Torpedo[™] Sideslope Pump Systems



QED TorpedoTM electric submersible pumps are made of stainless steel and fitted with teflon seals and bearings to handle the rigors of contaminated groundwater pumping and continuous operation in landfill/remediation applications. Built to deliver optimum efficiency periods of high demand, all electric pumps provide low, long-term

operating costs and high operating reliability.

QED's Torpedo environmental submersibles meet government guidelines for environmental equipment and have been proven through extensive use in the field.

FEATURES

- Made For 10" and Larger Wells
 Flow rates of 5 to 14 GPM (18.9 to 53 LPM).
- · State-of-the-art Hydraulics

Pump efficiency is maximized by constant improvement of the high performance hydraulic design, and precise manufacturing process.

· Manufactured With High-grade Stainless Steel

Rugged stainless steel construction inside and out resists corrosion and attack from aggressive liquids.

· Wear-resistant Design

Designed to flush abrasive particles from the pump, and made from stainless steel to resist wear caused by abrasives.

Built-in Check Valve

*Check valve can be drilled to assist with freezing Prevents back-flow into the well once the pump is shut down.

1/2 to 5 HP Motors

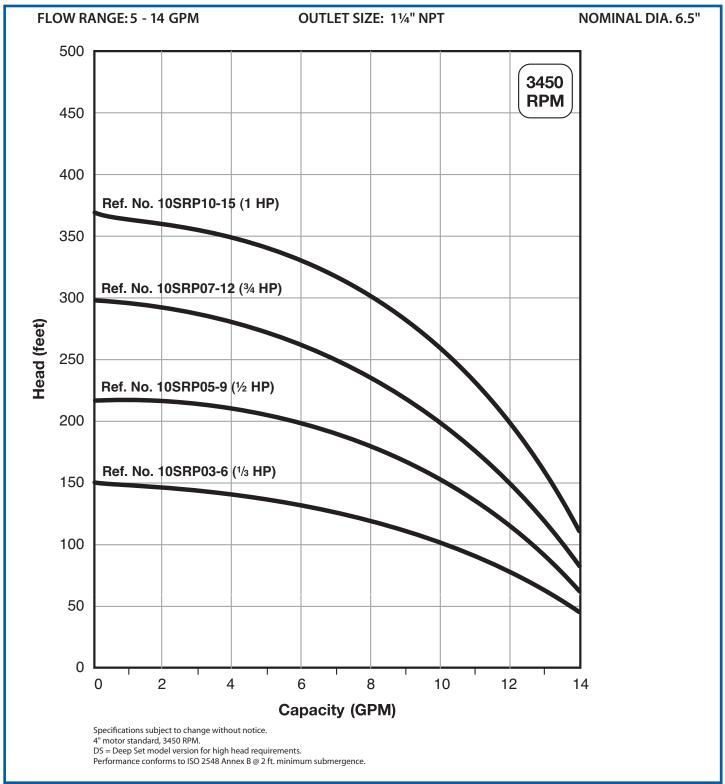
Stainless steel construction and quality design.

Motor Controls and Protection

Available controls to protect the motor against burnout and dry-running, plus the ability to monitor the system allowing the user to optimize settings.



Torpedo[™] Sideslope Pump Systems





Torpedo[™] Sideslope Pump Systems

DIMENSIONS & WEIGHTS

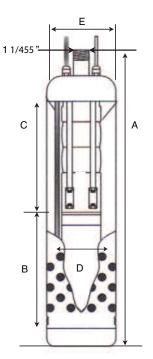
	Motor Dimensions									Approximate
			Size	Discharge	Α	В	C	D	E	Shipping Wt.
Model No.	Fig.	HP	ln.	Size	ln.	In.	In.	In.	In.	Lbs.
10SRP03-6	Α	1/2	4	1 1/4" NPT	19.9	8.8	11.1	3.8	6.5	26
10SRP05-9	Α	1/2	4	1 1/4" NPT	23	9.5	13.5	3.8	6.5	29
10SRP07-12	Α	3/4	4	1 1/4" NPT	26.7	10.7	16	3.8	6.5	32
10SRP10-15	Α	1	4	1 1/4" NPT	30.3	11.8	18.5	3.8	6.5	34
10SRP15-21	Α	1 ½	4	1 1/4" NPT	37.1	13.6	23.5	3.8	6.5	44
10SRP20-27	Α	2	4	1 1/4" NPT	43.5	15.1	28.4	3.8	6.5	49
10SRP30-34	Α	3	4	1 1/4" NPT	54.7	20.6	34.1	3.8	6.5	83
10SRP50-48DS	Α	5	4	1 1/4" NPT	69.4	23.6	45.8	3.8	6.5	115
10SRP50-58DS*	В	5	4	1 1/4" NPT	88.2	23.6	64.5	3.8	6.5	142

Weights include pump end with motor in lbs.

