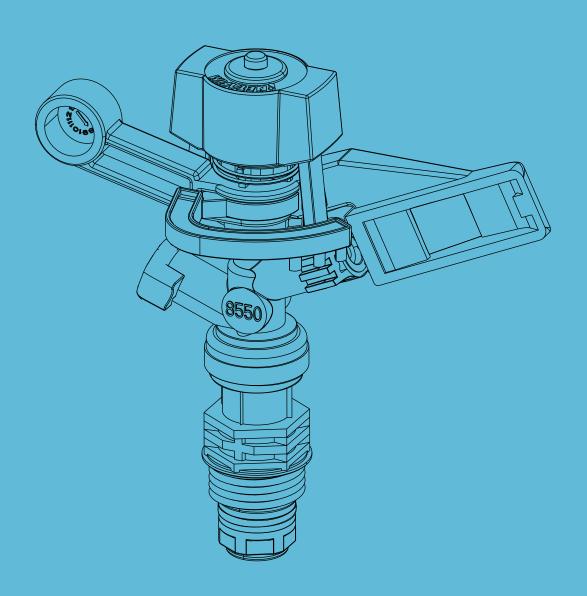
# D-Net 8550™ 3D ARM IMPACT SPRINKLER

**USER MANUAL** 





#### © COPYRIGHT 2016, NETAFIM™

NO PARTS OF THIS PUBLICATION MAY BE REPRODUCED, STORED IN AN AUTOMATED DATA FILE OR MADE PUBLIC IN ANY FORM OR BY ANY MEANS, WHETHER ELECTRONIC, MECHANICAL, BY PHOTOCOPYING, RECORDING OR IN ANY OTHER MANNER WITHOUT PRIOR WRITTEN PERMISSION OF THE PUBLISHER.

ALTHOUGH NETAFIM™ TAKES THE GREATEST POSSIBLE CARE IN DESIGNING AND PRODUCING BOTH ITS PRODUCTS AND THE ASSOCIATED DOCUMENTATION, THEY MAY STILL INCLUDE FAULTS.

NETAFIM™ WILL NOT ACCEPT RESPONSIBILITY FOR DAMAGE RESULTING FROM USE OF NETAFIM'S PRODUCTS OR USE OF THIS MANUAL.

NETAFIM™ RESERVES THE RIGHT TO MAKE CHANGES AND IMPROVEMENTS TO ITS PRODUCTS AND/OR THE ASSOCIATED DOCUMENTATION WITHOUT PRIOR NOTICE.



#### 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.

# CONTENTS

Use of symbols	Introduction	
Safety instructions  D-Net™ 8550 3D arm impact sprinkler  Description	Use of symbols	4
D-Net™ 8550 3D arm impact sprinkler  Description	Aim of this manual	4
Description	Safety instructions	4
Applications	D-Net™ 8550 3D arm impact sprinkler	
Features and benefits  Specifications  Technical data  Performance  Max. lateral length - 10% flow variation  Sprinkler water trajectory  Head loss in riser tube  Installation  Introduction  Various installation configurations  Maintenance  Rinsing the nozzles  Checking the white washer  Parts and complementary products  Parts  Parts  14  Tools  Technical data  Performance  10  Max. lateral length - 10% flow variation  8  10  11  12  13  14  14  15  16  17  18  18  19  19  19  10  10  10  10  11  11  11	Description	5
Specifications  Technical data  Performance 6  Max. lateral length - 10% flow variation 8  Sprinkler water trajectory 10  Head loss in riser tube 10  Installation Introduction 11  Various installation configurations 11  Maintenance Rinsing the nozzles 12  Checking the white washer 13  Parts and complementary products  Parts 14  Tools 14	Applications	5
Technical data  Performance 6  Max. lateral length - 10% flow variation 8  Sprinkler water trajectory 10  Head loss in riser tube 10  Installation Introduction 11  Various installation configurations 11  Maintenance  Rinsing the nozzles 12  Checking the white washer 13  Parts and complementary products  Parts 14  Tools 14	Features and benefits	5
Performance Max. lateral length - 10% flow variation Sprinkler water trajectory Head loss in riser tube  Installation Introduction Various installation configurations  Maintenance Rinsing the nozzles Checking the white washer  Parts and complementary products Parts Parts Tools  14	Specifications	5
Max. lateral length - 10% flow variation Sprinkler water trajectory 100 Head loss in riser tube 100 Installation Introduction 110 Various installation configurations 110  Maintenance Rinsing the nozzles 112 Checking the white washer 113  Parts and complementary products Parts 114 Tools 114	Technical data	
Sprinkler water trajectory Head loss in riser tube  Installation Introduction Introduction Various installation configurations  Maintenance Rinsing the nozzles Checking the white washer  Parts and complementary products Parts Tools  10  11  12  13  14  15  16  17  18  19  19  19  10  10  10  10  10  10  10	Performance	6
Head loss in riser tube 10  Installation Introduction 11 Various installation configurations 11  Maintenance Rinsing the nozzles 12 Checking the white washer 13  Parts and complementary products Parts 14 Tools 14	Max. lateral length - 10% flow variation	8
Installation Introduction	Sprinkler water trajectory	10
Introduction	Head loss in riser tube	10
Various installation configurations 1  Maintenance Rinsing the nozzles 12 Checking the white washer 13  Parts and complementary products Parts 14 Tools 14	Installation	
Maintenance  Rinsing the nozzles	Introduction	1′
Rinsing the nozzles	Various installation configurations	1^
Checking the white washer	Maintenance	
Parts and complementary products  Parts	Rinsing the nozzles	12
Parts		13
Tools14	Parts and complementary products	
	* * * * * * * * * * * * * * * * * * * *	14
<b>Warranty</b> 15	Tools	14
	Warranty	15

