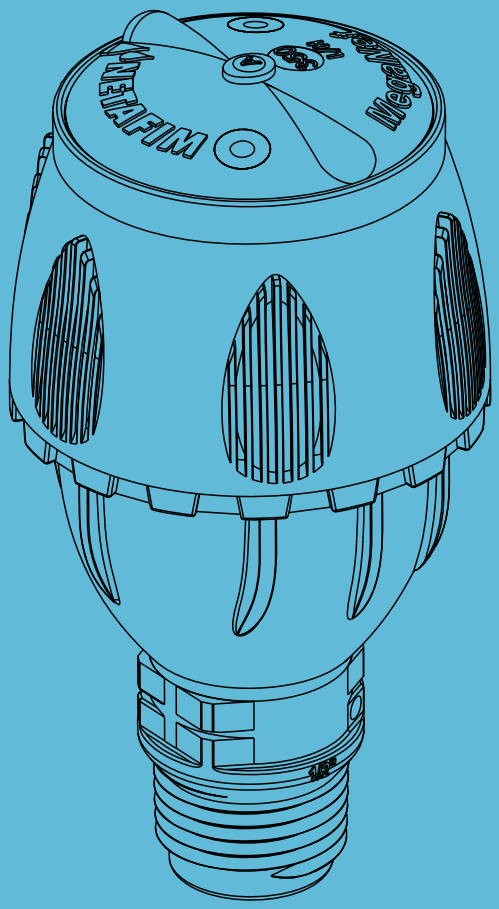
MEGANET™

ROTATING IMPACT SPRINKLER

USER MANUAL



V 002.01 - JULY 2017

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NOTE

All the drawings in this document are for the purpose of illustration only. The actual product details and infrastructure condition may differ in any actual application.

FOREIGN LANGUAGES

If you are reading this manual in a language other than the English language, you acknowledge and agree that the English language version shall prevail in any case of inconsistency or contradiction in interpretation or translation.

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INTRODUCTION

Use of symbols

The symbols used in this manual refer to the following:



WARNING
The following text contains instructions aimed at preventing bodily injury or direct damage to the crops, the product and/or the infrastructure.



CAUTION
The following text contains instructions aimed at preventing unwanted system operation, installation or conditions that, if not followed, might void the warranty.



ATTENTION
The following text contains instructions aimed at enhancing the effective use of the instructions in the manual.



NOTE
The following text contains instructions aimed at emphasizing certain aspects of the installation or operation of the product.



SAFETY FOOTWEAR
The following text contains instructions aimed at preventing foot injury.



TIP
The following text provides clarification, tips or useful information.

Aim of this manual

The aim of this manual is to guide the user in setting up, installation, operaton and maintenance of the MegaNet™ sprinkler in its various applications.

Safety instructions

- All applicable safety instructions and regulations must be observed and applied.
- The effectiveness of the equipment may be jeopardized or impaired if the equipment is used in a manner other than that specified by the manufacturer.



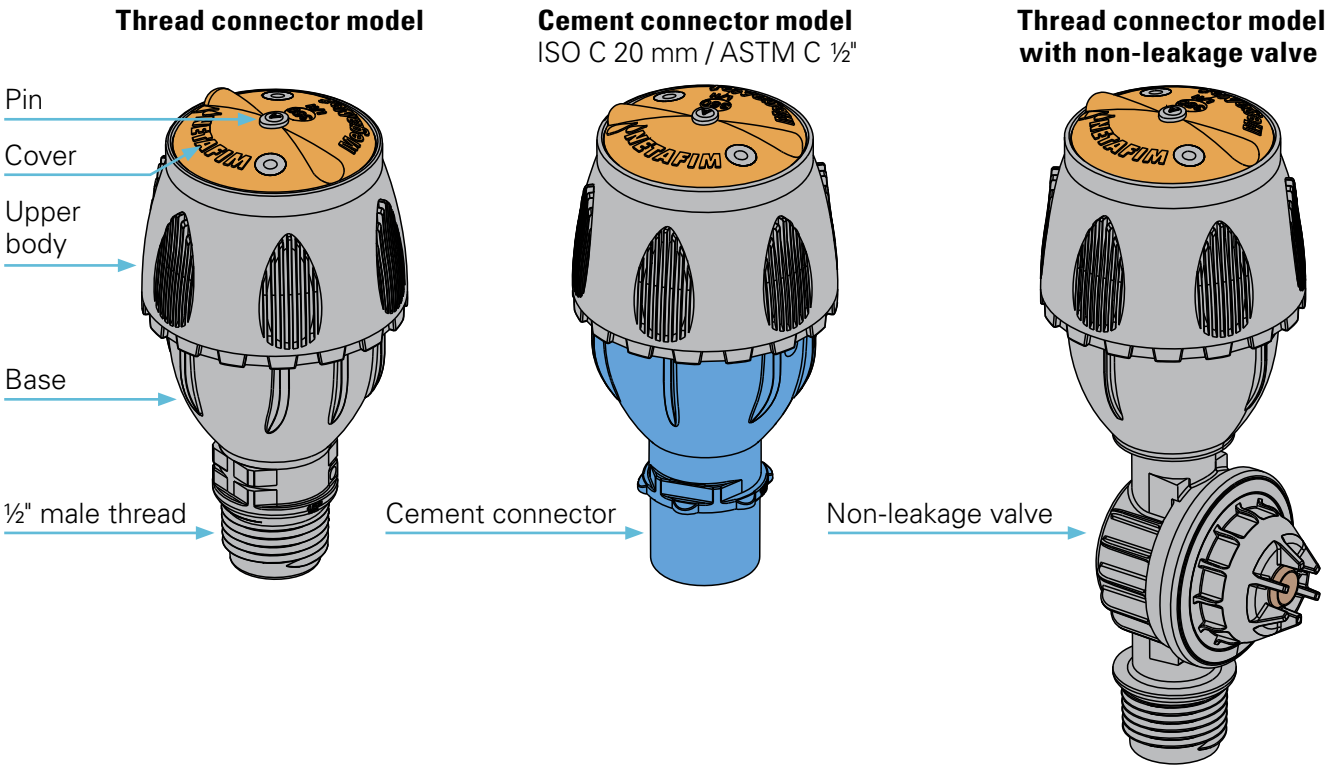
WARNING
In an agricultural environment - always wear protective footwear.



CAUTION
When opening or closing any manual valve, always do so gradually, to prevent damage to the system by water hammer.

MEGANET™ ROTATING IMPACT SPRINKLER

Description



Applications

High water trajectory angle - 24D - for vegetables and open field crops, open field nurseries, crops germination, frost mitigation, cooling fruit orchards and roof dust cleaning.

Low water trajectory angle - 15D - for under-tree irrigation and shade/net houses.

Features and benefits

Ensures high and uniform yield

- The MegaNet™ has a symmetrical structure that splits the water into two equal jets. That contributes to the balanced of the sprinkler, providing very high water distribution uniformity.

Increased germination percentage

- Thanks to the gentle water jet, and relatively small drops near the ground, the MegaNet™ does not groove the soil along the whole irrigation event (including startup and shut off), which prevents the seeds from being exposed - out of the soil.