MATERIALS OF CONSTRUCTION

COMPONENT	SPLINED SHAFT (6-27 Stgs.)	CYLINDRICAL SHAFT (34-48 Stgs.)	DEEP SET (58 Stgs.)
Check Valve Housing	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Check Valve	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Diffuser Chamber	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Impeller	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Suction Interconnector	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Inlet Screen	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Pump Shaft	304 Stainless Steel	431 Stainless Steel	431 Stainless Steel
Straps	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Cable Guard	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Priming Inducer	304 Stainless Steel	316 Stainless Steel	316 Stainless Steel
Coupling	329/420/431 Stainless Steel	329/420/431 Stainless Steel	329/420/431 Stainless Steel
Check Valve Seat	Teflon/304 Stainless Steel	Teflon/316 Stainless Steel	Teflon/316 Stainless Steel
Top Bearing	Teflon/304 Stainless Steel	Teflon/316 Stainless Steel	Teflon/316 Stainless Steel
Impeller Seal Ring	Teflon	Teflon	Teflon
Intermediate Bearings	Teflon	304 Stainless Steel	Teflon /316 Stainless Steel
Shaft Washer	Teflon	Teflon	Teflon
Split Cone	Not Required	304 Stainless Steel	304 Stainless Steel
Split Cone Nut	Not Required	316 Stainless Steel	304 Stainless Steel
Sleeve	Not Required	Not Required	316 Stainless Steel
Sleeve Flange	Not Required	Not Required	Zincless Bronze*

NOTES: Specifications subject to change without notice.





^{*}Stainless Steel option available.

MODEL 10 SRP DATA SHEET - THREE PHASE

Three Phase Motors

Table 16 Three-Phase 60 °C Cable, 60 Hz (Service Entrance to Motor) Maximum Length in Feet 60 °C

