

TAR 65 • 80mm

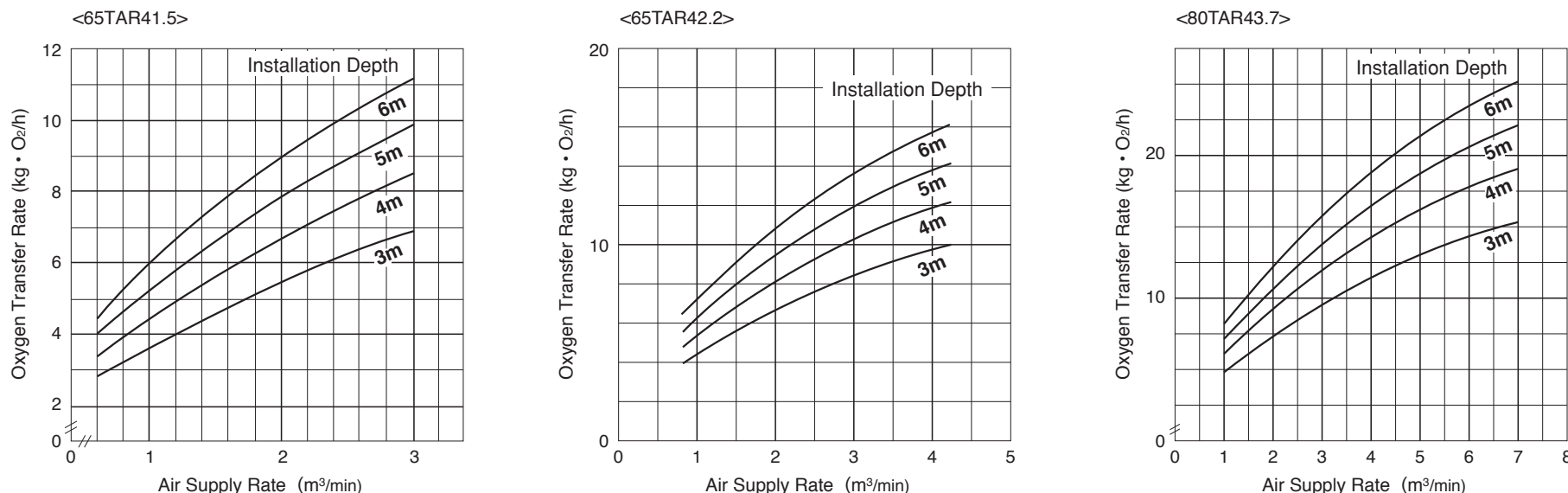
The TAR-series is a submersible aerator having an axial-flow impeller. The air supplied by a blower is broken into fine bubbles and is mixed with water by its strong water current. An extremely high oxygen transfer rate can be achieved with less energy consumption.



Free Standing

■ Oxygen Transfer Rate – Air Supply Rate Curves

(The air supply rates are expressed at the standard condition, i.e. temperature of 20°C, 1 atm.)



■ Major Standard Specifications

Air-inlet Bore		mm	65	80
Treating Fluid	Type of Fluid	Wastewater, Sewage and Sludge		
	Fluid Temperature	0 to 40°C		
Aerator	Structure	Driving Method	Dry Type Submersible Motor with Reduction Gear	
		Discharge Direction	Bottom Discharge Type	
		Impeller	Axial Flow Impeller	
	Bearing	Shaft Seal	Double Mechanical Seal with Oil Lifter	
		Motor	Double-shielded Ball Bearing	
	Materials	Reduction Gear	Ball Bearing	
Impeller		304 Stainless Steel Casting		
Casing		Gray Iron Casting		
Lifting Bracket		304 Stainless Steel		
Shaft Seal		SiC		
Motor	Type, Pole	Dry Type Submersible Induction Motor 4-pole		
	Class of Insulation	Class E		
	Phase	Three-phase		
	Reduction Gear	Planetary Type		
	Starting Method	Direct on Line		
	Protection Device (built-in)	Circle Thermal Protector		
		Leakage Sensor	Float Type	
	Lubricant	Mechanical Seal	Turbine Oil (ISO VG32)	
		Reduction Gear	Gear Oil (ISO VG150)	
	Materials	Frame	Gray Iron Casting	
Shaft		420 Stainless Steel		
Cable		Chloroprene Rubber		
Direction of Rotation		Clockwise (viewed from motor)		
Air-inlet Connection		JIS 10K Flange		

