

# Product Catalogue

"SPECIALITY IS OUR STRENGTH"



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# INTRODUCTION

Welcome to the exclusive world of ZETA, where excellence meets innovation in every product we offer. With the privilege of sourcing 100% virgin raw materials from Qatar Petrochemical Company (QAPCO) and harnessing the capabilities of our state-of-the-art production and testing facilities, we are empowered to create top-notch products that redefine industry standards.

Our commitment to superior quality ensures maximum work life expectancy, all while upholding a highly competitive pricing strategy that sets us apart in the market.

Explore our catalogue and discover the unparalleled quality and value that ZETA brings to each customer.



# **CERTIFICATES**







# ZETA-TPNC

## **ZETA TAPE**

## (Thin-wall flat drip irrigation pipes)

ZETA TAPE Thin-wall flat drip irrigation pipes offer a highly efficient and cost-effective method of delivering water directly to the plant roots, ensuring optimal growth while conserving water. They are designed with precision-engineered emitters that provide uniform water distribution across the entire field, making them ideal for a wide range of crops and terrains.

ZETA TAPE emitters are intelligently designed and constructed from durable materials with a wide filtration surface, making them the ultimate choice for durability and effectiveness. ZETA TAPE withstands various environmental conditions, offering longevity and reliability.



#### **Benefits and Features**

- **Premium quality material:** Manufactured from high-grade polyethene, it is a superior choice for agricultural irrigation systems.
- Various emitter options: Both short and long emitters with a wide filtration area are available, maximising pipe performance and efficiency.
- **Wide flow rate selection:** With flow rates ranging from 1.0, 1.6, 2.2, 2.8, and 3.5 L/H (litres per hour), the ZETA TAPE offers versatility and adaptability, allowing users to select the optimal flow rate to suit their specific crop and soil needs.
- Clog-resistant design: Engineered for high resistance to clogging, the ZETA TAPE ensures turbulent water flow, minimising maintenance requirements and maximising operational efficiency.
- **UV resistance:** The ZETA TAPE exhibits exceptional UV resistance, ensuring longevity and consistent performance even under prolonged sunlight exposure.
- **Effortless installation and maintenance**: Designed for ease of use, the ZETA TAPE facilitates simple installation and maintenance, saving time and effort for farmers and agricultural professionals.
- **ISO 9261 compliance:** The ZETA TAPE complies with ISO 9261 standard, guaranteeing quality and reliability and meeting international benchmarks for irrigation system effectiveness and performance.

## **Technical Specification**

Nominal Diameter (mm)	Internal Diameter (mm)	Wall Thic	kness	Emitter Spacing (cm)		Roll Length (m)	Maximum Working Pressure (Bar)
				10		2300	, ,
			İ	<del>15</del>		2500	
			İ	20		2500	
17	16.1	6 mil (0.15 mm)	mm)	25		2500	0.8
Δ/	10.1			30	+	2500	
			ŀ	40		2500	
			-	50		2500	$\dashv$
				10		2200	
			}	15		2200	$\dashv$
			}	20		2400	_
4.0	1/1	F 1 (0.4FF		25		2400	
17	16.1	7 mil (0.175	o mm)	30		2400	0.8
				40		2400	
				50		2400	
				10			
				15		2000	
			[	20		2300	
	16.1			25		2300	
17		8 mil (0.20	mm)	30		2300	1.0
		(00)		40		2300	
			ŀ	50		2300	$\dashv$
			ŀ	20		2300	$\dashv$
				25		2000	
17	16.1	10 mil (0.25 mm)		30		2000	1.2
17	10.1	. 10 11111 (0.25 111111)	,,	20		2000	
						1700	
17	1/1	12: 1/0 20		25		1700	
17	16.1	12 mil(0.30	iu mm)	30		1700	1.4
				20		1300	
		15 mil (0.375 mm)		25 30		1300	
17	16.1					1300	1.4
				20		1800	
				25		1800	
22	22.0	8 mil (0.20 mm)	mm) [	30		1800	1.0
				30		1500	
	22.0			40		1500	
22		10 mil (0.25 mm)		50		1500	1.2
				30		1200	
				40		1200	
22	22.0	12 mil ( 0.30	) mm)	50		1200	1.4
		( 5.00 11111)				1200	
Flow Rate	2(1 /H)	1.0	1.6		2.2	2.8	3.5