# **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, operating and maintenance of the D-Net™ 8550 sprinkler in its various applications.

# **Safety instructions**

- All local safety regulations must be applied when installing, operating, maintaining and troubleshooting the Netafim™ sprinkler irrigation system and its components.
- 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.

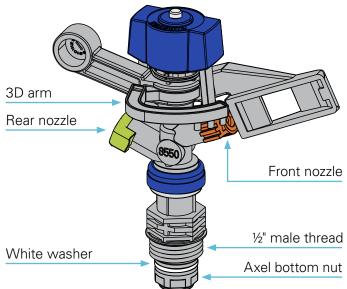


#### **CAUTION**

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

# D-NET™ 8550 3D ARM IMPACT SPRINKLER

# **Description**



# **Applications**

For vegetables and open field crops, open field nurseries, crop germination and cooling fruit orchards.

# **Features and benefits**

#### More and better yields

- The D-Net<sup>TM</sup> 8550 provides outstandingly high uniformity distribution of the water due to the unique 3-D arm that enables the highest uniformity in the market, respective to its flow rate and installation spacing.
- The D-Net<sup>™</sup> 8550 provides maximum water-use efficiency.

#### Save labor cost and multiple investment in maintenance

- High robustness The D-Net™ 8550 has special design that makes the sprinkler more resistible and ensure high performance for a long product life.
- Extended product life The D-Net™ 8550 is made of UV-protected materials, and it s durable in the presence of all climate conditions and nutrients injected in agricultural applications.
- Flexible installation Can be installed on solid sets or on removable field stands.
- Easy to maintain A special nozzle key is deigned in order to allow continent cleaning of the nozzle.

# **Specifications**

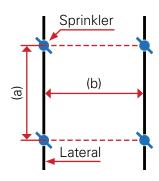
- 7 different nominal flow rates: 510, 580, 680, 810, 940, 1135, 1275 l/h (at 2.5 bar pressure).
- Recommended working pressure: 2.0 to 3.0 bar (at the sprinkler head).
- Water trajectory: 24 degrees
- Inlet connector: 1/2" male threaded.
- Color-coded nozzles for easy identification.



#### 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.

# **Performance**

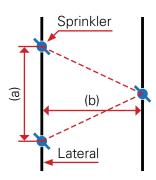


# **Rectangular spacing**

N	ozzle	Working		Wetted	Sp	acing - recta	angular (m x	m)
Size	Color	pressure	Flow rate	diameter*	10 x 12	11 x 12	12 x 12	13 x 12
(mm)	code	(bar)	(I/h)	(m)	F	Precipitation	n rate (mm/h	)
2.3	Gray	1.5	395	18	3.5	3.2	2.9	2.1
		2.0	456	18	3.5	3.2	2.9	2.7
1.8	timo grann	2.5	510	19	4.4	4.0	3.7	3.4
1.0	lime green	3.0	559	19	4.8	4.4	4.0	3.7
٦٢	Dimala	1.5	449	18	3.7	3.4	3.1	2.9
2.5	Purple	2.0	519	19	4.4	4.0	3.6	3.3
+	+	2.5	580	19	4.9	4.4	4.0	3.7
1.8	lime green	3.0	635	20	5.4	4.9	4.5	4.2
2.0	Oranga	1.5	527	18	4.4	4.0	3.7	3.4
2.9	Orange	2.0	608	19	5.1	4.6	4.2	3.9
1.0	+	2.5	680	20	5.7	5.1	4.7	4.3
1.8	lime green	3.0	745	20	6.2	5.6	5.2	4.8
2.2	Croon	1.5	627	18	5.2	4.8	4.4	4.0
3.2	Green	2.0	724	18	6.1	5.5	5.0	4.7
1.8	timo grann	2.5	810	21	6.8	6.1	5.6	5.2
1.0	lime green	3.0	887	21	7.4	6.7	6.2	5.7
2.5	Dlug	1.5	728	18	6.0	5.5	5.0	4.6
3.5	Blue	2.0	841	19	7.0	6.4	5.8	5.4
1.8	timo grann	2.5	940	21	7.9	7.1	6.5	6.0
1.0	lime green	3.0	1030	21	8.6	7.8	7.2	6.6