■ Standard Specifications

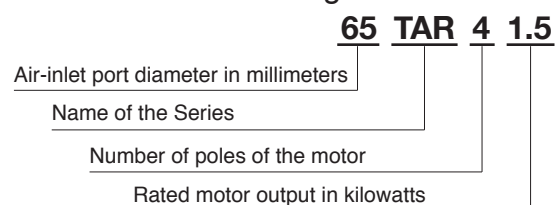
Air-inlet Bore mm	Model		Motor Output kW	Starting Method	Water Circulation Rate m³/min	Air *1 Supply Rate m³/min	Oxygen *2 Transfer Rate kg • O₂/hr	Mixing Capacity m³	Dry Weight *3 kgs		No. of Cables	Cabtyre Cable				Length m	Material
	Free Standing	Guide Rail Fitting							Free Standing	Guide Rail Fitting		200 ~ 240 V		380 ~ 575 V			
65	65TAR41.5	TOB65TAR41.5	1.5	D.O.L.	9.0	0.3-3.0	4.0-9.9	273	345	325	2	4 × 1.25	11.3	4 × 1.25	11.3	10	Chloroprene Rubber
												4 × 1.25	11.3	4 × 1.25	11.3		
65	65TAR42.2	TOB65TAR42.2	2.2	D.O.L.	12.5	0.8-4.2	5.8-14.0	400	345	325	2	4 × 1.25	11.3	4 × 1.25	11.3	10	Chloroprene Rubber
												4 × 1.25	11.3	4 × 1.25	11.3		
80	80TAR43.7	TOB80TAR43.7	3.7	D.O.L.	20.0	1.0-7.0	7.0-22.0	670	420	400	2	4 × 2.0	12.2	4 × 2.0	12.2	10	Chloroprene Rubber
												4 × 1.25	11.3	4 × 1.25	11.3		

*1 The air supply rates are expressed at the standard condition. : temp 20°C, 1 atm

*2 The oxygen transfer rates indicate the values at 5meters water depth and may vary depending on the type of liquid, liquid temperature, water depth and shape of tank.

*3 Dry weight
All weights excluding cable
Weights of guide rail fitting excluding duckfoot bend

■ Model Number Designation



■ Standard Accessories

Free Standing
• Air-inlet Pipe

Guide Rail Fitting - TOB

- Air-inlet Pipe
- Lifting Chain 5m, (with Shackles)
- Guide Hook (with Bolts)

■ Applications

- Pre-aeration and aeration at wastewater treatment plant
- Supplying oxygen to water in aquafarm

TAR 100 • 125 • 150mm

(11kW)

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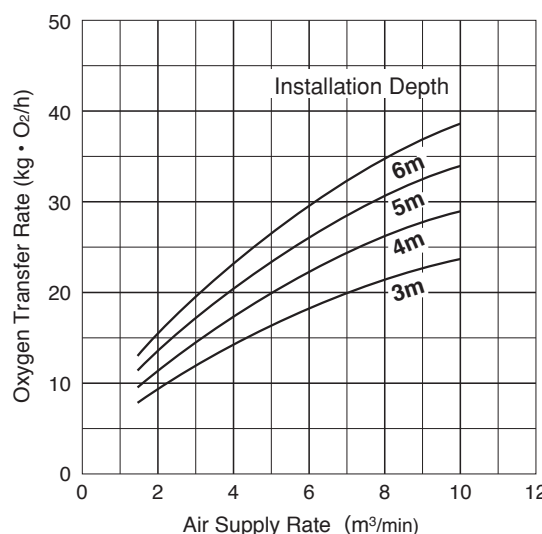


Free Standing

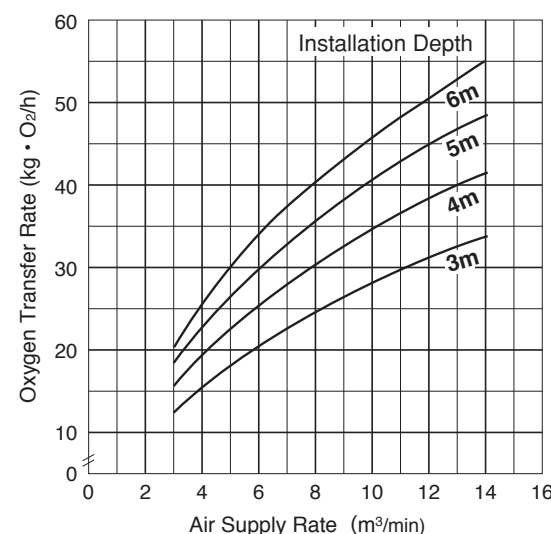
■ Oxygen Transfer Rate – Air Supply Rate Curves

(The air supply rates are expressed at the standard condition, i.e. temperature of 20°C, 1 atm.)

