

NEPTUNE® N

Drip line with New Generation Flat dripper

NEPTUNE® N is the new drip line with flat emitter ideal for open field irrigation of seasonal crops.



RANGE

Neptune® N is available in a wide range of configurations, choose the one that best suits your needs:

- Diameter 16 mm (5/8")
 - Wall thickness 6/8/10/12 mil
- Diameter 22 mm (7/8")
 - Wall thickness 8/10/12 mil
- Dripper spacing 15/20/30/40 cm
- 4 different emitters:
 - 0.51 l/h @ 0.7 bar (0.6 l/h @ 1 bar)
 - 0.85 l/h @ 0.7 bar (1.0 l/h @ 1 bar)
 - 1.35 l/h @ 0.7 bar (1.6 l/h @ 1 bar)
 - 1.68 l/h @ 0.7 bar (2.0 l/h @ 1 bar)

MAIN FEATURES

- High irrigation efficiency that allows uniform delivery along the entire drip line;
- High resistance to clogging, thanks to the turbulent flow emitter with wide flow path;
- A emitter inlet filter prevents sediment deposits from entering the emitter ;
- Outlet hole made using precision mechanical technology;
- Blue line for easy identification;
- Product ID code engraved on the tubing.



APPLICATIONS

Neptune® N is suitable for the irrigation of:

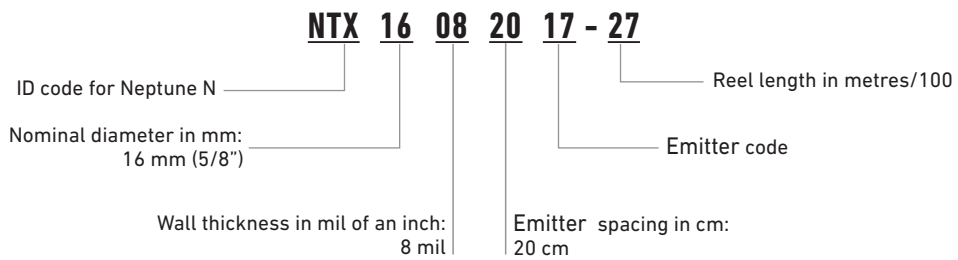
- Extensive crops: corn, sorghum, chard, tobacco
- Horticultural crops:
 - Solanaceae (tomatoes, potatoes, peppers, aubergines);
 - Brassicaceae (cauliflower, broccoli, cabbage);
 - Asteraceae (artichokes, lettuce, chicory);
 - Cucurbitaceae (courgettes, melons, water melons, cucumbers, pumpkins);
 - Liliaceae (asparagus, onions, garlic, leeks, shallots);
 - Apiaceae (fennel, parsley, celery);
- Small fruit: strawberries, bilberries, raspberries, blackberries, blackcurrants;



Code	Dripper spacing (cm)	Single dripper flow rate (l/h) @		Flow rate per metre (l/h/m) @		Filtration required (mesh)
		0.7 bar	1.0 bar	0.7 bar	1.0 bar	
Emitter (1.68 l/h)						120
NTXyyyy1517-yy	15	1.68	2.0	11.20	13.33	
NTXyyyy2017-yy	20	1.68	2.0	8.40	10.00	
NTXyyyy3017-yy	30	1.68	2.0	5.60	6.67	
NTXyyyy4017-yy	40	1.68	2.0	4.20	5.00	
Emitter (1.35 l/h)						120
NTXyyyy1513-yy	15	1.35	1.6	9.00	10.67	
NTXyyyy2013-yy	20	1.35	1.6	6.75	8.00	
NTXyyyy3013-yy	30	1.35	1.6	4.50	5.33	
NTXyyyy4013-yy	40	1.35	1.6	3.38	4.00	
Emitter (0.85 l/h)						120
NTXyyyy1508-yy	15	0.85	1.0	5.67	6.67	
NTXyyyy2008-yy	20	0.85	1.0	4.25	5.00	
NTXyyyy3008-yy	30	0.85	1.0	2.83	3.33	
NTXyyyy4008-yy	40	0.85	1.0	2.13	2.50	
Emitter (0.51 l/h)						150
NTXyyyy1505-yy	15	0.51	0.6	3.40	4.00	
NTXyyyy2005-yy	20	0.51	0.6	2.55	3.00	
NTXyyyy3005-yy	30	0.51	0.6	1.70	2.00	
NTXyyyy4005-yy	40	0.51	0.6	1.28	1.50	

