANCE POCKET GUIDE

ROTATOR® & SPINNER TECHNOLOGY





NELSONIRRIGATION.COM

Proven performance

Nelson's complete line of sprinklers provides numerous solutions to meet your tree & vine and solid set irrigation needs. Rotator® technology is available from the micro R5 all the way to the field-ready R33. More uniform water distribution patterns can be achieved, reliability is enhanced, application rates are reduced, costs and maintenance are lowered, and riser vibration is eliminated with this revolutionary technology. The new 7 Series includes a Spinner, Jet and Rotator (coming soon) all in one interchangeable body.

R5 ROTATOR®	S7 SPINNER	J7 JET
		
<p>9 - 29 GPH 7 - 18' RADIUS 6°, 9°, INVERTED 6°</p>	<p>8.5-75 GPH 9-16' RADIUS 4°, 12°,</p>	<p>8.5-75 GPH 4 - 6' RADIUS</p>
R10 ROTATOR®	R10T ROTATOR®	R2000FX ROTATOR®
		
<p>0.3 - 0.7 GPM 18 - 27' RADIUS 9°, 15°</p>	<p>0.6 - 2.1 GPM 20 - 32' RADIUS 9°, 15°, 24°</p>	<p>1.0-3.0 GPM 26-38' RADIUS 12°, 15°, 24°</p>

R2000 ROTATOR®	R2000LP ROTATOR®	R2000WF ROTATOR®
		

0.7-3.5 GPM
 21 - 37' RADIUS
 6°, 9°, 12°, 15°, 24°

0.9 - 5.0 GPM
 30 - 42' RADIUS
 25°

1.1 - 5.7 GPM
 33 - 45' RADIUS
 25°

R33LP ROTATOR®	R33 ROTATOR®
	

2.8 - 9.7 GPM
 39 - 47' RADIUS
 25°

3.5 - 11.0 GPM
 43 - 53' RADIUS
 25°

Only the nozzle and plate combinations grouped together in the enclosed charts are recommended. The absence of flow data on a given chart indicates the pressure is outside the recommended range. The performance data in this booklet has been recorded under ideal test conditions and may be adversely affected by poor hydraulic entrance conditions, slope, riser tilt, temperature, wind or other factors.



R5

#9836-XXX

PLATE
Green = 1
Blue = 3

NOZZLE
#35 Orange
#40 Blue
#45 Purple
#50 Green
#55 Yellow

OR FLOW CONTROL:
8.5 (#9) GPH
#11 GPH
#14 GPH
#18 GPH
#24 GPH

Plate/Nozzle Options and Flow Performance in Gallons Per Hour

Plate Options	Recommended Nozzles	Pressure (PSI)					
		15	20	25	30	35	40
BLUE 6° Low Pressure Model UPRIGHT MOUNT Radius 10-16' Stream Ht. 5-19"	#35 Orange			9.5	10.5	11.4	12.1
	#40 Blue		10.8	12.2	13.3	14.4	
	#45 Purple	11.7	13.7	15.4	16.8	18.2	
	#50 Green	14.3	16.8	18.8	20.6	22.3	
	#55 Yellow	17.4	20.3	22.8	25.0		
GREEN 9° High Pressure Model UPRIGHT MOUNT Radius 12-19' Stream Ht. 18-33"	#35 Orange				10.5	11.4	12.1
	#40 Blue				13.3	14.4	15.5
	#45 Purple			15.4	16.8	18.2	19.6
	#50 Green			18.8	20.6	22.3	23.9
	#55 Yellow			22.8	25	27	29

See following page for notes on nozzle cleaning and flow control nozzles.

Recommended Pressure Range in PSI

5FC Nozzle Option*	BLUE	GREEN
8.5 GPH Orange 5FC	25-45	—
11 GPH Blue 5FC	20-45	30-45
14 GPH Purple 5FC	15-40	25-45
18 GPH Yellow 5FC	15-35	25-45
24 GPH Red 5FC	15-35	25-45

R5 Accessories

FEMALE ACME X R5 ADAPTER	R5 DEFLECTOR CAP	R5 ONE-SIDED STREAM SPLITTER
		

#10616





Use to connect the R5 Rotator to Acme Adapter threads. See page 16 for MNPT Adapters.

#10951

Reduce the R5 radius down to 3-4 feet for watering newly-planted trees.

#10746

Protects tree trunks — use when R5 Rotators are mounted 2-4 feet from a tree.

R5 TWO-SIDED STREAM SPLITTER	ACME X DRIP CONFIGURATION	FT-01
	<p>BARBED TEE (PURCHASE SEPARATELY) </p> <p>#12431 FEMALE ACME X BARBED TEE FITTING </p> <p>#11271 MALE ACME ADAPTER </p>	<p>FULL ASSY</p> <p>#10745-024 4 mm x 24" tubing, 12" stake</p> <p>#10745-036 4mm x 36" tubing, 12" Stake</p> <p>#10744-036 4 mm x 36" tubing, 17.5" stake</p> 
<p>#10976 Protects tree trunks — use when R5 Rotators are centered between two trees.</p>	<p>#12431 Female Acme x Barbed Tee to alternate Rotator sprinklers & drip.</p>	<p>Additional Stake & Tube options on pages 14-16 (require #10616 adapter).</p>

FILTRATION & NOZZLE CLEANING FOR THE R5: 75 mesh or finer filtration is suggested. The plate and nozzle of the R5 should not be removed when cleaning plugged nozzles. Any attempt to do so will likely cause permanent damage.

*When using recommended pressures for a given plate and nozzle configuration, 5FC Flow Control Nozzles are flow regulating within a flow range of no more than 3% greater and 5% less than the nominal flow.

