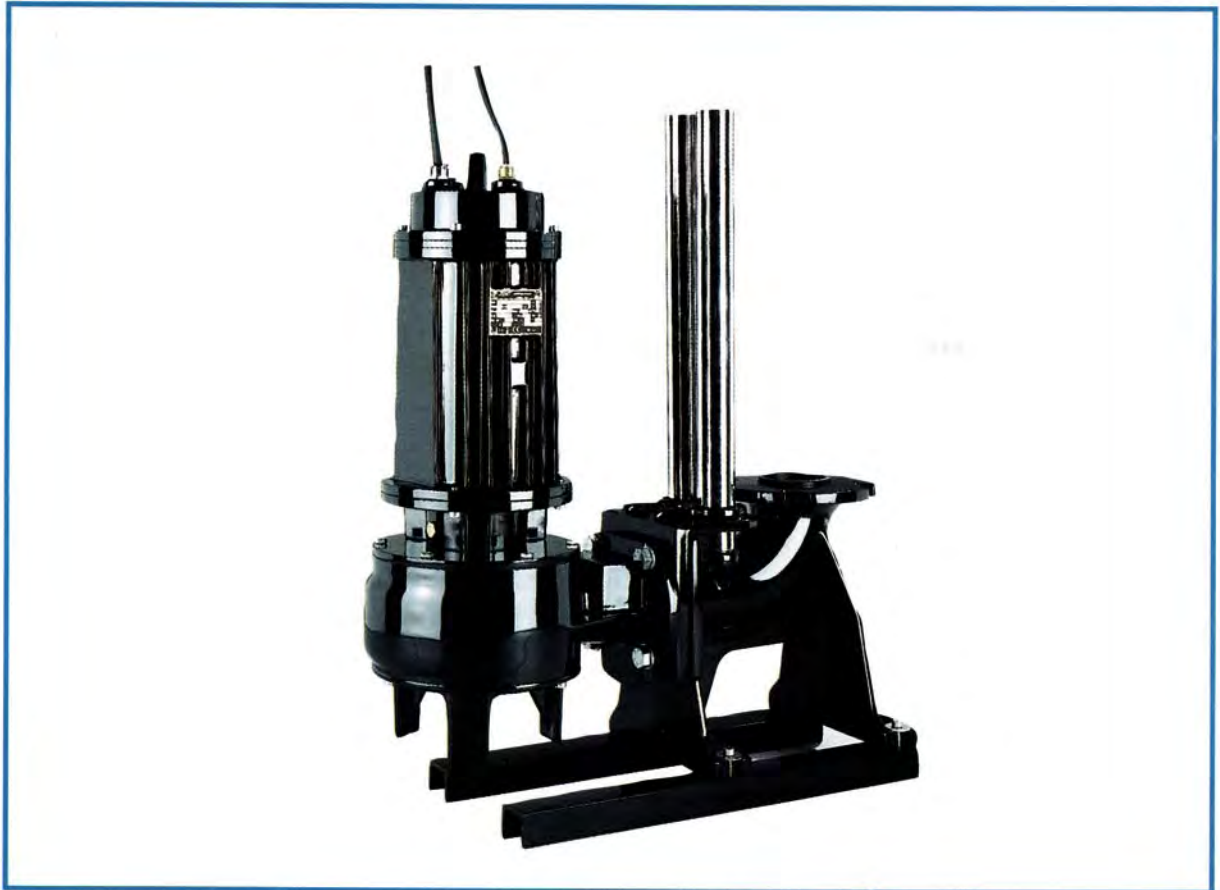


TG/DR
TG/AP
TG/DG

Submersible Pumps



 TORISHIMA PUMP



TG-DR family includes submersible pumps with immersed open multichannel impellers, normally used with biological liquids which are not very heavily polluted, strained liquids, sewage, liquids containing colloidal or oily substances, rainwater and seepage from civil and industrial sources.

