

HYDROLOGICAL SERVICES PTY. LTD., AUSTRALIA

CERTIFICATE OF CALIBRATION

Date: / /

Current Meter Model: RedBack  
Fan No.  
Diameter:  
Type of Support:  
Method of Calibration: Average Value Equation

Serial No. \_\_\_\_ - \_\_\_\_  
Serial No.  
Pitch:

$n < 0.14 \quad V = 0.6564 n + 0.0094 \text{ m/s}$   
 $0.14 < n < 2.69 \quad V = 0.6981 n + 0.0035 \text{ m/s}$   
 $n > 2.69 \quad V = 0.7157 n - 0.0438 \text{ m/s}$

Starting Velocity = 0.025 m/s  
Maximum Velocity = 8.000 m/s

Note: 'n' denotes the number of revolutions of the propeller per second  
'V' is the water velocity in meters per second.

Date: 8/10/12

INSPECTED: \_\_\_\_\_

Fadi Gemayel  
(Mechatronics Engineer)

| The above meter has been calibrated in accordance with |  
| AS 3778.6.3-1992. This standard is identical with and has |  
| been reproduced from ISO 3455:1976. |  
| The clause below has been printed with the permission of |  
| Standards Australia from AS 3778.6.1-1992. This standard is |  
| identical with and has been reproduced from ISO 2537:1988. |  
| Clause 7.6 Recalibration. Meters shall be recalibrated |  
| whenever their performance is suspect. In practice for |  
| individually rated meters, recalibration is sometimes |  
| carried out at yearly intervals or after 300 hours of use, |  
| whichever is the shorter. |

D127.08.00

HYDROLOGICAL SERVICES PTY. LTD., AUSTRALIA

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CALIBRATION TABLE

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Date: / /

Current Meter Model: RedBack Serial No. \_\_\_\_ - \_\_\_\_  
 Fan No. Serial No. \_\_\_\_\_  
 Type of Table: Revs/sec vs m/s  
 Velocity in meters/second at increments of 0.01 Revolutions per second

