TERRAM NEO

New cylindrical, self-compensating and anti-suction dripper for underground irrigation with anti-root system

GESTIRIEGO

MICROIRRIGATION PIPING

TERRAM NEO

TERRAM NEO represents the future of irrigation, underground irrigation, providing up to 40% water savings, high durability, and the exact amount of water, nutrients, and agrochemicals that a crop requires directly to the plant root.
Dripline with an integrated self-compensating dripper (PC), self-cleaning, and anti-suction (AS) function with an I.C.R. system (root growth inhibitor).
The new TERRAM NEO has been developed by our RDI department, which has more than 20 years of continuous experience in research.

CHARACTERISTICS / BENEFITS

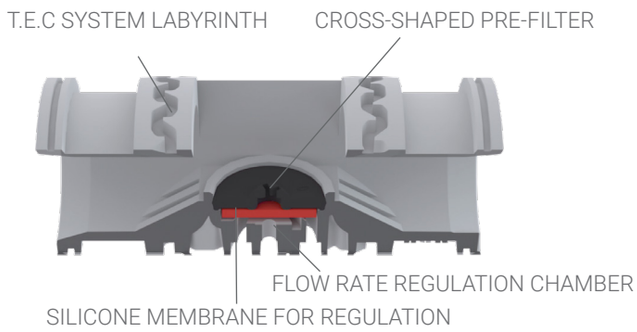
•**ANTI-ROOT SYSTEM**.
We have reinvented underground irrigation by creating and patenting a root repellent system built into the dripper that is slowly released over an operating life of up to 10 years in small dosages, preventing roots from penetrating the emitter and causing blockages.
•**ANTI-SUCTION SYSTEM (AS).**
It blocks particle suction from the ground when the system is stopped and the piping is emptied, thus avoiding any type of clogging.
•**ANTI-CLOGGING**.
Thanks to its self-cleaning system, the membrane vibrates during self-compensation, thus preventing particles from getting inside the emitter.
•**FLOW RATE UNIFORMITY.**
Thanks to its symmetric geometry and silicone membrane, the TERRAM NEO dripper always provides the same amount of water and nutrients at working pressures ranging from 0.5 to 3.5 bars. Thanks to this, irrigation lines can be longer and easier to implement in terrains with complex topography.
A-category emitter with a CV<5% and a 0.03 discharge exponent.
•**UP TO 40% SAVINGS ON WATER AND NUTRIENTS.**
The absence of solar radiation in the water emission area prevents drops from generating due to surface evaporation. In addition, nutrients are dosed exactly where the plant needs them as it is an ultra-localised irrigation system. Besides, 45% wetter soil volume is achieved with the same amount of water.

•**AVOID PROBLEMS CAUSED BY DISEASES**
Cryptogamic diseases such as Alternaria, caused by waterlogging, are avoided by preventing excess moisture in the plant stem.
•**CROP HANDLING.**
As this is an invisible field system, it allows for free circulation during works, also extending the system's durability. It also prevents the wearing of plastic materials caused by UV rays and damage caused by vandalism, rodents, and adverse weather conditions.
•**ALLOWS FOR THE USE OF CONTAMINATED WATER**.
It avoids the risk of human and animal contact with irrigation water, which can sometimes be harmful due to the high load of fertilisers and phytosanitary treatments usually used for irrigation.
It is also suitable for the use of waste water in certain applications such as urban gardening.

APPLICATIONS

- Fields with great lengths of laying.
- Systems with complex and irregular topography.
- Any type of crops in open fields and greenhouses requiring maximum fertilising irrigation accuracy.
- Crops such as vineyards, olive groves, and any type of fruit trees.
- Gardening applications.

I.C.R. SYSTEM



SPECIFICATIONS

- Nominal diameter: 16 mm.
- D16 mm flow rates: 1'6, 2'0, 3'8 l/h.
- Coil length: 400 m in Ø16.

(*Other lengths available upon request*).