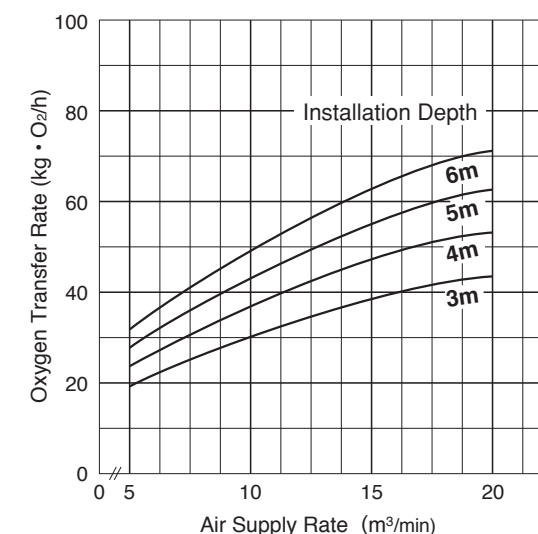
<100TAR45.5>



<125TAR47.5>



<150TAR411>



■ Major Standard Specifications

Air-inlet Bore		mm	100	125	150
Treating Fluid	Type of Fluid	Wastewater, Sewage and Sludge			
	Fluid Temperature	0 to 40°C			
Aerator	Structure	Driving Method	Dry Type Submersible Motor with Reduction Gear		
		Discharge Direction	Bottom Discharge Type		
		Impeller	Axial Flow Impeller		
		Shaft Seal	Double Mechanical Seal with Oil Lifter		
		Bearing	Motor	Double-shielded Ball Bearing	
	Materials	Reduction Gear	Roller Bearing		
		Impeller	304 Stainless Steel Casting		
		Casing	Gray Iron Casting		
		Lifting Bracket	304 Stainless Steel		
		Shaft Seal	SiC		
Motor	Type, Pole	Dry Type Submersible Induction Motor 4-pole			
	Class of Insulation	Class F			
	Phase	Three-phase			
	Reduction Gear	Planetary Type			
	Starting Method	Direct on Line (7.5kW and below) Star-delta (11kW only)			
	Protection Device (built-in)	Circle Thermal Protector (7.5kW and below) Miniature Thermal Protector (11kW only)			
		Leakage Sensor	Float Type (7.5kW and below)	Electrode Type (11kW only)	
	Lubricant	Mechanical Seal	Turbine Oil (ISO VG32)		
		Reduction Gear	Gear Oil (ISO VG150)		
	Materials	Frame	Gray Iron Casting		
Shaft		420 Stainless Steel			
Cable		Chloroprene Rubber			
Direction of Rotation	Clockwise (viewed from motor)				
Air-inlet Connection	JIS 10K Flange				