7 SERIES

S7



NOZZLE

#35 Orange
#40 Blue
#45 Purple
#50 Green
#55 Yellow
#60 Light Red
#65 Gray
#70 White
#78 Dk. Blue

7FC NOZZLE

#09 (8.5) GPH Orange
#11 GPH Blue
#14 GPH Purple
#18 GPH Yellow
#24 GPH Red

STANDARD **12890-XXXX**

FLOW CONTROL **12891-XXXX**

BLUE PLATE	PURPLE PLATE	BLACK PLATE	TAN PLATE
No Deflector Tab = 21	No Deflector Tab = 23	No Deflector Tab = 25	No Deflector Tab = 27
With Deflector Tab = 22	With Deflector Tab = 24	With Deflector Tab = 26	With Deflector Tab = 28

PLATE DESCRIPTIONS:

Blue: Greatest throw radius, recommended with all nozzles except #30.

Purple: For low pressure and low flow, recommended with only #30, #35, and 8.5 FC nozzles.

Black: Short radius and flat trajectory, use with #30 to #60, and 8.5, 11, 14, 18 and 24 FC nozzles.

Tan: Short radius and flat trajectory, call Factory for recommended nozzles.

R7 ROTATOR®



COMING SOON!

7 Series Parts

S7 Top (Blue)
#12727-002



S7 Top (Green)
for Insect Protection
#12727



7 Series Body
#12924

S7 Plate Without Tab

Blue #12716-001
Purple #13184-001
Black #13448-001
Tan #13729-001



S7 Plate With Tab

Blue #12716-002
Purple #13184-002
Black #13448-002
Tan #13729-002

Flow Control
7FC Nozzle
#12720-0xx



Standard
1TN Nozzle
#12721-0xx

*(xx = 8.5 (09), 11,
14, 18, & 24 GPH)

*(xx = 35, 40, 45, 50,
55, 60, 65, 70, 78)



QC x 1/2
MNPT
#13064-001



QC x 3/8
MNPT
#13064-002



QC x Acme with Screen
(Connects to 1/2 PVC-4,
1/2 PVC-5, FT2, FT3) #12972



Adapter for
SuperNet Stake,
QC x .256" OD Tube
#12882-001



One-Sided S7 Stream Splitter
#13149




Two-Sided S7 Stream Splitter
#13150




Trellis Clip (pg. 9)
#13862

S7 Performance

Flow in gallons per hour (gph)

 1TN Nozzle	Pressure (PSI)					
	15	20	25	30	35	40
#35 Orange	7.5	8.7	9.8	10.8	11.7	12.5
#40 Blue	9.4	10.9	12.2	13.4	14.6	15.5
#45 Purple	12.0	13.9	15.6	17.2	18.6	19.9
#50 Green	14.6	16.9	18.9	20.8	22.5	24.1
#55 Yellow	17.6	20.4	22.9	25.1	27.1	29.0
#60 Lt. Red	21.2	24.5	27.6	30.2	32.7	35.1
#65 Gray	27.4	31.8	35.7	39.2	42.4	45.4
#70 White	31.9	37.0	41.4	45.5	49.2	52.8
#78 Dk. Blue	40.5	47.0	52.7	57.8	62.6	67.0




 Flow Control 7FC Nozzle	Cv*	Pressure (PSI)					
		15	20	25	30	35	40
#8.5 Orange 7FC	0.024	8.2	8.5	8.8	8.8	8.7	8.5
#11 Blue 7FC	0.024	11.3	11.7	11.7	11.3	10.7	10.1
#14 Purple 7FC	0.036	14.4	14.8	14.7	14.4	13.8	13.4
#18 Yellow 7FC	0.030	17.9	18.6	18.6	18.2	17.5	17.3
#24 Red 7FC	0.016	23.4	24.9	25.6	25.7	25.3	24.1

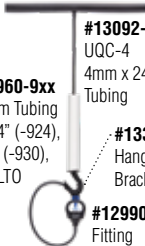


*Manufacturer's Coefficient of Variation.

S7 Plate Options

Plate	BLUE Greatest Radius	BLACK Flat Trajectory	PURPLE Low Pressure/ Flow	TAN Short Radius
Radius	9-16'	7-11'	9-12'	Contact Factory
Nozzles	#35-78 1TN #8.5-24 7FC	#35-60 1TN #8.5-24 7FC	#35 1TN #8.5 7FC	#35-60 1TN #8.5-24 7FC
Pressure	15-40 PSI (#35: 35-40 PSI)	15-40 PSI	15-35 PSI	Contact Factory

Accessories & Stake/Tubing Options for 7 Series

16" QC4*	16" QC5*	UQC-4 (S7 ONLY)
 <p>FULL ASSY #12983-030 QC4 Stake & 30" Tube Assy #12983-048 QC4 Stake & 48" Tube Assy</p>	 <p>FULL ASSY #12982-030 QC5 Stake & 30" Tube Assy #12982-048 QC5 Stake & 48" Tube Assy</p>	 <p>FULL ASSY (w/o zip tie) #13092-012 UQC-4, 4mm x 12" Tubing Assy #13092-024 UQC-4, 4mm x 24" Tubing Assy</p>

UQC-4 (S7 ONLY)	TRELLIS CLIP #13862 (S7 & R7)
 <p>#9960-9xx 4mm Tubing x 24" (-924), 30" (-930), w/ LTO</p> <p>#13092-024 UQC-4 4mm x 24" Tubing</p> <p>#13395 Hanging Bracket</p> <p>#12990-002 Fitting</p>	  <p>#12990-002 UQC-4 Adapter (4 mm Barb X QC)</p> <p>#12990-001 UQC-5 Adapter (5 mm barb x qc)</p>

*Use Steel Stake Install Tool #13429 to pre-drill holes for the QC4 and QC5 stakes. This ensures that the stakes will be installed without any bending and in an upright position.



