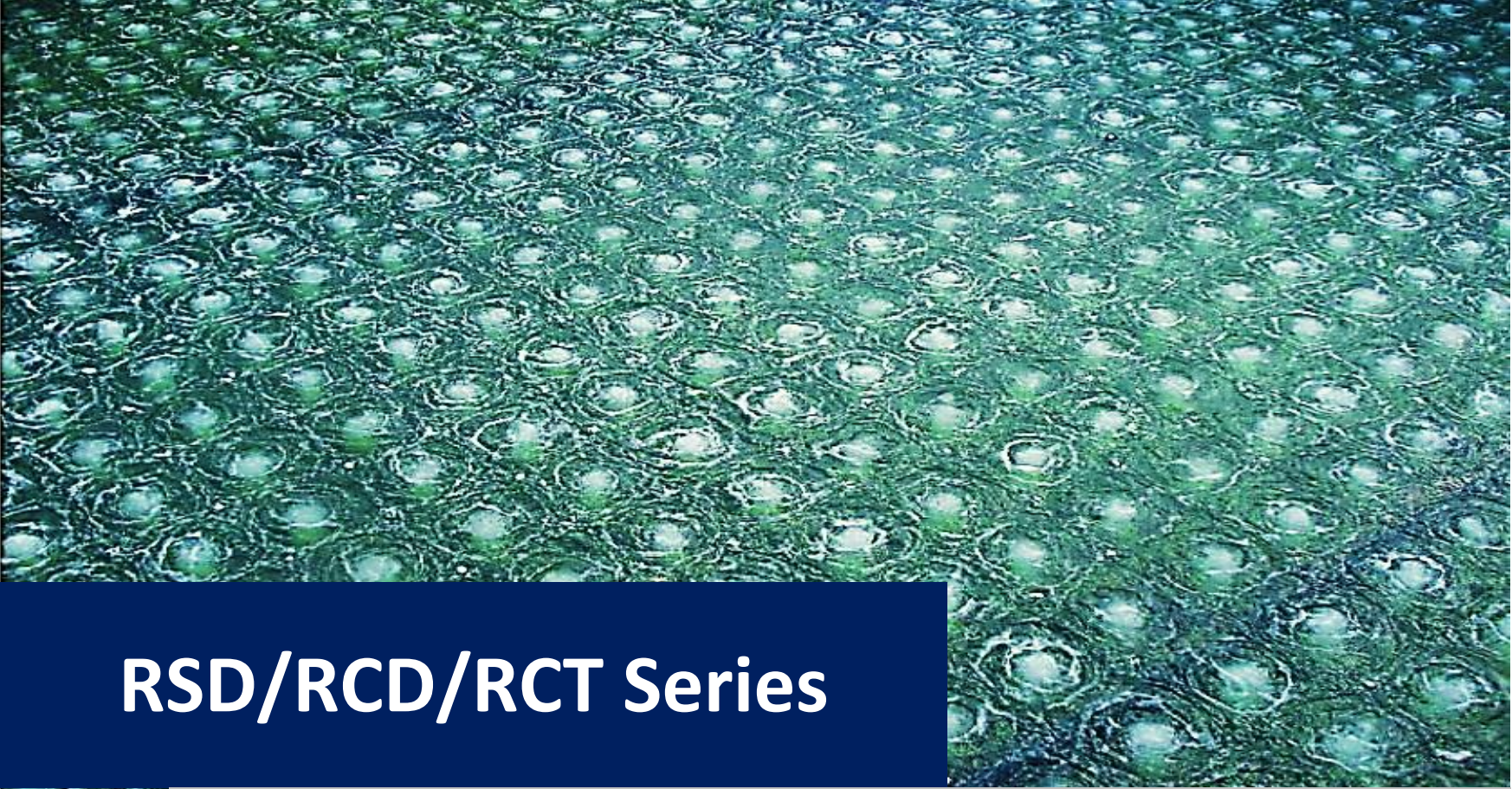




**FLOWSHEN**



## **RSD/RCD/RCT Series**

**Coarse/Fine Bubble Aeration Diffuser**



## Fine Bubble Disc Diffuser



### Specification

Model	Flow rate (m <sup>3</sup> /hr)	Design flow (m <sup>3</sup> /hr)	Pressure loss (Pa)	Check valve	Range depth (m)	Service area (m <sup>2</sup> )	Pores quantity	Bubble size (mm)	Max. Temp.	Connector threaded	Weight (kg)
RSD245	1 – 7.2	2.0 – 6.0	2000 – 4800	***N/A	1.5 – 7.0	0.5	6500	1 – 3	100 °C	3/4" NPT	0.6
RSD330	1 – 12	4.0 – 8.5	3800 – 6300			0.8	12500				0.85
RCD245	1 – 7.2	2.0 – 6.0	2800 – 5500	Included		0.5	6500				0.75
RCD330	1 – 12	4.0 – 8.5	4300 – 6800			0.8	12500				0.95

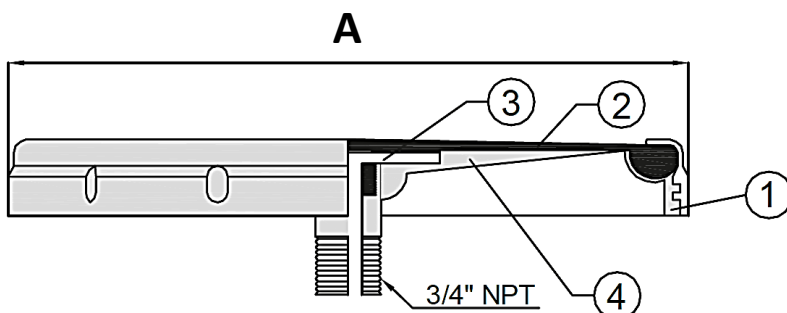
### Features

- High Oxygen Transmission Efficiency (OTE) with a large number of identical diameter slits (pores) on EPDM membrane producing tiny air bubbles of an average 1-3 mm, thus provide power saving efficiency and low operation cost.
- Excellent back flow prevention with check valve to avoid clogging and sewage water to entering into aerator pipe line when air transmission is shut (also available with non-check valve).
- Equipped with EPDM membrane with high tensile strength, anti-tearing, and non- deformability. The membranes surface are overspread with over 6500 to 12500 of micro pores. While operating, the bubbles are rise in a form of spiral whirlpool, thus provide the self-cleaning ability for the membranes as well as extended long service life.
- Unique seal ring provide a maximum tight sealing between diffuser base and membrane washer.
- PVC Soft connector for installation with pipe line also available as optional accessories.

### Application

- Aeration
- SBR reaction basin
- Sludge activated process
- Wastewater treatment process
- Denitrification aerobic process
- Aquafarm and other aeration application

### Construction



Dimension - A (mm)

RSD245	RSD330	RCD245	RCD330
266	348	265	350

Material

No.	Description	Model			
		RSD245	RSD330	RCD245	RCD330
1.	Retaining ring	*PP	*PP	*PP	*PP
2.	Membrane	**EPDM	**EPDM	**EPDM	**EPDM
3.	Check valve	***N/A	***N/A	**EPDM+*PP	**EPDM+*PP
4.	Disc	*PP	*PP	*PP	*PP