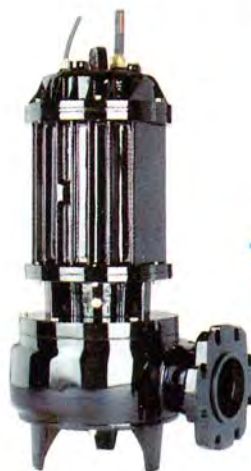
TG-DG family of submersible pumps have a Vortex type impeller to allow free passage and even entirely free passage, and are therefore ideal for treatment of heavily polluted or foamy liquids, sewage, liquids containing oily, fibrous or solid substances, including substances which cannot be broken up, active biological sludges, sewage of animal origin, rainwater and seepage.

TG-AP family includes submersible pumps with open multi-channel high head impellers which are used with clear waters, rainwater and seepage, and sandy and muddy waters, including those containing small bodies in suspension.

Application to handled liquids :

- Polluted biological liquids
- Strained biological liquids
- Percolated liquids and liquids from dump sites
- Liquids containing detergents, soaps and emulsifiers
- Foamy liquids
- Rainwater and seepage
- Liquids containing fibrous bodies
- Liquids containing oily substances
- Liquids containing solid bodies which cannot be ground up
- Sandy or abrasive liquids
- Clear or almost clear water