UQC-4/5 Universal Options on pages 10-11

7 Series Universal Mounting Configurations

The new universal mounting system is another step in making the 7 Series the most versatile micro-irrigation system out there. Choose tubing assembly parts or assemblies (UQC-4 or 5) and PVC stake/rod stake or hanging components.

ALL REQUIRE UQC-4/5 ASSEMBLY OR PARTS

#13092-xxx
(4 mm) UQC-4,
Adapter & LTO
Assembly

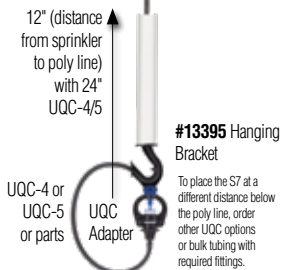


#13091-xxx
(5 mm) UQC-5,
Adapter & LTO
Assembly



UQC-4 & UQC-5 configurations include a UQC Adapter and Tube & LTO Assembly.

OPTION 1: HANGING CONFIGURATION



The S7 Hanging Bracket is required to hang the S7. This configuration is a great solution for organic orchardists.

OPTION 2: ROD STAKE CONFIGURATION

Rod Stake Adapter



+



Adapter Stake
UQC-4/5

Shown Assembled



Rod Stake Option requires Universal Rod Stake Adapter and Steel or Fiberglass Stake.

OPTION 3: PVC STAKE CONFIGURATION

(4 mm) UQC-4,
Adapter & LTO
Assembly
or
(5 mm) UQC-5,
Adapter & LTO
Assembly

PVC Stake
(See page 11)



#13784
Tubing Guide
Tool

Choose a 4 or 5mm UQC assembly and a PVC stake either 16" or 22" long.

UQC-4 & UQC-5 Stake & Tube Details

#13092-0XX
UQC-4 ADAPTER
& LTO ASSEMBLY

#12990-002
Adapter,
UQC-4,
4 mm Tube
x QC

#9960-9xx
Tube x LTO Assembly,
4mm x 18" (-918),
24" (-924), 30"
(-930), 48" (-948)

#13091-0XX
UQC-5 ADAPTER
& LTO ASSEMBLY

#12990-001
Adapter,
UQC-5,
5 mm Tube
x QC

#11283-0xx
Tube x LTO Assembly,
5 mm x 30" (-030),
48" (-048)

or

+

or

#13608
Universal Rod
Stake Adapter

#11259-216 (16")
or **#11259-222**
(22") PVC Stake

#9726-024 (24" Steel)
or **#10040-024**
(24" Fiberglass)





R10

#9913-XXXX

NOZZLE










THREAD
1/2" = 1
Acme = 2

PLATE
Red = 1
White = 2
Orange = 7

Example:

R10 Rotator®
with 1/2" Thread (1),
White Plate (2) and Red
#60 Nozzle (60) =
#9913-1260

Plate/Nozzle Options and Flow Performance in Gallons Per Minute

Plate Options	Recommended Nozzles	Pressure (PSI)					
		25	30	35	40	45	50
 P2 9° RED #9460 Radius 18-20' Stream Ht. 14-23"	 Lt. Blue #40 #9306-040	-	-	0.28	0.30	0.32	0.34
	 Lt. Purple #45 #9306-045	0.29	0.32	0.35	0.37	0.39	0.42
	 Dk. Green #50 #9306-050	0.36	0.39	0.43	0.46	0.48	0.51
	NEW! 0.35 10FC*		*Use #9587-xxx. Call factory for part numbers.				
 P4 9° WHITE #9208 Radius 18-22' Stream Ht. 13-23"	 Dk. Green #50 #9306-050	-	-	0.43	0.46	0.48	0.51
	 Lt. Yellow #55 #9306-055	0.44	0.48	0.52	0.55	0.59	0.62
	 Lt. Red #60 #9306-060	0.51	0.56	0.61	0.65	0.69	0.73
	0.50 10FC*						
 P4 15° ORANGE #10882 Radius 23-27' Stream Ht. 40-50"	 Dk. Green #50 #9306-050	-	0.39	0.43	0.46	0.48	0.51
	 Lt. Yellow #55 #9306-055	-	0.48	0.52	0.55	0.59	0.62
	 Lt. Red #60 #9306-060	-	0.56	0.61	0.65	0.69	0.73
	0.50 10FC*						

*Within the recommended pressure range of 25-50 PSI, the 0.35, 0.43 and 0.50 10FC flow control nozzles are flow regulating within a flow range of no more than 0% greater and 10% less than their nominal flow (0.35, 0.43 and 0.50 GPM).