■ Standard Specifications

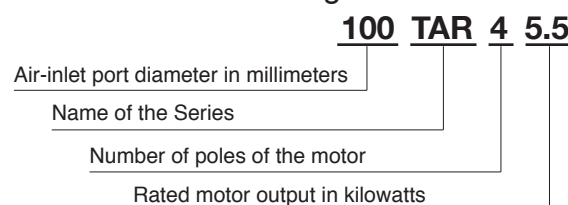
Air-inlet Bore mm	Model		Motor Output kW	Starting Method	Water Circulation Rate m³/min	Air *1 Supply Rate m³/min	Oxygen *2 Transfer Rate kg · O²/hr	Mixing Capacity m³	Dry Weight *3 kgs		No. of Cables	Cabtyre Cable					
	Free Standing	Guide Rail Fitting							Free Standing	Guide Rail Fitting		200 ~ 240 V		380 ~ 575 V		Length m	Material
100	100TAR45.5	TOB100TAR45.5	5.5	D.O.L.	31.0	1.5-10.0	12.0-34.0	1000	583	568	2	4 × 3.5	14.1	4 × 3.5	14.1		
												4 × 1.25	11.3	4 × 1.25	11.3		
125	125TAR47.5	TOB125TAR47.5	7.5	D.O.L.	46.0	3.0-14.0	18.0-48.0	1360	1145	1109	2	4 × 5.5	16.8	4 × 5.5	16.8	10	Chloroprene Rubber
												4 × 1.25	11.3	4 × 1.25	11.3		
150	150TAR411	TOB150TAR411	11	Star-Delta	65.0	5.0-20.0	28.0-63.0	2000	1475	1385	3	4 × 3.5	14.1	4 × 3.5	14.1	10	Chloroprene Rubber
												4 × 3.5	12.9	4 × 3.5	12.9		
												4 × 2.0	13.0	4 × 2.0	13.0		

*1 The air supply rates are expressed at the standard condition. : temp 20°C, 1 atm

*2 The oxygen transfer rates indicate the values at 5meters water depth and may vary depending on the type of liquid, liquid temperature, water depth and shape of tank.

*3 Dry weight
All weights excluding cable
Weights of guide rail fitting excluding duckfoot bend

■ Model Number Designation



■ Standard Accessories

Free Standing
• Air-inlet Pipe

Guide Rail Fitting - TOB

- Air-inlet Pipe
- Lifting Chain 5m, (with Shackles)
- Guide Hook (with Bolts)

■ Applications

- Pre-aeration and aeration at wastewater treatment plant
- Supplying oxygen to water in aquafarm

TAR 150 • 200 • 250mm

(15kW)

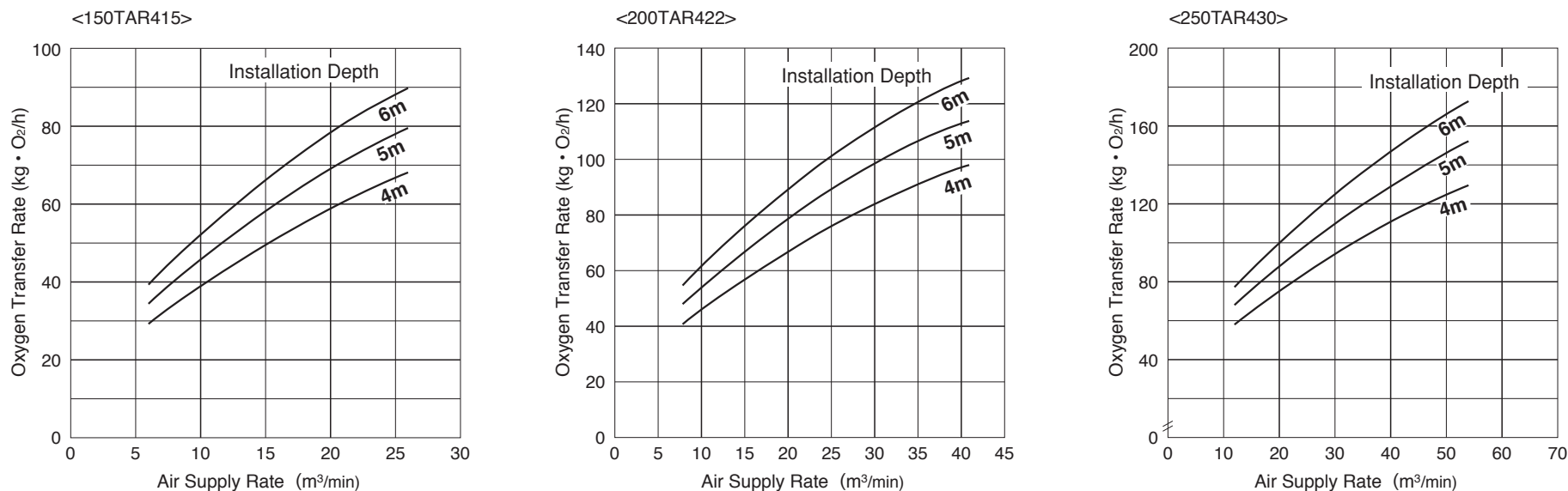
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Free Standing

■ Oxygen Transfer Rate – Air Supply Rate Curves

(The air supply rates are expressed at the standard condition, i.e. temperature of 20°C, 1 atm.)