MOTO	OR RATII	NC				e	U oc ING	ULATION	- AWG (ODDED	WIDE CIT	7E					MCM C	OPPER WI	DE CITE	
VOLTS	HP	KW	14	12	10	8	6	4	- AWG (2	WINE SIZ	0	00	000	0000	250	300	350	400	500
VULIS	1/2	0.37	710	1140	1800	2840	4420	4	3		_'	U	00	000	0000	200	300	350	400	500
	3/4	0.57	510	810	1280	2030	3160													
			430	690	1080	1710	2670	4140	5140											
	1.5	0.75	310	500	790	1260	1960	3050	3780											
	2	1.1	240	390	610	970	1520	2360	2940	3610	4430	5420								
200 V	3	2.2	180	290	470	740	1160	1810	2250	2760	3390	4130								
60 Hz Three-	5	3.7	110	170	280	440	690	1080	1350	1660	2040	2490	3050	3670	4440	5030				
Phase	7.5	5.5	0	0	200	310	490	770	960	1180	1450	1770	2170	2600	3150	3560				
3 - Lead	10		0	0	0	230	370	570	720	880	1090	1330	1640	1970	2390	2720	3100	3480	3800	4420
	15	7.5	0	0	0	160	250	390	490	600	740	910	1110	1340	1630	1850	2100	2350	2570	2980
	20		0	0	0	0	190	300	380	460	570	700	860	1050	1270	1440	1650	1850	2020	2360
		15		0	0	0	0	240	300	370						1170		1500	1640	
	25	18.5	0			0					460 380	570	700	840	1030		1330			1900
	30	22	930	1490	2350	3700	0 5760	0 8910	250	310	380	470	580	700	850	970	1110	1250	1360	1590
	1/2	0.37	670	1080		2580	4190	6490	8060	9860										
	3/4	0.55	560	910	1700	2580	3520	5460	6780	8290										
	1.5	0.75	420	670	1060	1670	2610	4050	5030	6160	7530	9170								
		1.1											0700							
230 V	2	1.5	320	510	810	1280	2010	3130	3890	4770	5860	7170	8780	0000	0000					
60 Hz	3	2.2	240	390	620	990	1540	2400	2980	3660	4480	5470	6690	8020	9680	0050	7500	0.400	0000	
Three- Phase	5	3.7	140	230	370	590	920	1430	1790	2190	2690	3290	4030	4850	5870	6650	7560	8460	9220	7510
3 - Lead	7.5	5.5	0	160	260	420	650	1020	1270	1560	1920	2340	2870	3440	4160	4710	5340	5970	6500	7510
	10	7.5	0	0	190	310	490	760	950	1170	1440	1760	2160	2610	3160	3590	4100	4600	5020	5840
	15	11	0	0	0	210	330	520	650	800	980	1200	1470	1780	2150	2440	2780	3110	3400	3940
	20	15	0	0	0	0	250	400	500	610	760	930	1140	1380	1680	1910	2180	2450	2680	3120
	25	18.5	0	0	0	0	0	320	400	500	610	750	920	1120	1360	1540	1760	1980	2160	2520
	30	22	0	0	0	0	0	260	330	410	510	620	760	930	1130	1280	1470	1650	1800	2110
	1/2	0.37	2690	4290	6730															
	3/4	0.55	2000	3190	5010	7860														
	1	0.75	1620	2580	4060	6390	9980													
	1.5	1.1	1230	1970	3100	4890	7630													
	2	1.5	870	1390	2180	3450	5400	8380	0000	0000										
	3	2.2	680	1090	1710	2690	4200	6500	8020	9830	7000									
	5	3.7	400	640	1010	1590	2490	3870	4780	5870	7230	8830	7000	0700						
	7.5	5.5	270	440	690	1090	1710	2640	3260	4000	4930	6010	7290	8780	7000	0000	00.10			
	10	7.5	200	320	510	800	1250	1930	2380	2910	3570	4330	5230	6260	7390	8280	9340	0050	0000	
380 V 60 Hz	15	11	0	0	370	590	920	1430	1770	2170	2690	3290	4000	4840	5770	6520	7430	8250	8990	0400
Three-	20	15	0	0	0	440	700	1090	1350	1670	2060	2530	3090	3760	4500	5110	5840	6510	7120	8190
Phase	25	18.5	0	0	0	360	570	880	1100	1350	1670	2050	2510	3040	3640	4130	4720	5250	5740	6590
3 - Lead	30	22	0	0	0	0	470	730	910	1120	1380	1700	2080	2520	3020	3430	3920	4360	4770	5490
	40	30	0	0	0	0	0	530	660	820	1010	1240	1520	1840	2200	2500	2850	3170	3470	3990
	50	37	0	0	0	0	0	0	540	660	820	1000	1220	1480	1770	2010	2290	2550	2780	3190
	60	45	0	0	0	0	0	0	0	560	690	850	1030	1250	1500	1700	1940	2150	2350	2700
	75	55	0	0	0	0	0	0	0	0	570	700	860	1050	1270	1440	1660	1850	2030	2350
	100	75	0	0	0	0	0	0	0	0	0	510	630	760	910	1030	1180	1310	1430	1650
	125	90	0	0	0	0	0	0	0	0	0	0	0	620	740	840	950	1060	1160	1330
	150	110	0	0	0	0	0	0	0	0	0	0	0	0	620	700	790	880	960	1090
	175	130	0	0	0	0	0	0	0	0	0	0	0	0	0	650	750	840	920	1070
	200	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	630	700	760	880

Lengths in **BOLD** only meet the US National Electrical Code ampacity requirements for individual conductors in free air or water. Lengths NOT in bold meet NEC ampacity requirements for either individual conductors or jacketed cable.



Three Phase Motors

60°C Table 17 Three-Phase 60 °C Cable (Continued) 60 °C INSULATION - AWG COPPER WIRE SIZE MCM COPPER WIRE SIZE 0.37 0.55 5.5 460 V 60 Hz 18.5 Phase Ω 0.37 0.55 575 V 60 Hz Three-18.5

Lengths in **BOLD** only meet the US National Electrical Code ampacity requirements for individual conductors in free air or water. Lengths NOT in bold meet NEC ampacity requirements for either individual conductors or jacketed cable.