Nozzle		Working		Wetted	Sp	acing - recta	angular (m x	m)
Size	Color	pressure	Flow rate	diameter*	9 x 14	9 x 15	10 x 14	10 x 15
(mm)	code	(bar)	(I/h)	(m)	Precipitation rate (mm/h)			
3.5	Blue	2.0	1015	22	8.1	7.5	7.3	6.8
+	+	2.5	1135	22	9.0	8.4	8.1	7.6
2.5	yellow	3.0	1243	22	9.9	9.2	8.9	8.3
4.0	Black	2.0	1145	22	9.1	8.5	8.2	7.6
+	+	2.5	1275	22	10.1	9.4	9.1	8.5
2.5	yellow	3.0	1397	22	11.1	10.3	10.0	9.3

# **Performance (cont'd)**



## Triangular spacing - isosceles\*\*

N	ozzle	Working		Wetted	Sp	acing - recta	angular (m x	m)
Size	Color	pressure	Flow rate	diameter*	10 x 12	11 x 12	12 x 12	13 x 12
(mm)	code	(bar)	(I/h)	(m)	F	Precipitation	n rate (mm/h	)
2.3	Gray	1.5	395	18	3.5	3.2	2.9	2.1
	· '	2.0	456	18	3.5	3.2	2.9	2.7
+ 1.8	limo groon	2.5	510	19	4.4	4.0	3.7	3.4
1.0	lime green	3.0	559	19	4.8	4.4	4.0	3.7
2.5	Durala	1.5	449	18	3.7	3.4	3.1	2.9
	Purple	2.0	519	19	4.4	4.0	3.6	3.3
1.8	time groon	2.5	580	19	4.9	4.4	4.0	3.7
1.0	lime green	3.0	635	20	5.4	4.9	4.5	4.2
2.0	Oranga	1.5	527	18	4.4	4.0	3.7	3.4
2.9	Orange	2.0	608	19	5.1	4.6	4.2	3.9
+ 1.8	lima graan	2.5	680	20	5.7	5.1	4.7	4.3
1.0	lime green	3.0	745	20	6.2	5.6	5.2	4.8
2.2	Croon	1.5	627	18	5.2	4.8	4.4	4.0
3.2	Green	2.0	724	19	6.1	5.5	5.0	4.7
+	+	2.5	810	21	6.8	6.1	5.6	5.2
1.8	lime green	3.0	887	21	7.4	6.7	6.2	5.7
2.5	Dlus	1.5	728	18	6.0	5.5	5.0	4.6
3.5	Blue	2.0	841	19	7.0	6.4	5.8	5.4
1 0	+	2.5	940	21	7.9	7.1	6.5	6.0
1.8	lime green	3.0	1030	21	8.6	7.8	7.2	6.6

Nozzle		Working		Wetted	Sp	acing - recta	angular (m x	m)
Size	Color	pressure	Flow rate	diameter*	9 x 14	9 x 15	10 x 14	10 x 15
(mm)	code	(bar)	(I/h)	(m)	Precipitation rate (mm/h)			
3.5	Blue	2.0	1015	22	8.1	7.5	7.3	6.8
+	+	2.5	1135	22	9.0	8.4	8.1	7.6
2.5	yellow	3.0	1243	22	9.9	9.2	8.9	8.3
4.0	Black	2.0	1145	22	9.1	8.5	8.2	7.6
+	+	2.5	1275	22	10.1	9.4	9.1	8.5
2.5	yellow	3.0	1397	22	11.1	10.3	10.0	9.3

<sup>\*</sup> 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% | |

<sup>\*\*</sup>Do not confound isosceles with equilateral:

<sup>•</sup> 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.

