



NELSON

METRIC

PERFORMANCE POCKET GUIDE

R



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	R7 ROTATOR®
		
<p>34 - 110 LPH 2.1 - 5.8 M RADIUS 6°, 9°, INVERTED 6°</p>	<p>28 - 287 LPH 2.7 - 4.9 M RADIUS 4°, 12°</p>	<p>COMING SOON!</p>
R10 ROTATOR®	R10T ROTATOR®	R2000FX ROTATOR®
		
<p>61 - 159 LPH 5.5 - 8.2 MRADIUS 9°, 15°</p>	<p>140 - 469 LPH 6.1 - 10.1 M RADIUS 9°, 15°, 24°</p>	<p>227 - 681 LPH 7.9 - 12.2 M RADIUS 12°, 15°, 24°</p>

R2000 ROTATOR®

150 - 792 LPH
 6.4 - 11.3 M RADIUS
 6°, 9°, 12°, 15°, 24°

R2000LP ROTATOR®

201 - 1144 LPH
 9.1 - 12.8 M RADIUS
 25°

R2000WF ROTATOR®

254 - 1295 LPH
 10.1 - 13.7 M RADIUS
 25°

R33LP-NV ROTATOR®

638 - 2226 LPH
 12.0 - 14.25 M RADIUS
 25°

R33-NV ROTATOR®

787 - 2524 LPH
 13.0 - 16.0 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.

#9836-XXX (11261-XXX FOR POP-UP)

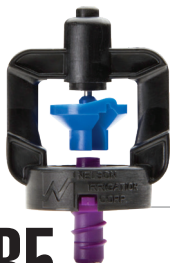


PLATE
Green = 1
Blue = 3

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 Liters Per Hour

R5

Plate Options	Recommended Nozzles	BAR							
		1.0	1.25	1.50	1.75	2	2.25	2.5	2.75
BLUE Low Pressure Model UPRIGHT MOUNT Radius 3.0-4.9 m Strm. Ht. 10.2-48.3 cm	#35 Orange				36	39	42	44	46
	#40 Blue			43	46	49	53	56	
	#45 Purple	44	49	54	59	63	67	70	
	#50 Green	53	60	66	72	77	81	86	
	#55 Yellow	65	73	80	87	93			
GREEN High Pressure Model UPRIGHT MOUNT Radius 3.7-5.8 m Strm. Ht. 45.7-83.8 cm	#35 Orange					39	42	44	46
	#40 Blue					49	53	56	59
	#45 Purple				59	63	67	70	74
	#50 Green				72	77	81	86	91
	#55 Yellow				87	93	99	104	110

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

Recommended Pressure Range in BAR

5FC Nozzle Option*	BLUE	GREEN
8.5 GPH Orange 5FC	1.75-3.0	—
11 GPH Blue 5FC	1.5-3.0	2.0-3.0
14 GPH Purple 5FC	1.0-2.75	1.75-3.0
18 GPH Yellow 5FC	1.0-2.5	1.75-3.0
24 GPH Red 5FC	1.0-2.5	1.75-3.0

R5 ACCESSORIES

R5 DEFLECTOR CAP	R5 ONE-SIDED STREAM SPLITTER	R5 TWO-SIDED STREAM SPLITTER
		

#10951

Reduce the R5 radius down to approx. 1 meter for watering newly-planted trees.

#10746

Protects tree trunks — use when R5 Rotators are mounted 0.5-1 meter from a tree.

#10976

Protects tree trunks — use when R5 Rotators are centered between two trees.

FEMALE ACME X R5 ADAPTER	R5 INSTALLATION TOOL	MNPT ADAPTER
		

#10616

Use to connect the R5 Rotator to Acme Adapter threads.

#11108

Make installing the R5 Rotator simple.

3/8" - #9465

1/2" - #9316-002

3/4" - #9466

Available with 3/8", 1/2" or 3/4" inlet. Use w/ #10616.

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



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



Standard
1TN Nozzle
#12721-0xx

*(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 (lph). Recommended pressure range 1-2 bar.