Reduced maintenance cost

- The MegaNet™ has a popup mechanism that opens only during irrigation, this mechanism protects the nozzle and protects the sprinkler's moving parts by preventing insects and dirt particles from getting inside the sprinkler.
- Each MegaNet™ sprinkler has an integral filter that ensures clean water inside the nozzle. In addition, this filter can be easily cleaned if needed.
- Extended product life achieved by superior raw material composition resistant the chemicals, fertilizers, and exposure to sunlight.

MEGANET™ ROTATING IMPACT SPRINKLER

Specifications

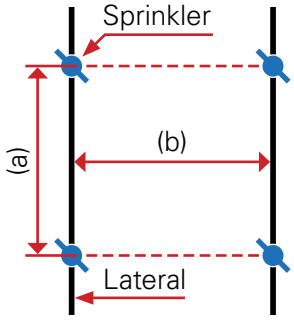
- 7 different nominal flow rates: 200, 250, 350, 450, 550, 650, 750 l/h.
  Nominal flow rates at 2.3 bar pressure.
- Recommended working pressure: 2.0 to 3.0 bar (at the sprinkler head).
- Can be installed on solid sets or in removable field stands.
- Made of UV-protected materials, durable to all climate conditions and nutrients injected in agricultural applications
- 2 types of water trajectory:
  - High, 24 degrees
  - Low, 15 degrees
- Inlet connector:
  - 1/2" Threaded inlet connector
  - 20 MM ISO inlet connector (to be glued to PVC)
  - 1/2" ASTM inlet connector (to be glued to PVC)
- Code-colored locking pins and caps for easy identification.
- 2 balanced water jets.
- Individual filter in each sprinkler.
- MegaNet™ sprinklers meet ISO 8026 standards (SI 1406) with production certified by the Israel Standards Institute (SII).
- Recommended filtration: 400 micron / 40 mesh.
  Selection of the filtration method should be based on the kind and concentration of dirt particles in the water.

ATTENTION

- For water containing over 2 ppm of sand, a hydrocyclone sand separator must be installed upstream from the main filter.
- For water containing over 100 ppm of sand/silt/clay solids, pretreatment must be performed according to the instructions of the Netafim™ expert team.

TECHNICAL DATA

Performance



Rectangular spacing

MegaNet™ 15D Water trajectory angle: 15 degrees. Pin color code: Gray

Nozzle size (mm)	Color code	Working pressure (bar)	Flow rate (l/h)	Wetted diameter* (m)	Spacing - rectangular (m x m)						
					7 x 8	8 x 8	9 x 8	10 x 8	9 x 9	9 x 10	10 x 10
					Precipitation rate (mm/h)						
2.44	Green	2.5	362	14	6.4	5.6	5.0	4.5	4.4	4.0	3.6
		3.0	396		7.1	6.2	5.5	5.0	4.9	4.4	4.0
2.79	Blue	2.5	461	16	8.3	7.2	6.4	5.8	5.7	5.1	4.6
		3.0	505		9.0	7.9	7.0	6.3	6.2	5.6	5.0
3.08	Brown	2.5	553	16	9.9	8.6	7.7	6.9	6.8	6.1	5.5
		3.0	605		10.8	9.5	8.4	7.6	7.5	6.7	6.1
3.37	Orange	2.5	678	16	12.1	10.6	9.4	8.5	8.4	7.5	6.8
		3.0	743		13.3	11.6	10.3	9.3	9.2	8.3	7.4
3.68	Red	2.5	785	17	14.0	12.3	10.9	9.8	9.7	8.7	7.9
		3.0	860		15.3	13.4	11.9	10.7	10.6	9.5	8.6

* Performance table prepared under laboratory conditions, sprinkler head 0.5 meter above ground. At least 0.5 mm/h.

MegaNet™ 24D Water trajectory angle: 24 degrees. Pin color code: Black

Nozzle size (mm)	Color code	Working pressure (bar)	Flow rate (l/h)	Wetted diameter* (m)	Spacing - rectangular (m x m)						
					7 x 8	8 x 8	8 x 10	9 x 9	10 x 10	10 x 11	10 x 12
					Precipitation rate (mm/h)						
1.85	Yellow	2.5	210	11	3.6	3.3					
		3.0	230		3.8	3.6					
2.06	Purple	2.5	258	12	4.4	4.0					
		3.0	283		4.8	4.4					
2.44	Green	2.5	362	14	5.9	5.6	4.5	4.4	3.6		
		3.0	396		6.5	6.2	5.0	4.9	4.0		
2.79	Blue	2.5	461	17	8.1	7.2	5.8	5.7	4.6	4.2	3.9
		3.0	505		8.7	7.9	6.3	6.2	5.0	4.6	4.2
3.08	Brown	2.5	553	18	10.0	8.6	6.9	7.2	5.5	5.0	4.6
		3.0	605		10.1	9.5	7.6	7.5	6.1	5.5	5.1
3.37	Orange	2.5	678	18	11.5	10.6	8.5	8.4	6.8	6.2	5.7
		3.0	743		12.3	11.6	9.3	9.2	7.4	6.8	6.2
3.68	Red	2.5	785	18	13.4	12.3	9.8	9.7	7.9	7.1	6.6
		3.0	860	19	15.0	13.4	10.7	10.6	8.6	7.8	7.2

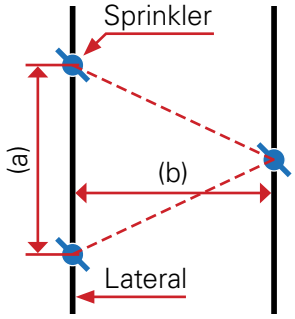
* Performance table prepared under laboratory conditions, sprinkler head 1.0 meter above ground. At least 0.5 mm/h.

%CU	≥ 92%	≥ 88% and < 92%	≥ 86% and < 88%	< 86%

* Nominal flow rate at 2.3 bar working pressure.
**Sprinkler height above ground: 15D = 0.5 m, 24D = 1.0 m. At least 0.5 mm/h.

TECHNICAL DATA

Performance (cont'd)



Triangular spacing - isosceles**

MegaNet™ 15D Water trajectory angle: 15 degrees. Pin color code: Gray

Nozzle size (mm)	Color code	Working pressure (bar)	Flow rate (l/h)	Wetted diameter* (m)	Spacing - triangular (m x m)						
					7 x 8	8 x 8	9 x 8	10 x 8	9 x 9	9 x 10	10 x 10
					Precipitation rate (mm/h)						
2.44	Green	2.5	362	14	6.4	5.6	5.0	4.5	4.4	4.0	3.6
		3.0	396		7.1	6.2	5.5	5.0	4.9	4.4	4.0
2.79	Blue	2.5	461	16	8.3	7.2	6.4	5.8	5.7	5.1	4.6
		3.0	505		9.0	7.9	7.0	6.3	6.2	5.6	5.0
3.08	Brown	2.5	553	16	9.9	8.6	7.7	6.9	6.8	6.1	5.5
		3.0	605		10.8	9.5	8.4	7.6	7.5	6.7	6.1
3.37	Orange	2.5	678	16	12.1	10.6	9.4				
		3.0	743		13.3	11.6	10.3				
3.68	Red	2.5	785	17	14.0	12.3	10.9	9.8	9.7	8.7	
		3.0	860		15.3	13.4	11.9	10.7	10.6	9.5	

* Performance table prepared under laboratory conditions, sprinkler head 0.5 meter above ground. At least 0.5 mm/h.

