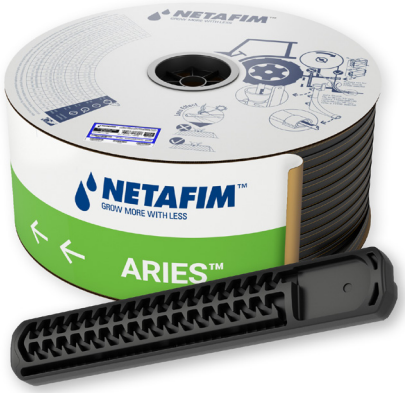
Aries™ MWD

Integral non-pressure-compensated high clogging resistance dripper, for multi-seasonal semi-permanent crops on surface or sub surface.

→ 12200 - 12250 -16200 - 16250 - 16008
22200 - 22250



High clogging resistance

Wide filtration area

Wide water passages

Benefits & Features

→ **High clogging resistance** — Even with challenging water quality, with self-cleaning labyrinth that flushes debris throughout operation.

→ **Wide filtration area** — Ensures optimal performance even under harsh water conditions, preventing the entrance of sediments into the drippers.

→ **Wide water passages** — TurbuNext™ labyrinth ensures wide water passages, large deep and wide cross-section that improves clogging resistance.

Specifications

- Maximum operating pressure according to driplines wall thickness and diameter. See tables below.
- Recommended filtration: depending on dripper flow rate. Filtration method selected based on the kind and concentration of dirt particles contained in the water. Wherever sand exceeding 2 ppm exists in the water, a Hydrocyclone should be installed before the main filter. Where sand/silt/clay solids exceed 100 ppm, pre treatment it should be applied following Netafim™ expert instructions.
- TurbuNext™ labyrinth with superior performance.
- Weldable into medium wall driplines (0.50 , 0.63, 0.80 mm).
- Injected dripper, very low CV.
- High UV resistant. Resistant to standard nutrients used in agriculture.
- Compliance ISO 9261 international standards.

→ Drippers technical data

12200, 12250, 16200, 16250, 22200, 22250 - 0.50, 0.63 mm wall thickness driplines

Flow rate* (l/h)	Max. working pressure (bar)**	Water passages dimensions width-depth-length (mm)	Filtration area (mm²)	Constant K	Exponent X	Recommended filtration (micron)/(mesh)
0.50	2.5 / 3.0 / 3.5	0.47 x 0.53 x 65	36	0.173	0.46	130/120
0.80		0.54 x 0.69 x 65	43	0.277	0.46	130/120
1.00		0.60 x 0.74 x 65	49	0.347	0.46	200/80
1.40		0.71 x 0.85 x 65	53	0.485	0.46	200/80
1.90		0.76 x 1.03 x 65	54	0.659	0.46	200/80
2.85		0.90 x 1.20 x 65	54	0.988	0.46	200/80
3.80		0.94 x 1.28 x 33	54	1.316	0.46	200/80
8.00		1.52 x 1.28 x 28	50	2.773	0.46	200/80

*Flow rate at 1.0 bar pressure **According to driplines diameter and wall thickness

→ Drippers technical data

16008 - 0.8 mm wall thickness driplines

Flow rate* (l/h)	Max. working pressure (bar)	Water passages dimensions width-depth-length (mm)	Filtration area (mm²)	Constant K	Exponent X	Recommended filtration (micron)/(mesh)
0.55	3.0	0.47 x 0.53 x 65	36	0.191	0.46	130/120
0.80		0.54 x 0.69 x 65	43	0.277	0.46	130/120
1.00		0.60 x 0.74 x 65	49	0.347	0.46	200/80
1.50		0.71 x 0.85 x 65	53	0.520	0.46	200/80
2.00		0.76 x 1.03 x 65	54	0.693	0.46	200/80
3.00		0.90 x 1.20 x 65	54	1.040	0.46	200/80
4.00		0.94 x 1.28 x 33	54	1.387	0.46	200/80
8.00		1.52 x 1.28 x 28	50	2.773	0.46	200/80