Available emitters				
Flow rate l/h @ 1 bar	0.6	1.0	1.6	2.0
Flow rate l/h @ 0.7 bar	0.51	0.85	1.35	1.68
Dripper code	05	08	13	17

Codification



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PERFORMANCE

The following tables indicate the maximum length of the lines in relation to the inflow water pressure.

Note:

When determining the maximum line length, the maximum inflow pressure as indicated in the "Technical Data" table must be complied with.

DIAMETER 16 MM (5/8") - Land slope 0%

Code	Dripper Flow rate l/h @ 0.7 bar	Flow rate per metre (l/h/m) @ 0.7 bar	Dripper Spacing (cm)	Emission Uniformity (EU)	Maximum lengths in metres				
					0.7 bar	0.8 bar	0.9 bar	1.0 bar	
NTX16xx1517-yy	1.68	11.2	15	85%	57	58	59	60	
				90%	48	49	49	50	
NTX16xx2017-yy		8.4	20	85%	74	75	77	78	
				90%	64	64	64	65	
NTX16xx3017-yy		5.6	30	85%	106	108	110	112	
				90%	91	92	92	93	
NTX16xx4017-yy		4.2	40	85%	135	138	140	143	
				90%	118	118	118	119	
NTX16xx1513-yy		1.35	9.0	15	85%	69	70	71	73
					90%	58	58	59	60
NTX16xx2013-yy	6.8		20	85%	88	90	92	94	
				90%	75	76	77	77	
NTX16xx3013-yy	4.5		30	85%	125	128	131	134	
				90%	109	109	110	111	
NTX16xx4013-yy	3.4		40	85%	161	164	168	172	
				90%	140	141	141	142	
NTX16xx1508-yy	0.85		5.7	15	85%	88	91	94	97
					90%	79	80	81	81
NTX16xx2008-yy			4.3	20	85%	115	119	123	126
					90%	104	105	105	106
NTX16xx3008-yy		2.8	30	85%	164	169	175	180	
				90%	148	149	150	151	
NTX16xx4008-yy		2.1	40	85%	209	216	222	229	
				90%	189	190	192	193	
NTX16xx1505-yy		0.51	3.4	15	85%	129	132	135	137
					90%	112	112	113	114
NTX16xx2005-yy	2.6		20	85%	169	172	175	178	
				90%	145	146	146	147	
NTX16xx3005-yy	1.7		30	85%	241	245	250	254	
				90%	206	207	208	209	
NTX16xx4005-yy	1.3		40	85%	309	314	319	323	
				90%	263	264	265	267	

The Irrloc application allows you to dimension your irrigation system quickly and easily, including on uneven land. With Irrloc you can also dimension the drip line feed manifold and view delivery uniformity on the line and the irrigation block. Free download: www.toro-ag.it.