<sup>•</sup> 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.

# Max. lateral length - 10% flow variation

Inlet pressure: 3.0 bar

Lateral: PE 40 mm ID: 36.8 mm

Nozzle size	e	Distance between sprinklers (m)						
2.3 + 1.8,	Slope	9	10	11	12	13		
510 l/h*	S	Max. lateral length (m)						
Llabill	2%	126	130	143	144	156		
Uphill	1%	135	140	154	156	169		
Flat terrain	0	153	160	165	180	195		
Downhill	-1%	162	170	187	192	208		
	-2%	171	180	198	204	221		

Nozzle size	9	Distance between sprinklers (m)							
2.5 + 1.8,	do	9	10	11	12	13			
580 l/h*	S		Max. lateral length (m)						
Linhill	2%	117	120	132	132	143			
Uphill	1%	126	130	143	156	156			
Flat terrain	0	135	150	154	168	182			
Downhill	-1%	144	160	165	180	195			
DOWNIN	-2%	153	170	176	192	208			

Nozzle size	e	Distance between sprinklers (m)						
2.9 + 1.8,	op	9	10	11	12	13		
680 l/h*	S	Max. lateral length (m)						
1.11-20	2%	108	110	121	132	130		
Uphill	1%	117	120	132	144	143		
Flat terrain	0	126	130	143	156	156		
Downhill	-1%	135	140	154	168	169		
DOWITI	-2%	144	150	165	168	182		

Nozzle size	e	Distance between sprinklers (m)						
3.2 + 1.8,	obe	9	10	11	12	13		
810 l/h*	S	Max. lateral length (m)						
Uphill	2%	99	100	110	120	117		
Ophili	1%	108	110	121	132	130		
Flat terrain	0	117	120	132	132	143		
Downhill	-1%	117	130	143	144	156		
	-2%	126	140	143	156	169		

Nozzle size	e	Distance between sprinklers (m						
3.5 + 1.8,	o	9	10	11	12	13		
940 l/h*	S	Max. lateral length (m)						
Llabill	2%	90	100	99	108	117		
Uphill	1%	99	100	110	120	117		
Flat terrain	0	99	110	121	120	130		
Downhill	-1%	108	120	121	132	143		
	-2%	117	120	132	144	143		

Nozzle size	e	Distance between sprinklers (m)					
3.5 + 2.5,	Slope	9	10	11	12	13	
1135 l/h*	S		Max. I	ateral len	gth (m)		
L La la III	2%	81	90	99	96	104	
Uphill	1%	90	90	99	108	117	
Flat terrain	0	90	100	110	108	117	
Downhill	-1%	99	100	110	120	130	
DOWIIIIII	-2%	99	110	121	120	130	

Nozzle size	e	Distance between sprinklers (m)						
4.0 + 2.5,	Slope	9	10	11	12	13		
1275 l/h*	S	Max. lateral length (m)						
L I a la i II	2%	81	80	88	96	104		
Uphill	1%	81	90	99	96	104		
Flat terrain	0	90	90	99	108	117		
Downhill	-1%	90	100	99	108	117		
DOWITIIII	-2%	90	100	110	120	117		

<sup>\*</sup>Nominal flow rate at 2.5 bar working pressure.

Lateral: PE 50 mm ID: 45.4 mm

Nozzle size	pe	Distance between sprinklers (m)				
2.3 + 1.8,	gol	9	10	11	12	13
510 l/h*	SI	Max. lateral length (m)				•
l labill	2%	162	170	176	180	195
Uphill	1%	180	190	209	216	221
Flat terrain	0	207	220	242	252	273
Downhill	-1%	234	250	264	288	299
	-2%	252	270	286	312	325

Nozzle size	e	Distance between sprinklers (m)					
2.5 + 1.8,	Slope	9	10	11	12	13	
580 l/h*	S	Max. lateral length (m)					
I I a la i II	2%	153	160	165	168	182	
Uphill	1%	171	180	187	204	208	
Flat terrain	0	198	210	220	240	247	
Downhill	-1%	216	230	242	264	273	
	-2%	225	250	264	288	299	

Nozzle size	e	Distance between sprinklers (m)					
2.9 + 1.8,	Slope	9	10	11	12	13	
680 l/h*	S	Max. lateral length (m)					
1.11-20	2%	144	150	154	168	169	
Uphill	1%	162	170	176	192	195	
Flat terrain	0	180	190	198	216	221	
Downhill	-1%	189	210	220	240	247	
	-2%	207	220	242	252	273	

