



B- 63, Bileshwar Industrial Estate, Part – 2,
Opp. Gujarati Vepari Maha Mandal,
S.P Ring Road, Odhav,
Ahmedabad: 382415

Email: Aquanzaengg@gmail.com

(M) 9913824579

Web: www.aquanzaengg.com

FINE BUBBLE DISC SHAPED DIFFUSER



Disc-shaped diffusers having elastomer membrane with tiny holes for application in water treatment processes in reactors with continuous or intermittent aeration, especially recommended for high-efficiency permanent installations.

The quality, design and membrane hole size ensure unbeatable efficiency in terms of the ideal oxygen transfer-pressure drop balance.

FINE BUBBLE TUBE SHAPED DIFFUSER



They are especially recommended for the construction of removable aeration systems and in all cases where a large output surface area is required with only a small number of air distribution pipelines.

Diffusers basically consist of a head with threaded connection, a rigid polypropylene mount and a tubular membrane in elastomer with tiny holes, secured with stainless steel band clamps.

COARSE BUBBLE TUBE SHAPED DIFFUSER



Constructed in SS304 / SS 316 throughout, the type of diffuser is used where the liquid has to be both mixed and oxygenated.

Its ideal applications are aerated sand separators, aerobic digestion tanks, pre-aeration tanks and in general any installation where the use of steel is necessary due to the nature of the liquid for treatment.

COARSE BUBBLE DISC SHAPED DIFFUSER



Coarse bubble diffuser is suitable for equalization tank in waste water treatment plants for mixing purpose. It is the method of oxygenating water and is applicable in Air Stripping, Small or Package Plant Systems, Auto-thermophilic Aerobic Digestion (ATAD), Mechanically Thickened Sludge Applications and Aerobic Digestion Applications. Easy to install and operate, it requires low maintenance and allows application flexibility and mechanical reliability.

FINE BUBBLE DISC DIFFUSER SIZE - 250 MM

Specification

Membrane thickness	mm	1.8 to 2
Active surface	Sq. Mtr	0.0375
Size Of Bubble	mm	0.8 - 2.1
Threaded connection	NPT	3/4"
Weight	Kgs	0.68



Membrane Features

Oxygen Utilization Ratio	%	30
Hardness (ISO 53505)	Shore A	60±5
Slit Quantity	Nos.	6600
Tensile strength at break (ASTM 412-92)	PSI	>1800
Elongation at break (ASTM D - 412)	%	> 650
Tear resistance (ASTM D624-91)	N/mm	>100
Floor Coverage	%	2 to 25

Materials

Membrane	EPDM
Support	ABS
Ring Nut	ABS

Performances

Min. operating flow Range	Cum/Hr	1
Max. operating flow Range	Cum/Hr	7.1
Max Flow Range	Cum/Hr	0 - 10
Operating temperature	Degree	0 - 85
Operation mode	Intermittent / Continuous	
Application	Municipal & Industrial	

FINE BUBBLE DISC DIFFUSER SIZE - 250 MM



Specification

Membrane thickness	mm	1.8 to 2
Active surface	Sq. Mtr	0.0375
Size Of Bubble	mm	0.8 - 2.1
Threaded connection	NPT	3/4"
Weight	Kgs	0.68

Membrane Features

Oxygen Utilization Ratio	%	30
Hardness (ISO 53505)	Shore A	60±5
Slit Quantity	Nos.	6600
Tensile strength at break (ASTM 412-92)	PSI	>1800
Elongation at break (ASTM D - 412)	%	> 650
Tear resistance (ASTM D624-91)	N/mm	>100
Floor Coverage	%	2 to 25

Materials

Membrane	Silicon
Support	ABS
Ring Nut	ABS
Color	White

Performances

Min. operating flow Range	Cum/Hr	1
Max. operating flow Range	Cum/Hr	7.1
Max Flow Range	Cum/Hr	0 - 10
Operating temperature	Degree	0 - 85
Operation mode	Intermittent / Continuous	
Application	Municipal & Industrial	

FINE BUBBLE DISC DIFFUSER SIZE - 350 MM

Specification

Membrane thickness	mm	1.8 to 2
Active surface	Sq. Mtr	0.065
Size Of Bubble	mm	0.8 - 2.1
Threaded connection	NPT	3/4"
Weight	Kgs	1.4



Membrane Features

Oxygen Utilization Ratio	%	30
Hardness (ISO 53505)	Shore A	60±5
Slit Quantity	Nos.	10155
Tensile strength at break (ASTM 412-92)	PSI	>1800
Elongation at break(ASTM D - 412)	%	> 650
Tear resistance (ASTM D624-91)	N/mm	>100
Floor Coverage	%	2 to 25

Materials

Membrane	EPDM
Support	PVC
Ring nut	PVC
Color	Black

Performances

Min. operating flow Range	Cum/Hr	1
Max. operating flow Range	Cum/Hr	12
Max Flow Range	Cum/Hr	0 - 10
Operating temperature	Degree	0 - 85
Operation mode	Intermittent / continuous	
Application	Municipal & industrial	

COARSE BUBBLE DISC DIFFUSER



Specification

	EECB- 80		EECB- 150	
Shape	Disc		Disc	
Size	mm	80	mm	150
Size Of Bubble	mm	4 to 5	mm	4 to 5
Air Discharge	Top Air Discharge		Peripheral Air Discharge	
No Of Air Discharge Ports	Nos.	10	Nos.	8
End Connection	NPT	3/4" Male Threaded	NPT	1" Male Threaded