MegaNet™ 24D Water trajectory angle: 24 degrees. Pin color code: Black

Nozzle size (mm)	Color code	Working pressure (bar)	Flow rate (l/h)	Wetted diameter* (m)	Spacing - triangular (m x m)						
					7 x 8	8 x 8	8 x 10	9 x 9	10 x 10	10 x 11	10 x 12
					Precipitation rate (mm/h)						
1.85	Yellow	2.5	210	11	3.6	3.3					
		3.0	230		3.8	3.6					
2.06	Purple	2.5	258	12	4.4	4.0					
		3.0	283		4.8	4.4					
2.44	Green	2.5	362	14	5.9	5.6	4.5	4.4	3.6		
		3.0	396		6.5	6.2	5.0	4.9	4.0		
2.79	Blue	2.5	461	17	8.1	7.2	5.8	5.7	4.6	4.2	3.9
		3.0	505		8.7	7.9	6.3	6.2	5.0	4.6	4.2
3.08	Brown	2.5	553	18	10.0	8.6	6.9	7.2	5.5	5.0	4.6
		3.0	605		10.1	9.5	7.6	7.5	6.1	5.5	5.1
3.37	Orange	2.5	678	18	11.5	10.6	8.5	8.4	6.8	6.2	5.7
		3.0	743		12.3	11.6	9.3	9.2	7.4	6.8	6.2
3.68	Red	2.5	785	18	13.4	12.3	9.8	9.7	7.9	7.1	6.6
		3.0	860	19	15.0	13.4	10.7	10.6	8.6	7.8	7.2

* Performance table prepared under laboratory conditions, sprinkler head 1.0 meter above ground. At least 0.5 mm/h.

%CU	≥ 92%	≥ 88% and < 92%	≥ 86% and < 88%	< 86%

**Do not confound isosceles with equilateral:

- An isosceles triangle is a triangle in which two sides are of equal length. The distance between 2 adjacent sprinklers on the same lateral (a) is not equal to the distance between 2 sprinklers on adjacent laterals. The height of the triangle represents the distance between adjacent laterals (b). Isosceles is usually referred to in open-field applications.
- An equilateral triangle is a triangle in which all three sides are equal. The distance between 2 adjacent sprinklers on the same lateral is equal to the distance between 2 sprinklers on adjacent laterals. Equilateral is occasionally referred to in orchards due to the tree planting pattern.

TECHNICAL DATA

Max. lateral length - 10% flow variation

Inlet pressure: 3.0 bar

Lateral: PE 32 mm ID: 27.2 mm

Nominal flow rate: 200 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	102	112	120	126	140
	1%	108	119	128	144	150
Flat terrain	0	120	133	144	153	170
Downhill	-1%	126	140	152	171	180
	-2%	132	147	160	180	190

Nominal flow rate: 250 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	90	98	112	117	120
	1%	96	105	120	126	130
Flat terrain	0	102	119	128	135	150
Downhill	-1%	108	126	136	144	160
	-2%	114	126	144	153	170

Nominal flow rate: 350 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	78	84	88	99	100
	1%	84	91	96	108	110
Flat terrain	0	84	98	104	108	120
Downhill	-1%	90	98	112	117	130
	-2%	96	105	112	126	130

Nominal flow rate: 450 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	66	77	80	90	90
	1%	72	77	88	90	100
Flat terrain	0	72	84	88	99	100
Downhill	-1%	78	84	96	99	110
	-2%	78	91	96	108	120

Nominal flow rate: 550 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	60	70	72	81	80
	1%	66	70	80	81	90
Flat terrain	0	66	77	80	90	90
Downhill	-1%	72	77	88	90	100
	-2%	72	77	88	99	100

Nominal flow rate: 650 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	54	63	64	72	80
	1%	60	63	72	72	80
Flat terrain	0	60	63	72	81	80
Downhill	-1%	60	70	72	81	90
	-2%	60	70	80	81	90

Nominal flow rate: 750 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	54	56	64	63	70
	1%	54	56	64	72	70
Flat terrain	0	54	63	64	72	80
Downhill	-1%	54	63	72	72	80
	-2%	60	63	72	81	80

Lateral: PE 40 mm ID: 36.8 mm

Nominal flow rate: 200 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	150	161	176	180	190
	1%	174	189	200	216	230
Flat terrain	0	198	217	240	252	270
Downhill	-1%	216	238	264	288	310
	-2%	234	259	288	315	340

Nominal flow rate: 250 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	138	147	160	171	180
	1%	156	168	184	198	210
Flat terrain	0	174	189	208	225	240
Downhill	-1%	186	210	232	252	270
	-2%	204	224	248	270	290

Nominal flow rate: 350 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	120	126	136	144	150
	1%	126	140	152	162	170
Flat terrain	0	138	154	168	180	200
Downhill	-1%	150	168	184	198	220
	-2%	162	175	200	216	230

Nominal flow rate: 450 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	102	112	120	126	140
	1%	114	126	136	144	150
Flat terrain	0	120	133	144	162	170
Downhill	-1%	126	140	160	171	180
	-2%	138	154	168	180	200

Nominal flow rate: 550 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	96	105	112	117	130
	1%	102	112	120	126	140
Flat terrain	0	108	119	128	144	150
Downhill	-1%	114	126	144	153	160
	-2%	120	133	144	162	170

Nominal flow rate: 650 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	84	91	104	108	110
	1%	90	98	112	117	120
Flat terrain	0	96	105	120	126	130
Downhill	-1%	102	112	120	135	140
	-2%	108	119	128	144	150

Nominal flow rate: 750 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	78	84	96	99	110
	1%	84	91	96	108	110
Flat terrain	0	90	98	104	117	120
Downhill	-1%	90	105	112	126	130
	-2%	96	105	120	126	140

*Nominal flow rate at 2.3 bar working pressure.

TECHNICAL DATA

Max. lateral length - 10% flow variation (cont'd)

Inlet pressure: 3.0 bar

Lateral: PE 50 mm ID: 45.4 mm

Nominal flow rate: 200 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	192	203	216	225	230
	1%	234	252	272	288	300
Flat terrain	0	282	308	336	360	390
Downhill	-1%	318	357	392	423	460
	-2%	348	392	432	477	520

Nominal flow rate: 250 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	174	189	200	207	220
	1%	210	224	240	261	270
Flat terrain	0	246	273	296	315	340
Downhill	-1%	276	308	336	369	400
	-2%	300	336	376	405	440

Nominal flow rate: 350 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	150	161	176	180	190
	1%	174	189	208	216	230
Flat terrain	0	198	217	240	261	280
Downhill	-1%	222	245	272	297	320
	-2%	234	266	296	324	350

Nominal flow rate: 450 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	138	147	160	171	180
	1%	156	168	184	189	210
Flat terrain	0	174	189	208	225	240
Downhill	-1%	186	210	232	252	270
	-2%	198	224	248	270	290

