

▶ Lead-Acid batteries





As an assembly manufacturer and developer of Lead-Acid batteries and Lithium-Ion battery systems, TRIATHLON® produces batteries for a wide range of industrial motive power applications including electric forklifts and pallet trucks, mobile lifting platforms and cleaning machines.

Decades of experience and technical expertise, combined with state-of-the-art production facilities ensure the highest quality of motive power batteries available. The site is certified according to ISO 9001, ISO 14001 und ISO 45001.

A solid network of sales and service partners in Germany, Europe and the United States provide competent solution based advice and both flexible and reliable onsite service.

 **Reliable**

 **Flexible**

 **Powerful**

 **Competent**

The advantages



TRIATHLON® Lead-Acid batteries utilize the highly sophisticated European tubular plate technology with flexible bolt-on inter-cell cable connectors. TRIATHLON® tubular batteries are designed specifically for all motive power heavy duty applications and multi-shift operations. For light to medium applications, we provide maintenance-free (valve regulated) gel technology batteries that stand out for their excellent cycle life and ease of use.

TRIATHLON® batteries and cells are built according to International Electrotechnical Commission Standards (IEC 60254-2).

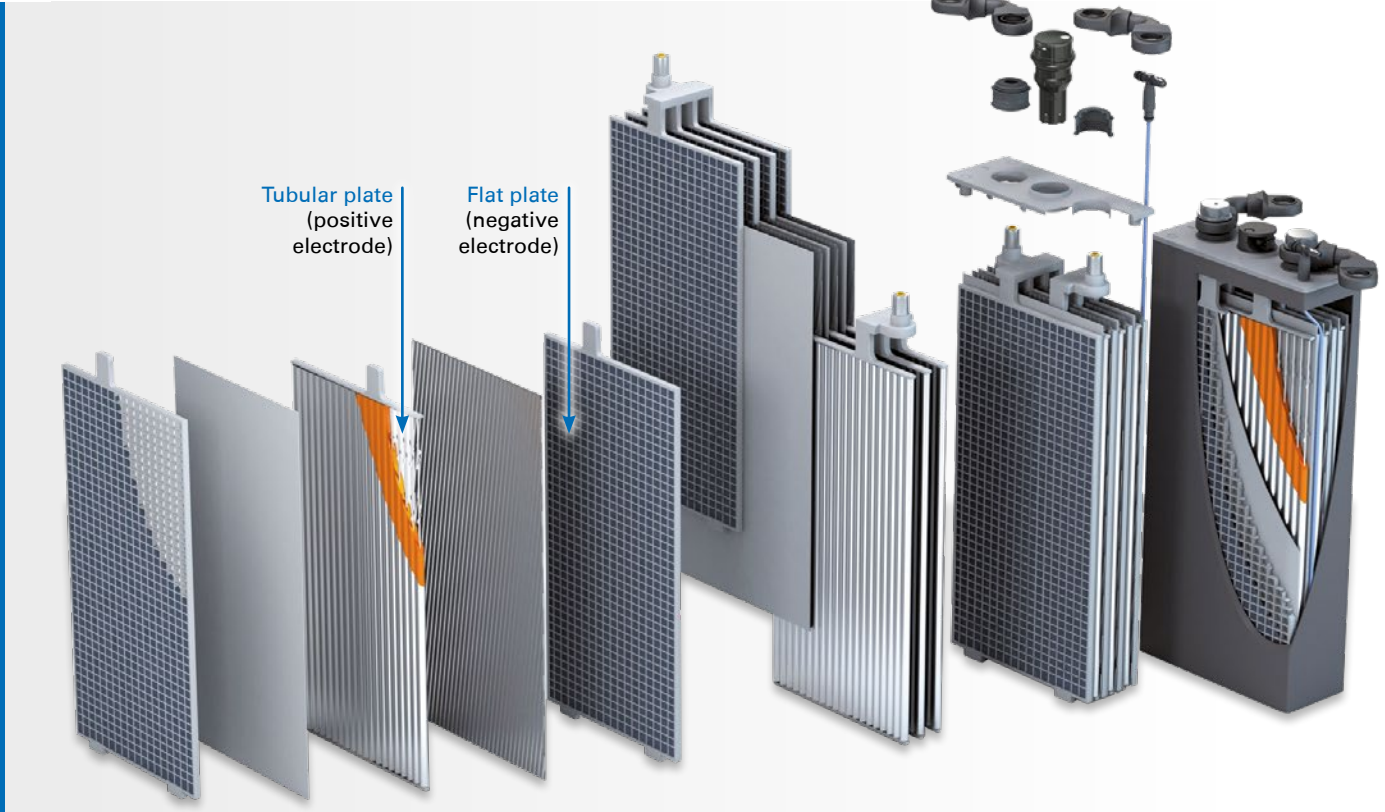
TRIATHLON® batteries of the T-US, TPzS, TPzB and TPzV product lines ensure safe and reliable power for electric lift trucks. We are constantly and consistently working on new innovative power solutions for safe, cost-efficient, productivity enhancing and reliable motive power battery solutions.