Nozzle size	e e	Distance between sprinklers (m)					
3.2 + 1.8,	Slope	9	10	11	12	13	
810 l/h*	S		Max. la	ateral len	gth (m)		
I I a la ill	2%	126	140	143	156	156	
Uphill	1%	144	150	165	168	182	
Flat terrain	0	162	170	176	192	208	
Downshill	-1%	171	180	198	204	221	
Downhill	-2%	180	200	209	228	234	

Nozzle size	pe	Di	Distance between sprinklers (m)				
3.5 + 1.8,	o	9	10	11	12	13	
940 l/h*	S	Max. lateral length (m)					
Llabill	2%	117	130	132	144	143	
Uphill	1%	135	140	154	156	169	
Flat terrain	0	144	160	165	180	182	
Downhill	-1%	153	170	176	192	208	
	-2%	162	180	187	204	221	

Nozzle size	e	Di	Distance between sprinklers (m)				
3.5 + 2.5,	Slope	9	10	11	12	13	
1135 l/h*	Max. lateral length (m)						
I I a la i II	2%	108	120	121	132	130	
Uphill	1%	117	130	132	144	156	
Flat terrain	0	126	140	143	156	169	
Downhill	-1%	135	150	154	168	182	
	-2%	144	160	165	180	195	

Nozzle size	pe	Di	Distance between sprinklers (m)			
4.0 + 2.5,	o	9	10	11	12	13
1275 l/h*	S					
Habill	2%	108	110	121	120	130
Uphill	1%	108	120	132	132	143
Flat terrain	0	117	130	143	144	156
Downhill	-1%	126	140	143	156	169
	-2%	135	150	154	168	182

# Max. lateral length - 10% flow variation

Inlet pressure: 3.0 bar

Lateral: FlexNet<sup>™</sup> 2" ID: 51.5 mm

Nozzle size	e	Di	stance be	tween sp	rinklers (	m)
2.3 + 1.8,	lope	9	10	11	12	13
510 l/h*	S	Max. lateral length (m)				
Llabill	2%	180	190	198	204	208
Uphill	1%	216	220	242	252	260
Flat terrain	0	252	270	286	300	312
Downhill	-1%	279	300	319	348	364
	-2%	306	330	352	384	403

Nozzle size	ø	Distance between sprinklers (m)					
2.5 + 1.8,	obe	9	10	11	12	13	
580 l/h*	S	Max. lateral length (m)					
Uphill	2%	171	180	187	192	195	
Ophili	1%	198	210	220	228	247	
Flat terrain	0	234	250	264	276	299	
Downhill	-1%	261	280	297	312	338	
	-2%	279	300	330	348	364	

Nozzle size	-	n:	Distance between sprinklers (m)				
2.9 + 1.8,	lope	9	10	11	12	13	
680 l/h*	S	Max. lateral length (m)					
l labill	2%	162	170	176	180	195	
Uphill	1%	180	190	209	216	221	
Flat terrain	0	207	220	242	252	260	
Downhill	-1%	234	250	264	288	299	
	-2%	252	270	286	312	325	

Nozzle size	9	Distance between sprinklers (m)					
3.2 + 1.8,	Slope	9	10	11	12	13	
810 l/h*	S		Max. I	ateral len	gth (m)		
Uphill	2%	144	160	165	168	182	
Ophili	1%	171	180	187	192	208	
Flat terrain	0	189	200	209	228	234	
Downhill	-1%	207	220	242	252	273	
	-2%	225	240	253	276	286	

Nozzle size	pe	Di	stance be	tween sp	rinklers (	m)	
3.5 + 1.8,	op	9	10	11	12	13	
940 l/h*	S	Max. lateral length (m)					
11 120	2%	135	150	154	156	169	
Uphill	1%	153	160	176	180	195	
Flat terrain	0	171	180	198	204	221	
Downhill	-1%	189	200	220	228	247	
	-2%	198	220	231	252	260	

Nozzle size	e	Distance between sprinklers (m)						
3.5 + 2.5,	Slope	9	10	11	12	13		
1135 l/h*	S	Max. lateral length (m)						
I I and In 201	2%	126	130	143	144	156		
Uphill	1%	135	150	154	168	169		
Flat terrain	0	153	160	176	180	195		
Downhill	-1%	162	180	187	204	208		
DOWNINIII	-2%	180	190	198	216	234		

Nozzle size	e	Distance between sprinklers (m)						
4.0 + 2.5,	lope	9	10	11	12	13		
1275 l/h*	S	Max. lateral length (m)						
I I a la i II	2%	117	130	132	144	143		
Uphill	1%	135	140	143	156	169		
Flat terrain	0	144	150	165	168	182		
Downhill	-1%	153	170	176	192	195		
DOWITIIII	-2%	162	180	187	204	208		

<sup>\*</sup>Nominal flow rate at 2.5 bar working pressure.