n	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	n
0.0	*****	*****	*****	0.029	0.036	0.042	0.049	0.055	0.062	0.068	0.0
0.1	0.075	0.082	0.088	0.095	0.101	0.108	0.115	0.122	0.129	0.136	0.1
0.2	0.143	0.150	0.157	0.164	0.171	0.178	0.185	0.192	0.199	0.206	0.2
0.3	0.213	0.220	0.227	0.234	0.241	0.248	0.255	0.262	0.269	0.276	0.3
0.4	0.283	0.290	0.297	0.304	0.311	0.318	0.325	0.332	0.339	0.346	0.4
0.5	0.353	0.360	0.367	0.373	0.380	0.387	0.394	0.401	0.408	0.415	0.5
0.6	0.422	0.429	0.436	0.443	0.450	0.457	0.464	0.471	0.478	0.485	0.6
0.7	0.492	0.499	0.506	0.513	0.520	0.527	0.534	0.541	0.548	0.555	0.7
0.8	0.562	0.569	0.576	0.583	0.590	0.597	0.604	0.611	0.618	0.625	0.8
0.9	0.632	0.639	0.646	0.653	0.660	0.667	0.674	0.681	0.688	0.695	0.9
1.0	0.702	0.709	0.716	0.723	0.730	0.737	0.743	0.750	0.757	0.764	1.0
1.1	0.771	0.778	0.785	0.792	0.799	0.806	0.813	0.820	0.827	0.834	1.1
1.2	0.841	0.848	0.855	0.862	0.869	0.876	0.883	0.890	0.897	0.904	1.2
1.3	0.911	0.918	0.925	0.932	0.939	0.946	0.953	0.960	0.967	0.974	1.3
1.4	0.981	0.988	0.995	1.002	1.009	1.016	1.023	1.030	1.037	1.044	1.4
1.5	1.051	1.058	1.065	1.072	1.079	1.086	1.093	1.100	1.106	1.113	1.5
1.6	1.120	1.127	1.134	1.141	1.148	1.155	1.162	1.169	1.176	1.183	1.6
1.7	1.190	1.197	1.204	1.211	1.218	1.225	1.232	1.239	1.246	1.253	1.7
1.8	1.260	1.267	1.274	1.281	1.288	1.295	1.302	1.309	1.316	1.323	1.8
1.9	1.330	1.337	1.344	1.351	1.358	1.365	1.372	1.379	1.386	1.393	1.9
2.0	1.400	1.407	1.414	1.421	1.428	1.435	1.442	1.449	1.456	1.463	2.0
2.1	1.470	1.476	1.483	1.490	1.497	1.504	1.511	1.518	1.525	1.532	2.1
2.2	1.539	1.546	1.553	1.560	1.567	1.574	1.581	1.588	1.595	1.602	2.2
2.3	1.609	1.616	1.623	1.630	1.637	1.644	1.651	1.658	1.665	1.672	2.3
2.4	1.679	1.686	1.693	1.700	1.707	1.714	1.721	1.728	1.735	1.742	2.4
2.5	1.749	1.756	1.763	1.770	1.777	1.784	1.791	1.798	1.805	1.812	2.5
2.6	1.819	1.826	1.833	1.840	1.846	1.853	1.860	1.867	1.874	1.881	2.6
2.7	1.889	1.896	1.903	1.910	1.917	1.924	1.932	1.939	1.946	1.953	2.7
2.8	1.960	1.967	1.974	1.982	1.989	1.996	2.003	2.010	2.017	2.025	2.8
2.9	2.032	2.039	2.046	2.053	2.060	2.068	2.075	2.082	2.089	2.096	2.9
3.0	2.103	2.110	2.118	2.125	2.132	2.139	2.146	2.153	2.161	2.168	3.0
3.1	2.175	2.182	2.189	2.196	2.203	2.211	2.218	2.225	2.232	2.239	3.1
3.2	2.246	2.254	2.261	2.268	2.275	2.282	2.289	2.297	2.304	2.311	3.2
3.3	2.318	2.325	2.332	2.339	2.347	2.354	2.361	2.368	2.375	2.382	3.3
3.4	2.390	2.397	2.404	2.411	2.418	2.425	2.433	2.440	2.447	2.454	3.4
3.5	2.461	2.468	2.475	2.483	2.490	2.497	2.504	2.511	2.518	2.526	3.5
3.6	2.533	2.540	2.547	2.554	2.561	2.569	2.576	2.583	2.590	2.597	3.6
3.7	2.604	2.611	2.619	2.626	2.633	2.640	2.647	2.654	2.662	2.669	3.7
3.8	2.676	2.683	2.690	2.697	2.704	2.712	2.719	2.726	2.733	2.740	3.8
3.9	2.747	2.755	2.762	2.769	2.776	2.783	2.790	2.798	2.805	2.812	3.9
4.0	2.819	2.826	2.833	2.840	2.848	2.855	2.862	2.869	2.876	2.883	4.0
4.1	2.891	2.898	2.905	2.912	2.919	2.926	2.934	2.941	2.948	2.955	4.1
4.2	2.962	2.969	2.976	2.984	2.991	2.998	3.005	3.012	3.019	3.027	4.2
4.3	3.034	3.041	3.048	3.055	3.062	3.069	3.077	3.084	3.091	3.098	4.3
4.4	3.105	3.112	3.120	3.127	3.134	3.141	3.148	3.155	3.163	3.170	4.4

Current Meter Model: RedBack

Serial No. \_\_\_\_-\_\_\_\_

Fan No.

Serial No.