With our T-US/TPzS AQUAsave battery lines, you can increase your productivity and lower your operating expenses through reduced watering intervals.

The TPzS Longlife line is designed to deliver longer service life that is realized by more charge/discharge cycles.

tell the story!

▶ TRIATHLON® Tubular plate



TRIATHLON® tubular positive plate cells are manufactured with a number of adjacent lead spines all connected across the top. A tubular gauntlet, made of acid-resistant and current-permeable polyester material, is slid over the tubular spines like fingers of a glove. The tubes are filled with lead dioxide (active material). The tubular plate is sealed with a plastic boot at the bottom. The advantage over flat plate batteries is that the tubular design provides greater surface area of active material when compared to standard flat plate batteries.

The result is a higher usable capacity battery than that of a standard flat plate battery. This translates directly into greater productivity due to longer runtimes.

The number of tubes, the length and the diameter varies depending on the type of battery. Battery cell dimensions are based on the size of the tubular positive plate and the corresponding negative flat plate. A complete battery cell consists of positive and negative plates (electrodes), separators and electrolyte.

PRODUCT FEATURES / ADVANTAGES:

- ▶ Higher Amp-Hour capacity and performance
- ▶ Increased cycle life
- ▶ Robust construction and durability



The electrical inter-cell connection between the battery's individual cells consists of a fully insulated, highly flexible copper-cable inter-cell connector. The flex connector is designed to deliver higher current with less internal resistance.

The maintenance-free flex connectors are designed to ensure full electric contact with the respective positive and negative terminals through the use of fully insulated bolts that have been treated with an industrial thread-locking adhesive. The fully insulated cable design protects the flex connector from corrosion due to exposure to electrolyte and it protects from accidental shorts which lead to disasters

resulting from careless laying of metal objects or tools on top of uncovered connectors. The flex connector also reduces temperature related expansion and excessive vibration during use on rough floors or in harsh operating conditions.

Throughout the life of the battery, the flex connector will not tweak or place pressure on the cell's positive and negative bushings or posts. This eliminates any possible internal cell damage. The flex connector technology with bolt-on inter-cell connectors also ensures full and secure electrical contact with all conductive parts on top of the battery.

PRODUCT FEATURES / ADVANTAGES:

- ▶ Optimal current transfer from cell to cell with no voltage drop
- ▶ Improved high current carrying capability
- ▶ Fully insulated cable connection (no additional inter-cell cover needed)
- ▶ High flexibility
- ▶ Corrosion resistant
- ▶ Less internal resistance resulting in lower operating temperatures

be more flexible



PRODUCT FEATURES

- ▶ Robust tubular flooded Lead-Acid technology
- ▶ Low-maintenance Lead-Acid technology with low antimony content in the lead alloy and greater head space due to tubular design
- ▶ Considerably reduced watering intervals (30-90 days) with optimized charge profile
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Increased cycle life
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 180 to 2000 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 6.20 in, US cell