Lateral: FlexNet<sup>TM</sup> 3" ID: 78.3 mm

Nozzle size	pe	Distance between sprinklers (m)						
2.3 + 1.8,	9	9	10	11	12	13		
510 l/h*	S	Max. lateral length (m)						
1.11-20	2%	252	260	264	276	273		
Uphill	1%	369	380	396	408	416		
Flat terrain	0	522	560	594	636	663		
Downhill	-1%	648	700	759	804	858		
	-2%	738	440	473	504	455		

Nozzle size	a	Distance between sprinklers (m)					
2.5 + 1.8,	Slope	9	10	11	12	13	
580 l/h*	S	Max. lateral length (m)					
Uphill	2%	252	260	264	264	273	
Оргии	1%	351	360	374	396	403	
Flat terrain	0	486	520	550	576	611	
Downhill	-1%	594	640	693	732	780	
	-2%	675	730	781	456	481	

Nozzle size	e	Distance between sprinklers (m)						
2.9 + 1.8,	lope	9	10	11	12	13		
680 l/h*	S	Max. lateral length (m)						
l labill	2%	243	250	253	264	260		
Uphill	1%	324	340	352	372	377		
Flat terrain	0	441	470	495	528	559		
Downhill	-1%	531	570	616	648	689		
DOWNINII	-2%	594	650	693	744	442		

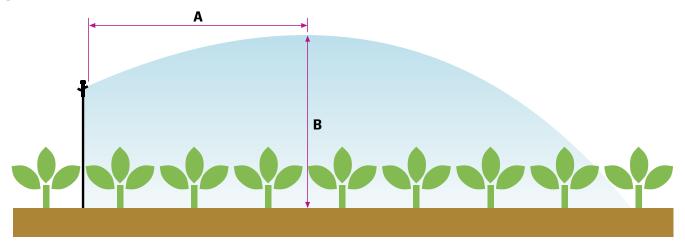
Nozzle size	e e	Distance between sprinklers (m)						
3.2 + 1.8,	Slope	9	10	11	12	13		
810 l/h*	S	Max. lateral length (m)						
I I a la i II	2%	234	240	242	252	260		
Uphill	1%	297	320	330	348	351		
Flat terrain	0	396	420	451	468	494		
Downhill	-1%	468	500	539	576	611		
DOWIIIIII	-2%	522	570	605	648	689		

Nozzle size	e	Distance between sprinklers (m)						
3.5 + 1.8,	Slope	9	10	11	12	13		
940 l/h*	S	Max. lateral length (m)						
I I a la i II	2%	216	230	231	240	247		
Uphill	1%	279	300	308	324	338		
Flat terrain	0	360	380	407	432	455		
Downhill	-1%	423	450	484	516	546		
DOWNINII	-2%	468	510	550	588	624		

Nozzle size	9	Distance between sprinklers (m)					
3.5 + 2.5,	Slope	9	10	11	12	13	
1135 l/h*							
I I a la ill	2%	207	220	220	228	234	
Uphill	1%	261	270	286	300	312	
Flat terrain	0	315	340	363	384	403	
Downhill	-1%	369	400	429	456	481	
DOWILLIII	-2%	405	440	473	504	533	

Nozzle size	e	Distance between sprinklers (m)						
4.0 + 2.5,	Slope	9	10	11	12	13		
1275 l/h*	S	Max. lateral length (m)						
1.11-20	2%	198	210	220	216	234		
Uphill	1%	243	260	275	288	299		
Flat terrain	0	297	320	341	360	377		
Downhill	-1%	342	370	396	420	442		
DOWNINII	-2%	378	400	440	468	494		

# **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.

#### Water trajectory angle: 24 degrees

ľ	Nozzle	Working	Trajec	tory (m)
Size (mm)	Color code	pressure (bar)	Height	Distance
2.3	Gray	2.0	1.75	6.00
+	+	2.5	1.85	6.30
1.8	lime green	3.0	2.00	6.60
2.5	Purple	2.0	1.75	6.20
+	+	2.5	1.85	6.30
1.8	lime green	3.0	2.00	6.60
2.9	Orange	2.0	1.85	6.20
+	+	2.5	2.00	6.30
1.8	lime green	3.0	2.10	6.60
3.2	Green	2.0	1.85	6.20
+	+	2.5	2.00	6.40
1.8	lime green	3.0	2.15	6.80
3.5	Blue	2.0	1.85	6.30
+	+	2.5	2.10	6.80
1.8	lime green	3.0	2.30	7.00
3.5	Blue	2.0	1.85	6.30
+	+	2.5	2.10	7.00
2.5	yellow	3.0	2.30	7.10
4.0	Black	2.0	1.85	6.40
+	+	2.5	2.00	7.20
2.5	yellow	3.0	2.20	7.30