*Flow rate at 1.0 bar pressure

→ Driplines technical data

Model	Inside diameter (mm)	Wall thickness (mm)	Outside diameter (mm)	Max. working pressure (bar)	Max. flushing pressure (bar)	KD
12200	11.80	0.50	12.80	3.0	3.9	0.40
12250	11.80	0.63	13.06	3.5	4.6	0.40
16200	15.50	0.50	16.50	2.5	3.3	0.35
16250	15.50	0.63	16.76	2.8	3.6	0.35
16008	14.20	0.80	15.80	3.0	3.9	0.40
22200	22.20	0.50	23.20	2.0	2.6	0.06
22250	22.20	0.63	23.56	2.5	3.3	0.06

→ Driplines package data (on carton coil)

Model	Wall thickness (mm)	Distance between drippers (m)	Coil length (m)	Average* coil weight (kg)	Coils per pallet (units)	Coils in a 40 feet container (units)	Total in a 40 feet container (m)
12200	0.50	0.15 to 0.25	800	17.6	12	480	384000
		0.30 to 1.00	900	18.8			432000
12250	0.63	0.15 to 0.25	700	19.0	12	480	336000
		0.30 to 1.00	750	19.6			360000
16200	0.50	0.15 to 0.25	850	23.1	12	480	408000
		0.30 to 1.00	900	23.7			432000
16250	0.63	0.15 to 0.25	750	25.4	12	480	360000
		0.30 to 1.00	800	26.3			384000
16008	0.80	0.15	450	19.4	12	480	216000
		0.20 to 1.00	500	21.0			240000
22200	0.50	0.15 to 0.25	700	17.9	12	480	336000
		0.30 to 1.00	800	20.4			384000
22250	0.63	0.15 to 0.25	550	25.7	12	480	264000
		0.30 to 1.00	600	27.4			288000

* Calculated weight average. For further details see “Average Coil Weight Disclaimer”.

Drippers flow rate vs working pressure

In order to calculate the right flow rate of each dripper, under different working pressures, we use the following formula:
$Q = K * P^X$

Where:
Q = Dripper flow rate (liters/hour)
K = Constant (each dripper has his singular constant and must be defined by the dripper producer)
P = Real working pressure (meter)
X = Exponent (each dripper has its singular exponent and must be declared and defined by the dripper producer)

*ISO 9261 require from the manufacturer to declare the constant K and dripper exponent

Non-pressure-compensated drippers provide flow adequate to the pressure it is exposed to, according to the formula presented above. In order to simplify the calculations and understandings of the linkage between the flow and the pressure, a table with the flow rates at different working pressures is presented here for each of the drippers presented in this document.

Flow rate (l/h) vs. Pressure (bar)

12200/12250/16200/16250/22200/22250 - 0.50 and 0.63 mm wall thickness dripperlines

flow rate* (l/h)	Pressure (bar)								
	0.2	0.4	0.6	0.8	1.0	1.5	2.0	2.5	3.0
0.50	0.24	0.33	0.39	0.45	0.50	0.60	0.69	0.76	0.83
0.80	0.38	0.52	0.63	0.72	0.80	0.96	1.10	1.22	1.32
1.00	0.48	0.66	0.79	0.90	1.00	1.21	1.38	1.53	1.66
1.40	0.67	0.92	1.11	1.26	1.40	1.69	1.92	2.13	2.32
1.90	0.91	1.25	1.50	1.72	1.90	2.29	2.61	2.90	3.15
2.85	1.36	1.87	2.25	2.57	2.85	3.43	3.92	4.34	4.72
3.80	1.81	2.49	3.00	3.43	3.80	4.57	5.22	5.79	6.29
8.00	3.81	5.25	6.32	7.22	8.00	9.64	11.00	12.19	13.26

*Nominal flow rate at 1.0 bar pressure

Flow rate (l/h) vs. Pressure (bar)

16008 - 0.8 mm wall thickness dripperlines

flow rate* (l/h)	Pressure (bar)								
	0.2	0.4	0.6	0.8	1.0	1.5	2.0	2.5	3.0
0.55	0.26	0.36	0.44	0.50	0.55	0.66	0.76	0.84	0.91
0.80	0.38	0.52	0.63	0.72	0.80	0.96	1.10	1.22	1.32
1.00	0.48	0.66	0.79	0.90	1.00	1.21	1.38	1.53	1.66
1.50	0.72	0.98	1.19	1.35	1.50	1.81	2.06	2.29	2.49
2.00	0.95	1.31	1.58	1.80	2.00	2.41	2.75	3.05	3.31
3.00	1.43	1.97	2.37	2.71	3.00	3.61	4.13	4.57	4.97
4.00	1.91	2.62	3.16	3.61	4.00	4.82	5.50	6.10	6.63
8.00	3.81	5.25	6.32	7.22	8.00	9.64	11.00	12.19	13.26

*Nominal flow rate at 1.0 bar pressure

/ Max. lateral length

Flow Variation (FV) expresses the flow variation between the dripper “sensing” the highest pressure and the one “sensing” the lowest pressure in an irrigation block (zone).