Three Phase Motors

Table 22 Three-Phase Motor Specifications (60 Hz)

ТҮРЕ			RATING			FULL	LOAD		IMUM LOAD)	LINE TO LINE RESISTANCE	EFFICI	ENCY %	LOCKED ROTOR	KVA CODE
	HP	KW	VOLTS	HZ	S.F.	AMPS	WATTS	AMPS	WATTS	OHMS	S.F.	F.L.	AMPS	
	1/2	0.37	200	60	1.6	2.8	585	3.4	860	6.6-8.4	70	64	17.5	N
6.5"	1/2	0.37	230	60	1.6	2.4	585	2.9	860	9.5-10.9	70	64	15.2	N
U.U	1/2	0.37	380	60	1.6	1.4	585	2.1	860	23.2-28.6	70	64	9.2	N
	1/2	0.37	460	60	1.6	1.2	585	1.5	860	38.4-44.1	70	64	7.6	N
	3/4	0.55	200	60	1.5	3.6	810	4.4	1150	4.6-5.9	73	69	23.1	M
	3/4	0.55	230	60	1.5	3.1	810	3.8	1150	6.8-7.8	73	69	20.1	M
	3/4	0.55	380	60	1.5	1.9	810	2.5	1150	16.6-20.3	73	69	12.2	M
	3/4	0.55	460	60	1.5	1.6	810	1.9	1150	27.2-30.9	73	69	10.7	M
	1	0.75	200	60	1.4	4.5	1070	5.4	1440	3.8-4.5	72	70	30.9	M
	1	0.75	230	60	1.4	3.9	1070	4.7	1440	4.9-5.6	72	70	26.9	M
	1	0.75	380	60	1.4	2.3	1070	2.8	1440	12.2-14.9	72	70	16.3	M
	1	0.75	460	60	1.4	2	1070	2.4	1440	19.9-23.0	72	70	13.5	M
	1.5	1.1	200	60	1.3	5.8	1460	6.8	1890	2.5-3.0	76	76	38.2	K
	1.5	1.1	230	60	1.3	5	1460	5.9	1890	3.2-4.0	76	76	33.2	K
	1.5	1.1	380	60	1.3	3	1460	3.6	1890	8.5-10.4	76	76	20.1	K
	1.5	1.1	460	60	1.3	2.5	1460	3.1	1890	13.0-16.0	76	76	16.6	K
	1.5	1.1	575	60	1.3	2	1460	2.4	1890	20.3-25.0	76	76	13.3	K
	2	1.5	200	60	1.25	7.7	2150	9.3	2700	1.8-2.4	69	69	53.6	L
	2	1.5	230	60	1.25	6.7	2150	8.1	2700	2.3-3.0	69	69	46.6	L
	2	1.5	380	60	1.25	4.1	2150	4.9	2700	6.6-8.2	69	69	28.2	L
	2	1.5	460	60	1.25	3.4	2150	4.1	2700	9.2-12.0	69	69	23.3	L
	2	1.5	575	60	1.25	2.7	2150	3.2	2700	14.6-18.7	69	69	18.6	L
	3	2.2	200	60	1,15	10.9	2980	12.5	3420	1.3-1.7	75	75	71.2	K
	3	2.2	230	60	1.15	9.5	2980	10.9	3420	1.8-2.2	75	75	61.9	K
	3	2.2	380	60	1.15	5.8	2980	6.6	3420	4.7-6.0	75	75	37.5	K
	3	2.2	460	60	1.15	4.8	2980	5.5	3420	7.2-8.8	75	75	31	K
	3	2.2	575	60	1.15	3.8	2980	4.4	3420	11.4-13.9	75	75	24.8	K
	5	3.7	200	60	1.15	18.3	5050	20.5	5810	.7491	74	74	122	K
	5	3.7	230	60	1.15	15.9	5050	17.8	5810	1.0-1.2	74	74	106	K
	5	3.7	380	60	1.15	9.6	5050	10.8	5810	2.9-3.6	74	74	64.4	K
	5	3.7	460	60	1.15	8	5050	8.9	5810	4.0-4.9	74	74	53.2	K
	5	3.7	575	60	1.15	6.4	5050	7.1	5810	6.4-7.8	74	74	42.6	K
	7.5	5.5	200	60	1.15	26.5	7360	30.5	8450	.4657	76	76	188	K
	7.5	5.5	230	60	1.15	23	7360	26.4	8450	.6175	76	76	164	K
	7.5	5.5	380	60	1.15	13.9	7360	16	8450	1.6-2.0	76	76	99.1	K
	7.5	5.5	460	60	1.15	11.5	7360	13.2	8450	2.5-3.1	76	76	81.9	K
	7.5	5.5	575	60	1.15	9.2	7360	10.6	8450	4.0-5.0	76	76	65.5	K
	10	7.5	380	60	1.15	19.3	10000	21	11400	1.2-1.6	75	75	140	L
	10	7.5	460	60	1.15	15.9	10000	17.3	11400	1.8-2.3	75	75	116	L
	10	7.5	575	60	1.15	12.5	10000	13.6	11400	2.8-3.5	75	75	92.8	L