Nominal flow rate: 550 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	126	133	144	153	160
	1%	138	154	168	180	190
Flat terrain	0	156	168	184	198	210
Downhill	-1%	168	182	200	216	240
	-2%	174	196	216	234	260

Nominal flow rate: 650 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	114	126	136	144	150
	1%	126	133	144	162	170
Flat terrain	0	138	147	160	180	190
Downhill	-1%	144	161	176	189	210
	-2%	156	168	192	207	220

Nominal flow rate: 750 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	108	112	120	135	140
	1%	114	126	136	144	160
Flat terrain	0	126	140	152	162	170
Downhill	-1%	132	147	160	171	190
	-2%	138	154	168	189	200

Lateral: FlexNet™ 2" ID: 50.4 mm

Nominal flow rate: 200 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	210	224	232	243	250
	1%	264	287	304	324	340
Flat terrain	0	336	371	400	432	460
Downhill	-1%	390	434	480	522	560
	-2%	432	483	536	585	640

Nominal flow rate: 250 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	198	210	216	225	230
	1%	240	259	280	297	310
Flat terrain	0	294	322	352	378	410
Downhill	-1%	336	378	416	450	490
	-2%	372	413	464	504	550

Nominal flow rate: 350 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	174	182	192	207	210
	1%	204	224	240	252	270
Flat terrain	0	240	259	288	306	330
Downhill	-1%	264	294	328	360	380
	-2%	288	322	360	396	430

Nominal flow rate: 450 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	156	168	176	189	200
	1%	180	196	208	225	240
Flat terrain	0	204	224	248	270	280
Downhill	-1%	228	252	280	297	320
	-2%	246	273	304	333	360

Nominal flow rate: 550 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	144	154	168	171	180
	1%	162	175	192	207	220
Flat terrain	0	180	203	216	234	250
Downhill	-1%	198	224	248	270	290
	-2%	216	238	264	288	310

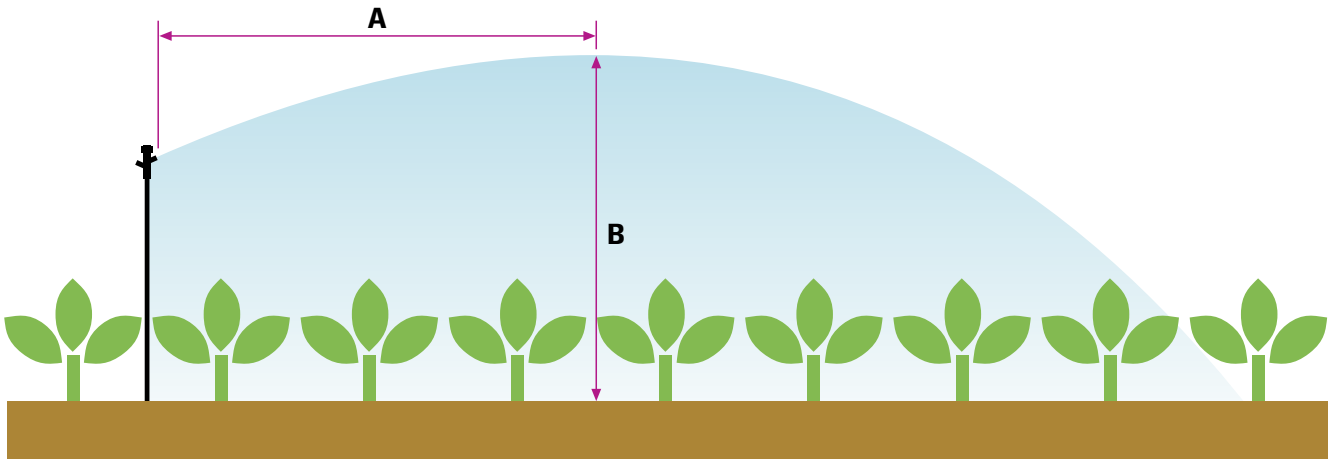
Nominal flow rate: 650 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	132	140	152	162	170
	1%	144	161	168	180	190
Flat terrain	0	162	175	192	207	220
Downhill	-1%	174	196	216	234	250
	-2%	186	210	232	252	270

Nominal flow rate: 750 l/h*	Slope	Distance between sprinklers (m)				
		6	7	8	9	10
		Max. lateral length (m)				
Uphill	2%	120	133	144	153	160
	1%	132	147	160	171	180
Flat terrain	0	150	161	176	189	210
Downhill	-1%	156	175	192	207	230
	-2%	168	189	208	225	240

*Nominal flow rate at 2.3 bar working pressure.

TECHNICAL DATA

Sprinkler water trajectory



A. Distance - Distance of max. trajectory height from sprinkler nozzle.
B. height - Elevation of max. trajectory height above ground.

Trajectory height above sprinkler nozzle

The maximum trajectory height above the sprinkler nozzle is relevant in the following cases:

- When sprinklers are used under the canopy to prevent wetting the foliage.
- When sprinklers are used in a net-house or inside a roofed structure such as a glasshouse, to prevent wetting the net or the ceiling.

Flow rate* (l/h)	Nozzle size (mm)	Color code	MegaNet™ 15D Water trajectory angle: 15 degrees Pin color code: Gray		MegaNet™ 24D Water trajectory angle: 24 degrees Pin color code: Black	
			Height (m)	Distance from head (m)	Height (m)	Distance from head (m)
200	1.85	Yellow	1.00	4.75	1.42	4.88
250	2.06	Purple				
350	2.44	Green				
450	2.79	Blue	1.11	5.13	1.61	5.47
550	3.08	Brown				
650	3.37	Orange				
750	3.68	Red				

* Nominal flow rate at 2.3 bar working pressure.

Head loss in riser tube

Riser tube: OD 12.0 mm, ID 9.0 mm

Flow rate* (l/h)	Riser tube length (m)
	1.2
	Head loss (bar)
200	0.017
250	0.025
350	0.045
450	0.070
550	0.100
650	0.134
750	0.172

Riser tube: OD ½", ID 15.0 mm

Flow rate* (l/h)	Riser tube length (m)		
	0.4	0.8	1.2
	Head loss (bar)		
200	0.000	0.001	0.001
250	0.001	0.001	0.002
350	0.001	0.003	0.004
450	0.002	0.004	0.006
550	0.003	0.006	0.009
650	0.004	0.008	0.012
750	0.005	0.010	0.015

Riser tube: OD ¾", ID 20.5 mm

Flow rate* (l/h)	Riser tube length (m)		
	0.4	0.8	1.2
	Head loss (bar)		
200	0.000	0.000	0.000
250	0.000	0.000	0.000
350	0.000	0.001	0.001
450	0.000	0.001	0.001
550	0.001	0.001	0.002
650	0.001	0.002	0.003
750	0.001	0.002	0.003

INSTALLATION

Introduction

CAUTION
Assembly must be done gently. Do not overtighten or use excessive force.

Tools required

- 20 mm spanner
- 30 mm spanner

Various installation configurations

Netafim™ sprinklers can be installed at a convenient height in different configurations, to suit the needs of various crops and field conditions.