DIAMETER 22 MM (7/8") - Land slope 0%

Code	Emitter Flow rate l/h @ 0.7 bar	Flow rate per metre (l/h/m) @ 0.7 bar	Emitter Spacing (cm)	Emission Uniformity (EU)	Maximum lengths in metres				
					0.7 bar	0.8 bar	0.9 bar	1.0 bar	
NTX22xx1517-yy	1.68	11.2	15	85%	116	118	120	122	
				90%	99	100	100	101	
NTX22xx2017-yy		8.4	20	85%	148	151	153	156	
				90%	127	128	129	129	
NTX22xx3017-yy		5.6	30	85%	208	211	215	219	
				90%	179	180	181	181	
NTX22xx4017-yy		4.2	40	85%	262	267	271	276	
				90%	226	227	228	229	
NTX22xx1513-yy		1.35	9.0	15	85%	136	139	142	145
					90%	119	119	120	121
NTX22xx2013-yy	6.8		20	85%	172	177	182	187	
				90%	153	154	154	155	
NTX22xx3013-yy	4.5		30	85%	247	252	257	263	
				90%	214	215	216	218	
NTX22xx4013-yy	3.4		40	85%	311	318	324	331	
				90%	270	271	272	273	
NTX22xx1508-yy	0.85		5.7	15	85%	178	184	190	196
					90%	162	163	164	165
NTX22xx2008-yy		4.3	20	85%	228	236	243	251	
				90%	207	208	209	211	
NTX22xx3008-yy		2.8	30	85%	320	331	341	351	
				90%	289	291	293	295	
NTX22xx4008-yy		2.1	40	85%	402	416	429	443	
				90%	365	367	369	371	
NTX22xx1505-yy		0.51	3.4	15	85%	263	267	272	276
					90%	225	226	227	227
NTX22xx2005-yy	2.6		20	85%	336	342	348	354	
				90%	288	289	290	291	
NTX22xx3005-yy	1.7		30	85%	471	479	487	495	
				90%	402	403	405	407	
NTX22xx4005-yy	1.3		40	85%	592	602	612	622	
				90%	505	507	509	512	

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Technical and Logistical data

Nominal diameter	Inner diameter	Wall thickness	Pressure Min	Pressure Max	Reel dimensions (Ø X H)
16 mm	16.1 mm	6 mil	0.4 bar	0.8 bar	57 cm x 22 cm
		8 mil	0.4 bar	1.0 bar	
		10 mil	0.4 bar	1.0 bar	
		12 mil	0.4 bar	1.0 bar	
22 mm	22.3 mm	8 mil	0.4 bar	0.8 bar	
		10 mil	0.4 bar	1.0 bar	
		12 mil	0.4 bar	1.0 bar	



	Container 40' HC	Truck 13.6
Quantity of reels	800	880

	Quantity of reels	Dimensions (lxdxh)
Pallet	20	115x115x128 cm

INSTALLATION

- The "blue" stripe must always face upwards during installation under penalty of cancellation of the warranty;
- Neptune® N can be installed underground, under black mulch or on the surface;
- During installation avoid stretching, cutting, perforating or tearing it;
- If the soil is infected with insects with a masticatory or stinging system, we recommend disinfecting the soil;
- To avoid clogging, purge the main and secondary lines before connecting Neptune® N;
- When installing Neptune® N under mulch, begin pressurising the system within 12 hours from its installation;
- Use only water-soluble fertilisers and clear the lines of residues before interrupting irrigation;
- It is advisable to fit double-acting air valves on the manifolds to prevent impurities from being drawn in through the holes of Neptune® N when it is installed underground;
- When using transparent mulch, Neptune® N must be laid underground. Drops of condensate on the bottom of the plastic may act as a magnifying glass, concentrating sunlight and possibly leading to holes.

Nominal diameter (mm)	Wall thickness (mil)	Emitter Spacing (cm)	Reel length (m)	Reel weight (kg)	Gross weight (kg)
16	6	15	3300	28.00	27.05
		20	3400	28.60	27.65
		30	3500	28.70	27.75
		40	3700	29.70	28.75
	8	15	2600	27.90	26.95
		20	2700	28.60	27.65
		30	2900	30.30	29.35
		40	3000	31.40	30.45
	10	15	1700	22.60	23.55
		20	1800	23.60	24.55
		30	1900	23.50	24.45
		40	2000	24.60	25.55
12	15	1300	20.90	21.85	
	20	1400	22.10	23.05	
	30	1600	24.30	25.25	
	40	1700	25.80	26.75	
22	8	15	2000	30.65	31.60
		20	2000	29.95	30.90
		30	2200	30.15	31.10
		40	2300	31.15	32.10
	10	15	1300	23.60	24.55
		20	1400	25.10	26.05
		30	1500	26.80	27.75
		40	1700	28.00	28.95
	12	15	1000	21.90	22.85
		20	1000	21.50	22.45
		30	1200	25.30	26.25
		40	1200	24.90	25.85