#9914-XXXX



R10T














THREAD
1/2" = 1
Acme = 2

PLATE
Blue = 3
Purple = 4
Brown = 5
Gold = 6

Example:

R10T Rotator®
with Acme Thread (2),
Purple Plate (4) and
Blue #10 Nozzle (78) =
#9914-2478

Plate/Nozzle Options and Flow Performance in Gallons Per Minute

Plate Options	Recommended Nozzles	Pressure (PSI)					
		25	30	35	40	45	50
 P6 9° BLUE #9350 Radius 20-22' Str. Ht. 17-30"	 Gray #8.3 #9306-065	0.61	0.67	0.72	0.77	0.82	0.86
	 White #9 #9306-070	0.70	0.77	0.83	0.89	0.94	1.00
 P6 15° PURPLE #9723 Radius 24-27' Str. Ht. 31-49"	 Dk. Blue #10 #9306-078	0.88	0.97	1.05	1.12	1.19	1.25
	0.75 10FC* 1.0 10FC*	*Use #9587-xxx. Call factory for part numbers. Recommended pressure range for 0.75 10FC is 25-50 PSI, while the pressure range for the 1.0 10FC is 30-50 PSI.					
 P8 15° GOLD #10684 Radius 28-31' Stream Ht. 38-58"	 Orange #11 #9306-086	1.07	1.17	1.27	1.36	1.45	1.53
	 Purple #12 #9306-094	1.27	1.39	1.50	1.61	1.70	1.80
 Yellow #13 #9306-102	 Yellow #13 #9306-102	1.50	1.64	1.78	1.90	2.02	2.13
	1.25 10FC* 1.5 10FC*	Recommended pressure range for 1.25 and 1.5 10FC is 30-50 PSI.					
 P8 24° BROWN #10601 Radius 27-32' Stream Ht. 67-99"	Additional Nozzles P8 24° Plate only:  Dk. Blue #10 #9306-078  1.0 10FC*	-	0.97	1.05	1.12	1.19	1.25

*Within the recommended pressure ranges (see notations within the table on the right), the 0.75 and 1.0 10FC flow control nozzles are flow regulating within a flow range of no more than 0% greater and 10% less than their nominal flow (0.75 and 1.0 GPM), while the 1.25 and 1.5 10FC are flow regulating within a flow range of no more than 3.5% greater and 8% less than their nominal flow (1.25 and 1.5 GPM).

R10 Universal Mounting Configurations

With an acme adapter and quick fit connection incorporated into the 5 mm Tube & LTO Assembly, the UA-5 makes for a super simple PVC Stake or Rod Stake Solution for the R10 & R10T Rotators.

ALL REQUIRE UA-5 ASSEMBLY OR PARTS

#13693-0xx
(5mm) UA-5
Acme Adapter
& LTO
Assembly



UA-5 configurations include a UA-5 Acme Adapter and Tube & LTO Assembly.

OPTION 1: ROD STAKE CONFIGURATION

Rod Stake
Adapter



+



UA-5
Assembly Stake

Shown Assembled



OPTION 2: PVC STAKE CONFIGURATION

(5 mm) UA-5
Assembly



#13784
Tubing Guide
Tool

PVC Stake
(See page 15)

Rod Stake Option requires Universal Rod Stake Adapter and Steel or Fiberglass Stake.

Choose from 16" or 22" PVC Stake.

UA-5 Stake & Tube Details

#13693-0XX
UA-5 ACME
ADAPTER
& LTO ASSEMBLY

#13099
Adapter, UA-5,
5mm Tube x
1/2" Acme

#11283-0xx
Tube x LTO Assembly,
5mm x 30" (-030),
48" (-048)



+



or






#13608
Universal Rod
Stake Adapter

#11259-216 (16")
or **#11259-222**
(22") PVC Stake

#9726-024 (24" Steel)
or **#10040-024**
(24" Fiberglass)



5 mm Stake & Tubing Options for the R5 & R10

FT2	FT3	STAKE TOOL
 <p>ASSY LESS STAKE #9741-030 5 mm x 30" tubing, #9741-048 5 mm x 48" tubing, #9741-072 5 mm x 72" tubing, #9741-096 5 mm x 96" tubing,</p>	 <p>FULL ASSY #13154-030 5 mm x 30" tubing, 16" stake #13154-048 5 mm x 48" tubing, 16" stake</p>	 <p>#14000 Universal Steel Stake Install Tool</p>

24" steel stake **#9726-024** or 24" fiberglass stake **#10040-024**

10 mm Stake & Tubing Options for the R10-R2000(WF)

FT4	3/4 PVC-10	FT5
 <p>ASSY LESS STAKE #9752-036 10mm x 36" tubing</p> <p>24" steel stake #9725-024 or 24" fiberglass stake #10160</p>	 <p>FULL ASSY #11452-12236 10mm x 36" tubing, 22" stake</p>	 <p>ASSY LESS STAKE #9737-048 10mm x 36" tubing</p> <p>48" steel stake #9725-048 or 24" fiberglass stake #10160</p>

3/4" PVC stake (with 10 mm tubing) protects tubing.

Quick disconnect/reconnect feature facilitates use of LD polyethylene pipe (1.25" to 2") in a portable system (50-80 PSI).

R2000FX

#13223-XXXX (FEMALE ACME THREAD)

#14023-XXXX (1/2" MNPT THREAD)

Plate/Nozzle Options and Flow Performance in Gallons Per Minute



R2000FX with Female Acme connection mounts on Nelson Male Acme Adapter (shown), FT4 or FT5 Stake & Feedtube Assemblies, or options pictured below.