# Pressure Compensating Drip Irrigation Pipes (ULTRA-PC)

Engineered for precision and resilience, the ULTRA-PC Pressure Compensating Drip Irrigation Pipes are ideal for demanding agricultural environments. Crafted from top-grade LDPE and LLDPE with UV protection, these pipes ensure durability and flexibility. Featuring advanced pressure-compensating emitters with a self-cleaning system, the ULTRA-PC pipes are designed for efficient water distribution in steep, rocky terrains, sloping landscapes, and areas requiring meticulous irrigation control.



#### **ULTRA-PC Drip Pipes**

The ULTRA-PC drip pipes are equipped with pressure-compensating flow emitters featuring a self-cleaning silicone rubber diaphragm that controls water discharge at varying pressures. Additionally, the ULTRA-PC non-drain design retains water within the system throughout irrigation cycles, guaranteeing prompt and consistent irrigation along the entire drip line. This non-drain function is achieved by the emitter opening at 0.30 bar and closing at 0.18 bar.

#### **Benefits and Features**

- ULTRA-PC ensures consistent and accurate water distribution across a wide pressure spectrum.
- ULTRA-PC features a continuous self-cleaning system to prevent clogging and maintain uninterrupted functionality.
- Crafted from premium raw materials, ULTRA-PC guarantees durability and sustained high performance.
- The drippers in ULTRA-PC offer expansive and precise water pathways throughout the labyrinth design.

## **Specifications**

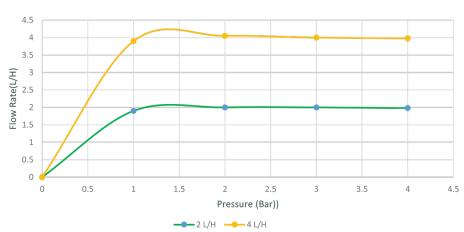
- Offered in two flow rates: 2 L/H (0.5 G/H) and 4 L/H (1 G/H).
- Pressure compensating capabilities specified in respective models and technical tables.
- Available in various wall thicknesses: 0.8mm (0.031"), 0.9mm (0.035"), 1.0mm (0.039"), 1.1mm (0.043"), 1.27mm (0.050"), and 1.4mm (0.055").
- Exhibits high UV resistance and withstands agricultural nutrient exposure.
- Features injected molded emitters with an excellent Coefficient of Variation (CV).
- Ideal for effluent water reuse applications.
- Incorporates a unique labyrinth design for optimal turbulent water flow.

### **Product Application**

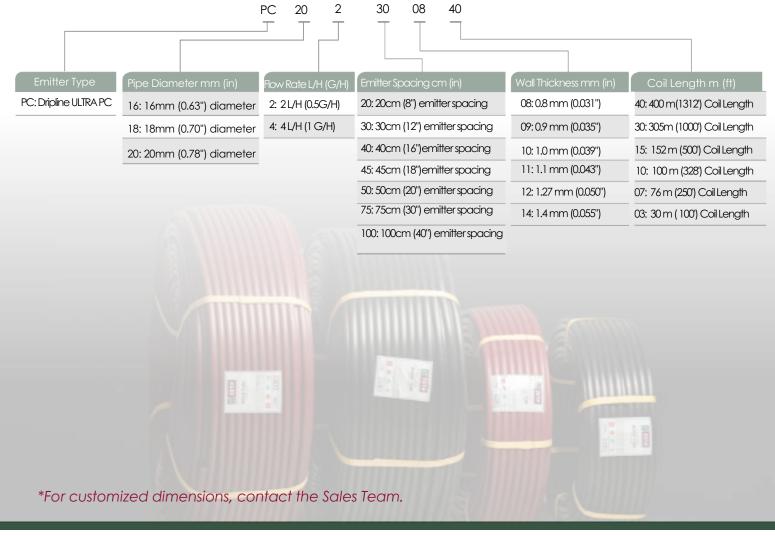
- Landscaping
- Precise irrigation
- Irregular terrain
- Row crops
- Orchards
- Gardening
- Pulse irrigation