These drippers will not always be the first and last drippers on the dripline.

FV % = $(Q_{max} - Q_{min}) / Q_{max} * 100$

*International standards define 10% flow variation to be considered as uniform irrigation.

In order to calculate the maximum run lengths that can be planned for specific dripline (considering all the hydraulic factors influencing the flow within the same dripline), we use a calculation software that was developed by Netafim™ based on Darcy-Waisbach formulas + years of design experience and cooperation with academic institutes.

All the tables presented in this document are for initial reference only; the exact run length of the driplines is obtained from design software that considers various hydraulic factors in the entire system.

There might be small variance between the different software’s in the market due to the calculation method and assumptions each software is using. For an initial estimate of the dripline length, the data that is presented in this document (within the tables shown) is sufficiently accurate.

Non-pressure-compensated drippers of Netafim™ will provide different flow according to the real working pressure, therefore, the influencing factors will be: the pressure that each dripper in the dripline is exposed to, and the allowed flow variation the dripline is designed to, which in most cases is defined as 10% difference in flow, according to the international standards, and / or any other limitation that the customer / planner will prefer to design while considering the crop needs and area topography.

The following tables are only displayed at one inlet pressure for each dripline, since in non-pressure-compensated drippers the flow varies according to the pressure. There might be differences in run lengths with different inlet pressures; however for an initial estimate of the dripline length, the data that is presented in this document (within the tables shown) is sufficiently accurate.

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 0.50 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	72	90	103	113	119	125	130	133	136
Uphill	1%	81	106	126	143	158	170	181	191	199
Flat terrain	0	91	124	153	180	205	228	250	272	292
Downhill	-1%	98	138	175	210	242	274	305	335	364
	-2%	105	150	192	232	271	308	344	379	413

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 0.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	69	86	99	109	116	122	126	131	134
Uphill	1%	77	101	120	137	151	162	174	184	192
Flat terrain	0	85	116	144	169	193	214	235	255	274
Downhill	-1%	92	129	163	195	226	255	283	311	338
	-2%	98	139	178	216	251	286	319	352	383

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 1.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	51	66	78	89	96	103	109	114	119
Uphill	1%	55	73	89	103	114	125	134	143	151
Flat terrain	0	59	80	100	118	134	149	164	178	191
Downhill	-1%	62	86	109	130	151	170	190	208	226
	-2%	65	93	119	144	169	193	218	241	265

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 1.40 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	42	56	66	76	83	90	95	101	105
Uphill	1%	45	60	73	85	95	105	113	121	128
Flat terrain	0	47	65	81	95	109	120	132	143	154
Downhill	-1%	49	68	86	103	119	134	149	163	177
	-2%	51	73	93	112	131	148	166	185	202

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 1.90 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	36	47	56	65	72	78	84	89	93
Uphill	1%	37	50	61	71	80	88	96	103	110
Flat terrain	0	39	53	66	78	89	99	109	119	127
Downhill	-1%	40	56	70	84	96	108	120	131	142
	-2%	41	58	74	89	104	118	131	145	158

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 2.85 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	28	38	46	53	58	64	69	73	77
Uphill	1%	29	39	48	57	64	70	76	82	87
Flat terrain	0	30	41	51	61	68	76	84	91	98
Downhill	-1%	30	42	53	63	73	82	90	99	107
	-2%	31	44	56	67	77	88	98	107	117

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 3.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	24	32	38	45	50	55	59	64	68
Uphill	1%	24	33	40	48	53	60	65	70	75
Flat terrain	0	25	34	42	50	57	64	70	77	82
Downhill	-1%	25	35	44	52	60	67	74	81	88
	-2%	26	36	46	55	63	71	79	87	94