Plate Options -XXXX	Flow Ctrl. Nozzle	Radius (feet)	Stream Ht. (inches)	Pressure (PSI)				
				20	25	30	35	
12° PURPLE	-2100	1.0 GPM	26 - 27'	36 - 41"	0.97	0.97	0.96	0.94
	-2125	1.25 GPM	28 - 30'	37 - 44"	1.21	1.21	1.21	1.18
	-2150	1.5 GPM	29 - 31'	38 - 44"	1.46	1.46	1.46	1.44
	-2175	1.75 GPM	29 - 30'	38 - 45"	1.69	1.71	1.72	1.70
15° RED	-5100	1.0 GPM	28 - 29'	37 - 49"	0.97	0.97	0.96	0.94
	-5125	1.25 GPM	28 - 31'	40 - 50"	1.21	1.21	1.21	1.18
	-5150	1.5 GPM	30 - 32'	42 - 51"	1.46	1.46	1.46	1.44
	-5175	1.75 GPM	30 - 34'	45 - 52"	1.69	1.71	1.72	1.70
24° GRAY	-7100	1.0 GPM	32 - 33'	55 - 66"	0.97	0.97	0.96	0.94
	-7125	1.25 GPM	34 - 35'	58 - 73"	1.21	1.21	1.21	1.18
	-7150	1.5 GPM	33 - 35'	62 - 74"	1.46	1.46	1.46	1.44
24° BLUE	-7175	1.75 GPM	36 - 37'	78 - 100"	1.69	1.71	1.72	1.7
	-7200	2.0 GPM	35 - 38'	81 - 101"	1.94	1.96	1.97	1.94
	-7250	2.5 GPM	37 - 38'	81 - 104"	2.38	2.41	2.43	2.41
	-7300	3.0 GPM	38'	87 - 106"	2.9	2.93	2.96	2.92



Male Acme x
MNPT Adapter
1/2" **9316-002**
3/4" **9466**

PVC Female Adapter



PVC Adapter
Male Acme x Slip
1/2" **10060-001**
3/4" **10060-002**
25 mm **10060-003**

PVC



3/4"
PVC-10
PVC

Stake
Adapter
11429
Connects
to Nelson
10 mm
Tubing

PVC

R2000

Cap
#9156



Diffuser*
(Black #9467,
White #9544
Gray #10294



Washer #9482



Motor



Plate (Page 19)



CAP ASSEMBLY WITH PLATE

2T Body
#9155



2TN Nozzle
(Page 19)



NOZZLE & BODY ASSEMBLY

Adapter
#9316-002



O-ring
#9307



PLATE	CAP ASSEMBLY W/ PLATE	NOZZLE	NOZZLE & BODY ASSY	COMPLETE ASSY LESS ADPTR
K1 6	10519-1106	8.3	10533-008	11991-0108
		FC	9223-085	11992-0108
K2 6	10519-1206	9	10533-009	11991-0209
		10	10533-010	11991-0210
K2 9	10519-1209	FC	9223-100	11992-0210
		8.3	10533-008	11991-0308
K2 15	10519-1215	9	10533-009	11991-0309
		10	10533-010	11991-0310
K3 9	10519-1309	FC	9223-085	11992-0308
		FC	9223-100	11992-0310
K3 15	10519-1315	8.3	10533-008	11991-0408
		9	10533-009	11991-0409
K3 24	10519-1324	10	10533-010	11991-0410
		FC	9223-085	11992-0408
K4 6	10519-1406	FC	9223-100	11992-0410
		11	10533-011	11991-0511
K4 9	10519-1409	12	10533-012	11991-0512
		FC	9223-125	11992-0512
K4 12	10519-1412	FC	9223-150	11992-0515
		11	10533-011	11991-0611
K4 15	10519-1415	12	10533-012	11991-0612
		FC	9223-125	11992-0612
K4 24	10519-1424	FC	9223-150	11992-0615
		11	10533-011	11991-0711
K5 9	10519-1509	12	10533-012	11991-0712
		FC	9223-125	11992-0712
K5 15	10519-1515	FC	9223-150	11992-0715
		13	10533-013	11991-0813
K5 24	10519-1524	14	10533-014	11991-0814
		FC	9223-150	11992-0815
K5 9	10519-1509	FC	9223-200	11992-0820
		13	10533-013	11991-0913
K5 15	10519-1515	14	10533-014	11991-0914
		FC	9223-150	11992-0915
K5 24	10519-1524	FC	9223-200	11992-0920
		13	10533-013	11991-1013
K5 9	10519-1509	14	10533-014	11991-1014
		FC	9223-150	11992-1015
K5 15	10519-1515	FC	9223-200	11992-1020
		13	10533-013	11991-1113
K5 24	10519-1524	14	10533-014	11991-1114
		FC	9223-150	11992-1115
K5 9	10519-1509	FC	9223-200	11992-1120
		13	10533-013	11991-1213
K5 15	10519-1515	14	10533-014	11991-1214
		FC	9223-150	11992-1215
K5 24	10519-1524	FC	9223-200	11992-1220
		15	10533-015	11991-1315
K5 9	10519-1509	16	10533-016	11991-1316
		FC	9223-250	11992-1325
K5 15	10519-1515	15	10533-015	11991-1415
		16	10533-016	11991-1416
K5 24	10519-1524	FC	9223-250	11992-1425
		15	10533-015	11991-1515
K5 9	10519-1509	16	10533-016	11991-1516
		FC	9223-250	11992-1525

*The color of the diffuser should match the color band on the plate (i.e. K1 and K2 plates require a white diffuser, K3 and K4 plates require a black diffuser and K5 plates require a gray diffuser).