■ Major Standard Specifications

Air-inlet Bore		mm	150	200	250
Treating Fluid	Type of Fluid	Wastewater, Sewage and Sludge			
	Fluid Temperature	0 to 40°C			
Aerator	Structure	Driving Method	Dry Type Submersible Motor with Reduction Gear		
		Discharge Direction	Bottom Discharge Type		
		Impeller	Axial Flow Impeller		
	Bearing	Shaft Seal	Double Mechanical Seal with Oil Lifter		
		Motor	Double-shielded Ball Bearing		
	Materials	Reduction Gear	Roller Bearing		
Impeller		304 Stainless Steel Casting			
Casing		Gray Iron Casting			
Lifting Bracket		304 Stainless Steel			
Shaft Seal		SiC			
Motor	Type, Pole	Dry Type Submersible Induction Motor 4-pole			
	Class of Insulation	Class F			
	Phase	Three-phase			
	Reduction Gear	Planetary Type			
	Starting Method	Star-delta			
	Protection Device (built-in)	Miniature Thermal Protector			
		Leakage Sensor	Electrode Type		
	Lubricant	Mechanical Seal	Turbine Oil (ISO VG32)		
		Reduction Gear	Gear Oil (ISO VG150)		
	Materials	Frame	Gray Iron Casting		
Shaft		420 Stainless Steel			
Cable		Chloroprene Rubber			
Direction of Rotation		Clockwise (viewed from motor)			
Air-inlet Connection		JIS 10K Flange			

■ Standard Specifications

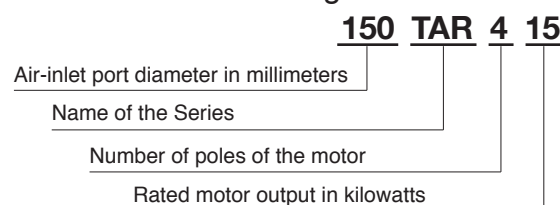
Air-inlet Bore mm	Model		Motor Output kW	Starting Method	Water Circulation Rate m³/min	Air *1 Supply Rate m³/min	Oxygen *2 Transfer Rate kg · O ₂ /hr	Mixing Capacity m³	Dry Weight *3 kgs		No. of Cables	Cabtyre Cable				Length m	Material
	Free Standing	Guide Rail Fitting							Free Standing	Guide Rail Fitting		200 ~ 240 V		380 ~ 575 V			
												Cores × mm ²	Outer Dia. mm	Cores × mm ²	Outer Dia. mm		
150	150TAR415	TOB150TAR415	15	Star-Delta	100.0	6.0-26.0	34.5-79.0	2700	1580	1530	3	4 × 5.5	16.8	4 × 5.5	16.8	10	Chloroprene Rubber PVC
												3 × 5.5	15.2	3 × 5.5	15.2		
												4 × 2.0	13.0	4 × 2.0	13.0		
200	200TAR422	TOB200TAR422	22	Star-Delta	150.0	8.0-41.0	49.0-113.5	4000	2530	2430	3	4 × 14	21.7	4 × 14	21.7	10	Chloroprene Rubber PVC
												3 × 14	19.7	3 × 14	19.7		
												4 × 2.0	13.0	4 × 2.0	13.0		
250	250TAR430	TOB250TAR430	30	Star-Delta	200.0	12.0-54.0	68.5-151.0	5500	3360	3260	3	4 × 14	21.7	4 × 14	21.7	10	Chloroprene Rubber PVC
												3 × 14	19.7	3 × 14	19.7		
												4 × 2.0	13.0	4 × 2.0	13.0		

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*2 The oxygen transfer rates indicate the values at 5meters water depth and may vary depending on the type of liquid, liquid temperature, water depth and shape of tank.

*3 Dry weight
All weights excluding cable
Weights of guide rail fitting excluding duckfoot bend

■ Model Number Designation



■ Standard Accessories

Free Standing
• Air-inlet Pipe

Guide Rail Fitting - TOB

- Air-inlet Pipe
- Lifting Chain 5m, (with Shackles)
- Guide Hook (with Bolts)

■ Applications

- Pre-aeration and aeration at wastewater treatment plant
- Supplying oxygen to water in aquafarm