Technical information				
Diameter (Nominal)	16mm (0.63"), 18mm (0.70"), 20mm (0.78")			
Inside Diameter	13.8mm (0.54"), 15.24mm (0.60"), 17.6mm (0.69")			
Roll Length	400m (1312'), 305m (1000'), 152m (500'), 100m(328'), 76.5m (250'), 30.5m (100')			
Maximum Working Pressure	4 Bar (58 psi)			

#### ZETA PC DRIPLINE FLOWRATE VS PRESSURE GRAPH



## **Pressure Compensating Dripline Ordering Way\***



# Non Pressure Compensating Drip Irrigation Pipes (NORD NON-PC)

The NORD Non Pressure Compensating Drip Irrigation Pipes, made from the same high-quality LDPE and LLDPE materials with added UV protection, are designed for robust performance in loose soil conditions. These durable drip lines integrate an internal filter and a turbulent flow path design within the emitters to prevent clogging and ensure even water distribution, making them an economical choice for long-term crops and diverse agricultural applications.

#### **NORD NON-PC Emitters**

The NORD-NON-PC emitters provide compact and affordable options for a variety of applications. They are ideal for extended crop growth and can be utilized over multiple seasons, providing straightforward and trouble-free setup for inexperienced farmers. When creating an emitter, the flow path is a critical factor. The width, depth, and length dimensions not only determine the emitter's flow rate in liters per hour but also play a crucial role in preventing blockages. A turbulent flow path design creates a vortex effect within the emitter, effectively avoiding clogging problems.



#### **Benefits and Features**

- NORD-NON-PC boasts exceptional tensile strength as it is crafted from top-notch resins, delivering outstanding field performance thanks to its flawlessly designed, injection-molded emitter with minimal Coefficient of Variation (CV).
- The design of NORD-NON-PC ensures superior resistance to clogging and provides unparalleled emission uniformity.
- Made from premium raw materials, NORD-NON-PC guarantees durability and sustained high performance.
- The water passages in NORD-NON-PC drippers are wide and precise, following a labyrinthine path.

### **Specifications**

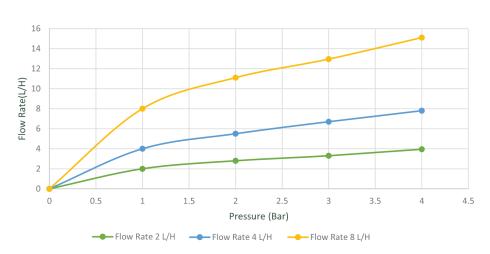
- Offered in 3 flow rates: 2 L/H (0.5 G/H), 4 L/H (1 G/H), and 8 L/H (2 G/H).
- Available in various wall thicknesses: 0.8mm (0.031"), 0.9mm (0.035"), 1.0mm (0.039"), 1.1mm (0.043"), 1.27mm (0.05"), and 1.4mm (0.055").
- Boasts high UV resistance.
- Resistant to all agricultural nutrients.
- Features injection-molded emitters with an outstanding Coefficient of Variation (CV).
- Ideal for reusing effluent water.
- Incorporates a special labyrinth design ensuring turbulent water flow.