Plate Options	Radius & Stream Height	Recommended Nozzles	Pressure (PSI)						
			30	35	40	45	50	55	60
 K1 6° Cream #9516-106	Rad. 21-25' Str. Ht. 15-25"	 Gray #8.3 #9306-065	0.67	0.72	0.77	0.82	0.86	0.90	0.94
		0.85 2000FC*							
 K2 6° Lt. Blue #9516-206	Rad. 22-26' Str. Ht. 15-32"	 White #9 #9306-070	0.77	0.83	0.89	0.94	1.00	1.05	1.10
		 Dk. Blue #10 #9306-078	0.97	1.05	1.12	1.19	1.25	1.31	1.37
		1.0 2000FC*							
 K2 9° Green #9516-209	Rad. 23-27' Str. Ht. 18-37"	 Gray #8.3 #9306-065	0.67	0.72	0.77	0.82	0.86	0.90	0.94
 K2 15° Yellow #9516-215	Rad. 27-30' Str. Ht. 31-55"	 White #9 #9306-070	0.77	0.83	0.89	0.94	1.00	1.05	1.10
		 Dk. Blue #10 #9306-078	0.97	1.05	1.12	1.19	1.25	1.31	1.37
		0.85 2000FC* & 1.0 2000FC*							
 K3 9° Brown #9516-309	Rad. 25-28' Str. Ht. 19-33"	 Orange #11 #9306-086	1.17	1.27	1.36	1.45	1.53	1.61	1.68
 K3 15° Red #9516-315	Rad. 27-31' Str. Ht. 38-63"	 Purple #12 #9306-094	1.39	1.50	1.61	1.70	1.80	1.89	1.98
 K3 24° Gray #9516-324	Rad. 29-35' Str. Ht. 68-103"	1.25 2000FC* 1.5 2000FC*							
 K4 6° Turquoise #9516-406	Rad. 21-25' Str. Ht. 10-24"	 Yellow #13 #9306-102	1.64	1.78	1.90	2.02	2.13	2.23	2.34
 K4 9° Purple #9516-409	Rad. 26-32' Str. Ht. 28-42"	 Green #14 #9306-109	1.85	2.00	2.15	2.28	2.40	2.53	2.64
 K4 12° Wine #9516-412	Rad. 27-31' Str. Ht. 32-51"	1.5 2000FC* 2.0 2000FC*	*Within the recommended pressure range of 30-60 PSI, the 2000FC flow control nozzles are flow regulating within a flow range of no more than 3.5% greater and 8% less than their nominal flow.						
 K4 15° Gold #9516-415	Rad. 27-33' Str. Ht. 40-60"								
 K4 24° Black #9516-424	Rad. 28-36' Str. Ht. 65-100"								
 K5 9° Orange #9516-509	Rad. 27-31' Str. Ht. 25-42"	 Tan #15 #9306-117	2.17	2.35	2.53	2.67	2.82	2.97	3.11
 K5 15° Tan #9516-515	Rad. 31-36' Str. Ht. 36-49"	 Dk. Red #16 #9306-125	2.50	2.70	2.89	3.07	3.23	3.40	3.54
 K5 24° Blue #9516-524	Rad. 32-37' Str. Ht. 76-104"	2.5 2000FC*							

Plate/Nozzle Options and Flow Performance
in Gallons Per Minute

R2000WF/LP

R2000LP now has easy to identify green cap.



Cap
#9156-001

The R2000WF / LP have been designed to be easily repaired. Use these pages determine the recommended plate, nozzle, motor and diffuser combinations when making repairs, or changing nozzle size.



FULLY ASSEMBLED SPRINKLER LESS ADAPTER

PLATE	NOZZLE	COMPLETE R2000WF CAP & BODY ASSY	WF MOTOR COLOR	COMPLETE R2000LP CAP & BODY ASSY	LP MOTOR COLOR
10	10	9928-1010	Purple	9929-1010	Green
12	11	9928-1211	Ivory	9929-1211	Green
	12	9928-1212	Ivory	9929-1212	Green
14	13	9928-1413	Ivory	9929-1413	Purple
	14	9928-1414	Ivory	9929-1414	Purple
16	15	9928-1615	Ivory	9929-1615	Purple
	16	9928-1616	Ivory	9929-1616	Purple
18	18	9928-1818	Ivory	9929-1818	Purple
20	20	9928-2020	Ivory	9929-2020	Purple



Diffuser
(Red #11142
for LP, Purple
#9898 for WF)
Washer #9482



Motor
(Purple, Ivory,
or Green)



Plate (Page 21)



Bearing
#9895



Body w/
Bearing #9920



2TN Nozzle
(Page 21)



Adapter
with O-ring
#9316-002
















O-ring
#9307



R2000/WF COLOR BAND FOR
QUICK NOZZLE IDENTIFICATION
#12800-0xx (xx = nozzle number, i.e.
blue band is 12800-010)