\*Polypropylene \*\*Ethylene Propylene Diene Monomer \*\*\* Not applicable



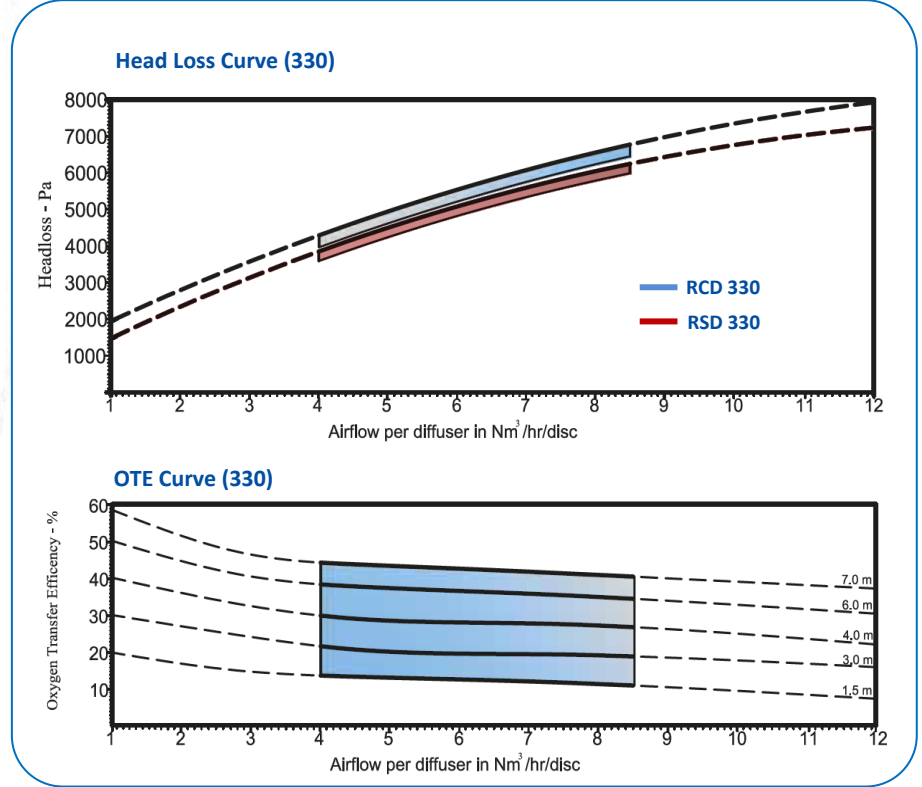
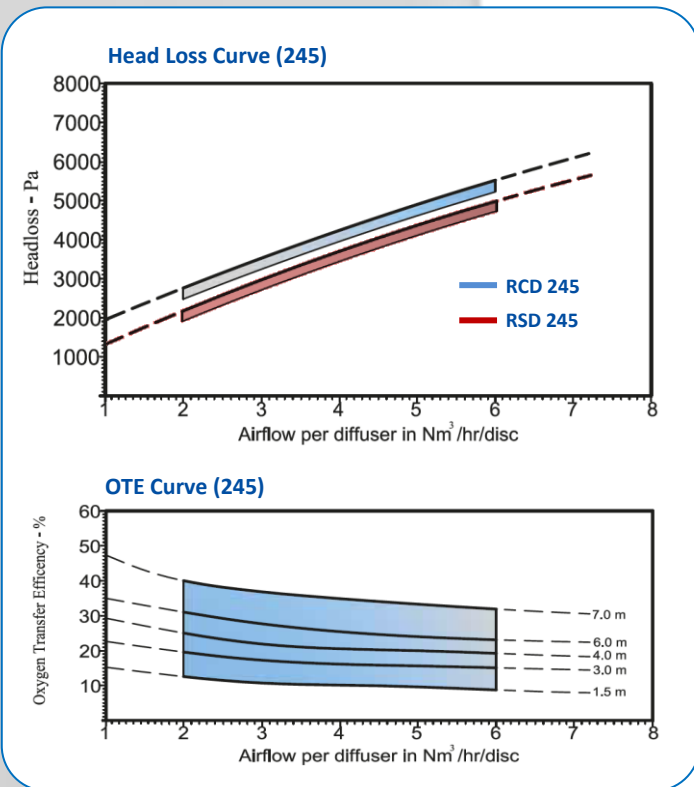
**Model: 245**



