

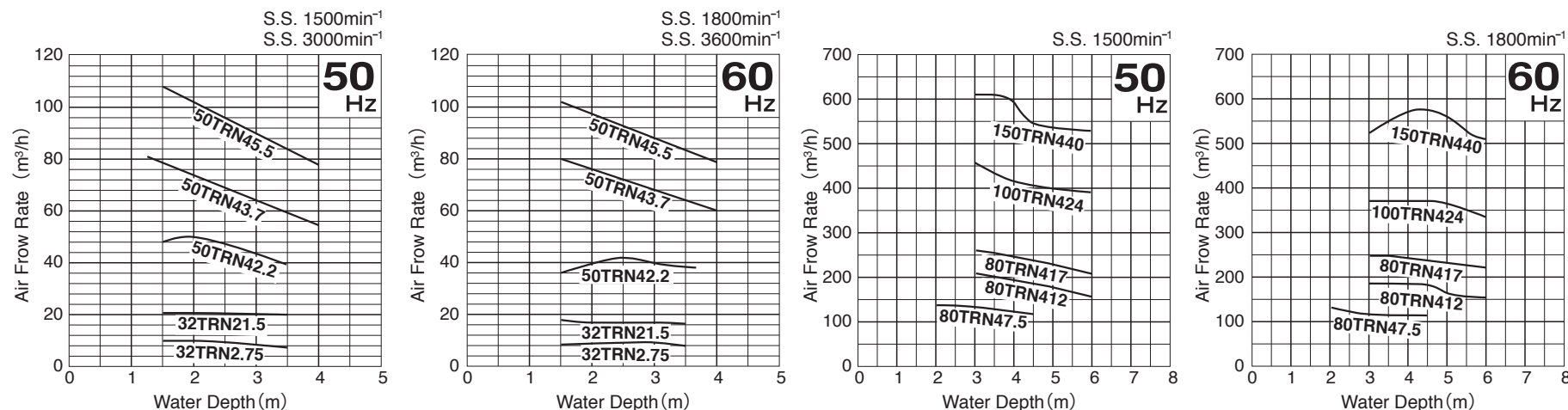
# TRN

The TRN-series is a submersible aerator having a self-aspirating function. A built-in special semi-open impeller generates negative pressure, draws in air from above the water surface. The drawn air and liquid are mixed and discharged at a high pressure. This innovative mechanism contributes to highly efficient dissolution of oxygen.



## ■ Air Flow Rate – Water Depth Curves

(The air flow rates are expressed at the standard condition, i.e. temperature of 20°C , 1 atm and may vary by up to approximately 5%.)



## ■ Major Standard Specifications

Air-inlet Bore		mm	32	50	80	100	150
Treating Fluid	Type of Fluid	Wastewater and Sewage					
	Fluid Temperature	0 to 40°C					
Aerator	Structure	Impeller	Semi-open Impeller (special)				
		Shaft Seal	Double Mechanical Seal with Oil Lifter				
		Bearing	Double-shielded Ball Bearing				
	Materials	Impeller	410 Stainless Steel Casting				
		Air Passage	Gray Iron Casting				
		Guide Vane	Gray Iron Casting				
Suction Cover	410 Stainless Steel Casting						
Shaft Seal	SiC						
Motor	Type, Pole	Dry Type Submersible Induction Motor 2, 4-pole					
	Class of Insulation	Class F					
	Phase	Three-phase					
	Starting Method	Direct on Line (7.5kW and below) Star-delta (12kW and above)					
	Protection Device (built-in)	Circle Thermal Protector (7.5kW and below) Miniature Thermal Protector (12kW and above)					
	Lubricant	Turbine Oil (ISO VG32)					
	Materials	Frame	Gray Iron Casting				
		Shaft	420 Stainless Steel				
Cable		PVC (3.7kW and below) Chloroprene Rubber (5.5kW and above)					
No. of Outlet	6 8 (24kW and 40kW only)						

## ■ Applications

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

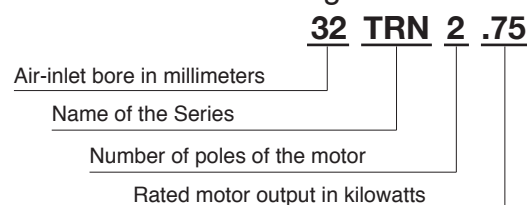
## ■ Standard Specifications

Air-inlet Bore mm	Model	Motor Output kW	Starting Method	Speed (S.S.) 50Hz/60Hz min <sup>-1</sup>	Impeller Passage 50Hz/60Hz mm	Max. Water Depth m	Air Flow Rate - *1 Max. Water Depth 50/60Hz m³/h	No. of Outlets	Dry Weight *2 kgs	Cable						
										No. of Cables	200 ~ 240 V		380 ~ 575 V		Length m	Material
										Cores x mm²	Outer Dia. mm	Cores x mm²	Outer Dia. mm			
32	32TRN2.75	0.75	D.O.L.	3000/3600	10	3.5	7/8	6	55	1	4 x 1.25	11.1	4 x 1.25	11.1	6	PVC
32	32TRN21.5	1.5	D.O.L.	3000/3600	12	3.5	20/17	6	55	1	4 x 1.25	11.1	4 x 1.25	11.1	6	PVC
50	50TRN42.2	2.2	D.O.L.	1500/1800	12	3.6	39/38	6	140	1	4 x 2.0	11.8	4 x 2.0	11.8	6	PVC
50	50TRN43.7	3.7	D.O.L.	1500/1800	12	4.0	55/60	6	150	1	4 x 3.5	13.9	4 x 2.0	11.8	6	PVC
50	50TRN45.5	5.5	D.O.L.	1500/1800	15	4.0	78/79	6	170	1	4 x 3.5	14.1	4 x 3.5	14.1	8	Chloroprene Rubber
80	80TRN47.5	7.5	D.O.L.	1500/1800	15	4.5	124/112	6	190	1	4 x 5.5	16.8	4 x 5.5	16.8	8	Chloroprene Rubber
80	80TRN412	12	Star-Delta	1500/1800	15	6.0	157/155	6	200	3	4 x 3.5 3 x 3.5 2 x 1.25	14.1 12.9 9.8	4 x 3.5 3 x 3.5 2 x 1.25	14.1 12.9 9.8	8	Chloroprene Rubber
80	80TRN417	17	Star-Delta	1500/1800	15	6.0	202/220	6	220	3	4 x 5.5 3 x 5.5 2 x 1.25	16.8 15.2 9.8	4 x 5.5 3 x 5.5 2 x 1.25	16.8 15.2 9.8	8	Chloroprene Rubber
100	100TRN424	24	Star-Delta	1500/1800	22	6.0	388/342	8	460	3	4 x 14 3 x 14 2 x 1.25	21.7 19.7 9.8	4 x 14 3 x 14 2 x 1.25	21.7 19.7 9.8	10	Chloroprene Rubber
150	150TRN440	40	Star-Delta	1500/1800	25	6.0	528/506	8	635	3	4 x 22 3 x 22 2 x 1.25	28.8 26.1 9.8	4 x 14 3 x 14 2 x 1.25	21.7 19.7 9.8	10	Chloroprene Rubber

\*1 The air flow rates are expressed at the standard condition. : Temperature 20°C , 1atm

\*2 Weights excluding cable

## ■ Model Number Designation



## ■ Standard Accessories

- Silencer & Valve Set
- Screwed Flange
- 17kW and below
- JIS 10kg/cm<sup>2</sup> Flange (with Packing & Bolts)
- 24kW and above