90 Ah plate			100 Ah plate			125 Ah plate		
Type	Ah C ₈	L in	Type	Ah C ₈	L in	Type	Ah C ₈	L in
T90-5 AQ	180	2.00	T100-5 AQ	200	2.00	T125-5 AQ	250	2.00
T90-7 AQ	270	2.75	T100-7 AQ	300	2.75	T125-7 AQ	375	2.75
T90-9 AQ	360	3.50	T100-9 AQ	400	3.50	T125-9 AQ	500	3.50
T90-11 AQ	450	4.25	T100-11 AQ	500	4.25	T125-11 AQ	625	4.25
T90-13 AQ	540	5.00	T100-13 AQ	600	5.00	T125-13 AQ	750	5.00
T90-15 AQ	630	5.75	T100-15 AQ	700	5.75	T125-15 AQ	875	5.75
T90-17 AQ	720	6.50	T100-17 AQ	800	6.50	T125-17 AQ	1000	6.50
T90-19 AQ	810	7.25	T100-19 AQ	900	7.25	T125-19 AQ	1125	7.25
T90-21 AQ	900	8.00	T100-21 AQ	1000	8.00	T125-21 AQ	1250	8.00
T90-23 AQ	990	8.75	T100-23 AQ	1100	8.75	T125-23 AQ	1375	8.75
T90-25 AQ	1080	9.50	T100-25 AQ	1200	9.50	T125-25 AQ	1500	9.50
T90-27 AQ	1170	10.25	T100-27 AQ	1300	10.25	T125-27 AQ	1625	10.25
T90-29 AQ	1260	11.00	T100-29 AQ	1400	11.00	T125-29 AQ	1750	11.00
T90-31 AQ	1350	11.75	T100-31 AQ	1500	11.75	T125-31 AQ	1875	11.75
T90-33 AQ	1440	12.50	T100-33 AQ	1600	12.50	T125-33 AQ	2000	12.50

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:



TRIATHLON® TE-US Enhanced Capacity



PRODUCT FEATURES

- ▶ Robust tubular flooded Lead-Acid technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Increased cycle life
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 180 to 2000 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 6.20 in, US cell

100 Ah plate			140 Ah plate		
Type	Ah C ₆	L in	Type	Ah C ₆	L in
T100-5 EC	200	2.00	T140-5 EC	280	2.00
T100-7 EC	300	2.75	T140-7 EC	420	2.75
T100-9 EC	400	3.50	T140-9 EC	560	3.50
T100-11 EC	500	4.25	T140-11 EC	700	4.25
T100-13 EC	600	5.00	T140-13 EC	840	5.00
T100-15 EC	700	5.75	T140-15 EC	980	5.75
T100-17 EC	800	6.50	T140-17 EC	1120	6.50
T100-19 EC	900	7.25	T140-19 EC	1260	7.25
T100-21 EC	1000	8.00	T140-21 EC	1400	8.00
T100-23 EC	1100	8.75	T140-23 EC	1540	8.75
T100-25 EC	1200	9.50	T140-25 EC	1680	9.50
T100-27 EC	1300	10.25	T140-27 EC	1820	10.25
T100-29 EC	1400	11.00	T140-29 EC	1960	11.00
T100-31 EC	1500	11.75	T140-31 EC	2100	11.75
T100-33 EC	1600	12.50	T140-33 EC	2240	12.50

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:



PRODUCT FEATURES

- ▶ Robust tubular flooded Lead-Acid technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Increased cycle life
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 100 to 1550 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 7.80 in, DIN cell

50 Ah plate			60 Ah plate			80 Ah plate			90 Ah plate			105 Ah plate					
			H1 = 10.24 H2 = 11.42			H1 = 13.11 H2 = 14.29			H1 = 15.59 H2 = 16.77			H1 = 18.23 H2 = 19.41			H1 = 20.12 H2 = 21.30		
Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in			
2	TPzS	100	100	1.85	2	TPzS	120	120	1.85	2	TPzS	160	160	1.85			
3	TPzS	150	150	2.56	3	TPzS	180	180	2.56	3	TPzS	240	240	2.56			
4	TPzS	200	200	3.27	4	TPzS	240	240	3.27	4	TPzS	320	320	3.27			
5	TPzS	250	250	3.98	5	TPzS	300	300	3.98	5	TPzS	400	400	3.98			
6	TPzS	300	300	4.69	6	TPzS	360	360	4.69	6	TPzS	480	480	4.69			
7	TPzS	350	350	5.39	7	TPzS	420	420	5.39	7	TPzS	560	560	5.39			
8	TPzS	400	400	6.10	8	TPzS	480	480	6.10	8	TPzS	640	640	6.10			
9	TPzS	450	450	6.81	9	TPzS	540	540	6.81	9	TPzS	720	720	6.81			
10	TPzS	500	500	7.52	10	TPzS	600	600	7.52	10	TPzS	800	800	7.52			