Plate/Nozzle Options and Flow Performance in Gallons Per Minute

25° Plate Options	Recommended Nozzles	Model & Radius	Pressure (PSI)									
			25	30	35	40	45	50	55	60	65	
 BLUE WF10 #12113	 Dk. Blue #10 #9306-078	R2000LP Rad. 30-32'	0.88	0.97	1.05	1.12	1.19	1.25	-	-	-	
	Nozzle/Body Assy. (5/64") #9920-010	R2000WF Rad. 33-35'	-	-	-	1.12	1.19	1.25	1.31	1.37	1.44	
 PURPLE WF12 #10452	 Orange #11 #9306-086	R2000LP Rad. 32-34'	1.07	1.17	1.27	1.36	1.45	1.53	-	-	-	
	Nozzle/Body Assy. (11/128") #9920-011	R2000WF Rad. 35-37'	-	-	-	1.36	1.45	1.53	1.61	1.68	1.76	
	 Purple #12 #9306-094	R2000LP Rad. 33-35'	1.27	1.39	1.50	1.61	1.70	1.80	-	-	-	
	Nozzle/Body Assy. (3/32") #9920-012	R2000WF Rad. 37-38'	-	-	-	1.61	1.70	1.80	1.89	1.98	2.06	
 GREEN WF14 #9877	 Yellow #13 #9306-102	R2000LP Rad. 33-36'	1.50	1.64	1.78	1.90	2.02	2.13	-	-	-	
	Nozzle/Body Assy. (13/128") #9920-013	R2000WF Rad. 37-38'	-	-	-	1.90	2.02	2.13	2.23	2.34	2.45	
	 Green #14 #9306-109	R2000LP Rad. 34-37'	1.70	1.85	2.00	2.15	2.28	2.40	-	-	-	
	Nozzle/Body Assy. (7/64") #9920-014	R2000WF Rad. 38-40'	-	-	-	2.15	2.28	2.40	2.53	2.64	2.75	
 RED WF16 #9931	 Tan #15 #9306-117	R2000LP Rad. 34-37'	1.98	2.17	2.35	2.53	2.67	2.82	-	-	-	
	Nozzle/Body Assy. (15/128") #9920-015	R2000WF Rad. 39-41'	-	-	-	2.53	2.67	2.82	2.97	3.11	3.24	
	 Red #16 #9306-125	R2000LP Rad. 36-38'	2.28	2.50	2.70	2.89	3.07	3.23	-	-	-	
	Nozzle/Body Assy. (1/8") #9920-016	R2000WF Rad. 39-41'	-	-	-	2.89	3.07	3.23	3.40	3.54	3.68	
 GOLD WF18 #9870	 Gold #18 #9306-141	R2000LP Rad. 38-39'	2.92	3.20	3.44	3.68	3.89	4.11	-	-	-	
	Nozzle/Body Assy. (9/64") #9920-018	R2000WF Rad. 41-42'	-	-	-	3.68	3.89	4.11	4.30	4.48	4.66	
 BRN. WF20 #9878	 Dk. Brown #20 #9306-156	R2000LP Rad. 40-42'	3.56	3.90	4.18	4.48	4.76	5.00	-	-	-	
	Nozzle/Body Assy. (5/32") #9920-020	R2000WF Rad. 42-45'	-	-	-	4.48	4.76	5.00	5.25	5.47	5.69	

R10-R2000(WF) ACCESSORIES These work for R10, R10T, R2000, R2000LP, & R2000WF, unless otherwise specified.

R10 ONE-SIDED STREAM SPLITTER	R10 TWO-SIDED STREAM SPLITTER	LEGACY LOW-ANGLE ROAD GUARD
		

#11285

Protect adjacent tree trunks by creating a small wedge shape in the wetted pattern.

#11275

Protect adjacent tree trunks by creating a small wedge shape in the wetted pattern.

#9590-030

Snap on R10, R10T or legacy R2000(WF) to convert to part-circle operation (200°).

LEGACY HIGH-ANGLE ROAD GUARD	PVC ADAPTER	1/2" MALE ACME X MNPT ADAPTER
		

#9879

Snap on R10, R10T or legacy R2000(WF) to convert to part-circle operation (200°).

1/2" - #10060-001




3/4" - #10060-002

25 mm - #10060-003

3/8" - #9465

1/2" - #9316-002

3/4" - #9466

2000 SERIES 2TN NOZZLE REMOVAL TOOL	R2000(WF) PLATE REMOVAL TOOL	R2000(WF) CAP REMOVAL TOOL
		

#12260

Removes the nozzle from the R2000(WF).

#9620

Removes the plate from the R2000(WF).

#13929

Easily removes the cap assembly on the R2000(WF).

R2000(WF) FLUSH TOOL	NEW STYLE R2000(WF) MOTOR REMOVAL TOOL	COMPRESSION ADAPTER
		

#9210

Disconnect and reconnect sprinkler for nozzle cleaning while under pressure.

#12215

Removes the motor from the R2000(WF).

#10623

1/2" Spigot x Compression Barb connects 10mm tubing to PVC.

R10-R2000(WF) ACCESSORIES These work for R10, R10T, R2000, R2000LP, & R2000WF, unless otherwise specified.

NEW-STYLE R2000 STREAM SPLITTER	LEGACY R2000 STREAM SPLITTER	PC-R2000WF & PC-R2000LP
		

#12056

Protect adjacent tree trunks by creating a small wedge shape in the wetted pattern.

#12057

Use on Legacy Style R2000 to protect adjacent tree trunks.

#14026-1xxx (i.e. PC-R2000WF WF12 #11 is #10242-1211); #14027-xxxx (PC-R2000LP). Road Guard unassembled.

R2000(WF) HIGH-ANGLE ROAD GUARD	1/2" ACME CAP	FEMALE ACME X 1/2" PVC SPIGOT
		

#12213-002

Snap on new style R2000(WF) to convert to part-circle operation (190°).

#10615

Connects to Acme thread and acts as a shutoff cap.

#10352

Enables easy attachment to a 1/2" PVC riser.

FEMALE ACME X PVC SOCKET OR SPIGOT	CAP X PVC SOCKET OR SPIGOT	PRESSURE GAUGE TAP ASSEMBLY
		



#12214-001

For detachable risers.
 3/4" Female Acme x 3/4"
 PVC Socket or 1" PVC
 Spigot

#12214-003

For detachable risers.
 Cap, Female Acme x 3/4"
 PVC Socket or 1" PVC
 Spigot

#10367 Female Acme x
 Male Acme Gauges:
 0-60 PSI, #8968-002
 0-100 PSI, #8968-003
 0-160 PSI, #8968-004

MINI REGULATOR DRAIN CHECK	MINI REGULATOR	MINI DRAIN CHECK	
	Pressures (-0xx) 20 PSI (-020) 30 PSI (-030) 35 PSI (-035) 40 PSI (-040) 45 PSI (-045) 50 PSI (-050) 60 PSI (-060)		
CONNECTION (INLET X OUTLET)	MRDC	MR	MDC
1/2" FNPT x 1/2" Male Acme	#10406-0xx	#10020-0xx	#11140-0xx
1/2" Female Acme x 1/2" Male Acme	#10407-0xx	#10099-0xx	#11139-0xx
1/2" FNPT x 1/2 MNPT	#11150-0xx	#11146-0xx	#11154-0xx

MINI REGULATOR DRAIN CHECK: Regulates pressure AND opens 2-5 PSI below nominal pressure (reduces effect of drain down).*

MINI REGULATOR: Regulates pressure only.*

MINI DRAIN CHECK: Opens 2-5 PSI below nominal pressure (reduces effect of drain down).