Materials

Membrane	EPDM / Silicon		EPDM / Silicon	
Membrane Support	ABS		ABS	

Performances

Min. operating flow Range	Cum/Hr	1	Cum/Hr	4
Max. operating flow Range	Cum/Hr	5	Cum/Hr	10
Min. Req'd. Qty. for Mixing	Per m2	2 Nos.	Per m2	1 No.
Operating temperature	Degree	0 - 85	Degree	0 - 85
Operation mode	Intermittent / Continuous		Intermittent / Continuous	
Application	Municipal & Industrial		Municipal & Industrial	

FINE BUBBLE TUBE DIFFUSER - EPDM



Specification		65 X 620	65 X 1020	92 X 1020
Support Pipe Diameter	mm	63	63	90
Perforation Length	mm	600	1000	1000
Membrane thickness	mm	1.7	1.7	1.7
Effective Surface Area	Sq. mtr	0.1	0.18	0.251
Threaded connection	NPT	3/4" FNPT	3/4" FNPT	3/4" FNPT
Weight	KG	0.8	1.1	1.3
Size of Bubble	mm	1 to 2	1 to 2	1 to 2

Membrane Specification

Hardness	shore "A"	55 +/- 5
Tensile strength	Kg/cm ²	45
Elongation Break	%	235
Tear strength "die-T"	KN/m	26

Materials

Membrane	EPDM low plasticizers
Support	UPVC / PVC
Head	PVC
Clamp	SS304
Nipple	SS304

Performances

		65 X 620	65 X 1020	92 X 1020
Min. operating flow	m ³ / Hr	2	3	5
Max. operating flow	m ³ / Hr	8	12	22
Operating temperature	Degree C	85	85	85
SOTR	O ₂ Kg/kw/hr	Up to 3	Up to 4.21	Up to 4.32
Head Loss	cmWC	54	54	31
Operation mode	Continuous / Intermediate			
Application	Industrial / Municipal			

FINE BUBBLE TUBE DIFFUSER - SILICON



Specification		65 X 620	65 X 1020	92 X 1020
Support Pipe Diameter	mm	63	63	90
Perforation Length	mm	600	1000	1000
Membrane thickness	mm	1.7	1.7	1.7
Effective Surface Area	Sq. mtr	0.1	0.18	0.251
Threaded connection	NPT	3/4" FNPT	3/4" FNPT	3/4" FNPT
Weight	KG	0.8	1.1	1.3
Size of Bubble	mm	1 to 2	1 to 2	1 to 2

Membrane Specification

Hardness	shore "A"	55 +/- 5
Tensile strength	Kg/cm ²	45
Elongation Break	%	235
Tear strength "die-T"	KN/m	26

Materials

Membrane	Silicon low plasticizers
Support	UPVC / PVC
Head	ABS / PP
Clamp	SS304
Nipple	SS304

Performances

		65 X 620	65 X 1020	92 X 1020
Min. operating flow	m ³ / Hr	2	3	5
Max. operating flow	m ³ / Hr	8	12	22
Operating temperature	Degree C	85	85	85
SOTR	O ₂ Kg/kw/hr	Up to 3	Up to 4.21	Up to 4.32
Head Loss	cmWC	54	54	31
Operation mode	Continuous / Intermediate			
Application	Industrial / Municipal			

COARSE BUBBLE TUBE DIFFUSER

Specification

		333 (12")	638 (24")
Material		SS304 / SS316	SS304 / SS316
Perforation Length	mm	305	610
Small Hole Dia.	mm	4	4
Big Hole Dia.	mm	8	8
Threaded connection	NPT	3/4" NPT	3/4" NPT
Size of Bubble	mm	1 to 2	1 to 2

Performances

		333 (12")	638 (24")
Min. operating flow	m ³ / Hr	3	7
Max. operating flow	m ³ / Hr	18	40
Max. operating flow	m ³ / Hr	36	80
SOTR	% Per Mtr	1.6–2.5%	1.6–2.5%
Standard aeration efficiency (SAE)	kg O ₂ / kWh	0.7–2	0.7–2
Head loss at nominal flow (immersion at 4 m)	cm	Approx. 9.5	Approx. 9.5
Operation mode		Continuous / Intermediate	
Application		Industrial / Municipal	



Solid oxygen transfer efficiency:

Dual horizontal levels of diffusion ports on the diffuser side ensure uniform air distribution and aeration efficiency.

Application:

It is especially suited to tough sludge-related applications such as aerobic sludge digestion, grit chambers, flow equalization and channel aeration. Our stainless steel coarse bubble diffuser is designed to operate efficiently in the releasing of air into tanks.

Clog-resistant, maintenance-free design:

Our well designed Course bubble diffuser is Corrosion resistance. This stores a sufficient air volume at the center of the diffuser for use to ensure continuous and uniform airflow.

The bottom component is a deflector plate, also which directs the liquid being aerated along to diffuser's outer walls and at the same time prevents rages, solids and other deleterious matter from wrapping around or entering the air diffuser. This is reducing the number of maintenance.

RETRIVABLE ASSEMBLY

Our retrievable aeration grid system is designed with the diffusers mounted on RCC Block. which can be lifted out of the basin for waste inspection and maintenance without having to disrupt the wastewater treatment process.

The Set of Accessories for Retrievable type installation

- 1) RCC Block of size 200 x 200 x 250 mm height
- 2) SS 304 Tee made of 3/4" Sch 40 pipe For 63 X 1000 mm and 1" SCH40 pipe for 90 x 1000
- 3) SS 304 hooks made of 8 mm Ring Type Anchor Fastener - 2 Nos.
- 4) Nylon braided PVC pipe - 5 meter
- 5) Virgin PP rope 10 mm dia - 7 meter
- 6) SS 304 hose clamp 35 mm dia - 2 Nos.
- 7) SS304 Nipple – 2 Nos.

