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Australia's leading supplier for high-quality, affordable anodes.

Mg Al Zn

Aluminium

CHEMICAL COMPOSITION LIMITS (AS2239 - 2003)

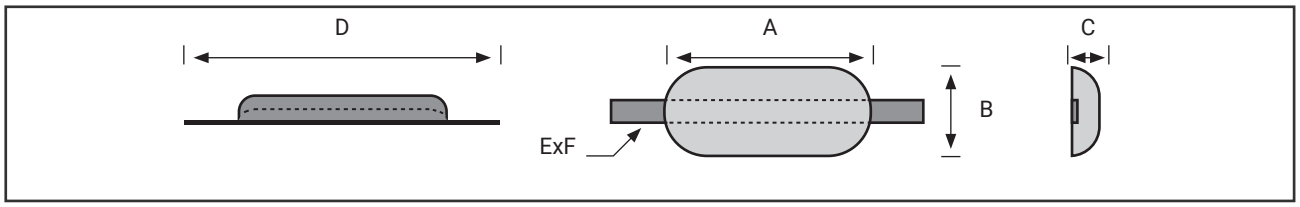
Element	Chemical Composition, %							
	Designation A1		Designation A2		Designation A5		Designation A6	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Zinc	2.1	2.7	3.0	5.0	4.0	5.0	2.0	6.0
Indium	0.017	0.025	0.02	0.05	-	-	0.01	0.02
Cadmium	0.008	0.012	-	0.005	-	0.005	-	0.005
Silicon	-	0.20	-	0.20	-	0.25	0.08	0.12
Iron	-	0.12	-	0.12	-	0.25	-	0.12
Magnesium	-	-	0.6	2.2	-	-	-	0.02
Titanium	-	-	0.02	0.05	-	-	-	0.02
Copper	-	0.006	-	0.006	-	-	-	0.006
Tin	-	-	-	-	0.05	0.25	-	0.02
Other Impurities								
- Each	-	0.02	-	0.02	-	-	-	0.02
- Total	-	0.05	-	0.05	-	0.15	-	0.05
Aluminium	remainder		remainder		remainder		remainder	

Aluminium Rod Anodes

Code	Anode Length (mm)	Anode Dia (mm)	Features	Thread (supplied with PTFE tape)	Cap
AAA500	525	17.6		R¾*G3/8*27 BSP nut	Blue
AAA800	725	17.6		R¾*G3/8*27 BSP nut	Blue
AAA1200	1185	17.6		R¾*G3/8*27 BSP nut	Blue
AAA1200F	1185	17.6	one flexi	R¾*G3/8*27 BSP nut	Blue
AAA1200MF	1185	17.6	four flexi	R¾*G3/8*27 BSP nut	Blue
AAA1500	1480	17.6		R¾*G3/8*27 BSP nut	Blue
AAA1500MF	1480	17.6	four flexi	R¾*G3/8*27 BSP nut	Blue
AAA1700	1665	17.6		R¾*G3/8*27 BSP nut	Blue
AAA1700MF	1665	17.6	five flexi	R¾*G3/8*27 BSP nut	Blue
AAA2100	2100	17		M35*2*G1/2*51 nut	Blue
AAA2100EN	2100	17	36mm extended nut	M35*2*G1/2*51 nut	Blue