## **Head loss in riser tube**

Riser tube: OD 12.0 mm, ID 9.0 mm

	Riser	Flow rate* (I/h)							
١,	tube ength	510	580	680	810	940	1135	1275	
	(m)	Head loss (bar)							
	1.2	0.087	0.110	0.145	0.197	0.257	0.358	0.439	

Riser tube: 1/2", ID 15.0 mm

Riser	Flow rate* (I/h)									
tube length	510	580	680	810	940	1135	1275			
(m)	Head loss (bar)									
0.4	0.003	0.003	0.004	0.006	0.008	0.010	0.013			
0.8	0.005	0.006	0.009	0.012	0.015	0.021	0.026			
1.2	0.008	0.010	0.013	0.017	0.023	0.031	0.039			

Riser tube: 3/4", ID 20.5 mm

Riser	Flow rate* (I/h)						
tube length	510	580	680	810	940	1135	1275
(m)	Head loss (bar)						
0.4	0.001	0.001	0.001	0.001	0.002	0.002	0.003
0.8	0.001	0.001	0.002	0.003	0.003	0.005	0.006
1.2	0.002	0.002	0.003	0.004	0.005	0.007	0.009

<sup>\*</sup>Nominal flow rate at 2.5 bar working pressure.

# **INSTALLATION**

## Introduction



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

## Tools required

• 20 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<sup>™</sup> 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.

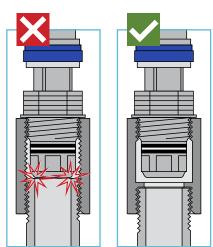


#### **ATTENTION**

When installing a Netafim™ impact hammer sprinkler (such as D-Net<sup>TM</sup>) on a solid set riser pipe of the same thread size, make sure to allow clearance for the free rotation of the axel bottom nut.

If sufficient clearance is not allowed and the axel bottom nut comes in contact with any internal part of the piping, the sprinkler will not rotate.

Always use a Netafim™ dedicated socket specially designed to allow the required clearance.



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.

The new nozzle clip tool allows to detach and attach the D-Net 8550<sup>™</sup> sprinkler nozzles quickly and easily.

## Rinsing the nozzles

Frequency: Before the beginning of each growing season

#### Action:

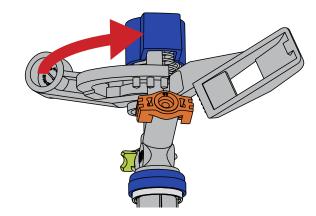
1. Detach the 2 nozzles from the sprinkler using the dedicated nozzle clip tool supplied with the sprinkler.



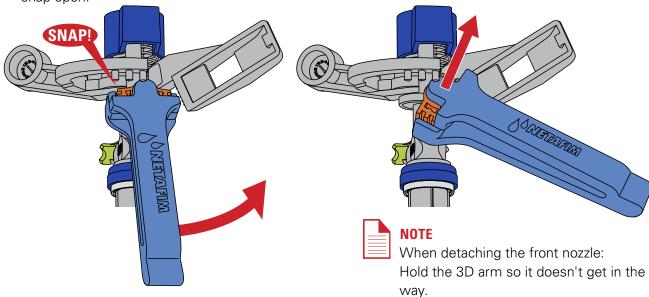
#### NOTE

To detach the front nozzle: Rotate and hold the 3D arm so that it doesn't get in the way of the nozzle-opener.

A. Place the nozzle clip tool onto the nozzle and rotate it 1/8 of a turn counterclockwise. You should feel it snap open.



**B.** Pull the nozzle out with the nozzle clip tool.



- 2. Release the nozzle from the nozzle clip tool.
- **3.** Clean each nozzle opening from the outside with a water jet or pressurized air.
- 4. Visually inspect the nozzles. If a nozzle looks damaged, replace it with a new one.
- 5. Reattach the 2 nozzles using the dedicated nozzle-opener. You should feel it snap into place.



Make sure to place each nozzle back in its original location. The rear nozzle (lime green/yellow) should always be in the lower location.