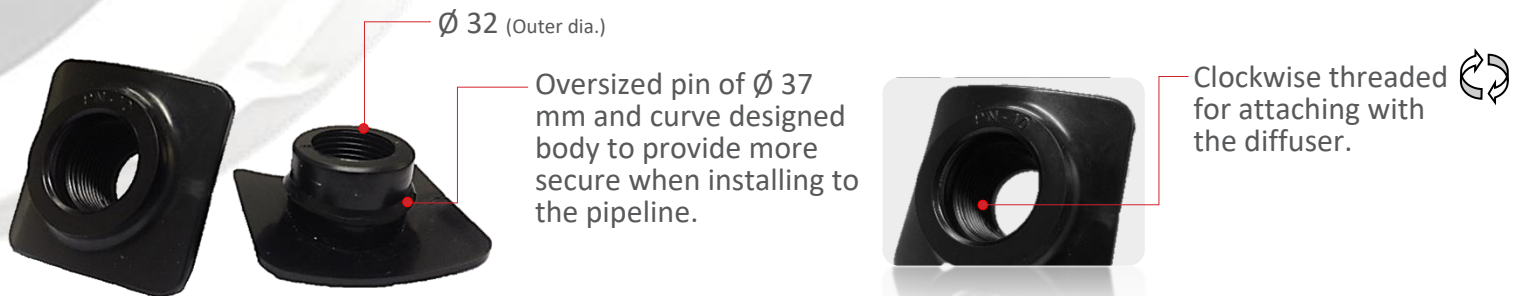
**Model: 330**



## Performance Curve



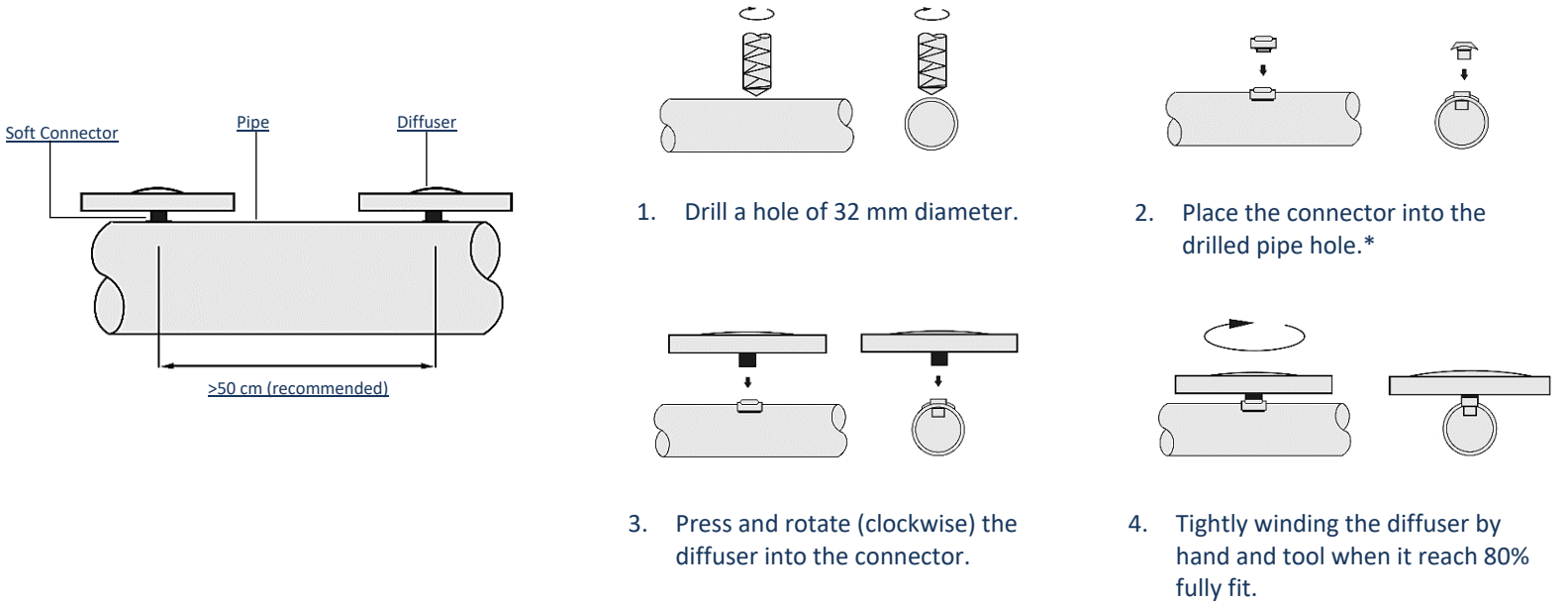
## Soft Connector



Adaptor size	Threaded Dia.	Material
Ø32 mm x 5 mm	1" NTP (Male)	PVC*

\*Polyvinyl Chloride

## Installation with Soft Connector



\*It is recommended to apply a silicone glue between the connector and the pipe hole for more stable adhesive.