115 Ah plate			125 Ah plate			140 Ah plate			155 Ah plate					
			H1 = 21.34 H2 = 22.52			H1 = 22.56 H2 = 23.74			H1 = 26.89 H2 = 28.07			H1 = 28.07 H2 = 29.25		
Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in	Type	Ah C ₅	L in
2	TPzS	230	230	1.85	2	TPzS	250	250	1.85	2	TPzS	280	280	1.85
3	TPzS	345	345	2.56	3	TPzS	375	375	2.56	3	TPzS	420	420	2.56
4	TPzS	460	460	3.27	4	TPzS	500	500	3.27	4	TPzS	560	560	3.27
5	TPzS	575	575	3.98	5	TPzS	625	625	3.98	5	TPzS	700	700	3.98
6	TPzS	690	690	4.69	6	TPzS	750	750	4.69	6	TPzS	840	840	4.69
7	TPzS	805	805	5.39	7	TPzS	875	875	5.39	7	TPzS	980	980	5.39
8	TPzS	920	920	6.10	8	TPzS	1000	1000	6.10	8	TPzS	1120	1120	6.10
9	TPzS	1035	1035	6.81	9	TPzS	1125	1125	6.81	9	TPzS	1260	1260	6.81
10	TPzS	1150	1150	7.52	10	TPzS	1250	1250	7.52	10	TPzS	1400	1400	7.52

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:



TRIATHLON® TPzS A(X) AQUAsave



PRODUCT FEATURES

- ▶ Robust tubular flooded Lead-Acid technology
- ▶ Low-maintenance Lead-Acid technology with low antimony content in the lead alloy and greater head space due to tubular design
- ▶ Considerably reduced watering intervals with optimized charge profile
Version A: 30 to 60 days
Version AX: 60 to 90 days
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Increased cycle life
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 120 to 1550 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 7.80 in, DIN cell

60 Ah plate			H1 = 13.11 H2 = 14.29			80 Ah plate			H1 = 15.59 H2 = 16.77			90 Ah plate			H1 = 18.23 H2 = 19.41			105 Ah plate			H1 = 20.12 H2 = 21.30			115 Ah plate			H1 = 22.44 H2 = 23.62		
Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in
2	TPzS	120 A	120	1.85	2	TPzS	160 A	160	1.85	2	TPzS	180 A	180	1.85	2	TPzS	210 A	210	1.85	2	TPzS	230 AX	230	1.85					
3	TPzS	180 A	180	2.56	3	TPzS	240 A	240	2.56	3	TPzS	270 A	270	2.56	3	TPzS	315 A	315	2.56	3	TPzS	345 AX	345	2.56					
4	TPzS	240 A	240	3.27	4	TPzS	320 A	320	3.27	4	TPzS	360 A	360	3.27	4	TPzS	420 A	420	3.27	4	TPzS	460 AX	460	3.27					
5	TPzS	300 A	300	3.98	5	TPzS	400 A	400	3.98	5	TPzS	450 A	450	3.98	5	TPzS	525 A	525	3.98	5	TPzS	575 AX	575	3.98					
6	TPzS	360 A	360	4.69	6	TPzS	480 A	480	4.69	6	TPzS	540 A	540	4.69	6	TPzS	630 A	630	4.69	6	TPzS	690 AX	690	4.69					
7	TPzS	420 A	420	5.39	7	TPzS	560 A	560	5.39	7	TPzS	630 A	630	5.39	7	TPzS	735 A	735	5.39	7	TPzS	805 AX	805	5.39					
8	TPzS	480 A	480	6.10	8	TPzS	640 A	640	6.10	8	TPzS	720 A	720	6.10	8	TPzS	840 A	840	6.10	8	TPzS	920 AX	920	6.10					
9	TPzS	540 A	540	6.81	9	TPzS	720 A	720	6.81	9	TPzS	810 A	810	6.81	9	TPzS	945 A	945	6.81	9	TPzS	1035 AX	1035	6.81					
10	TPzS	600 A	600	7.52	10	TPzS	800 A	800	7.52	10	TPzS	900 A	900	7.52	10	TPzS	1050 A	1050	7.52	10	TPzS	1150 AX	1150	7.52					