## **Product Application**

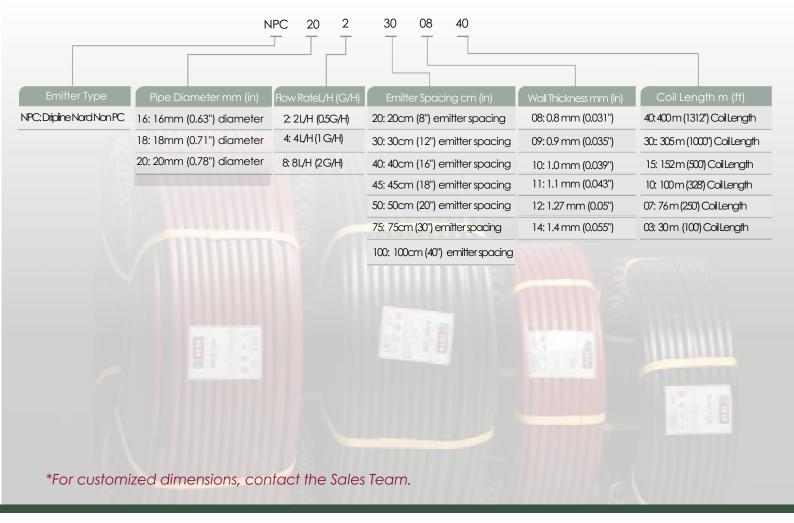
- Row crops
- Orchards
- Landscaping
- Vegetables
- Gardening

Technical Information		
Diameter (Nominal)	16mm (0.63"), 18mm (0.71"), 20mm (0.78")	
Inside Diameter	13.8mm (0.54"), 15.24mm (0.60"), 17.6mm (0.69")	
Roll Length	400m (1312'), 305m (1000'), 152m (500'), 100m (328'), 76.5m (250'), 30.5m (100')	
Maximum Working Pressure	4 Bar (58 psi)	

#### ZETA NPC DRIPLINE FLOWRATE VS PRESSURE GRAPH



## **Non Pressure Compensating Dripline Ordering Way\***



# **Blank Pipes**

Constructed from the highest quality LDPE and LLDPE with UV protection, the Blank Pipes are designed for flexibility and durability. These pipes are essential for creating seamless and leak-free connections in irrigation systems, offering an optimal solution for the installation of on-line emitters. With their exceptional resistance to UV rays and agricultural chemicals, these tubes stand as a testament to reliability and longevity in agricultural rrigation infrastructure.

**Blank pipes** serve as versatile components that allow for customization and flexibility in designing irrigation systems. These pipes typically do not have pre-installed emitters or perforations, hence the term "blank." Instead, they provide a conduit for water to flow through the system, allowing users to customize the placement and configuration of emitters or other irrigation components according to their specific needs.



#### **Benefits and Features**

- Blank Tube is crafted from top-grade polyethylene raw.materials to prevent cracking and kinking, ensuring long-term reliability.
- Blank Tube is shielded from solar radiation with a UV stabilizer for protection.

### **Specifications**

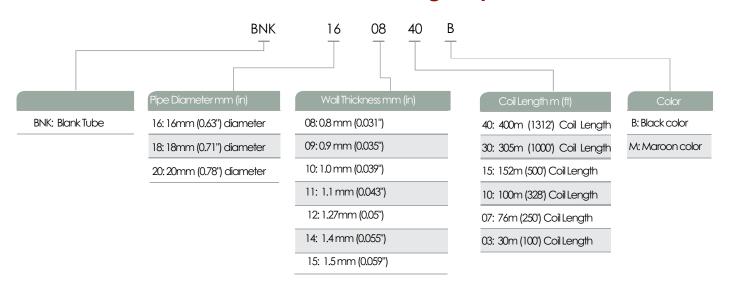
- Crafted entirely from high-quality polyethylene.
- Offered in a range of wall thicknesses: 0.8mm (0.031"), 0.9mm (0.035"), 1.0mm (0.039"), 1.1mm (0.043"), 1.27mm (0.05"), 1.4mm (0.055"), and 1.5mm (0.059").
- Exhibits strong UV resistance.
- Resists all agricultural nutrients.
- Available in black and maroon color options for the pipes.