TG-DR T ϕ V ▶



◀ TG-DR F ϕ H

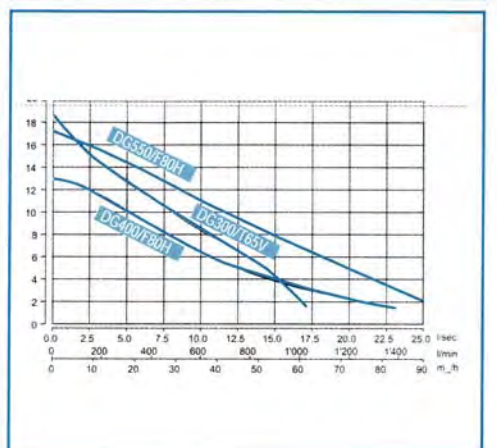
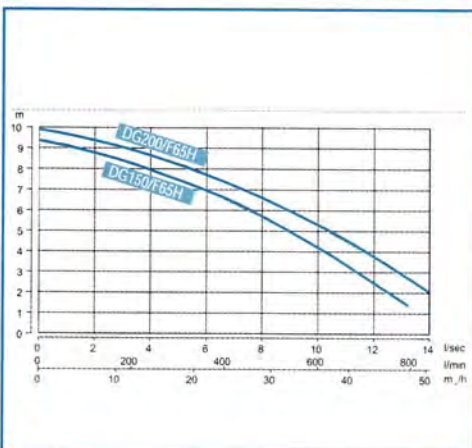
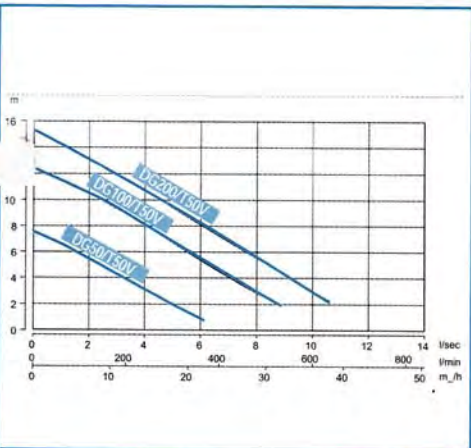
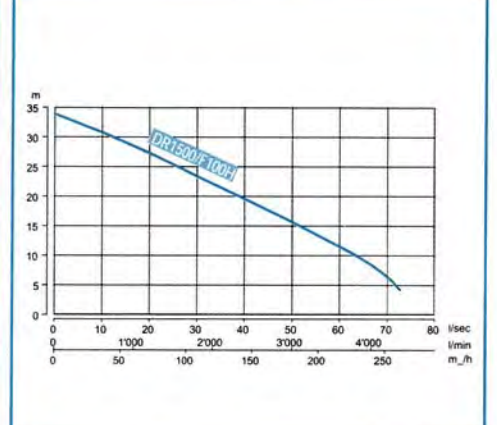
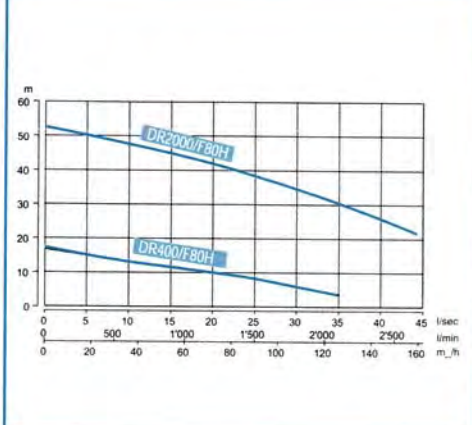
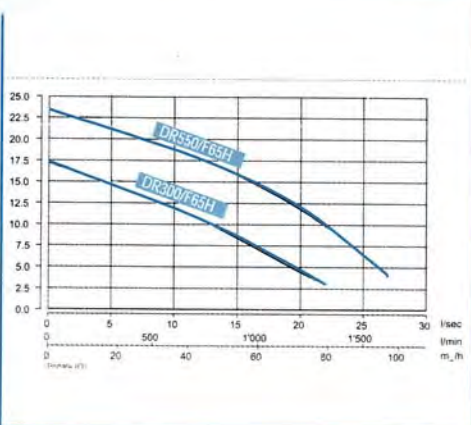
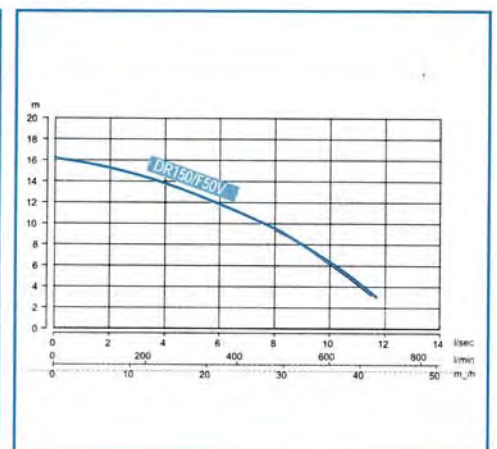
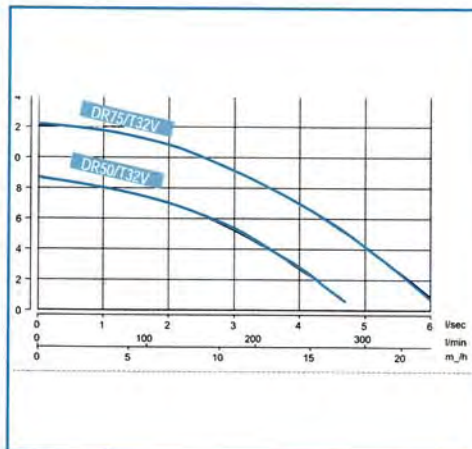
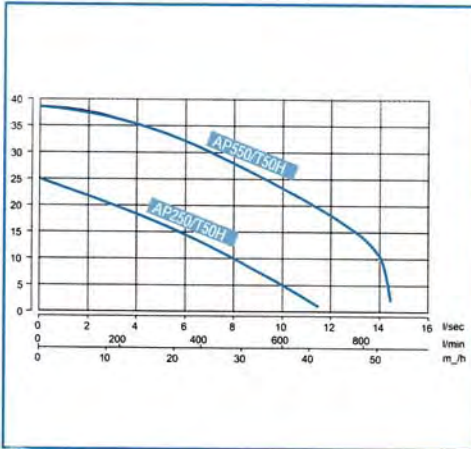
TG-AP T ϕ H ▶



◀ TG-DG F ϕ H

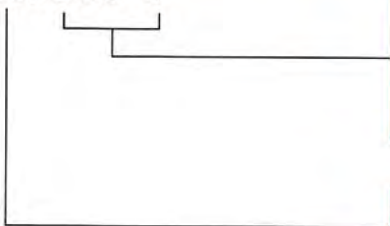
TG-DG T ϕ V ▶





Nomenclature: for example 200/T50V

200/T50 V



- T = Threaded
- F = Flanged
- 50 = Outlet diameter (mm)
- V = Vertical
- H = Horizontal

Motor Rating
200 = 1.5 kWatt

50	0.37 kW
75	0.55 kW
100	0.88 kW
150	1.1 kW
200	1.5 kW
250	1.8 kW
300	2.7 kW
400	3.6 kW
550(DG&AP)	4.1 kW
550(DR)	4.9 kW
1000	10 kW
1500	15 kW
2000	19.3 kW