Type of Table: Revs/sec vs m/s

Velocity in meters/second at increments of 0.01 Revolutions per second

n	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	n
4.5	3.177	3.184	3.191	3.198	3.205	3.213	3.220	3.227	3.234	3.241	4.5
4.6	3.248	3.256	3.263	3.270	3.277	3.284	3.291	3.299	3.306	3.313	4.6
4.7	3.320	3.327	3.334	3.341	3.349	3.356	3.363	3.370	3.377	3.384	4.7
4.8	3.392	3.399	3.406	3.413	3.420	3.427	3.435	3.442	3.449	3.456	4.8
4.9	3.463	3.470	3.477	3.485	3.492	3.499	3.506	3.513	3.520	3.528	4.9
5.0	3.535	3.542	3.549	3.556	3.563	3.570	3.578	3.585	3.592	3.599	5.0
5.1	3.606	3.613	3.621	3.628	3.635	3.642	3.649	3.656	3.664	3.671	5.1
5.2	3.678	3.685	3.692	3.699	3.706	3.714	3.721	3.728	3.735	3.742	5.2
5.3	3.749	3.757	3.764	3.771	3.778	3.785	3.792	3.800	3.807	3.814	5.3
5.4	3.821	3.828	3.835	3.842	3.850	3.857	3.864	3.871	3.878	3.885	5.4
5.5	3.893	3.900	3.907	3.914	3.921	3.928	3.935	3.943	3.950	3.957	5.5
5.6	3.964	3.971	3.978	3.986	3.993	4.000	4.007	4.014	4.021	4.029	5.6
5.7	4.036	4.043	4.050	4.057	4.064	4.071	4.079	4.086	4.093	4.100	5.7
5.8	4.107	4.114	4.122	4.129	4.136	4.143	4.150	4.157	4.165	4.172	5.8
5.9	4.179	4.186	4.193	4.200	4.207	4.215	4.222	4.229	4.236	4.243	5.9
6.0	4.250	4.258	4.265	4.272	4.279	4.286	4.293	4.300	4.308	4.315	6.0
6.1	4.322	4.329	4.336	4.343	4.351	4.358	4.365	4.372	4.379	4.386	6.1
6.2	4.394	4.401	4.408	4.415	4.422	4.429	4.436	4.444	4.451	4.458	6.2
6.3	4.465	4.472	4.479	4.487	4.494	4.501	4.508	4.515	4.522	4.530	6.3
6.4	4.537	4.544	4.551	4.558	4.565	4.572	4.580	4.587	4.594	4.601	6.4
6.5	4.608	4.615	4.623	4.630	4.637	4.644	4.651	4.658	4.666	4.673	6.5
6.6	4.680	4.687	4.694	4.701	4.708	4.716	4.723	4.730	4.737	4.744	6.6
6.7	4.751	4.759	4.766	4.773	4.780	4.787	4.794	4.801	4.809	4.816	6.7
6.8	4.823	4.830	4.837	4.844	4.852	4.859	4.866	4.873	4.880	4.887	6.8
6.9	4.895	4.902	4.909	4.916	4.923	4.930	4.937	4.945	4.952	4.959	6.9
7.0	4.966	4.973	4.980	4.988	4.995	5.002	5.009	5.016	5.023	5.031	7.0
7.1	5.038	5.045	5.052	5.059	5.066	5.073	5.081	5.088	5.095	5.102	7.1
7.2	5.109	5.116	5.124	5.131	5.138	5.145	5.152	5.159	5.166	5.174	7.2
7.3	5.181	5.188	5.195	5.202	5.209	5.217	5.224	5.231	5.238	5.245	7.3
7.4	5.252	5.260	5.267	5.274	5.281	5.288	5.295	5.302	5.310	5.317	7.4
7.5	5.324	5.331	5.338	5.345	5.353	5.360	5.367	5.374	5.381	5.388	7.5
7.6	5.396	5.403	5.410	5.417	5.424	5.431	5.438	5.446	5.453	5.460	7.6
7.7	5.467	5.474	5.481	5.489	5.496	5.503	5.510	5.517	5.524	5.532	7.7
7.8	5.539	5.546	5.553	5.560	5.567	5.574	5.582	5.589	5.596	5.603	7.8
7.9	5.610	5.617	5.625	5.632	5.639	5.646	5.653	5.660	5.667	5.675	7.9
8.0	5.682	5.689	5.696	5.703	5.710	5.718	5.725	5.732	5.739	5.746	8.0
8.1	5.753	5.761	5.768	5.775	5.782	5.789	5.796	5.803	5.811	5.818	8.1
8.2	5.825	5.832	5.839	5.846	5.854	5.861	5.868	5.875	5.882	5.889	8.2
8.3	5.897	5.904	5.911	5.918	5.925	5.932	5.939	5.947	5.954	5.961	8.3
8.4	5.968	5.975	5.982	5.990	5.997	6.004	6.011	6.018	6.025	6.032	8.4
8.5	6.040	6.047	6.054	6.061	6.068	6.075	6.083	6.090	6.097	6.104	8.5
8.6	6.111	6.118	6.126	6.133	6.140	6.147	6.154	6.161	6.168	6.176	8.6
8.7	6.183	6.190	6.197	6.204	6.211	6.219	6.226	6.233	6.240	6.247	8.7
8.8	6.254	6.262	6.269	6.276	6.283	6.290	6.297	6.304	6.312	6.319	8.8
8.9	6.326	6.333	6.340	6.347	6.355	6.362	6.369	6.376	6.383	6.390	8.9
9.0	6.397	6.405	6.412	6.419	6.426	6.433	6.440	6.448	6.455	6.462	9.0
9.1	6.469	6.476	6.483	6.491	6.498	6.505	6.512	6.519	6.526	6.533	9.1
9.2	6.541	6.548	6.555	6.562	6.569	6.576	6.584	6.591	6.598	6.605	9.2
9.3	6.612	6.619	6.627	6.634	6.641	6.648	6.655	6.662	6.669	6.677	9.3
9.4	6.684	6.691	6.698	6.705	6.712	6.720	6.727	6.734	6.741	6.748	9.4
9.5	6.755	6.763	6.770	6.777	6.784	6.791	6.798	6.805	6.813	6.820	9.5
9.6	6.827	6.834	6.841	6.848	6.856	6.863	6.870	6.877	6.884	6.891	9.6