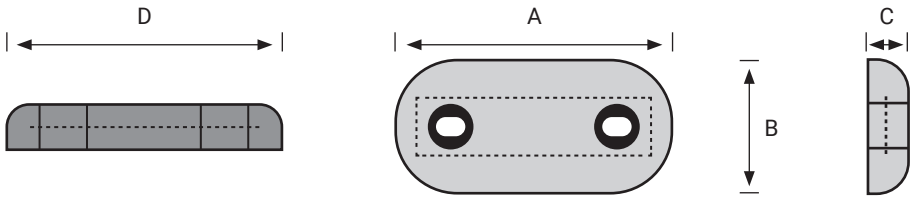
Aluminium Weld on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAA1574S	150	70	35	0.7	1	250x25x6mm MS
AAA16163S	155	155	25	1.6	1.8	275x25x3mm MS
AAA1883S	175	77	33	1.1	1.3	295x25x3mm MS
AAA2583S	245	75	32	1.3	1.6	350x32x3mm MS
AAA25134S	250	125	38	2.6	3.1	405x32x5mm MS
AAA2984S	285	80	40	1.65	2.2	435x25x6mm MS
AAA3084S	300	80	40	1.9	2.3	450x25x5mm MS
AAA30134S	300	130	35	2.7	3.2	450x32x5mm MS
AAA30153S	300	150	30	2.8	3.7	440x40x6mm MS
AAA30155S	300	150	50	4	4.9	440x40x6mm MS
AAA35137S	345	130	70	4.6	5.2	495x40x5mm MS
AAA351535S	350	150	35	3.6	4.6	500x40x6mm MS
AAA35154S	350	150	40	4.2	5	500x40x5mm MS
AAA412011S	410	200	110	12.9	13.9	700x40x5mm MS
AAA4494S	440	90	43	3	3.7	550x32x5mm MS
AAA50134S	500	125	40	6.7	8.1	700x40x6mm MS
AAA50135S	500	125	50	7.4	8.9	700x40x6mm MS
AAA51124S	510	120	40	5.3	6.5	800x40x5mm MS
AAA51135S	515	130	50	6.8	8	800x40x5mm MS
AAA54136S	540	127	55	7.6	8.8	800x40x5mm MS
AAA54137S	540	127	70	10.5	11.7	800x40x5mm MS
AAA54138S	540	127	75	11.8	13	800x40x5mm MS
AAA58144S	580	135	40	7.5	9	780x40x6mm MS
AAA59145S	590	140	50	9.6	11.1	790x40x6mm MS
AAA60155S	600	145	47	10	11.2	800x40x5mm MS
AAA60157S	600	145	65	13.8	15	800x40x5mm MS
AAA60159S	600	145	90	20	21.2	800x40x5mm MS
AAA61147S	610	140	65	13.1	14.6	790x40x6mm MS
AAA15065S	1500	54	46	10.3	11.8	1700 x 12mm dia mild steel rod



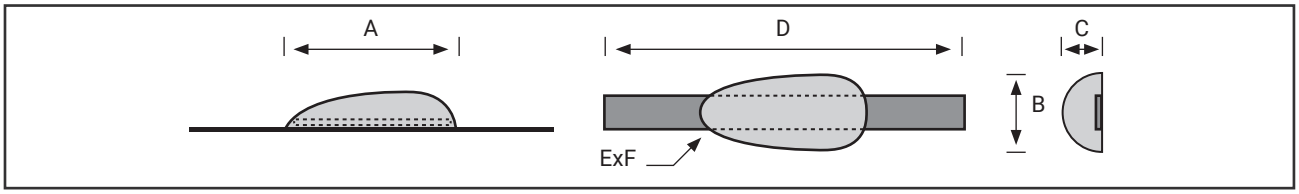
Aluminium Bolt-on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	Distance between hole centres (mm) D	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAA992H	90	90	19			0.3	Gal steel pipe 18mm ID x 21
AAA993H	90	90	32			0.5	Gal steel pipe 18mm ID x 34
AAA994H	90	90	38			0.7	Gal steel pipe 18mm ID x 40
AAA16163H	155	155	28	75	1.4	1.5	40x3mm MS
AAA16162H	155	155	25		1.6	1.7	Mild steel pipe 21mm ID x 25mm long
AAA1683H	160	80	25		0.7	0.8	Mild steel pipe 22mm ID x 25mm long
AAA251341H	250	125	40	100	2.3	2.5	50x3mm MS
AAA251341.1H	250	125	40	110	2.3	2.5	50x3mm MS
AAA251341.5H	250	125	40	150	2.3	2.5	50x3mm MS
AAA30105H	300	100	50	160	2.5	3	260x40x6mm MS (Rubber Gasket also available)
AAA31153H	305	145	35	158	3	3.3	50x3mm MS
AAA31154H	305	145	38	100-200	2.9	3.1	50x3mm MS
AAA31115H	305	112	50	150	3.1	3.4	50x3mm MS
AAA32133H	315	130	30	150	1.5	2.1	260x40x6mm MS (Rubber Gasket also available)
AAA35137H	345	130	70	160	4.3	4.4	2 Mild steel 22mm ID x 25mm long
AAA51135H	510	130	50	250	6.4	7.2	50x6mm MS