## Moister Purge System

As air temperature become higher after compressed by the heat blast of the blower (approximately up to 50 c°), the accumulation of water or liquid will occur inside the aeration pipeline, thus decreasing of oxygen transfer rate and clogging of diffuser's micro pores. In order to prevent these issue, the moisture purge system can provided the benefit of discharging condensed wastewater and liquid from the aeration pipeline which might entered into the pipe by accumulated or when the blower shut off.

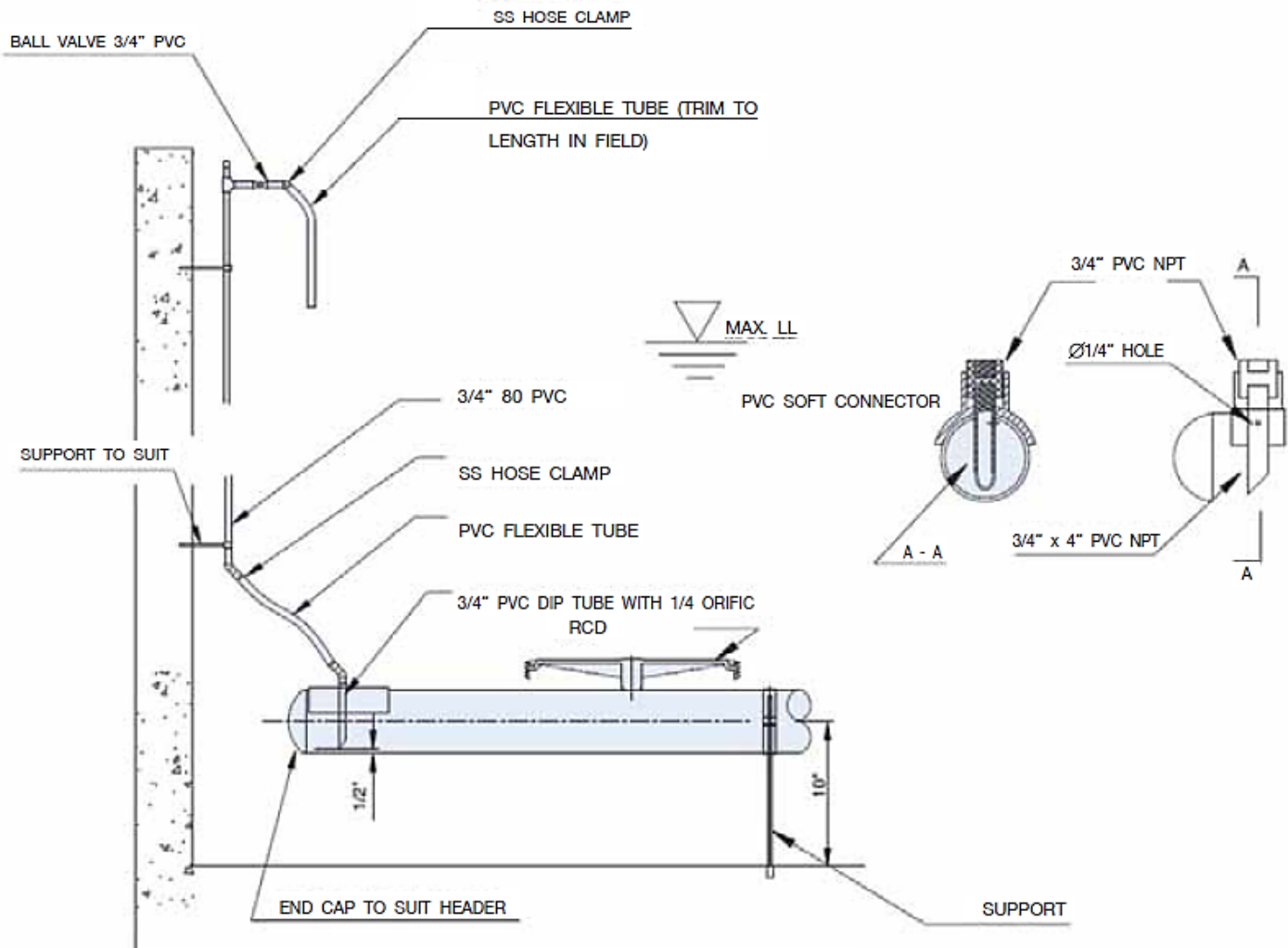


Figure 1. Moister Purge System

# Coarse Bubble Disc Diffuser



## Specification

Model	Material	Connector threaded	Flow rate	OTE	Head loss	Weight (kg)
RSD 144	-Rubber cap: PU* -Main body: ABS**	1" NTP (Male)	12 – 24 m <sup>3</sup> /hr	17% @Water depth 4 m	1550 Pa @ 15 m <sup>3</sup> /hr	0.13

