



WATER APPLICATION SOLUTIONS FOR THE NURSERY MARKET

MS10 ROTATOR®

15-40 PSI
14-27' RAD.

THE MS10 IS A HIGH-VOLUME, MULTI-STREAM, FAST-TURNING ROTATOR® FOR UNIFORM IRRIGATION OF CONTAINER GROWN PLANTS. IT CAN BE USED IN BOTH AN UPRIGHT AND INVERTED POSITION.



MS10



13827-XXXX (Assembled)

THREAD
1/2" MNPT = 1
1/2" Female Acme = 2

NOZZLE
PLATE
Black 24°, High Angle = 2
Green 9°, Low Angle = 1
Gray 0°, Flat = 3

EXAMPLE:
MS10 Rotator with 1/2" Female Acme Connection (2),
Black Plate (2) and Red #16 Nozzle (16) = #13827-2216



ADVANTAGES OF NELSON'S UNIQUE **ACME** THREAD

1. Quick removal for cleaning plugged nozzles
2. Direct connection to Stake and Tube assemblies
3. Easy to add a regulator or a check valve
4. Quickly cap a riser using Acme Cap #10615
5. Multiple adapters available: (3/8", 1/2", 3/4" MNPT) and (1/2", 3/4", 25mm socket)
6. Quick **DETACHABLE** riser extensions use the Acme thread



1/2" Male Acme X
PVC Socket Adapter

Fits on PVC Pipe.

3/4" - 10060-002



1/2" - 10060-001



1/2" Male Acme X
MNPT Adapter

3/4" - 9466



1/2" - 9316-002

HIGHLY-VERSATILE **DETACHABLE** RISER CONFIGURATION

Detachable risers are used to temporarily raise the mounting height of the MS10 when needed. Glue the Nelson #10352 1/2" Female Acme x 1/2" PVC Spigot into a 1/2" PVC Coupler on the bottom and the Nelson #10060-001 1/2" Male Acme X 1/2" PVC Socket with a piece of 1/2" Schedule 40 PVC in between to construct the riser extension.



1/2" Male
Acme X 1/2"
PVC Socket
#10060-001

Detachable
Riser
Extension

FEMALE ACME X
1/2" PVC SPIGOT
#10352
Enables easy
attachment
to a 1/2" PVC riser.

Riser Extension



UPRIGHT

9737-048

FT5, Adapter & LTO
Assembly, 10mm X
48" (122 cm) Tube



9677
Adapter, FT5,
& 10mm Tube X
1/2" Acme

9099-048
Tube, 10mm x
48" (122 cm)
(other lengths
available)

9725-048
Stake Steel,
5/16" (8 mm) x
48" (122 cm)
(Stake not
included in FT5
Assembly)

9740
QC LTO, 10 mm
Compression x
Male QC

9739
QC Barb,
Female QC x
10 mm Barb

INVERTED

13861-024

3/4" PVC-10,
Adapter & LTO Assembly



9774
LTO, 10 mm
Tube x 7 mm
Barb

9099-024
Tube, 10mm x
24" (61 cm)
(other lengths
available)

3/4" PVC pipe
weight
not included in
13681-024
assembly

11429
3/4" PVC
Stake Adapter

ALSO USE WITH MINI REGULATOR/DRAIN CHECKS

MINI REGULATOR 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)

MINI REGULATOR



MINI DRAIN CHECK

Pressures (-0xx)
20 PSI (-020)
35 PSI (-035)



CONNECTION (INLET X OUTLET)	MRDC	MR	MDC
1/2" FNPT Inlet x Acme Outlet	*10406-0xx	*10020-0xx	*11140-0xx
Acme Inlet x Acme Outlet	*10407-0xx	*10099-0xx	*11139-0xx
1/2" FNPT Inlet x 1/2" MNPT Outlet	*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.

ACCESSORIES



HIGH ANGLE ROAD GUARD
#9879 converts MS10 to
part-circle operation (200°).



1/2" ACME CAP #10615
connects to Acme
thread and acts as a
shutoff cap.

MS10 FLOW PERFORMANCE & RADIUS (cont'd on following page)

UPRIGHT BLACK PLATE Radius is measured with a 24" (61 cm) sprinkler riser.