Current Meter Model: RedBack

Serial No. \_\_\_\_-\_\_\_\_

Fan No.

Serial No.

Type of Table: Revs/sec vs m/s

Velocity in meters/second at increments of 0.01 Revolutions per second

n	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	n
9.7	6.898	6.906	6.913	6.920	6.927	6.934	6.941	6.949	6.956	6.963	9.7
9.8	6.970	6.977	6.984	6.992	6.999	7.006	7.013	7.020	7.027	7.034	9.8
9.9	7.042	7.049	7.056	7.063	7.070	7.077	7.085	7.092	7.099	7.106	9.9
10.0	7.113	7.120	7.128	7.135	7.142	7.149	7.156	7.163	7.170	7.178	10.0
10.1	7.185	7.192	7.199	7.206	7.213	7.221	7.228	7.235	7.242	7.249	10.1
10.2	7.256	7.263	7.271	7.278	7.285	7.292	7.299	7.306	7.314	7.321	10.2
10.3	7.328	7.335	7.342	7.349	7.357	7.364	7.371	7.378	7.385	7.392	10.3
10.4	7.399	7.407	7.414	7.421	7.428	7.435	7.442	7.450	7.457	7.464	10.4
10.5	7.471	7.478	7.485	7.493	7.500	7.507	7.514	7.521	7.528	7.535	10.5
10.6	7.543	7.550	7.557	7.564	7.571	7.578	7.586	7.593	7.600	7.607	10.6
10.7	7.614	7.621	7.629	7.636	7.643	7.650	7.657	7.664	7.671	7.679	10.7
10.8	7.686	7.693	7.700	7.707	7.714	7.722	7.729	7.736	7.743	7.750	10.8
10.9	7.757	7.764	7.772	7.779	7.786	7.793	7.800	7.807	7.815	7.822	10.9
11.0	7.829	7.836	7.843	7.850	7.858	7.865	7.872	7.879	7.886	7.893	11.0
11.1	7.900	7.908	7.915	7.922	7.929	7.936	7.943	7.951	7.958	7.965	11.1
11.2	7.972	7.979	7.986	7.994	8.001	*****	*****	*****	*****	*****	11.2