PUMP SERIES INFORMATION

PUMP SERIES INFORMATION			
GENERAL INFORMATION	PUMP SERIES		
	TG-AP TΦH	TG-DR TΦV	TG-DR FΦH
Power Range	1.8 kW – 4.1 kW	0.37 kW – 1.5 kW	2.7 kW – 25.6 kW
DN Outlet Range	50 mm	32 mm – 50 mm	32 mm – 100 mm
Poles / R.p.m.	2 (2900)	2 (2900)	2 (2900)
Type of Impeller	Open Multi-channel High Head Impeller	Open Multi-channel Impeller	Open Multi-channel Impeller
Max. Head	38.7 m	16 m	53 m
Max. Capacity	14.4 l/sec (51.9 m ³ /h)	12 l/sec (43.2 m ³ /h)	73 l/sec (263 m ³ /h)
Max. Liquid Temperature	40 °C	40° C	40° C
Max. Immersion Depth	20 m	20 m	20 m
Standard Electrical Accessories	TCD (Thermistor, capacitor & circuit breaker) T (Thermistor)	TCSGT (thermistor, capacitor, starter box, float and thermal protection)	T (Thermistor)
Standard Mechanical Seal	2SICM (2 Mechanical Viton Seals and 1 lip Seal)	SICAL (1 mechanical Viton seal and 1 mechanical NBR seal)	SIC2AL (1 mechanical Viton Seal and 2 NBR Seals)

INFORMATION ON ELECTROMECHANICAL			
Test Voltage & Frequency	Three-phase : 380 – 415 Volt (50 Hz) 660 – 715 Volt (50 Hz) Option : Single-phase (220-240 V – 50 Hz)	Three-phase : 380 – 415 Volt (50 Hz) 660 – 715 Volt (50 Hz) Option : Single-phase (220-240 V – 50 Hz)	Three-phase : 380 – 415 Volt (50 Hz) 660 – 715 Volt (50 Hz)
Direction of Rotation	Clockwise seen from top of electric pump	Clockwise seen from top of electric pump	Clockwise seen from top of electric pump
Type of Impregnation	Doubly impregnated humidity-resistant winding	Doubly impregnated humidity-resistant winding	Doubly impregnated humidity-resistant winding
Type of Motor Winding	Induction Motor with oil-filled winding	Induction Motor with oil-filled winding	Induction Motor with oil-filled winding and manual thermal protection

OPTIONAL ACCESSORIES & SEALS			
Electrical Accessories	—	T (Thermistor) TCST (Thermistor, capacitor, starter box, and thermal protection) NAE (No Electrical Accessories Installed)	TS (thermistor and probe)
Seals	SICALM (1 Mechanical Viton Seal, 1 Mechanical NBR Seal, and 1 Lip Seal)	2SIC (2 mechanical Viton seals)	2SICAL (2 Mechanical Viton Seals and 1 NBR Seal)
Cooling Jacket	CC (Closed Cooling Jacket) CCE (Closed Cooling Jacket with External Recirculating)		

PUMP SERIES INFORMATION

PUMP SERIES INFORMATION		
GENERAL INFORMATION	PUMP SERIES	
	TG-DG T ϕ V	TG-DG F ϕ H
Power Range	0.37 kW – 2.7 kW	1.5 kW – 4.1 kW
DN Outlet Range	50 mm – 65 mm	65 mm – 80 mm
Poles / R.p.m.	2 (2900)	2 (2900)
Type of Impeller	Vortex	Vortex
Max. Head	19 m	17 m
Max. Capacity	17 l/sec (61.2 m ³ /h)	25 l/sec (90 m ³ /h)
Max. Liquid Temperature	40 ^o C	40 ^o C
Max. Immersion Depth	20 m	20 m
Standard Electrical Accessories	TCSGT (thermistor, capacitor, strter box, float and thermal protection)	T (Thermistor)
Standard Mechanical Seal	SICAL (1 mechanical Viton seal and 1 mechanical NBR seal)	2SICM (2 mechanical Viton Seals and 1 lip Seals)

INFORMATION ON ELECTROMECHANICAL		
Test Voltage & Frequency	Three-phase : 380 – 415 Volt (50 Hz) 660 – 715 Volt (50 Hz) Option : Single-phase (220-240 V – 50 Hz)	Three-phase : 380 – 415 Volt (50 Hz) 660 – 715 Volt (50 Hz) Option : Single-phase (220-240 V – 50 Hz)
Direction of Rotation	Clockwise seen from top of electric pump	Clockwise seen from top of electric pump
Type of Impregnation	Doubly impregnated humidity-resistant winding	Doubly impregnated humidity-resistant winding
Type of Motor Winding	Induction Motor with oil-filled winding	Induction Motor with oil-filled winding and manual thermal protection.