115 Ah plate			H1 = 21.34 H2 = 22.52			125 Ah plate			H1 = 22.56 H2 = 23.74			140 Ah plate			H1 = 26.89 H2 = 28.07			155 Ah plate			H1 = 28.07 H2 = 29.25			140 Ah plate			H1 = 28.07 H2 = 29.25		
Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in	Type	Ah	C ₅	L	in
2	TPzS	230 A	230	1.85	2	TPzS	250 A	250	1.85	2	TPzS	280 A	280	1.85	2	TPzS	310 A	310	1.85	2	TPzS	280 AX	280	1.85					
3	TPzS	345 A	345	2.56	3	TPzS	375 A	375	2.56	3	TPzS	420 A	420	2.56	3	TPzS	465 A	465	2.56	3	TPzS	420 AX	420	2.56					
4	TPzS	460 A	460	3.27	4	TPzS	500 A	500	3.27	4	TPzS	560 A	560	3.27	4	TPzS	620 A	620	3.27	4	TPzS	560 AX	560	3.27					
5	TPzS	575 A	575	3.98	5	TPzS	625 A	625	3.98	5	TPzS	700 A	700	3.98	5	TPzS	775 A	775	3.98	5	TPzS	700 AX	700	3.98					
6	TPzS	690 A	690	4.69	6	TPzS	750 A	750	4.69	6	TPzS	840 A	840	4.69	6	TPzS	930 A	930	4.69	6	TPzS	840 AX	840	4.69					
7	TPzS	805 A	805	5.39	7	TPzS	875 A	875	5.39	7	TPzS	980 A	980	5.39	7	TPzS	1085 A	1085	5.39	7	TPzS	980 AX	980	5.39					
8	TPzS	920 A	920	6.10	8	TPzS	1000 A	1000	6.10	8	TPzS	1120 A	1120	6.10	8	TPzS	1240 A	1240	6.10	8	TPzS	1120 AX	1120	6.10					
9	TPzS	1035 A	1035	6.81	9	TPzS	1125 A	1125	6.81	9	TPzS	1260 A	1260	6.81	9	TPzS	1395 A	1395	6.81	9	TPzS	1260 AX	1260	6.81					
10	TPzS	1150 A	1150	7.52	10	TPzS	1250 A	1250	7.52	10	TPzS	1400 A	1400	7.52	10	TPzS	1550 A	1550	7.52	10	TPzS	1400 AX	1400	7.52					

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:





TRIATHLON® TPzS LL Longlife

PRODUCT FEATURES

- ▶ Longer service life giving more charge/ discharge cycles
- ▶ Increased active material with reduced acid density
- ▶ Robust tubular flooded Lead-Acid technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 110 to 1450 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 7.80 in, DIN cell