# **MAINTENANCE**

# **Checking the white washer**

Frequency: Before the beginning of each growing season

#### Action:

- 1. Remove the sprinkler from the stand using a 20 mm spanner.
- 2. Visually inspect the white washer at the bottom of the sprinkler.

During regular operation of the sprinkler, the white washer gradually wears thinner. Its original thickness is 1.5 mm.

3. If the white washer has reached half its original thickness or less, replace it with a new one using a 16 mm spanner to open the bolt at the bottom of the sprinkler.



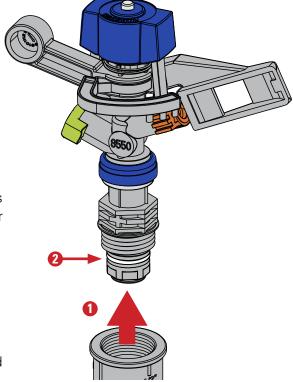
#### **NOTE**

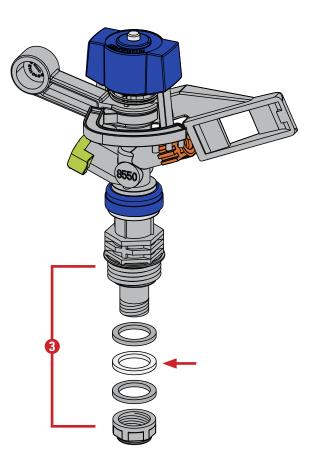
Make sure to place the white washer in between the two black washers.

- 4. Screw back the bolt using a 16 mm spanner.
- 5. Remove the old Teflon tape from the sprinkler thread and apply 3 layers of new Teflon tape to prevent leakage.
- 6. Re-connect the sprinkler to the stand using a 20 mm spanner.



It is recommended to replace the white washer every 2000 irrigation hours.



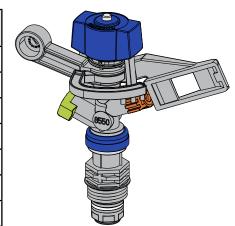


# **PARTS AND COMPLEMENTARY PRODUCTS**

### **Parts**

# D-Net™ 8550 catalog numbers

Nozzle size (mm)	Nozzle color code	Flow rate* (I/h)	Catalog number
2.3 + 1.8	Gray + lime green	510	60100-000990
2.5 + 1.8	Purple + lime green	580	60100-001000
2.9 + 1.8	Orange + lime green	680	60100-001010
3.2 + 1.8	Green + lime green	810	60100-001030
3.5 + 1.8	Blue + lime green	940	60100-001040
3.5 + 2.5	Blue + yellow	1135	60100-001045
4.0 + 2.5	Black + yellow	1275	60100-001046



## **Packaging data**

Model	Units p/box	Box size (cm x cm x cm)	Box weight (Kg)	Boxes p/pallet	Total units p/pallet	Pallet weight (Kg)
D-Net™ 8550	168	54 x 36 x 33	12.0	18	3024	240

<sup>\*</sup>Two nozzle clip tools are supplied with each box of 168 D-Net 8550™ sprinklers.

## D-Net™ 8550 sprinkler nozzles

#### Front nozzles

Size (mm)	2.3	2.5	2.9	3.2	3.5	4.0
Color code	Gray	Purple	Orange	Green	Blue	Black
Catalog number	60100-001140	60100-001150	60100-001160	60100-001170	60100-001180	60100-001181

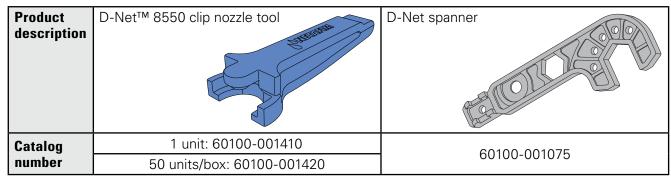
#### Rear nozzles

Size (mm)	2.3	2.5	
Color code	Lime green	Yellow	
Catalog number	60100-001300	60100-001310	

#### D-Net™ 8550 washer

Product	D-Net™ 8550			
description	white washer 22			
Catalog number	60100-001076			

## **Tools**



<sup>\*</sup>Nominal flow rate at 2.5 bar working pressure

# **WARRANTY**

Netafim™ warrants all the components of the D-Net™ 8550 sprinkler to be free of substantial defects in material and workmanship for a period of no more than 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 D-Net™ 8550 sprinkler or part resulting from misuse, negligence, alteration, force majeure, lightning, improper installation or improper maintenance, including any maltreatment of the D-Net™ 8550 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