OPTIONAL ACCESSORIES & SEALS		
Electrical Accessories	T (Thermistor) TCST (Thermistor, capacitor, starter box, and thermal protection)	
Seals	NAE (No Electrical Accessories Installed)	SICALM (1 Mechanical Viton Seal and 1 NBR Seal and 1 lip seal)
Cooling Jacket	2SIC (2 mechanical Viton seals)	CC (Closed Cooling Jacket) CCE (Closed Cooling Jacket with External Recirculation)

DIMENSIONAL DRAWING

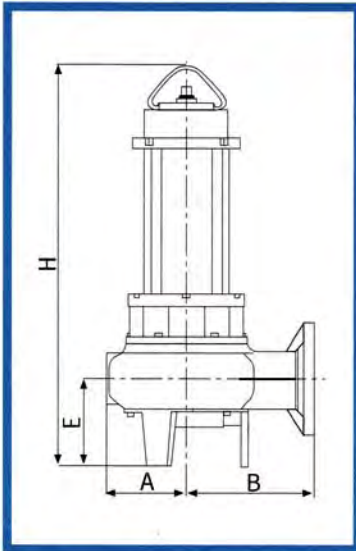


FIGURE 1

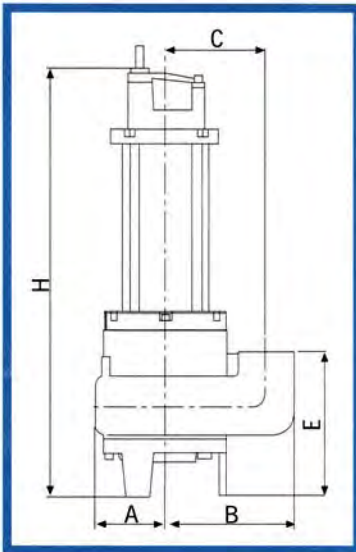


FIGURE 2

Type of Pump	A(mm)	B(mm)	C(mm)	E(mm)	H(mm)	Kg	Figure
TG-AP 250/T50H	132	220	-	79	536	56	1
TG-AP 550/T50H	132	220	-	79	662	84	1
TG-DR 50/T32V	78	132	103	110	335	15	2
TG-DR 75/2/T32V	78	132	103	110	335	15.5	2
TG-DR 150/T50V	100	166	130	124	385	20.5	
TG-DR 300/F65H	111	160	-	105	531	49	1
TG-DR 550/F65H	111	160	-	105	628	65	1
TG-DR 400/F80H	113	160	-	125	635	58	1
TG-DR 1500/F100H	160	258	-	156	830	130	1
TG-DR 2000/F80H	151	244	-	151	870	158	1

Type of Pump	A(mm)	B(mm)	C(mm)	E(mm)	H(mm)	Kg	Figure
TG-DG 50/T50V	77	149	110	119	355	16.5	2
TG-DG 100/T50V	80	166	127	132	405	19.5	2
TG-DG 200/T50V	80	166	127	132	405	21.5	2
TG-DG 150/F65H	111	160	-	105	450	25.5	1
TG-DG 200/F65H	111	160	-	105	450	26	1
TG-DG 300/T65V	116	210	163	195	570	52.5	2
TG-DG 400/F80H	127	190	-	143	790	77	1
TG-DG 550/F80H	127	190	-	143	790	81	1