Aluminium Teardrop Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAAT1684	160	80	40	0.5	0.7	260x25x3mm MS
AAAT2184	210	75	40	0.8	1	310x25x3mm MS
AAAT2284	215	75	40	0.8	1	295x25x3mm MS
AAAT2095	200	85	45	1.2	1.3	330x32x3mm MS

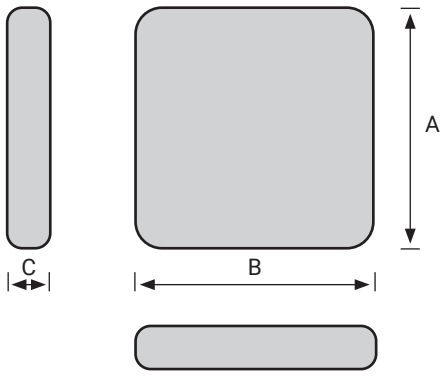


Aluminium Shaft Anodes

Code	GW (g)	Length (mm) A	ID (mm) B	OD (mm) C	To suit dia	Fittings included
AAAS.75	200	52	19.05	55	¾"	2 fasteners screw into nut
AAAS.875	190	52	22.09	55	⅞"	2 fasteners screw into nut
AAAS1	180	52	25.40	55	1"	2 fasteners screw into nut
AAAS1.125	160	52	28.44	55	1 ⅛"	2 fasteners screw into nut
AAAS1.25	220	63	31.75	60	1 ¼"	2 fasteners screw into nut
AAAS1.375	280	67	34.8	67	1 ⅜"	4 fasteners screw into nut
AAAS1.5	250	67	38.10	67	1 ½"	4 fasteners screw into nut
AAAS1.75	700	86	44.45	90	1 ¾"	4 fasteners screw into nut
AAAS2	670	86	50.80	90	2"	4 fasteners screw into nut

Aluminium Blocks

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	GW (kg)
AAA15153	150	150	25	1.4
AAA16163	155	155	25	1.7



Compatibility Chart

Anode Compatibility Chart

MF Multi Flexi
MF&F Multi Flexi and Flexi

ANODE MODEL		Rheem Electric	Rheem Gas	dux Electric	dux Gas	Vulcan Electric	Vulcan ÔHotspotÕ Gas	Vulcan ÔFreeloaderÕ Gas	wilson Electric	BEASLEY Gas	Solahart Solar
AAM300		18 ltr		25 ltr					All heaters with horizontally inserted anodes		
AAM500		50 ltr		50 ltr		50 ltr					
AAA/M800		80 ltr	90 ltr	80/125 ltr	90 ltr	80 ltr	90 ltr			90 ltr	
AAA/M1200	MF&F	125/250 ltr	135/200 ltr	160/250 ltr	135 ltr	160/250 ltr	135 ltr	120/145 ltr		135/200 ltr	
	MF&F		260/290 ltr							260/290 ltr	
AAA/M1500	MF	160/315 ltr	170 ltr	315 ltr	170 ltr	315 ltr		185 ltr		170 ltr	
AAA/M1700	MF	400 ltr		400 ltr		400 ltr					
AAA/M1700		160/300 ltr									
AAA/M2100	36mm Nut										180 ltr - L&J Series
AAA/M2100EN	36mm Nut										300 ltr - F&K Series
AAA/M1250EN											180 ltr
AAA/M1250											180 ltr
AAA/M1250	43mm Nut										10 Year anode stocked
AAA/M2100EN	43mm Nut										10 Year anode stocked