24" HIGH ANGLE BLACK PLATE	2TN Nozzle	Stream Height		PRESSURE (PSI)											
				15		20		25		30		35		40	
		IN.	CM	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.
	#12 Purple	33-44	82-112	0.99	14	1.14	15	1.27	16	1.39	16	1.5	16	1.61	16
	#13 Yellow	34-47	84-120	1.16	16	1.34	17	1.5	18	1.64	19	1.78	19	1.9	19
	#14 Green	35-49	86-124	1.32	18	1.52	19	1.7	20	1.85	21	2	21	2.15	21
	#15 Tan	36-53	90-134	1.53	20	1.77	21	1.98	22	2.17	23	2.35	23	2.53	23
	#16 Red	39-53	98-134	1.77	21	2.04	23	2.28	24	2.5	25	2.7	25	2.89	25
	#17 Turquoise	41-53	104-134	2.03	22	2.34	24	2.62	26	2.87	26	3.08	26	3.28	26
	#18 Gold	45-53	114-134	2.26	23	2.61	25	2.92	27	3.2	28	3.44	27	3.68	26
	#20 Brown	45-60	114-152	2.75	24	3.18	26	3.56	27	3.9	27	4.18	27	4.48	26
Radius in Feet, GPM = Flow in gallons per minute															

PRESSURE (BAR)															
1		1.25		1.5		1.75		2		2.25		2.5		2.75	
LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.
221	4.2	247	4.5	269	4.7	291	4.9	310	5	329	5	348	5	365	4.9
259	4.8	290	5.1	318	5.3	343	5.5	366	5.6	390	5.7	411	5.7	431	5.6
295	5.4	329	5.7	360	5.9	389	6.1	413	6.2	439	6.3	465	6.4	488	6.4
342	5.9	383	6.2	420	6.5	453	6.7	485	6.9	515	7	547	7	574	7
395	6.3	441	6.7	483	7.1	522	7.3	558	7.5	592	7.6	625	7.7	655	7.6
453	6.6	506	7.1	555	7.5	600	7.8	641	8	675	8	709	8	744	7.8
505	6.9	564	7.5	619	8	668	8.3	715	8.4	754	8.4	796	8.2	835	7.9
614	7.3	688	7.7	754	8	815	8.2	871	8.3	917	8.3	969	8.1	1016	7.9
Radius in Meters, LPH = Flow in liters per hour															

MS10 FLOW PERFORMANCE & RADIUS (cont'd)

UPRIGHT GREEN PLATE Radius is measured with a 24" (61 cm) sprinkler riser.

9° LOW ANGLE GREEN PLATE	2TN Nozzle	Stream Height		PRESSURE (PSI)											
				15		20		25		30		35		40	
		IN.	CM	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.
	#12 Purple	17-20	42-50	0.99	15	1.14	17	1.27	18	1.39	19	1.5	19	1.61	18
	#13 Yellow	18-23	44-58	1.16	18	1.34	19	1.5	20	1.64	20	1.78	21	1.9	21
	#14 Green	19-25	46-64	1.32	20	1.52	21	1.7	21	1.85	21	2	22	2.15	23
	#15 Tan	20-30	50-76	1.53	19	1.77	21	1.98	23	2.17	24	2.35	24	2.53	23
	#16 Red	22-30	54-76	1.77	20	2.04	23	2.28	24	2.5	24	2.7	24	2.89	23
	#17 Turquoise	23-20	58-76	2.03	22	2.34	24	2.62	24	2.87	24	3.08	24	3.28	23
	#18 Gold	25-30	64-78	2.26	23	2.61	24	2.92	24	3.2	24	3.44	24	3.68	24
	#20 Brown	25-33	64-84	2.75	23	3.18	24	3.56	24	3.9	24	4.18	24	4.48	24
Radius in Feet, GPM = Flow in gallons per minute															

PRESSURE (BAR)															
1		1.25		1.5		1.75		2		2.25		2.5		2.75	
LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.
221	4.5	247	4.9	269	5.3	291	5.5	310	5.6	329	5.7	348	5.6	365	5.5
259	5.3	290	5.6	318	5.8	343	6	366	6.1	390	6.2	411	6.2	431	6.2
295	6.2	329	6.3	360	6.3	389	6.4	413	6.5	439	6.6	465	6.8	488	6.9
342	5.7	383	6.3	420	6.7	453	7	485	7.2	515	7.3	547	7.2	574	7
395	6	441	6.6	483	7.1	522	7.3	558	7.3	592	7.3	625	7.2	655	7
453	6.7	506	7	555	7.2	600	7.3	641	7.3	675	7.3	709	7.2	744	7
505	7.3	564	7.3	619	7.3	668	7.3	715	7.3	754	7.3	796	7.3	835	7.3
614	7.4	688	7.4	754	7.4	815	7.3	871	7.3	917	7.3	969	7.3	1016	7.3
Radius in Meters, LPH = Flow in liters per hour															

INVERTED GREEN PLATE Radius is measured with the sprinkler mounted 60" above the ground.