### **Product Application**

- Drip and sprinkler discharge points
- Installation of on-line emitters
- Micro-irrigation

Technical Information			
Diameter (Nominal)	16mm (0.63"), 18mm (0.71"), 20mm (0.78")		
Inside Diameter	13.8mm (0.54"), 15.24mm (0.60"), 17.6mm (0.69")		
Roll Length	400m (1312'), 305m (1000'), 52m (500'), 100m (328'), 76.5m (250'), 30.5m ( 100')		
Color	Black, Maroon		
Maximum Working Pressure	4 Bar (58 psi), 6 Bar (87 psi), 8 Bar (116 psi)		

# **Blank Tube Ordering Way\***





#### **On-Line Emitters**

Zeta has two on-line emitters, the Pressure Compensating (PC) and the Non-Pressure Compensating (NPC).

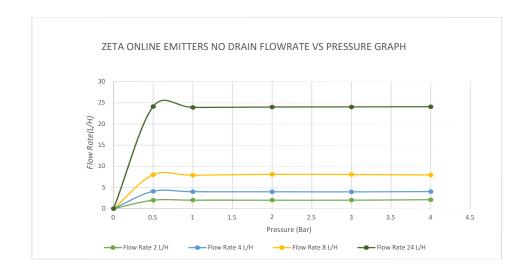
## **Pressure Compensating On-line Emitter**

Fitted with a silicone membrane for precise and uniform water distribution across a wide pressure range, On-line PC emitters are tailored to meet the requirements of accurate irrigation. These emitters are suitable for various settings, from household gardens to advanced hydroponic systems.

Featuring the Non-Drain function, On-line PC Emitters maintain a full water pipe during irrigation, ensuring eliminating the need for drainage and refilling. Non-Drain function activates when the pressure reaches 0.15 bar.







Nominal Flow Rate (L/H)	Constant, k (bar) No Drain	Exponent (x)	Water Passage Width x Depth x Length (mm)	Filtration Area (mm)	Recommended Filtration (mesh/microns)
2	2	0	1.00 x 1.00 x 55.4	3.8	130/120
4	3.8	0	1.30 x 1.10 x 50.6	3.8	131/120
8	8.4	0	1.50 x 1.15 x 46.5	3.8	132/120
24	23.5	0	1.35 x 1.20 x 35	3.8	133/120

#### **Non-Pressure Compensating Online Emitter**

Non-pressure compensating online emitters are employed in drip irrigation systems compensating emitters, which maintain a consistent flow rate despite pressure fluctuations, non-pressure compensating emitters release water at a rate that may vary with changes in pressure.

When using non-pressure compensating online emitters, it's important to carefully design the irrigation system to account for variations in pressure and ensure adequate coverage and uniform water distribution. Additionally, regular maintenance and monitoring are necessary to detect and address any issues such as clogging or uneven watering. Crafted from the same durable HDPE (High Density Polyethylene) material, these emitters ensure longevity and reliability in various agricultural and horticultural settings.

### NPC Online Emitters and Technical Information

Description	Flow Rate	
REGULATED NAILED DRIPPER	0 -70 L/H	
REGULATED NAILED DRIFFER	0-100 L/H	1 1
ON LINE DRIPPER WITH ADJUSTABLE FLOW	0-150 L/H	4
	4 L/H	4
AUTO REGULATED DRIPPER	8 L/H	
	12 L/H	•

#### **Emitter Characteristics**

- Wide range of flow rates: 2 L/H (0.5 G/H), 4 L/H (1 G/H), 8 L/H (2 G/H), and 24 L/H (6 G/H).
- Engineered for fitting into pipes ranging from 12mm to 32mm in diameter and with wall thicknesses from 0.9mm (0.035") to 1.27mm (0.05").
- Extensive pressure compensation capability.
- Equipped with a cross-shaped water inlet.
- Provides broad and precise water passages within the labyrinth.
- Incorporates a unique labyrinth design ensuring highly turbulent water flow.
- Self-cleaning mechanism prevents clogging, ensuring uninterrupted emitter operation.
- Demonstrates high UV resistance and resilience to common agricultural nutrients. The injected emitter maintains a very low Coefficient of Variation (CV) of less than 5%.
- Can be manually installed precisely where needed, with the option to increase the number of emitters to enhance water supply for tree growth requirements.
- The design allows for the installation of manifold outlets with multiple outputs.
- Features a single outlet type suitable for 3mm internal diameter micro-tubes and press-fit nipple connectors.