 1TN Nozzle	Pressure in BAR					
	1	1.5	2	2.5	3	3.5
#35 Orange	28*	35*	40*	45	49	54
#40 Blue	35	43	50	56	62	67
#45 Purple	45	55	64	72	79	85
#50 Green	54	67	77	87	95	103
#55 Yellow	65	80	93	105	115	124
#60 Lt. Red	79	97	113	126	139	150
#65 Gray	102	126	146	164	180	195
#70 White	119	146	169	190	208	226
#78 Dk. Blue	151	186	215	241	265	287




 Flow Control 7FC Nozzle	Cv**	Pressure in BAR			
		1	1.5	2	2.5
#8.5 Orange 7FC	0.024	31	33	34	33
#11 Blue 7FC	0.024	42	45	43	40
#14 Purple 7FC	0.036	54	56	55	52
#18 Yellow 7FC	0.030	67	71	69	66
#24 Red 7FC	0.016	88	95	98	94


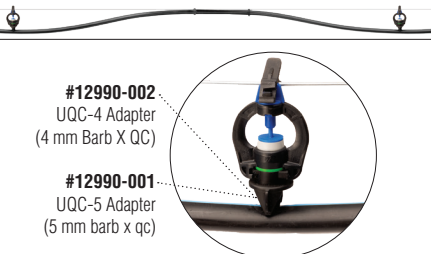
*Black, Purple, Tan plates only. **Manufacturer's Coefficient of Variation.

S7 Plate Options

Plate	BLUE Greatest Radius	BLACK Flat Trajectory	PURPLE Low Pressure/ Flow	TAN Short Radius
Radius	2.7-4.9 m	2.1-3.4 m	2.7-3.6 m	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	1-2.8 BAR (#35: 2.4-2.8 BAR)	1-2.8 BAR	1-2.4 BAR	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

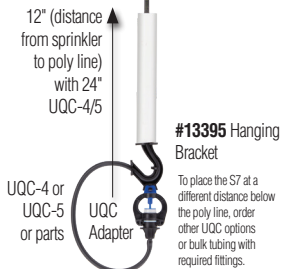


#13091-xxx
(5 mm) UQC-5,
Adapter & LTO
Assembly



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
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)



or



#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



#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
 3/8" = 0
 1/2" = 1
 Acme = 2

PLATE
 Red = 1
 White = 2
 Orange = 7

Example:

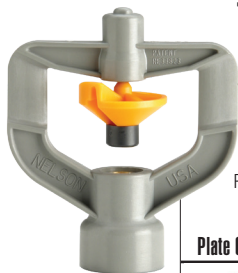
R10 Rotator®
 with 1/2" Thread (1),
 White Plate (2) and Red
 #60 Nozzle (60) =
 #9913-1260

Plate/Nozzle Options and Flow Performance in Liters Per Hour

Plate Options	Recommended Nozzles	BAR				
		1.75	2.0	2.5	3.0	3.5
P2 9° RED Radius 5.5-6.1 m Stream Ht. 35.6-58.4 cm	 Lt. Blue #40 #9306-040	—	—	64.7	71.3	77.9
	 Lt. Purple #45 #9306-045	66.4	71.3	80.6	87.2	96.4
	 Dk. Green #50 #9306-050	82.3	87.2	99.4	108	117
		0.35 10FC* (79 LPH)	*Use #9587-xxx. Call factory for part numbers.			
P4 9° WHITE Radius 5.5-6.7 m Stream Ht. 33.0-58.4 cm	 Dk. Green #50 #9306-050	—	—	99.4	108	117
	 Lt. Yellow #55 #9306-055	101	107	120	131	142
	 Lt. Red #60 #9306-060	117	125	141	154	167
		0.50 10FC* (114 LPH)				
P4 15° ORANGE Radius 7.0-8.2 m Stream Ht. 102-127 cm	 Dk. Green #50 #9306-050	—	87.2	99.4	108	117
	 Lt. Yellow #55 #9306-055	—	107	120	131	142
	 Lt. Red #60 #9306-060	—	125	141	154	167
		0.50 10FC* (114 LPH)				

*Within the recommended pressure range of 1.75-3.5 bar the 0.35 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 (1.4 and 1.9 LPH).