55 Ah plate			H1 = 13.11 H2 = 14.29			75 Ah plate			H1 = 15.59 H2 = 16.77			85 Ah plate			H1 = 18.23 H2 = 19.41		
Type			Ah C ₅	L in	Type			Ah C ₅	L in	Type			Ah C ₅	L in			
2	TPzS	110 LL	110	1.85	2	TPzS	150 LL	150	1.85	2	TPzS	170 LL	170	1.85			
3	TPzS	165 LL	165	2.56	3	TPzS	225 LL	225	2.56	3	TPzS	255 LL	255	2.56			
4	TPzS	220 LL	220	3.27	4	TPzS	300 LL	300	3.27	4	TPzS	340 LL	340	3.27			
5	TPzS	275 LL	275	3.98	5	TPzS	375 LL	375	3.98	5	TPzS	425 LL	425	3.98			
6	TPzS	330 LL	330	4.69	6	TPzS	450 LL	450	4.69	6	TPzS	510 LL	510	4.69			
7	TPzS	385 LL	385	5.39	7	TPzS	525 LL	525	5.39	7	TPzS	595 LL	595	5.39			
8	TPzS	440 LL	440	6.10	8	TPzS	600 LL	600	6.10	8	TPzS	680 LL	680	6.10			
9	TPzS	495 LL	495	6.81	9	TPzS	675 LL	675	6.81	9	TPzS	765 LL	765	6.81			
10	TPzS	550 LL	550	7.52	10	TPzS	750 LL	750	7.52	10	TPzS	850 LL	850	7.52			

98 Ah plate			H1 = 20.12 H2 = 21.30			118 Ah plate			H1 = 22.56 H2 = 23.74			145 Ah plate			H1 = 28.07 H2 = 29.25		
Type			Ah C ₅	L in	Type			Ah C ₅	L in	Type			Ah C ₅	L in			
2	TPzS	196 LL	196	1.85	2	TPzS	236 LL	236	1.85	2	TPzS	290 LL	290	1.85			
3	TPzS	294 LL	294	2.56	3	TPzS	354 LL	354	2.56	3	TPzS	435 LL	435	2.56			
4	TPzS	392 LL	392	3.27	4	TPzS	472 LL	472	3.27	4	TPzS	580 LL	580	3.27			
5	TPzS	490 LL	490	3.98	5	TPzS	590 LL	590	3.98	5	TPzS	725 LL	725	3.98			
6	TPzS	588 LL	588	4.69	6	TPzS	708 LL	708	4.69	6	TPzS	870 LL	870	4.69			
7	TPzS	686 LL	686	5.39	7	TPzS	826 LL	826	5.39	7	TPzS	1015 LL	1015	5.39			
8	TPzS	784 LL	784	6.10	8	TPzS	944 LL	944	6.10	8	TPzS	1160 LL	1160	6.10			
9	TPzS	882 LL	882	6.81	9	TPzS	1026 LL	1026	6.81	9	TPzS	1305 LL	1305	6.81			
10	TPzS	980 LL	980	7.52	10	TPzS	1180 LL	1180	7.52	10	TPzS	1450 LL	1450	7.52			

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:



PRODUCT FEATURES

- ▶ Robust tubular flooded Lead-Acid technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Increased cycle life
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 64 to 1080 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 6.22 in, British Standard (BS) cell

32 Ah plate			H1 = 10.39 H2 = 11.57			42 Ah plate			H1 = 12.72 H2 = 13.90			55 Ah plate			H1 = 15.75 H2 = 16.93			65 Ah plate			H1 = 17.72 H2 = 18.90		
Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in
2	TPzB	64	64	1.77	2	TPzB	84	84	1.77	2	TPzB	110	110	1.77	2	TPzB	130	130	1.77				
3	TPzB	96	96	2.40	3	TPzB	126	126	2.40	3	TPzB	165	165	2.40	3	TPzB	195	195	2.40				
4	TPzB	128	128	3.03	4	TPzB	168	168	3.03	4	TPzB	220	220	3.03	4	TPzB	260	260	3.03				
5	TPzB	160	160	3.66	5	TPzB	210	210	3.66	5	TPzB	275	275	3.66	5	TPzB	325	325	3.66				
6	TPzB	192	192	4.29	6	TPzB	252	252	4.29	6	TPzB	330	330	4.29	6	TPzB	390	390	4.29				
7	TPzB	224	224	4.92	7	TPzB	294	294	4.92	7	TPzB	385	385	4.92	7	TPzB	455	455	4.92				
8	TPzB	256	256	5.55	8	TPzB	336	336	5.55	8	TPzB	440	440	5.55	8	TPzB	520	520	5.55				
9	TPzB	288	288	6.18	9	TPzB	378	378	6.18	9	TPzB	495	495	6.18	9	TPzB	585	585	6.18				
10	TPzB	320	320	6.81	10	TPzB	420	420	6.81	10	TPzB	550	550	6.81	10	TPzB	650	650	6.81				