Among the various installation options:

- **Mega Stand™** - a ½" diameter robust and durable modular sprinkler stand suitable for a variety of agriculture and mining irrigation applications.
- **IMP SPR stand™** - a ½" diameter stand, satisfactorily used by farmers all over the globe for many years. It became a classic in open field and orchard irrigation due to its durability, simplicity and versatility. It can accommodate any type of ½" sprinkler.
- **Solid set** - Netafim™ offers a comprehensive range of sockets and reducer couplings dedicated to the proper connection of sprinklers to solid-set riser pipes (PVC or other rigid pipes). Usage of these accessories ensures appropriate, safe operation and longevity of the sprinklers.

See the installation manual for each one of the above installation options at
http://www.netafim.com/irrigation-products-technical-materials

MAINTENANCE

To assure proper operation of the sprinkler, a simple inspection and maintenance procedure should be carried out regularly.

Rinsing the filter

Frequency: Before the beginning of each growing season or in case one the following symptoms occurs:

- The sprinkler doesn't emit water.
- The flow of water emitted is low.

Action:

1. Open the sprinkler by unscrewing the upper body of the sprinkler from its base.

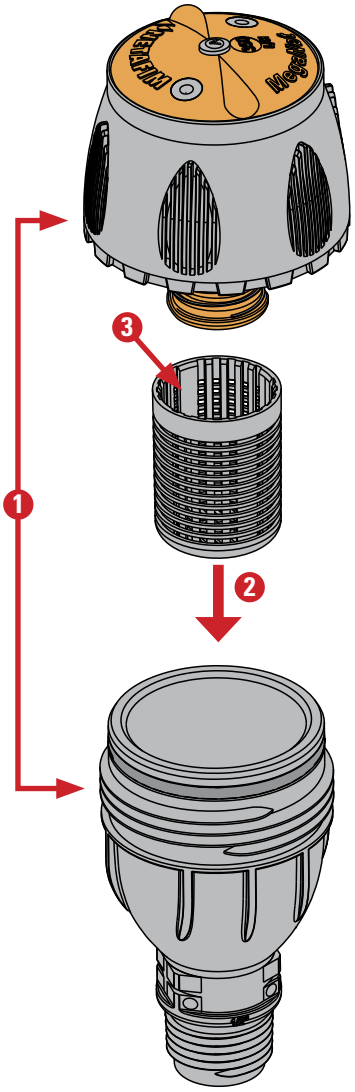
2. Detach the filter by pulling it down.

3. Clean the filter from the inside with a water jet or pressurized air.

4. Put the filter back in place.

CAUTION
Never operate the sprinkler without the filter.
Failure to comply with this instruction will clog the sprinkler, and may damage it and void the warranty.

5. Reassemble the sprinkler.



MAINTENANCE

Checking the turbine and the cover

Frequency: Before the beginning of each growing season

Action:

1. Open the sprinkler by unscrewing the upper body of the sprinkler from its base.

2. Detach the filter by pulling it down.

3. Remove the pin by pulling it up with your fingernail or with a small screwdriver.

CAUTION
Be sure not to lose the pin. It is esential to the operation of the sprinkler. Aside from indicating the sprinkler trajectory angle it also serves to hold the cover and the turbine in place.

4. Push the sprinkler's top mechanism up and hold it.

5. Remove the colored cover by pulling it up.

6. Remove the turbine by pulling it up.

7. Visually check the 2 black tabs on the underside of the colored cover for wear.

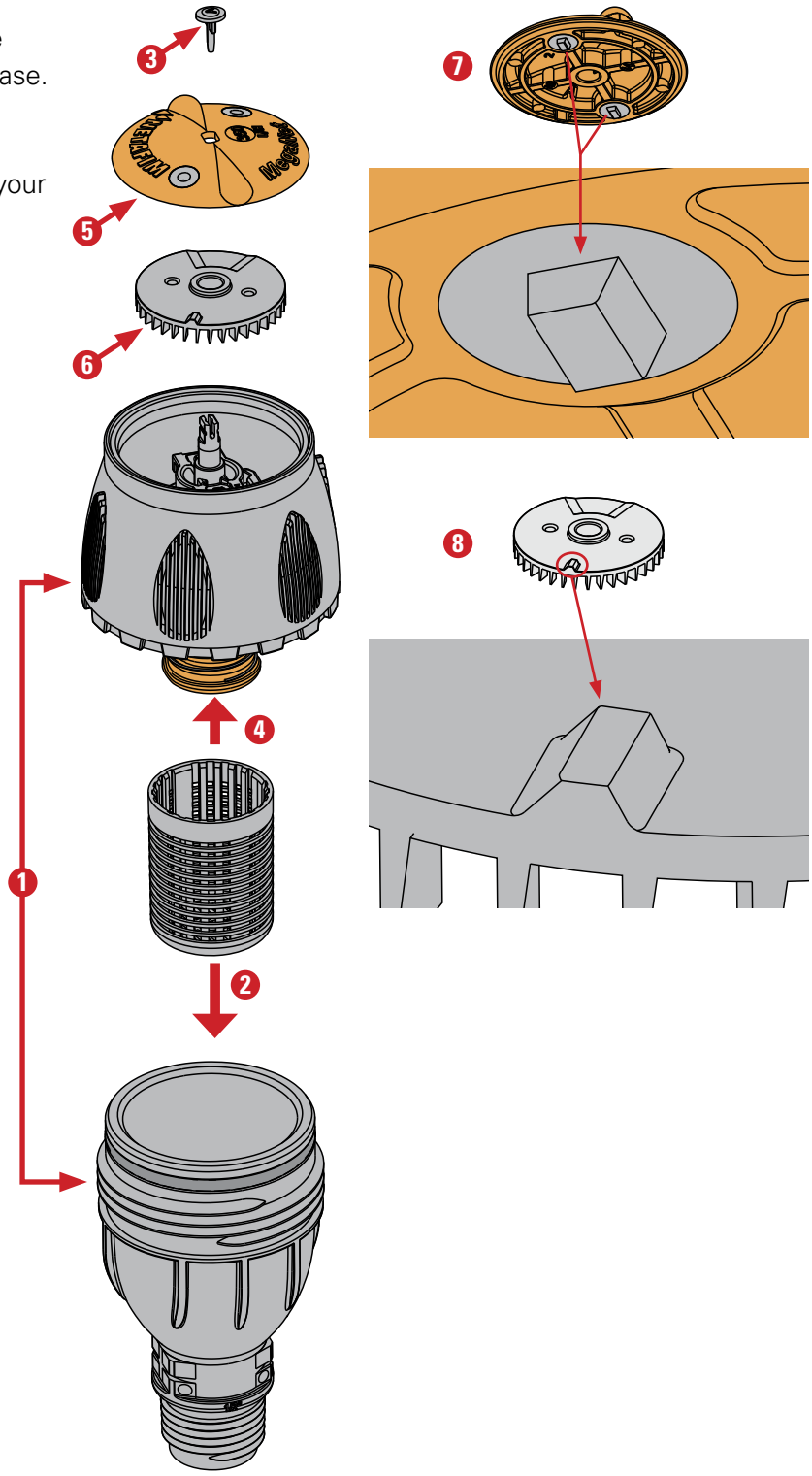
8. Visually check the tab on the top side of the turbine for wear.

If any of them is worn, replace both parts - the cover and the turbine.