### **Product Applications**

- Greenhouses and nurseries
- Orchards
- Landscaping
- Gardening
- Hydroponics
- Soilless culture
- Pulse irrigation

# **Barbed Irrigation Fittings**

Known for their simplicity and efficiency, Barbed Irrigation Fittings provide easy-to-use connections. These fittings are highly regarded for their cost-effectiveness and low maintenance needs, making them an excellent option for barbed irrigation connections.

Compatible with Oval Hose, Polyethylene Mainline Tubing, and 1/2" Emitter Tubing, these push-in fittings offer versatility and convenience. They are constructed using Polypropylene Homopolymer (PP-H) material.

## **Barbed Tee Coupling**

Part No	Description
B-T-16-16-16	Barbed Tee Coupling, 16mm x 16mm x 16mm
В-МП-16-1-2	Barbed Male Threaded Tee Coupling, 16mm x 1/2" x 16mm
B-MTT-16-3-4	Barbed Male Threaded Tee Coupling, 16mm x 3/4" x 16mm



#### **Barbed Elbow Coupling**

Part No	Description
B-E-16-16	Barbed Elbow Coupling, 16mm x 16mm
B-MTE-16-1-2	Barbed Male Threaded Elbow Coupling, 16mm x 1/2"
B-MTE-16-3-4	Barbed Male Threaded Elbow Coupling, 16mm x 3/4"



## **Barbed Coupling**

Part No	Description
B-C-16-16	Barbed Coupling, 16mm
B-MTC-16-1-2	Barbed Male Threaded Coupling, 16mm x 1/2"
B-MTC-16-3-4	Barbed Male Threaded Coupling, 16mm x 3/4"



#### **Bubbler Stake**

Part No	Description
B-BS-16	Bubbler Stake, 16mm x 1/2"



## Non-PC Adjustable Bubbler Head

Part No	Description
B-BSH-1/2	Non-PC Adjustable Bubbler Head , 1/2"



# **Drip Pipe Stake**

Part No	Description	
B-DS-16	Drip Pipe Stake 16mm	



# **Rachet Clip**

Part No	Description	
B-RC-16	Rachet Clip 16mm	



# **Barbed End Plug**

Part No	Description	
B-EP-16	Barbed End Plug 16mm)	



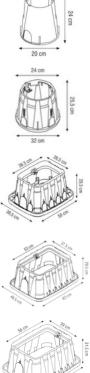
## **Irrigation Valve Boxes**

ZETA valve boxes are constructed from top-quality materials, making them easy to install and maintain. They feature an additional side support for enhanced sustainability and durability. Available in different sizes, these valve boxes can meet a range of valve assembly and agricultural irrigation installation needs.

#### **Features**

- Resistant to extreme forces.
- Constructed of HDPE.
- Provides UV protection against sunlight.
- Capable of withstanding breaking, buckling, and cracking.
- Pipe sections are extruded, and the joints are individually selected according to the pipe diameter to ensure a smooth installation.
- Excellent resistance to heavy loads.
- Securely sealed covers to prevent dust or dirt from entering the box.
- Available in various sizes for different applications.
- Ensures optimal performance in all weather conditions.
- Crafted with premium quality materials.
- The bottom flange effectively prevents sinking in all types of soil.
- Features an intelligent cover lock design.
- Includes tag identification for multilingual box usage.

CODE	Features	SIZE	16 cm
I-VB-6	Two side openings. Simple opening and closing.Strong box body.	6"	24 gm
I-VB-10	Two side openings. Simple opening and closing. Strong box body.	10"	24 cm 23.5 cm
I-VB-12	Beside the two-side opening there is an option to open three opening cross side to side for more valves installation. Strong box body.	12"	35 m 35 m
I-VB-14	Beside the two-side opening there is an option to open four opening cross side to side for more valves installation. Strong box body.	14"	No. of   100   1
I-VB-16	Two side opening suitable for 4" pipe diameter. The cover has a shovel access slot and is used to Easily remove the cover.	16"	3500





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