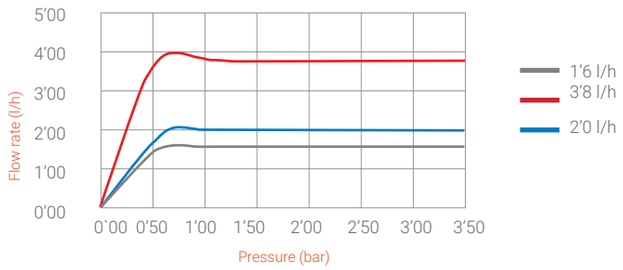
TERRAM NEO			
DIAMETER	FLOW RATE	SEPARATION BETWEEN EMITTERS	ROLL
mm	l/h	m	m
16	1'6 2'0 3'8	0'20 0'25 0'30 0'33 0'40 0'50 0'60 0'75 1'00 1'25 1'50 2'00	400

WALL THICKNESSES				
NOMINAL DIAMETER	INTERNAL DIAMETER	WALL THICKNESS	NOMINAL PRESSURE	MAX. WORKING PRESSURE
mm		l/h	bar	m
16	13'8	1'00	2'00	3'50
	13'8	1'15	2'00	4'00

DIAMETER	FLOW RATE	HOMOGENEITY	DISCHARGE EXPONENT*
mm		l/h	
16	1'60	2'7	0'00
	2'00	2'4	0'00
	2'80	1'9	0'00

**According to the UNE EN ISO 9261 standard. Agricultural irrigation equipment. Emitters and emitting pipe. Specifications and test methods.*

CHARACTERISTIC EQUATION		
DIAMETER	FLOW RATE	q= k·p
mm	l/h	q (l/h), p (bar)
16	1'60	$q = 1'55 \cdot p^{0'04}$
	2'00	$q = 1'93 \cdot p^{0'03}$
	3'80	$q = 3'70 \cdot p^{0'02}$



FLOW RATE-PRESSURE CHART								
DIAMETER	FLOW RATE	PRESSURE 0'00	0'5	1'0	1'5	2'0	2'5	3'0
		mm						
		FLOW RATE						
mm	mm	l/h						
16	1'60	0'00	1'51	1'55	1'57	1'59	1'60	1'62
	2'00	0'00	1'88	1'93	1'96	1'98	2,00	2'01
	3'80	0'00	3'66	3'70	3'73	3'74	3,76	3'77

TERRAM NEO														
DIAMETER	FLOW RATE	PRESSURE	MAXIMUM BRANCH LENGTHS IN FLAT TERRAIN 0.20	0.25	0.30	0.33	0.40	0.50	0.60	0.75	1.00	1.25	1.50	2.00
mm	l/h		m											
16	1'6	0'50	32	38	48	56	63	79	95	121	158	197	203	248
		1'00	34	40	51	58	68	85	102	130	169	211	239	310
		1'50	36	41	54	60	72	90	109	139	180	225	276	373
		2'00	43	59	66	70	80	108	131	158	203	270	333	464
		2'50	45	52	68	85	90	113	136	173	225	281	346	466
		3'00	47	54	72	91	95	118	144	182	236	295	364	491
	2'0	0'50	35	42	53	62	70	88	106	134	175	219	225	275
		1'00	38	44	57	65	75	94	114	144	188	235	266	345
		1'50	40	46	60	67	80	100	121	154	200	250	307	414
		2'00	48	65	73	78	89	120	145	175	225	300	370	515
		2'50	50	58	76	94	100	120	151	192	250	312	384	518
		3'00	52	60	80	101	105	131	160	202	262	328	404	546
	3'8	0'50	17	22	26	31	35	44	53	66	87	109	135	183
		1'00	19	24	28	34	38	47	57	71	94	117	145	196
		1'50	20	25	30	37	40	50	61	75	100	125	154	208
		2'00	24	30	36	44	48	60	73	90	120	150	184	248
		2'50	25	32	38	47	50	63	76	94	125	156	192	259
		3'00	26	33	39	51	53	66	80	99	131	164	202	273

RECOMMENDED FITTINGS

BROWN SAFETY TEE

BROWN SAFETY SOCKET

END RING

BROWN SAFETY COUPLING

BROWN SAFETY ELBOW

ORANGE SAFETY COUPLING WITH GROMMET

BRANCH VALVE

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Creando los caminos del agua