#9914-XXXX



THREAD

3/8" = 0

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 Liters Per Hour

R10T

*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 (170 and 227 LPH), 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 (284 and 341 LPH).

Plate Options	Recommended Nozzles	BAR				
		1.75	2.0	2.5	3.0	3.5
 P6 9° BLUE Radius 6.1-6.7 m Stream Ht. 43.2-76.2 cm	 Gray #8.3 #9306-065	140	150	166	183	197
	 White #9 #9306-070	160	172	192	210	229
	 Dk. Blue #10 #9306-078	201	217	242	266	286
 P6 15° PURPLE Radius 7.6-8.2 m Stream Ht. 78.7-124.5 cm	0.75 10FC* (170 LPH)	*Use #9587-xxx. Call factory for part numbers. Recommended pressure range for 0.75 10FC is 1.75-3.5 bar, while the pressure range for the 1.0 10FC is 2.1-3.5 bar.				
	1.0 10FC* (227 LPH)					
 P8 15° GOLD Radius 8.5-9.1 m Stream Ht. 97-145 cm	 Orange #11 #9306-086	245	261	294	323	350
	 Purple #12 #9306-094	290	311	347	380	412
	 Yellow #13 #9306-102	343	366	411	451	487
 P8 24° BROWN Radius 8.2-9.8 m Stream Ht. 163-251 cm	1.25 10FC* (284 LPH) 1.5 10FC* (341 LPH)	Recommended pressure range for 1.25 and 1.5 10FC is 2.1-3.5 bar.				
	Additional Nozzles P8 24° Plate only:  Dk. Blue #10 #9306-078 1.0 10FC* (227 LPH)	—	217	242	266	286

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



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

OPTION 2: PVC STAKE CONFIGURATION

(5 mm) UA-5
Assembly



#13784
Tubing Guide
Tool

PVC Stake
(See page 15)

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 (3.4-5.5 bar).

R2000FX

#13223-XXXX (FEMALE ACME THREAD)

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



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	Cv*	Radius (m)	Stream Ht. (cm)	Pressure (bar)				
					1.5	1.75	2.0	2.5	
					Flow (lph)				
12° PURPLE	-2100	1.0 GPM	0.020	8.0 - 8.3	94 - 104	220	220	218	212
	-2125	1.25 GPM	0.015	8.7 - 9.2	97 - 113	275	276	274	266
	-2150	1.5 GPM	0.027	9.0 - 9.5	99 - 112	332	332	331	326
	-2175	1.75 GPM	0.006	9.0 - 9.2	99 - 118	386	389	390	385
15° RED	-5100	1.0 GPM	0.020	8.7 - 8.9	101 - 124	220	220	218	212
	-5125	1.25 GPM	0.015	8.9 - 9.6	106 - 127	275	276	274	266
	-5150	1.5 GPM	0.027	9.3 - 9.8	111 - 130	332	332	331	326
	-5175	1.75 GPM	0.006	9.2 - 10.5	116 - 134	386	389	390	385
24° GRAY	-7100	1.0 GPM	0.020	9.9 - 10.1	145 - 170	220	220	218	212
	-7125	1.25 GPM	0.015	10.5 - 10.7	153 - 187	275	276	274	266
	-7150	1.5 GPM	0.027	10.2 - 10.7	161 - 189	332	332	331	326
24° BLUE	-7175	1.75 GPM	0.006	10.8 - 11.1	208 - 258	386	389	390	385
	-7200	2.0 GPM	0.010	10.7 - 11.3	214 - 256	443	446	446	439
	-7250	2.5 GPM	0.016	11.2 - 11.6	217 - 267	543	548	550	546
	-7300	3.0 GPM	0.010	11.6	229 - 269	662	668	670	661

*Manufacturer's Coefficient of Variation.