9. Put the filter back in place.

10. Reassemble the sprinkler.

CAUTION
Do not forget to put the pin back in place. It is esential to the operation of the sprinkler.



NOTE
It is recommended to replace the cover and the turbine every 2000 irrigation hours.

MAINTENANCE

Cleaning the nozzle

CAUTION
Never operate the sprinkler without the filter.
Failure to comply with this instruction will clog the sprinkler, and may damage it and void the warranty.

If the above instruction is followed, the sprinkler nozzle should never get clogged.

In the event that the sprinkler has been operated without the filter in place, it is possible to clean the nozzle.

Follow the instructions below:

NOTE
The drawings below present the sprinkler's upper body without the pin, the colored cover and the turbine, to show the actions described. In practice, these 3 parts are connected to the top of the diverter throughout the dismantling and reassembling process, and do not interfere with it.

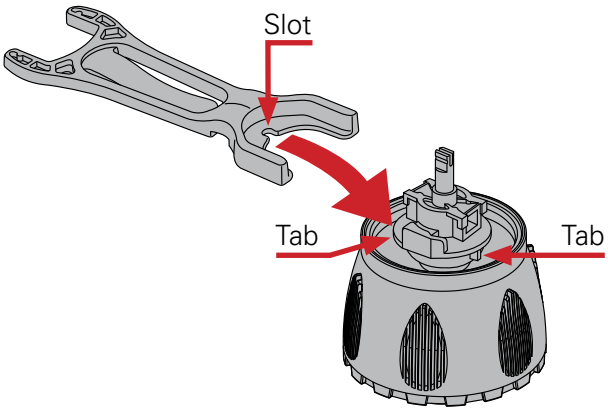
NOTE
2 service keys are supplied with each box of MegaNet™ sprinklers. Additional service keys can be ordered separately (Cat. No. 63620-004500).

1. Open the sprinkler by unscrewing the upper body of the sprinkler from its base (see page 21, step 1).

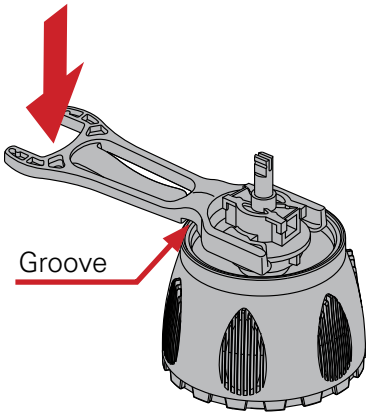
2. Push the sprinkler's top mechanism up and hold it (see page 21, step 4).

3. Insert the slotted end of a service key underneath the diverter holder.

ATTENTION
There are 2 opposing tabs on the underside of the diverter holder. Make sure that the slot of the service key holds one of the tabs.

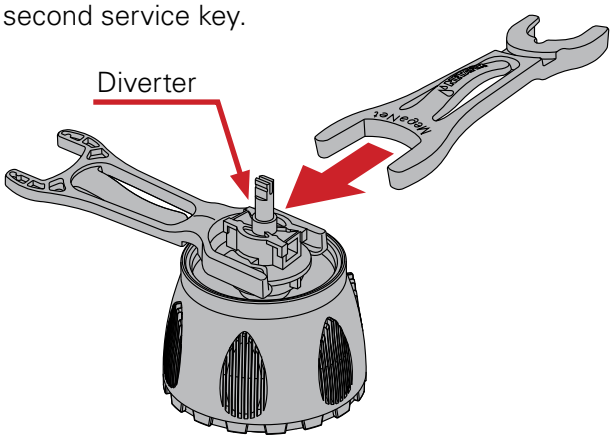


4. Push the far end of the service key down to the horizontal position with the groove underneath the key resting on the rim of the sprinkler's upper body. In this position, the service key should hold in place.

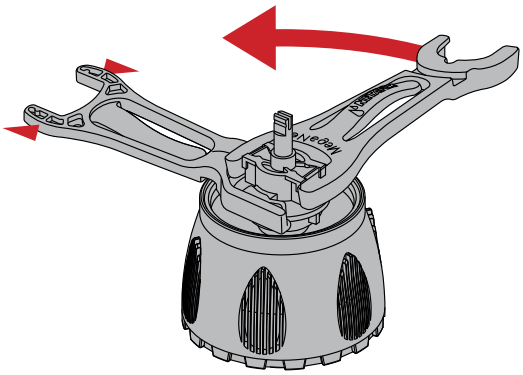


MAINTENANCE

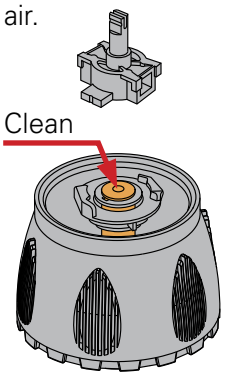
5. Release the diverter using the other end of the second service key.



Hold the first service key in place and turn the second service key counterclockwise to release the diverter.



6. Clean the nozzle from the top with a water jet or pressurized air.



7. To reassemble the sprinkler perform the steps above in reverse order.
When putting the diverter back in place, turn the key clockwise until the diverter snaps in place. A click should be heard.

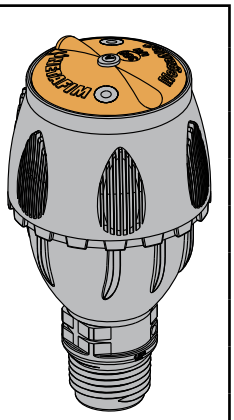
CAUTION
When reassembling the sprinkler, do not forget to put the filter in place to avoid clogging the nozzle in the future.

PARTS AND COMPLEMENTARY PRODUCTS

Parts

MegaNet™ - ½" threaded inlet connector, head only

Flow rate* (l/h)	Nozzle size (mm)	Color code	Catalog number	
			24D	15D
200	1.85	Yellow	63600-001700	63600-004900
250	2.06	Purple	63600-001750	63600-004950
350	2.44	Green	63600-001000	63600-005000
450	2.79	Blue	63600-002000	63600-006000
550	3.08	Brown	63600-003000	63600-007000
650	3.37	Orange	63600-004000	63600-008000
750	3.68	Red	63600-004500	63600-009000

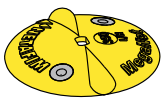
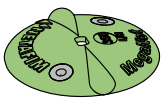
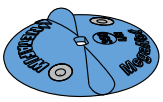
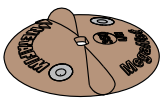
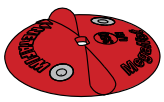


* Nominal flow rate at 2.3 bar working pressure.

Packaging data

MegaNet™	Units p/box	Box size (cm)	Box weight (Kg)	Boxes p/pallet	Total units p/pallet	Pallet weight (Kg)
Head only	200	18 x 34 x 79	11.0	20	4000	232

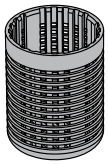
MegaNet™ cover

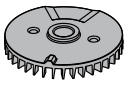
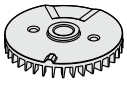
Flow rate* (l/h)	200	250	350	450	550	650	750
Color code	Yellow 	Purple 	Green 	Blue 	Brown 	Orange 	Red 
Catalog number	63620-004850	63620-004900	63620-005000	63620-005100	63620-005200	63620-005300	63620-005400

* Nominal flow rate at 2.3 bar working pressure.