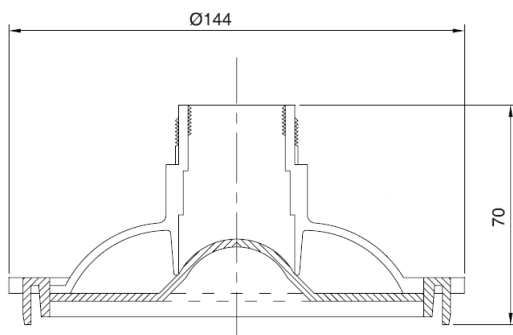
## Features

- Special design structure to prevent water back-flow during air flow interruptions.
- Main body made of high quality ABS material with heat resistance and softening temperature prevention.
- Polyurethane membrane offers a durability protection from corrosion, weather, oil, and deformation.
- Adjustable discharge hole for different air volume, which decreases the pressure loss and prevent clogged as well as low maintenance.
- Easy installation with capability to install in upwards or downwards position.

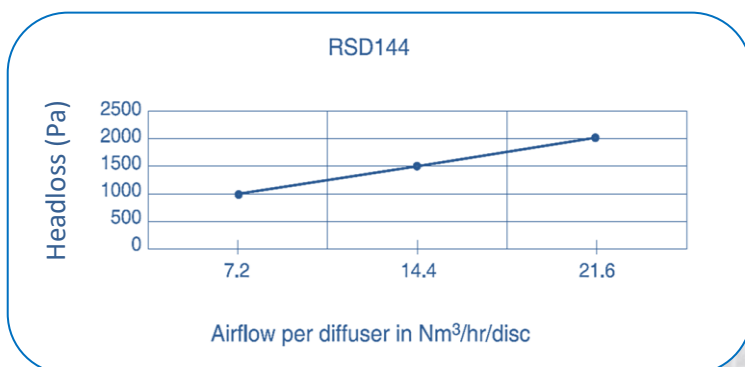
## Application

- Aeration
- Wastewater treatment
- Sludge activated process
- Purify water treatment process
- Mixing application
- Equalization process