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 12200/12250 • ID 11.8 mm • Kd 0.40 • Flow rate 8.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	15	20	24	29	32	36	38	41	44
Uphill	1%	15	20	25	30	34	37	41	44	47
Flat terrain	0	15	21	26	31	35	39	42	47	50
Downhill	-1%	15	21	26	32	36	41	45	49	53
	-2%	16	22	27	33	37	42	46	50	55

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 0.50 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	98	116	128	135	139	143	145	147	148
Uphill	1%	118	152	176	196	212	225	235	244	251
Flat terrain	0	141	194	241	284	324	361	397	430	463
Downhill	-1%	159	227	291	352	410	466	521	574	627
	-2%	173	252	326	398	256	216	200	193	188

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 0.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	80	99	112	121	127	132	136	140	142
Uphill	1%	91	119	142	161	176	189	200	210	218
Flat terrain	0	104	143	178	210	239	267	294	319	343
Downhill	-1%	114	162	206	249		328	366	402	438
	-2%	122	176	228	277	325	371	230	252	243

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 1.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	72	90	103	113	120	126	130	134	137
Uphill	1%	80	106	127	144	159	172	182	193	201
Flat terrain	0	90	124	154	182	207	231	254	275	297
Downhill	-1%	97	138	176	211	245	278	310	340	370
	-2%	104	149	192	234	274	312	350	385	233

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 1.40 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	60	77	90	100	108	114	120	124	128
Uphill	1%	66	88	106	122	135	147	158	167	176
Flat terrain	0	72	100	124	147	167	186	205	222	239
Downhill	-1%	77	109	138	166	193	218	242	266	289
	-2%	82	117	150	182	212	242	270	299	326

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 1.90 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	51	67	78	89	96	103	109	113	118
Uphill	1%	55	74	90	104	116	126	136	145	153
Flat terrain	0	59	82	102	120	137	153	169	183	197
Downhill	-1%	63	88	112	134	155	175	194	213	232
	-2%	66	94	120	145	169	192	214	237	258

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 2.85 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	41	54	64	74	81	88	93	98	103
Uphill	1%	43	58	71	83	93	102	110	118	126
Flat terrain	0	45	63	78	93	106	118	130	141	152
Downhill	-1%	48	67	84	101	116	132	146	160	174
	-2%	49	70	90	108	125	142	158	175	190

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 3.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	34	46	56	64	71	77	82	87	92
Uphill	1%	36	49	60	70	79	87	94	102	108
Flat terrain	0	38	52	65	77	88	98	108	118	126
Downhill	-1%	39	55	69	83	95	108	119	131	142
	-2%	40	57	73	88	102	116	129	141	154

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16200/16250 • ID 15.5 mm • Kd 0.35 • Flow rate 8.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	22	30	36	43	48	53	57	61	65
Uphill	1%	23	31	38	45	51	57	62	67	72
Flat terrain	0	23	32	40	48	55	61	67	73	79
Downhill	-1%	24	33	42	50	58	65	72	78	85
	-2%	24	34	44	52	61	68	76	83	90

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 0.55 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	85	104	116	125	131	136	139	142	144
Uphill	1%	98	128	152	171	186	199	210	220	228
Flat terrain	0	113	156	194	229	261	291	320	347	373
Downhill	-1%	125	178	227	274	319	362	404	445	485
	-2%	135	195	252	307	360	410	253	233	210

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 0.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	73	92	106	116	124	130	134	139	141
Uphill	1%	81	108	129	147	162	176	186	197	207
Flat terrain	0	90	125	155	184	209	234	257	279	300
Downhill	-1%	98	139	178	216	251	287	322	356	390
	-2%	106	155	203	251	298	346	394	443	492

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 1.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	65	83	97	107	115	122	127	131	135
Uphill	1%	71	95	114	131	145	158	170	179	188
Flat terrain	0	78	108	134	159	181	203	222	241	260
Downhill	-1%	83	118	151	183	212	242	270	299	326
	-2%	89	130	169	208	247	285	324	362	401

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 1.50 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	52	68	80	91	99	106	112	117	121
Uphill	1%	56	75	92	106	118	130	139	149	157
Flat terrain	0	60	83	104	123	140	156	171	186	201
Downhill	-1%	63	89	113	136	158	179	200	220	240
	-2%	66	96	124	151	178	204	230	257	282