MegaNet™ parts

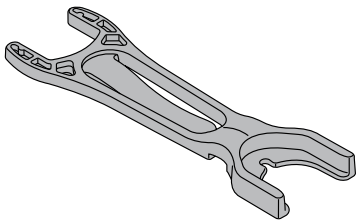
Part description	Catalog number
Pin for 24D (black) 	63600-001750
Pin for 15D (grey) 	63600-004950

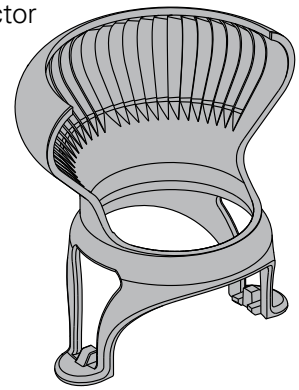
Part description	Catalog number
Filter 	63620-004400

Part description	Catalog number
Turbine (black) for 24D models with flow rates 200-350 l/h 	63600-002000
Turbine (grey) for all 15D models and 24D models with flow rates 450-750 l/h 	63600-006000

PARTS AND COMPLEMENTARY PRODUCTS

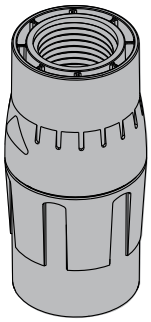
MegaNet™ accessories

Product description	Service key 
Catalog number	63620-004500

Product description	Road protector 
Catalog number	63620-007000

Complementary products

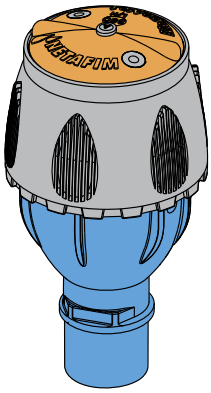
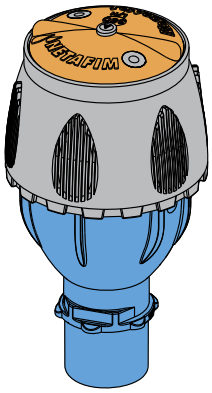
Pressure regulator

Product description	In-line pressure regulator, ¾" female - ½" female. 2.5 bar nominal outlet pressure. 
Catalog number	31000-002200

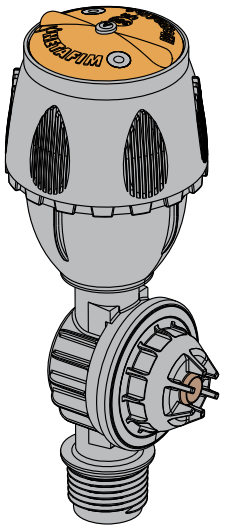
PARTS AND COMPLEMENTARY PRODUCTS

Models for specific uses, head only

Special model for cement connection (blue base)

Product description			20 mm ISO inlet connector 		½" ASTM inlet connector 	
Flow rate* (l/h)	**Nozzle size (mm)**	**Color code**	**Catalog number**		**Catalog number**	
			24D	**15D**	**24D**	**15D**
200	1.85	Yellow	**	**	**	**
250	2.06	Purple	**	**	**	**
350	2.44	Green	**	**	**	**
450	2.79	Blue	**	63600-010100	**	63600-010500
550	3.08	Brown	**	63600-010200	**	63600-010600
650	3.37	Orange	**	**	**	**
750	3.68	Red	**	**	**	**

Special model with anti-drain valve

Product description			½" threaded inlet connector + AD 	
Flow rate* (l/h)	**Nozzle size (mm)**	**Color code**	**Catalog number**	
			24D	**15D**
200	1.85	Yellow	63600-001720	**
250	2.06	Purple	**	**
350	2.44	Green	63600-001900	**
450	2.79	Blue	63600-002010	63600-005010
550	3.08	Brown	63600-003010	63600-006010
650	3.37	Orange	63600-004010	**
750	3.68	Red	63600-004510	**

* Nominal flow rate at 2.3 bar working pressure.
**Missing catalog numbers available upon request.

APPENDIX 1: SPECIAL APPLICATIONS

Special model for cement connection (blue base)

Can be cemented to the end of a PVC riser tube in solid set installations. Effective for theft prevention.

2 types are available:

- ISO C 20 mm
- ASTM C ½"

Cementing to a ½" (or 20 mm) PVC pipe

NOTE
Read and understand all the instructions before performing this procedure.

1. Use WELD-ON 717 PVC cement and P68 primer or their equivalents.

2. Trim the application brush to the desired shape.

3. Dip the application brush in the P68 primer. Squeeze the brush to remove excess solvent.

4. Using the brush, clean the inner surface of the socket with the primer.

5. Using the brush, clean the outer surface of the sprinkler housing with the primer.

6. Wait 60 seconds for the primer to dry befor applying the cement and then neatly apply the cement to the outer surface of the sprinkler housing.

7. Apply the cement to the cylindrical part of the sprinkler housing below the circular rib.

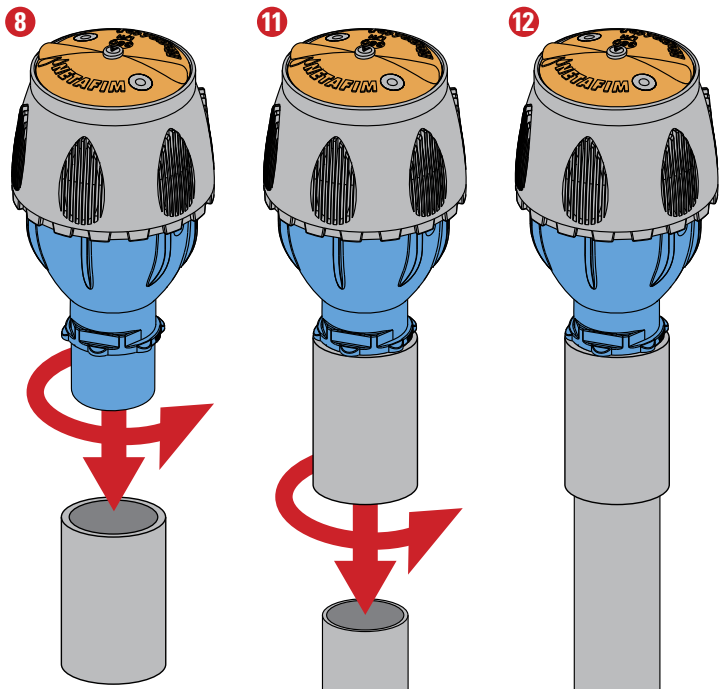
8. Insert the sprinkler housing into the socket in a rotational motion (1/4 turn) to spread the cement over the entire surface. Make sure the sprinkler is fully inserted into the socket.