75 Ah plate			H1 = 20.04 H2 = 21.22			86 Ah plate			H1 = 22.32 H2 = 23.50			100 Ah plate			H1 = 23.78 H2 = 24.96			108 Ah plate			H1 = 26.69 H2 = 27.87		
Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in	Type		Ah	C ₅	L	in
2	TPzB	150	150	1.77	2	TPzB	172	172	1.77	2	TPzB	200	200	1.77	2	TPzB	216	216	1.77				
3	TPzB	225	225	2.40	3	TPzB	258	258	2.40	3	TPzB	300	300	2.40	3	TPzB	324	324	2.40				
4	TPzB	300	300	3.03	4	TPzB	344	344	3.03	4	TPzB	400	400	3.03	4	TPzB	432	432	3.03				
5	TPzB	375	375	3.66	5	TPzB	430	430	3.66	5	TPzB	500	500	3.66	5	TPzB	540	540	3.66				
6	TPzB	450	450	4.29	6	TPzB	516	516	4.29	6	TPzB	600	600	4.29	6	TPzB	648	648	4.29				
7	TPzB	525	525	4.92	7	TPzB	602	602	4.92	7	TPzB	700	700	4.92	7	TPzB	756	756	4.92				
8	TPzB	600	600	5.55	8	TPzB	688	688	5.55	8	TPzB	800	800	5.55	8	TPzB	864	864	5.55				
9	TPzB	675	675	6.18	9	TPzB	774	774	6.18	9	TPzB	900	900	6.18	9	TPzB	972	972	6.18				
10	TPzB	750	750	6.81	10	TPzB	860	860	6.81	10	TPzB	1000	1000	6.81	10	TPzB	1080	1080	6.81				

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:





PRODUCT FEATURES

- ▶ Absolutely maintenance-free valve regulated Lead-Acid technology with gel electrolyte
- ▶ Very low self-discharge
- ▶ Tubular technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 110 to 1200 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 7.80 in, DIN cell

55 Ah plate			H1 = 13.39 H2 = 14.57			70 Ah plate			H1 = 15.75 H2 = 16.93			80 Ah plate			H1 = 18.11 H2 = 19.29		
Type	Ah	C ₅	L in	Type	Ah	C ₅	L in	Type	Ah	C ₅	L in	Type	Ah	C ₅	L in		
2	TPzV	110	110	1.85	2	TPzV	140	140	1.85	2	TPzV	160	160	1.85			
3	TPzV	165	165	2.56	3	TPzV	210	210	2.56	3	TPzV	240	240	2.56			
4	TPzV	220	220	3.27	4	TPzV	280	280	3.27	4	TPzV	320	320	3.27			
5	TPzV	275	275	3.98	5	TPzV	350	350	3.98	5	TPzV	400	400	3.98			
6	TPzV	330	330	4.69	6	TPzV	420	420	4.69	6	TPzV	480	480	4.69			
7	TPzV	385	385	5.39	7	TPzV	490	490	5.39	7	TPzV	560	560	5.39			
8	TPzV	440	440	6.10	8	TPzV	560	560	6.10	8	TPzV	640	640	6.10			
										10	TPzV	800	800	7.52			

100 Ah plate			H1 = 21.85 H2 = 23.03			120 Ah plate			H1 = 26.54 H2 = 27.72		
Type	Ah	C ₅	L in	Type	Ah	C ₅	L in	Type	Ah	C ₅	L in
2	TPzV	200	200	1.85	2	TPzV	240	240	1.85		
3	TPzV	300	300	2.56	3	TPzV	360	360	2.56		
4	TPzV	400	400	3.27	4	TPzV	480	480	3.27		
5	TPzV	500	500	3.98	5	TPzV	600	600	3.98		
6	TPzV	600	600	4.69	6	TPzV	720	720	4.69		
7	TPzV	700	700	5.39	7	TPzV	840	840	5.39		
8	TPzV	800	800	6.10	8	TPzV	960	960	6.10		
10	TPzV	1000	1000	7.52	10	TPzV	1200	1200	7.52		