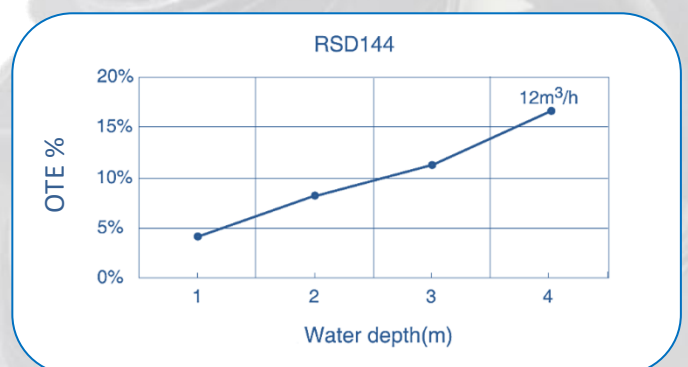
## Construction



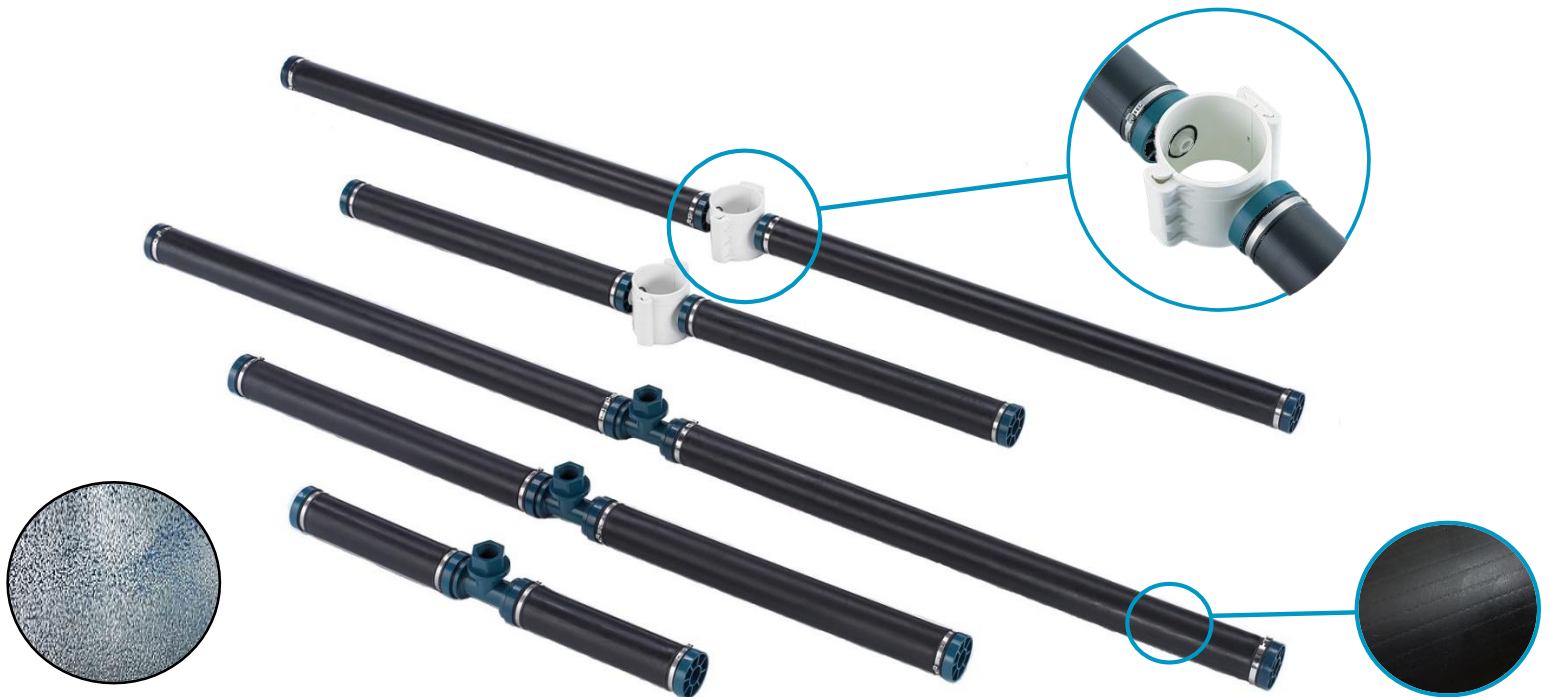
## Head Loss Curve



## OTE Curve



## Fine Bubble Tube Diffuser



### Specification

Description / Model		RCT300	RCT600	RCT1000
Material :	Membranes sleeve	EPDM (Ethylene Propylene Diene Monomer)		
	Supported tube	Hard ABS, Open-end designed for buoyancy force minimize.		
Diameter x Perforation length		63 mm × 300 mm	63 mm × 600 mm	63 mm × 1000 mm
Connector-air inlet threaded		R.3/4" PT, Female		
Flow rate : Best continuous operation		10 ~ 80 L/min	30 ~ 250 L/min	50 ~ 320 L/min
Bubble size		1 – 3 mm		