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



Stake
Adapter
11429
Connects to
Nelson
10 mm
Tubing

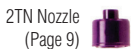
3/4"
PVC-10
PVC

PVC

R2000



CAP ASSEMBLY WITH PLATE



NOZZLE & BODY ASSEMBLY



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

Plate Options	Radius & Stream Height	Recommended Nozzles	BAR				
			2.0	2.5	3.0	3.5	4.0
 K1 6° Cream #9516-106	Rad. 6.4-7.6 m Str. Ht. 38.1-63.5 cm	 Gray #8.3 #9306-065	150	166	183	197	210
		0.85 2000FC*					
 K2 6° Lt. Blue #9516-206	Rad. 6.7-7.9 m Str. Ht. 38.1-81.3 cm	 White #9 #9306-070	172	192	210	229	245
		 Dk. Blue #10 #9306-078	217	242	266	286	306
		1.0 2000FC*					
 K2 9° Green #9516-209	Rad. 7.0-8.2 m Str. Ht. 46-94 cm	 Gray #8.3 #9306-065	150	166	183	197	210
 K2 15° Yellow #9516-215	Rad. 8.2-9.1 m Str. Ht. 79-140 cm	 White #9 #9306-070	172	192	210	229	245
		 Dk. Blue #10 #9306-078	217	242	266	286	306
		0.85 2000FC* & 1.0 2000FC*					
 K3 9° Brown #9516-309	Rad. 7.6-8.5 m Str. Ht. 48-84 cm	 Orange #11 #9306-086	261	294	323	350	375
 K3 15° Red #9516-315	Rad. 8.2-9.4 m Str. Ht. 97-160 cm	 Purple #12 #9306-094	311	347	380	412	442
 K3 24° Gray #9516-324	Rad. 8.8-10.7 m Str. Ht. 173-262 cm	1.25 2000FC* 1.5 2000FC*					
 K4 6° Turquoise #9516-406	Rad. 6.4-7.6 m Str. Ht. 25-61 cm	 Yellow #13 #9306-102	366	411	451	487	521
 K4 9° Purple #9516-409	Rad. 7.9-9.8 m Str. Ht. 71-107 cm	 Green #14 #9306-109	413	463	509	550	590
 K4 12° Wine #9516-412	Rad. 8.2-9.4 m Str. Ht. 81-130 cm	1.5 2000FC* 2.0 2000FC*	*Within the recommended pressure range of 2.0-4.0 bar, 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. 8.2-10.1 m Str. Ht. 102-152 cm						
 K4 24° Black #9516-424	Rad. 8.5-11.0 m Str. Ht. 165-254 cm						
 K5 9° Orange #9516-509	Rad. 8.2-9.4 m Str. Ht. 64-107 cm						
 K5 15° Tan #9516-515	Rad. 9.4-11.0 m Str. Ht. 91-124 cm	 Dk. Red #16 #9306-125	559	624	685	739	792
 K5 24° Blue #9516-524	Rad. 9.8-11.3 m Str. Ht. 193-264 cm	2.5 2000FC*					

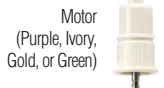
Plate/Nozzle Options and Flow Performance in Liters Per Hour

R2000WF/LP

R2000LP now has easy to identify green cap.


















The R2000WF / LP have been designed to be easily repaired. Use these pages to 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