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:



PRODUCT FEATURES

- ▶ Absolutely maintenance-free valve regulated Lead-Acid technology with gel electrolyte
- ▶ Very low self-discharge
- ▶ Tubular technology
- ▶ The latest separator design delivers increased acid volumes and increases acid circulation
- ▶ Fully insulated flex connectors and post bolts
- ▶ Bolt-on termination cables can be easily replaced
- ▶ Standardized rated capacities range from 122 to 680 Ah
- ▶ Cell and battery properties comply with IEC 60254-2
- ▶ Recyclable



Technical data – Cells

Width 6.22 in, British Standard (BS) cell

61 Ah plate			H1 = 17.87 H2 = 19.06			71 Ah plate			H1 = 20.12 H2 = 21.30			85 Ah plate			H1 = 23.74 H2 = 24.92		
Type			Ah C ₅	L in	Type			Ah C ₅	L in	Type			Ah C ₅	L in			
2	TPzV-BS	122	122	1.77	2	TPzV-BS	142	142	1.77	2	TPzV-BS	170	170	1.77			
3	TPzV-BS	183	183	2.40	3	TPzV-BS	213	213	2.40	3	TPzV-BS	255	255	2.40			
4	TPzV-BS	244	244	3.03	4	TPzV-BS	284	284	3.03	4	TPzV-BS	340	340	3.03			
					5	TPzV-BS	355	355	3.66	5	TPzV-BS	425	425	3.66			
					6	TPzV-BS	426	426	4.29	6	TPzV-BS	510	510	4.29			
					7	TPzV-BS	497	497	4.92	7	TPzV-BS	595	595	4.92			
					8	TPzV-BS	568	568	5.55	8	TPzV-BS	680	680	5.55			

H1 = height to top of cover, H2 = total height
Height +/- 0.08 in

Recommended applications:





One of the most important components for motive power batteries with Lead-Acid technology is the electrolyte, a solution of sulfuric acid and water. When batteries are recharged, water is transformed into hydrogen and oxygen by electrolysis. In batteries with liquid electrolyte, this water consumption must be replaced at regular intervals with deionized water. The replacement water is extremely critical to prolonged battery life.

To ensure reliable battery operation, regular care and maintenance is required. To help with this, TRIATHLON[®] offers a full line of accessories for your battery and charging needs. Our goal is to help you optimally maintain and monitor your batteries and chargers in order to prevent needless failures and repairs.

be  re flexible

OPTIONS

AQUAmatic 4.0 watering system

- ▶ Reliable single point battery watering system.

AQUAcontrol level sensor

- ▶ Monitors and indicates the battery's electrolyte level.

icon Battery Guard 4.0 battery controller

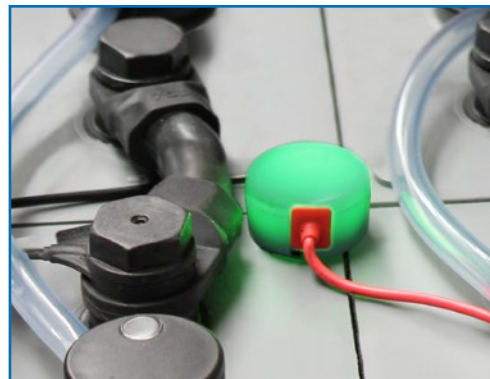
- ▶ Monitors, records and controls battery and charger conditions.

Air electrolyte circulation

- ▶ Air agitation mixes electrolyte during charge to prevent acid stratification. Reduces energy requirements and water consumption.

AQUAmobil watering cart

- ▶ Onsite portable filling of industrial batteries with deionized water.



Charger technology

- ▶ For optimal battery performance, it is recommended that TRIATHLON® motive power batteries be charged exclusively with TriCOM® series chargers.





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