EN - Extended Nut

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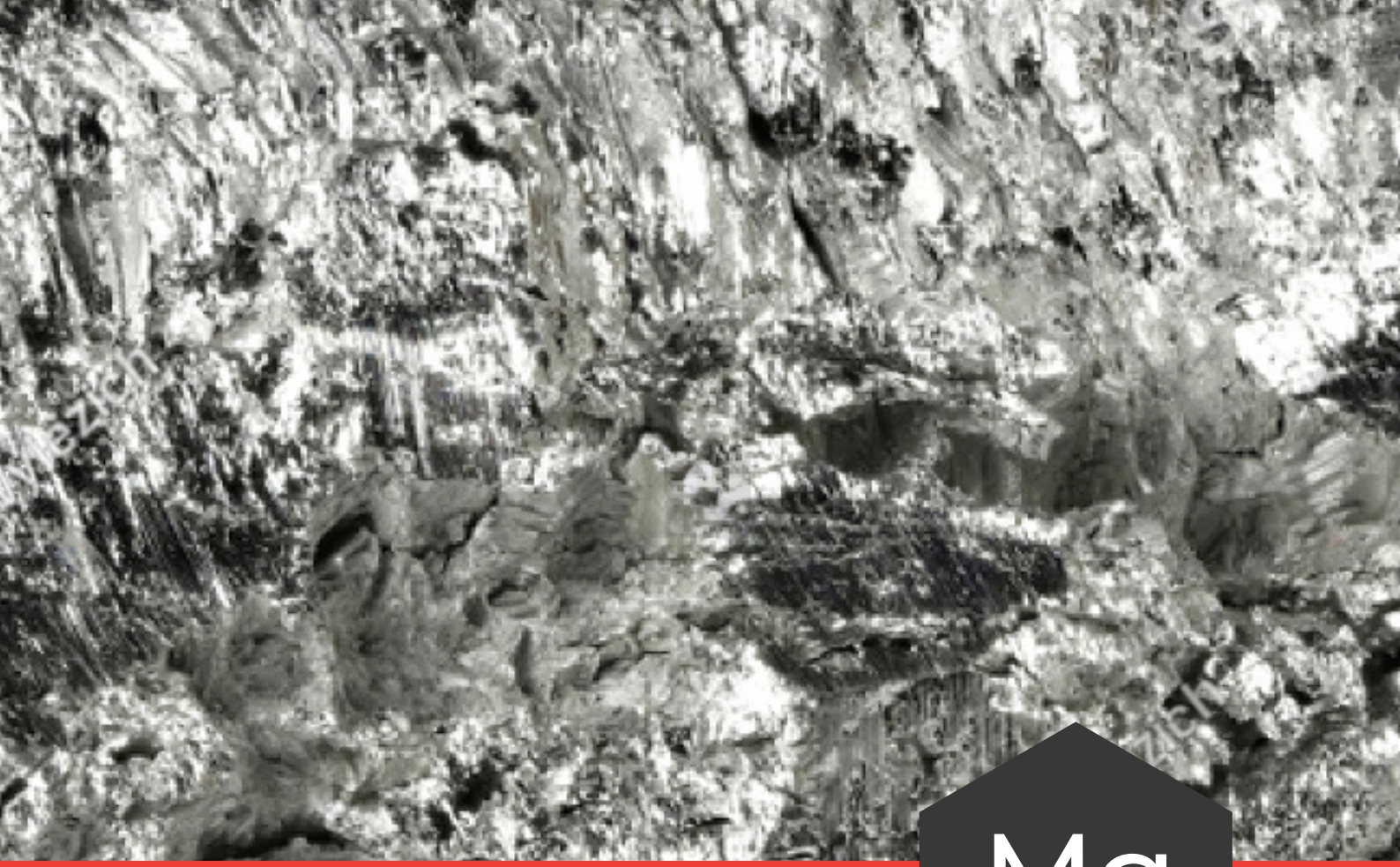


Magnesium

CHEMICAL COMPOSITION LIMITS (AS2239 - 2003)

Element	Chemical Composition, %					
	Cast or extruded high potential		Extruded low potential		Cast low potential	
	Designation M1		Designation M2		Designation M5	
	Min.	Max.	Min.	Max.	Min.	Max.
Aluminium	-	0.01	2.5	3.5	5.3	6.7
Zinc	-	0.02	0.7	1.3	2.5	3.5
Manganese	0.5	1.3*	0.2	1.5	0.25	0.4
Silicon	-	0.05	-	0.05	-	0.05
Copper	-	0.02	-	0.006	-	0.05
Iron	-	0.03	-	0.003	-	0.03
Nickel	-	0.001	-	0.001	-	0.003
Calcium	-	0.04	-	0.04	-	0.04
Other Impurities						
- Each	-	0.05	-	-	-	-
- Total	-	0.3	-	0.3	-	0.3
Magnesium	remainder		remainder		remainder	