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 2.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	44	59	70	80	88	95	101	106	110
Uphill	1%	47	64	78	90	101	111	121	130	136
Flat terrain	0	50	69	86	102	116	130	143	155	167
Downhill	-1%	52	73	93	111	128	146	162	178	194
	-2%	54	78	100	122	142	163	183	203	223

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 3.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	35	47	56	65	72	78	85	90	94
Uphill	1%	37	50	61	72	81	89	97	104	111
Flat terrain	0	38	53	66	79	90	100	110	121	129
Downhill	-1%	39	56	70	84	97	109	122	133	144
	-2%	41	58	74	90	105	119	134	148	161

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 4.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	30	40	48	56	63	69	74	78	83
Uphill	1%	31	42	52	61	68	76	82	88	94
Flat terrain	0	32	44	55	66	75	84	91	100	107
Downhill	-1%	32	46	58	69	79	90	99	109	118
	-2%	33	47	60	73	85	97	108	119	129

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 16008 • ID 14.2 mm • Kd 0.40 • Flow rate 8.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	19	26	33	38	43	48	52	56	59
Uphill	1%	20	27	34	40	46	51	55	60	64
Flat terrain	0	20	28	36	42	48	54	59	65	70
Downhill	-1%	21	29	36	43	50	56	62	68	73
	-2%	21	29	38	45	52	59	66	72	78

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 0.50 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	136	145	148	150	151	153	153	153	154
Uphill	1%	203	235	255	268	277	283	287	291	294
Flat terrain	0	301	399	485	564	636	704	769	831	890
Downhill	-1%	377	526	665	795	505	449	408	390	380
	-2%	237	198	185	181	178	177	176	176	175

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 0.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	128	141	148	152	154	156	158	158	159
Uphill	1%	171	206	230	248	261	271	278	284	291
Flat terrain	0	227	301	366	425	480	531	580	627	671
Downhill	-1%	277	392	503	614	723	834	945	431	379
	-2%	333	496	177	167	162	160	158	157	156

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 1.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	120	135	143	148	152	154	155	157	158
Uphill	1%	154	188	213	232	245	257	266	273	279
Flat terrain	0	196	260	317	368	416	460	503	543	582
Downhill	-1%	234	328	419	508	596	683	771	860	949
	-2%	275	404	208	177	167	163	161	159	158

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 1.40 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	107	124	134	141	145	148	150	153	154
Uphill	1%	131	162	186	205	220	232	242	252	259
Flat terrain	0	158	210	256	297	335	372	406	438	470
Downhill	-1%	182	254	321	387	451	515	578	640	703
	-2%	208	301	394	488	190	175	169	165	162

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 1.90 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	94	112	124	132	137	141	146	148	150
Uphill	1%	111	140	162	180	196	208	219	230	237
Flat terrain	0	130	173	210	245	276	306	334	361	386
Downhill	-1%	146	202	254	304	353	400	448	495	541
	-2%	163	233	302	370	439	509	190	178	172

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 2.85 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	78	96	108	117	125	130	134	139	141
Uphill	1%	89	113	133	150	164	176	187	197	206
Flat terrain	0	100	133	162	189	214	236	258	279	299
Downhill	-1%	109	150	188	224	258	292	325	357	389
	-2%	120	169	216	262	308	354	399	446	492

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 3.80 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	68	84	97	106	114	120	125	130	133
Uphill	1%	76	97	115	130	143	155	165	175	183
Flat terrain	0	83	111	135	157	178	197	215	232	249
Downhill	-1%	90	122	152	181	208	235	261	286	311
	-2%	97	135	172	207	242	277	311	346	380

Max. lateral length (meters) at different slopes - 10% flow variation

Aries™ MWD • 22200/22250 • ID 22.2 mm • Kd 0.06 • Flow rate 8.00 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)									
	Slope	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
	2%	45	57	67	75	82	88	94	98	102
Uphill	1%	48	62	74	85	95	104	111	119	125
Flat terrain	0	51	68	82	96	108	120	131	142	152
Downhill	-1%	53	72	89	105	120	134	148	161	174
	-2%	56	76	95	113	129	146	161	176	191

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