Plate Options	Recommended Nozzles	Model & Radius (m)	BAR						
			1.75	2.0	2.75	3.0	3.5	4.0	4.5
 12113 BLUE WF10	 Dk. Blue #10 #9306-078	R2000LP Rad. 9.1-9.8	201	217	254	266	286	-	-
	Nozzle/Body Assy. (5/64") #9920-010	R2000WF R. 10.1-10.7	-	-	254	266	286	306	328
 PURPLE WF12 #10452	 Orange #11 #9306-086	R2000LP R. 9.8-10.4	245	261	308	323	350	-	-
	Nozzle/Body Assy. (11/128") #9920-011	R2000WF R. 10.7-11.3	-	-	308	323	350	375	401
	 Purple #12 #9306-094	R2000LP R. 10.1-10.7	290	311	365	380	412	-	-
	Nozzle/Body Assy. (3/32") #9920-012	R2000WF R. 11.3-11.6	-	-	365	380	412	442	469
 GREEN WF14 #9877	 Yellow #13 #9306-102	R2000LP R. 10.1-11.0	343	366	431	451	487	-	-
	Nozzle/Body Assy. (13/128") #9920-013	R2000WF R. 11.3-11.6	-	-	431	451	487	521	558
	 Green #14 #9306-109	R2000LP R. 10.4-11.3	389	413	487	509	550	-	-
	Nozzle/Body Assy. (7/64") #9920-014	R2000WF R. 11.6-12.2	-	-	487	509	550	590	626
 RED WF16 #9931	 Tan #15 #9306-117	R2000LP R. 10.4-11.3	453	485	574	597	647	-	-
	Nozzle/Body Assy. (15/128") #9920-015	R2000WF R. 11.9-12.5	-	-	574	597	647	695	737
	 Red #16 #9306-125	R2000LP R. 11.0-11.6	522	559	655	685	739	-	-
	Nozzle/Body Assy. (1/8") #9920-016	R2000WF R. 11.9-12.5	-	-	655	685	739	792	837
 9870 GOLD WF18	 Gold #18 #9306-141	R2000LP R. 11.6-11.9	668	716	834	869	940	-	-
	Nozzle/Body Assy. (9/64") #9920-018	R2000WF R. 12.5-12.8	-	-	834	869	940	1001	1060
 9878 BRN. WF20	 Dk. Brown #20 #9306-156	R2000LP R. 12.2-12.8	814	873	1016	1062	1144	-	-
	Nozzle/Body Assy. (5/32") #9920-020	R2000WF R. 12.8-13.7	-	-	1016	1062	1144	1222	1295

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:
0-4 BAR, #8968-002
0-7 BAR, #8968-003
0-11 BAR, #8968-004

MINI REGULATOR DRAIN CHECK	MINI REGULATOR	MINI DRAIN CHECK	
	Pressures (-0xx) 1.4 BAR (-020) 2.1 BAR (-030) 2.4 BAR (-035) 2.8 BAR (-040) 3.1 BAR (-045) 3.4 BAR (-050) 4.1 BAR (-060)		
		Pressures (-0xx) 1.4 BAR (-020) 2.4 BAR (-035)	
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 0.13-0.34 BAR below nominal pressure (reduces effect of drain down).*

MINI REGULATOR: Regulates pressure only.*

MINI DRAIN CHECK: Opens 0.13-0.34 BAR below nominal pressure (reduces effect of drain down).

Maximum flow is 1135 LPH.

*Note: MR require 0.34 BAR above nominal pressure for correct operation.

Application notes: R10/R2000 directly connect.

R33-NV/R33LP-NV

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 Options	Corresponding 33NV Nozzles	Model & Radius (m)	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-NV 12.0-13.0 m	638	671	751	787	822	900*	—	—
		R33-NV Rad. 13.0 m	—	—	—	787	822	900	963	1021
 TURQUOISE 20 #12965-020	 Turquoise #20 #12035-020 (5/32")	R33LP-NV 12.0-12.75 m	799	842	942	988	1032	1129*	—	—
		R33-NV 13.5-13.75 m	—	—	—	988	1032	1129	1207	1280
 YELLOW 22 #12965-022	 Yellow #22 #12035-022 (11/64")	R33LP-NV 12.75-13.75	961	1010	1130	1186	1238	1357	—	—
		R33-NV 14.0-14.25 m	—	—	—	1186	1238	1357	1451	1539
 RED 24 #12965-024	 Red #24 #12035-024 (3/16")	R33LP-NV 13.0-14.0	1149	1212	1354	1420	1483	1627	—	—
		R33-NV Rad. 8.4 m	—	—	—	1420	1483	1627	1739	1844
 WHITE 26 #12965-026	 White #26 #12035-026 (13/64")	R33LP-NV 13.25-14.5	1348	1421	1587	1665	1739	1907	—	—
		R33-NV 15.0-15.25 m	—	—	—	1665	1739	1907	2039	2163
 BLUE 28 #12965-026	 Blue #28 #12035-028 (7/32")	R33LP-NV 13.75-14.25	1574	1658	1854	1944	2031	2226	—	—
		R33-NV 15.5-16.0 m	—	—	—	1944	2031	2226	2379	2524

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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