9. Hold the sprinkler and socket together for about 30 seconds to make sure they are firmly connected.

10. Remove any excess cement with a dry cloth.

11. Repeat all the steps above when cementing the socket to the riser tube.

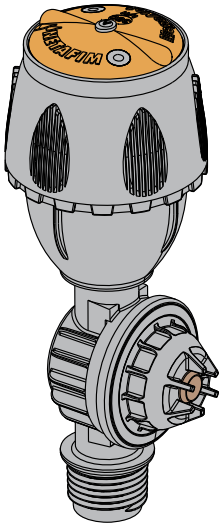
12. Wait at least 6 hours for the cement to fully solidify before running water through the sprinkler.



APPENDIX 1: SPECIAL APPLICATIONS

Special model with anti-drain valve

For use in slopped fields in order to prevent drainage of the distribution pipe and possible over-saturation of the soil, unwanted puddles or landslide.



Features and benefits

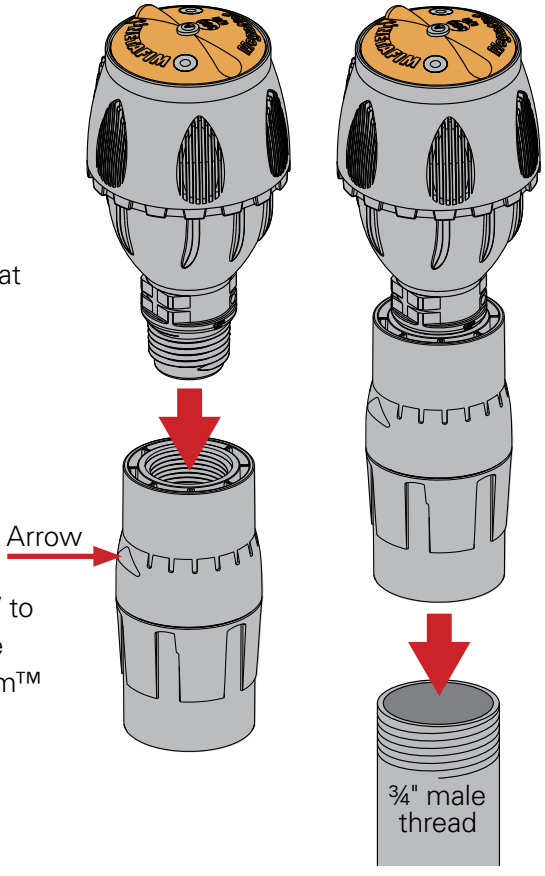
- Automatic end-of-irrigation shut-off valve.
- Prevents water backflow or drainage of the system into low areas.
- Eliminates the need for system water refill at the beginning of the next irrigation cycle.
- Shut-off pressure: 0.6 bar

Installation

The installation process of this model is similar to that of the regular model (see pages 10-19).
Screwing and tightening of the sprinkler can be done by hand. The use of a 20 mm spanner is not necessary.

Adding a PRV (pressure regulating valve)

Install a PRV at the sprinkler inlet when a 100% flow rate and distribution uniformity is required.
The presented model is suitable for an exit pressure of 2.5 bar. For other exit pressure values, contact your local Netafim™ representative.



Installation

The installation process of the sprinkler and PRV is similar to that of installation on solid set riser pipes (see page 12).
Screwing and tightening of the PRV should be done by hand.

ATTENTION
Make sure the PRV is connected to the sprinkler with the arrow pointing towards the sprinkler (up).

NOTE
The PRV bottom thread is ¾" female. To connect the PRV to a riser with a thread that is not ¾" male, use an apropriate adapter/reducer from the vast selection offered by Netafim™ (see page 26 and at XXX).

APPENDIX 1: SPECIAL APPLICATIONS

Road protector

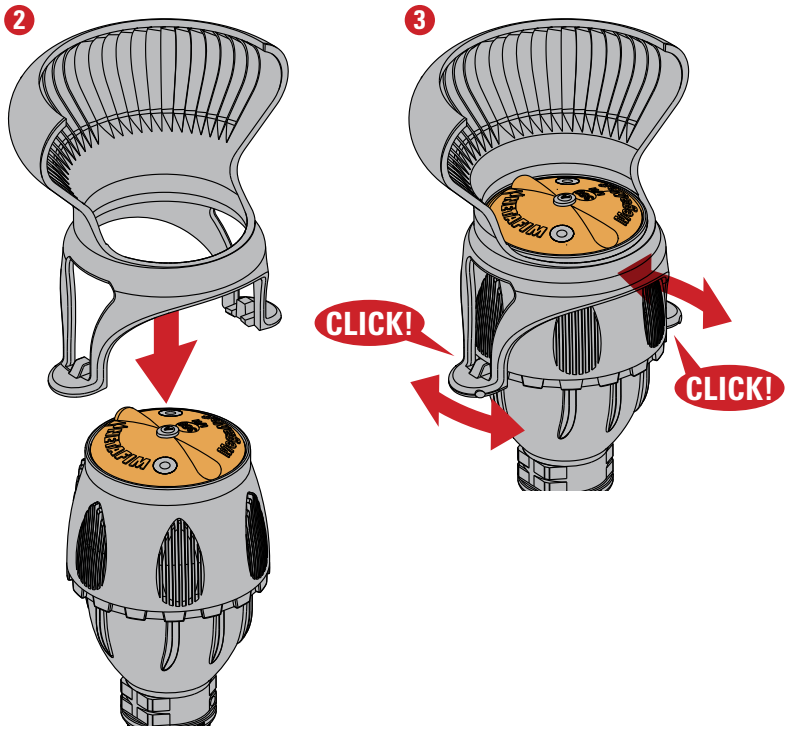
To avoid wetting the roads around the field, Netafim™ offers a road protector to be used on the sprinklers at the boundaries of the field.

Installing the road protector

1. Place the road protector on top of the sprinkler with its back side facing the road you want to protect from water.

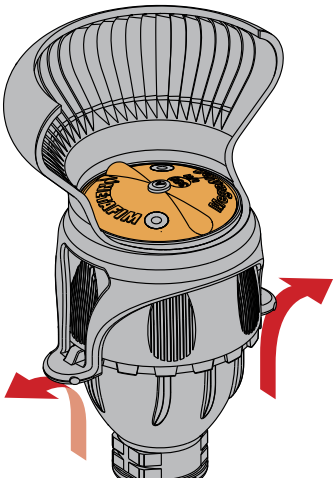
2. Push the road protector down onto the sprinkler head. Clicks should be heard.

3. Slightly rotate the road protector until more clicks are heard.



Removing the road protector

1. Push the 2 ears outwards and up to release the road protector from the sprinkler.



WARRANTY

Netafim™ warrants all the components of the MegaNet™ sprinkler to be free of substantial defects in material and workmanship for a period of 1 (one) year from the date of purchase.

If a defect is discovered during the applicable warranty period, Netafim™ will repair or replace, at its discretion, the product or the defective part.

This warranty does not extend to repairs or replacements of a MegaNet™ sprinkler or part resulting from misuse, negligence, alteration, force majeure, lightning, improper installation or improper maintenance, including any maltreatment of the MegaNet™ sprinkler or any part of the irrigation systems.

If a defect arises in your Netafim™ product during the warranty period, contact your Netafim™ supplier.

Limited warranty

This warranty is subject to the terms and conditions contained in Netafim's official warranty statement in force at the time of application.
For the full text of Netafim's official warranty statement, go to:
http://www.netafim.com/irrigation-products-technical-materials

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