9° LOW ANGLE GREEN PLATE	2TN Nozzle	PRESSURE (PSI)											
		15		20		25		30		35		40	
		GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.
	#12 Purple	0.99	13	1.14	14	1.27	14	1.39	14	1.5	15	1.61	15
	#13 Yellow	1.16	14	1.34	15	1.5	15	1.64	15	1.78	16	1.9	16
	#14 Green	1.32	14	1.52	15	1.7	16	1.85	16	2	16	2.15	16
	#15 Tan	1.53	14	1.77	15	1.98	16	2.17	16	2.35	17	2.53	17
	#16 Red	1.77	14	2.04	15	2.28	16	2.5	16	2.7	17	2.89	17
	#17 Turquoise	2.03	14	2.34	15	2.62	16	2.87	16	3.08	17	3.28	17
	#18 Gold	2.26	14	2.61	15	2.92	16	3.2	16	3.44	17	3.68	17
	#20 Brown	2.75	14	3.18	15	3.56	16	3.9	16	4.18	17	4.48	17
Radius in Feet, GPM = Flow in gallons per minute													

PRESSURE (BAR)															
1		1.25		1.5		1.75		2		2.25		2.5		2.75	
LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.
221	3.9	247	4.1	269	4.2	291	4.3	310	4.4	329	4.4	348	4.5	365	4.6
259	4.1	290	4.3	318	4.5	343	4.6	366	4.7	390	4.8	411	4.8	431	4.9
295	4.2	329	4.5	360	4.6	389	4.8	413	4.8	439	5	465	5	488	5.1
342	4.2	383	4.5	420	4.6	453	4.9	485	4.8	515	5	547	5	574	5.1
395	4.2	441	4.5	483	4.6	522	4.9	558	4.8	592	5	625	5	655	5.1
453	4.3	506	4.5	555	4.6	600	4.9	641	4.8	675	5	709	5	744	5.1
505	4.4	564	4.5	619	4.6	668	4.9	715	4.8	754	5	796	5	835	5.1
614	4.4	688	4.5	754	4.6	815	4.9	871	4.8	917	5	969	5	1016	5.1
Radius in Meters, LPH = Flow in liters per hour															

INVERTED GRAY PLATE Radius is measured with the sprinkler mounted 60" above the ground.

0° FLAT GRAY PLATE	2TN Nozzle	PRESSURE (PSI)											
		15		20		25		30		35		40	
		GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.	GPM	RAD.
	#12 Purple	0.99	15	1.14	17	1.27	19	1.39	20	1.5	20	1.61	20
	#13 Yellow	1.16	17	1.34	19	1.5	21	1.64	21	1.78	21	1.9	20
	#14 Green	1.32	18	1.52	20	1.7	21	1.85	21	2	21	2.15	20
	#15 Tan	1.53	19	1.77	20	1.98	21	2.17	21	2.35	21	2.53	21
	#16 Red	1.77	19	2.04	20	2.28	21	2.5	21	2.7	21	2.89	21
	#17 Turquoise	2.03	20	2.34	21	2.62	21	2.87	22	3.08	22	3.28	21
	#18 Gold	2.26	20	2.61	21	2.92	22	3.2	22	3.44	22	3.68	21
	#20 Brown	2.75	20	3.18	21	3.56	21	3.9	21	4.18	21	4.48	21
Radius in Feet, GPM = Flow in gallons per minute													

PRESSURE (BAR)															
1		1.25		1.5		1.75		2		2.25		2.5		2.75	
LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.	LPH	RAD.
221	4.5	247	5	269	5.5	291	5.8	310	6.1	329	6.2	348	6.2	365	6.1
259	5	290	5.5	318	5.8	343	6.3	366	6.3	390	6.3	411	6.3	431	6.1
295	5.4	329	5.9	360	6.2	389	6.4	413	6.5	439	6.5	465	6.3	488	6.1
342	5.7	383	6	420	6.2	453	6.4	485	6.5	515	6.5	547	6.5	574	6.4
395	5.7	441	6	483	6.3	522	6.4	558	6.5	592	6.5	625	6.5	655	6.4
453	5.8	506	6.2	555	6.4	600	6.4	641	6.7	675	6.7	709	6.5	744	6.4
505	6	564	6.4	619	6.6	668	6.7	715	6.7	754	6.7	796	6.5	835	6.4
614	6.1	688	6.2	754	6.3	815	6.4	871	6.5	917	6.5	969	6.5	1016	6.4
Radius in Meters, LPH = Flow in liters per hour															



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WARRANTY & DISCLAIMER: Nelson MS10 Rotators and accessories are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects in design or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of warranty, nor to make representations or warranty not contained herein.