Open Multi-Chanel Impeller



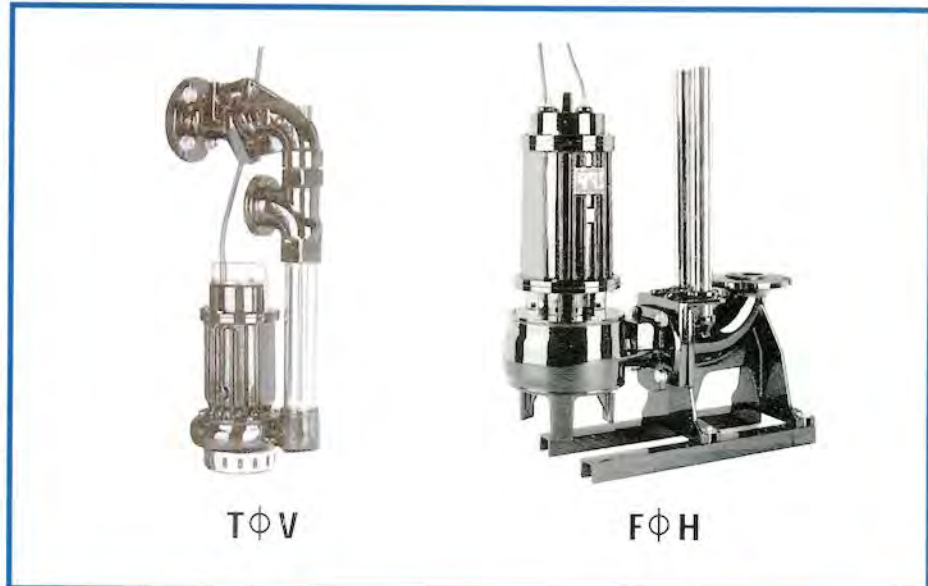
High Head Impeller



Vortex Impeller

Coupling Foot Base:

Coupling Foot Bases permit rapid raising of the electrical pump without emptying the tank for easy maintenance and repair. Pump size can be easily be adapted to suit seasonal workloads by replacing the electrical pump with a less powerful or different type better suited to the needs of the moment . All coupling devices are fitted with standardized flanges to make them universal and usable with any type of pump, with cast iron against rubber for an excellent seal and easy, rapid positioning with the aid of guides. Coupling foot bases are available with cal or horizontal outlets



Float Switches:

Float switches are available upon request option.

Level regulators with float switch and VDE- IMQ homologation with H70RN-F and TPK type anti-oil cable.



PT. LUKES INDONESIA

Lindeteves Trade Center Lt UG, Blok B1 No. 6
Jalan Hayam Wuruk, Jakarta - Indonesia
Phone : 021 - 6231 7842, 628 5144
Fax : 021 - 6231 0499
email : lukes@cbn.net.id



TORISHIMA PUMP MFG. CO.,LTD.

Head Office & Works : 1-1-8, Miyata-cho, Takatsuki City, Osaka, Japan. Phone : 0726-95-0551 Telefax : 0726-93-1288

TORISHIMA SINGAPORE

TORISHIMA SINGAPORE PTE.LTD.

30 Ubi Crescent # 01-02, Ubi T----- Park, Singapore, Phone : (65) 7790123 Telefax : (65) 7796900

TORISHIMA HONG KONG

TORISHIMA HONG KONG LIMITED

Unit 603, 6/F. Tower III, Enterprise Square, 9 Sheung Yuet Road, Kowloon, Hong Kong. Phone : (852) 2795-1838. Fax : (852) 2754-3293

TORISHIMA INDONESIA

PT TORISHIMA GUNA INDONESIA

Jl. Rawa Sumur Timur No. 1, Pulogadung Industri Estate, P.O.Box. : 1160 JAT. Jakarta 13930 Indonesia.

Phone : (62-21) 460-3963, Fax : (62-21) 460-3937

PT TORISHIMA GUNA ENGINEERING

Jl. Rawa Sumur Timur No. 1, Pulogadung Industri Estate, P.O.Box. : 1160 JAT. Jakarta 13930 Indonesia.

Phone : (62-21) 460-3963, Fax : (62-21) 460-3937

PT GETEKA FOUNINDO

Jl. PULO AYANG KAV. AA2, Pulogadung Industri Estate, P.O.Box. : 1160 JAT. Jakarta 13930 Indonesia.

Phone : (62-21) 460-3963, Fax : (62-21) 460-3937