Maximum flow is 5 GPM.

*Note: MR require 5 PSI above nominal pressure for correct operation.

Application notes: R10/R2000 directly connect.

R33LP/R33

Standard NV = 0
Low Pressure
(LP-NV) = 1

#13373-XXX

PLATE/NOZZLE

Gray = 18
Turquoise = 20
Yellow = 22
Red = 24
White = 26
Blue = 28

Example:
R33LP-NV
#20 Nozzle =
#13373-120

CAP ASSEMBLY 13422-XXX



R33 Cap (Black)
R33LP Cap (Green)



Motor
(See table)

Diffuser
(See table)



Retainer
#11039



Plate
(See pg. 27)















BODY ASSEMBLY 14010-XXX



PLATE / NOZ	BODY ASSY	R33-NV CAP/ PLATE ASSY	R33LP-NV CAP/ PLATE ASSY	LEGACY 33TN NOZZLE/ PLATE COLORS	R33-NV FULL ASSY	R33LP-NV FULL ASSY
18	-018	-018	-118	Gold	13373-018 (Black Dif., Gray Motor)	13373-118 (Purple Dif., Green Motor)
20	-020	-020	-120	Brown	13373-020 (Black Dif., Gray Motor)	13373-120 (Purple Dif., Green Motor)
22	-022	-022	-122	Gray	13373-022 (Black Dif., Ivory Motor)	13373-122 (Green Dif., Purple Motor)
24	-024	-024	-124	Green	13373-024 (Black Dif., Ivory Motor)	13373-124 (Green Dif., Purple Motor)
26	-026	-026	-126	Maroon	13373-026 (Gray Dif., Ivory Motor)	13373-126 (Green Dif., Purple Motor)
28	-028	-028	-128	Blue	13373-028 (Gray Dif., Ivory Motor)	13373-128 (Green Dif., Purple Motor)

Plate/Nozzle Options and Flow Performance in Liters Per Hour

Plate Options	Corresponding 33NV Nozzles	Model & Radius	BAR								
			1.75	2.0	2.5	2.75	3.0	3.5	4.0	4.5	
 GRAY 18 #12965-018	 Gray #18 #12035-018 (9/64")	R33LP 39-42"	2.8	3.0	3.3	3.5	3.7*	3.9*	—	—	—
		R33 43'	—	—	—	3.5	3.7	3.9	4.1	4.3	4.5
 TURQUOISE 20 #12965-020	 Turquoise #20 #12035-020 (5/32")	R33LP 40-42"	3.5	3.8	4.1	4.4	4.7*	4.98	—	—	—
		R33 44-45'	—	—	—	4.4	4.7	4.9	5.1	5.4	5.6
 YELLOW 22 #12965-022	 Yellow #22 #12035-022 (11/64")	R33LP 42-45'	4.2	4.6	4.9	5.3	5.6	5.9	—	—	—
		R33 46-47'	—	—	—	5.3	5.6	5.9	6.2	6.5	6.7
 RED 24 #12965-024	 Red #24 #12035-024 (3/16")	R33LP 43-46"	5.0	5.5	5.9	6.3	6.7	7.1	—	—	—
		R33 47-50'	—	—	—	6.3	6.7	7.1	7.4	7.7	8.0
 WHITE 26 #12965-026	 White #26 #12035-026 (13/64")	R33LP 43-47"	5.9	6.4	6.9	7.4	7.8	8.3	—	—	—
		R33 49-50'	—	—	—	7.4	7.8	8.3	8.7	9.1	9.4
 BLUE 28 #12965-026	 Blue #28 #12035-028 (7/32")	R33LP 45-47"	6.8	7.5	8.1	8.6	9.2	9.7	—	—	—
		R33 51-52'	—	—	—	8.6	9.2	9.7	10.1	10.6	11.0

It is recommended that the R33-NV & R33LP-NV be stocked and purchased as a full assembly. Please order all other parts for the purpose of repairs only.

R33LP-NV/R33-NV FLUSH TOOL	R33LP-NV/R33-NV ROAD GUARD	CAP ASSEMBLY REMOVAL TOOL
		

(Short) #11161-001;
(Long) #11161-002

#11363
Snap to convert to
part-circle operation.

#13930

SPRINKLER TUBING PERFORMANCE & SPECIFICATIONS

TUBING	4 mm	5 mm	10 mm
I.D.	0.154" (3.9 mm)	0.190" (4.8 mm)	0.355" (9.4 mm)
O.D.	0.270" (6.9 mm)	0.300" (7.6 mm)	0.505" (13 mm)
MATERIAL	Flexible PVC	Flexible PVC	Flexible PVC
RECOMMENDED MAX. FLOW & NOZZLE SIZE*			
FLOW	20 gph (76 lph)	40 gph / 0.67 gpm (151 lph)	2.0 gpm (454 lph)
5 SERIES	#45, 18 5FC	#55, 24 5FC	-
7 SERIES	#45, 18 7FC	#60, 24 7FC	-
10 SERIES	-	#60, 0.5 10FC	#13, 1.5 10FC
2000 SERIES	-	-	#13, 2.0 2000FC

*Recommended max nozzle size also depends on operating pressure and tubing length; typically, pressure loss in the tubing assembly should be less than 3.5 psi (0.24 bar).



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