### Features

- RCT Tube Diffuser equipped with compression molded EPDM membranes, able to endure against an ultraviolet degradation or chemical corruption.
- Hollow type tube designed allow for maximum strength at a minimum positive buoyancy.
- Tube inlet distributor is designed for all in one injection.
- The supported tube are made of ABS material.
- Membranes are directly fixed by stainless steel (SUS304) clamp on the tube.

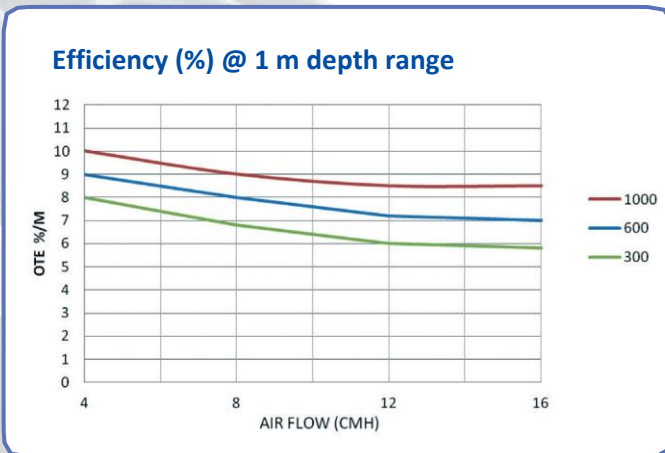
### Application

- Municipal sewage treatment process
- Industrial wastewater treatment process
- Purify water treatment process
- Ozone diffuser application
- Sludge stabilization process
- Aquafarm

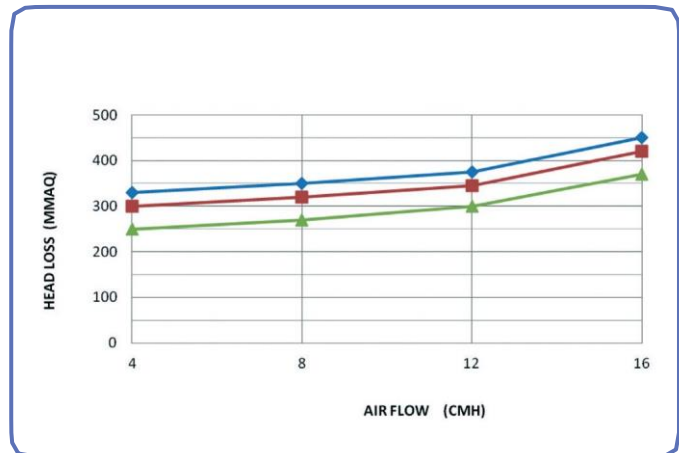
### Advantages

- High oxygen transfer efficiency with low head loss.
- Self-cleaning ability and good seal to prevent water from enter into the pipeline.
- High service area and low power consumption to provide cost efficiency.
- High tensile strength EPDM membrane material with non-deformability for long-term operation of diffuser.
- Easy installation with ABS adaptor which can be assembly onto pipe without using any special tools.

### OTE Curve

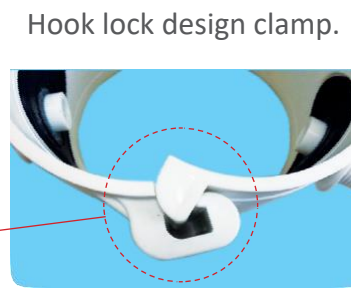


### Head Loss Curve



### Tube Diffuser Adaptor

Hammer the wedge to lock the clamp tight.



Model	Size	Threaded Dia.	Material
CLM-02	Ø90 mm x 4 mm	3/4" (PT)	ABS*

\*Acrylonitrile Butadiene Styrene