MODEL 10 SRP DATA SHEET - THREE PHASE

Three Phase Motors

Table 23	Three-Phase	Motor	Fuse	Sizing
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ТҮРЕ					CIRC	UIT BREAKERS OR FUSE	AMPS	CIRCUIT BREAKERS OR FUSE AMPS				
	MOTOR MODEL		RATIN	iG		(MAXIMUM PER NEC)		(TYPICAL SUBMERSIBLE)				
	PREFIX	HP	KW	VOLTS	STANDARD FUSE	DUAL ELEMENT TIME DELAY FUSE	CIRCUIT BREAKER	STANDARD FUSE	DUAL ELEMENT TIME DELAY FUSE	CIRCUIT		
	234501	1/2	0.37	200	10	5	8	10	4	15		
6.5"	234511	1/2	0.37	230	8	4.5	6	8	4	15		
U.Ū	234541	1/2	0.37	380	5	2.5	4	5	2	15		
	234521	1/2	0.37	460	4	2.25	3	4	2	15		
	234502	3/4	0.55	200	15	7	10	12	5	15		
	234512	3/4	0.55	230	10	5.6	8	10	5	15		
	234542	3/4	0.55	380	6	3.5	5	6	3	15		
	234522	3/4	0.55	460	5	2.8	4	5	3	15		
	234503	1	0.75	200	15	8	15	15	6	15		
	234513	1	0.75	230	15	7	10	12	6	15		
	234543	1	0.75	380	8	4.5	8	8	4	15		
	234523	1	0.75	460	6	3.5	5	6	3	15		
	234504	1.5	1.1	200	20	12	15	20	8	15		
	234514	1.5	1.1	230	15	9	15	15	8	15		
	234544	1.5	1.1	380	10	5.6	8	10	4	15		
	234524	1.5	1.1	460	8	4.5	8	8	4	15		
	234534	1.5	1.1	575	6	3.5	5	6	3	15		
	234305	2	1.5	200	25	15	20	25	11	20		
	234315	2	1.5	230	25	12	20	25	10	20		
	234345	2	1.5	380	15	8	15	15	6	15		
	234325	2	1.5	460	15	6	10	11	5	15		
	234335	2	1.5	575	10	5	8	10	4	15		
	234306	3	2.2	200	35	20	30	35	15	30		
	234316	3	2.2	230	30	17.5	25	30	12	25		
	234346	3	2.2	380	20	12	15	20	8	15		
	234326	3	2.2	460	15	9	15	15	6	15		
	234336	3	2.2	575	15	7	10	11	5	15		
	234307	5	3.7	200	60	35	50	60	25	50		
	234317	5	3.7	230	50	30	40	45	20	40		
	234347	5	3.7	380	30	17.5	25	30	12	25		
	234327	5	3.7	460	25	15	20	25	10	20		
	234337	5	3.7	575	20	12	20	20	8	20		
	234308	7.5	5.5	200	90	50	70	80	35	70		
	234318	7.5	5.5	230	80	45	60	70	30	60		
	234348	7.5	5.5	380	45	25	40	40	20	40		
	234328	7.5	5.5	460	40	25	30	35	15	30		
	234338	7.5	5.5	575	30	17.5	25	30	12	25		
	234349	10	7.5	380	70	40	60	60	25	60		
	234329	10	7.5	460	60	30	45	50	25	45		
	234339	10	7.5	575	45	25	35	40	20	35		
	234549	10	7.5	380	70	35	60	60	25	60		
	234595	10	7.5	460	60	30	45	50	25	45		
	234598	10	7.5	575	45	25	35	40	20	35		