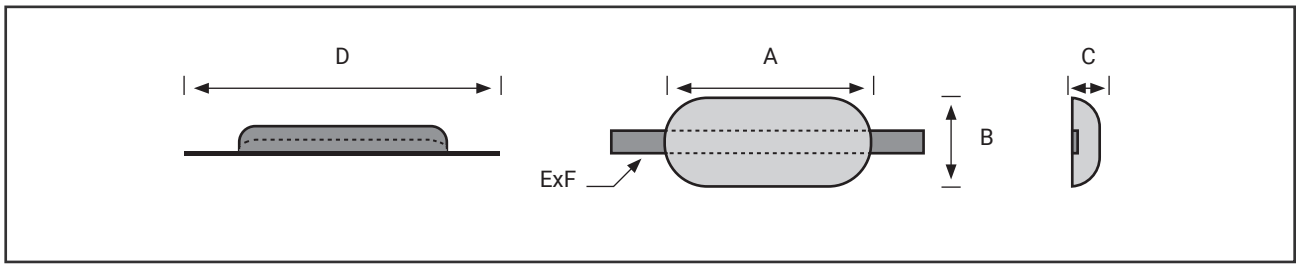
* In the range 0.50 to 0.80%, the percentage of manganese is required to be at least 0.5 + (60 x % aluminium).

Magnesium Rod Anodes

Code	Anode Length (mm)	Anode Dia (mm)	Features	Thread (supplied with PTFE tape)	Cap
AAM235UP	235	21.5		¾-14 NPT nut	Black
AAM235	235	17	packaged	¾-14 NPT nut	Black
AAM300	300	21.3		¾-14 NPT nut	Black
AAM500	525	21.3		R¾*G3/8*27 BSP nut	Black
AAM800	725	21.3		R¾*G3/8*27 BSP nut	Black
AAM1250C	1220	25	Full length steel core	25mm x M8 Thread	Black
AAM1200	1185	21.3		R¾*G3/8*27 BSP nut	Black
AAM1200.27	1170	27		1" BSP nut	Black
AAM1200F	1185	21.3	one flexi	R¾*G3/8*27 BSP nut	Black
AAM1200MF	1185	21.3	four flexi	R¾*G3/8*27 BSP nut	Black
AAM1200.27MF	1170	27	Four flexi	1" BSP nut	Black
AAM1500	1480	21.3		R¾*G3/8*27 BSP nut	Black
AAM1500.27	1480	27		1" BSP nut	Black
AAM1500MF	1480	21.3	four flexi	R¾*G3/8*27 BSP nut	Black
AAM1500.27MF	1480	27	Four flexi	1" BSP nut	Black
AAM1700	1665	21.3		R¾*G3/8*27 BSP nut	Black
AAM1700MF	1665	21.3	five flexi	R¾*G3/8*27 BSP nut	Black
AAM2100	2100	21.3		M35*2*G1/2*51 nut	Black
AAM2100EN	2100	21.3	extended nut	M35*2*G1.2*51 nut 36mm extended nut	Black/Gold

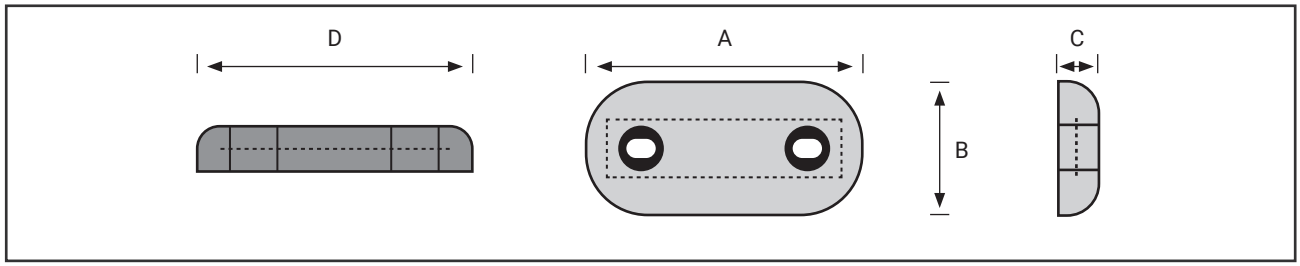
Magnesium Weld on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAM1574S	150	70	35	0.7	1	250x25x6mm MS
AAM1684S	155	75	45	0.7	1	260x25x5mm Gal Steel
AAM2973S	290	75	30	1	1.4	460x25x5mm Gal Steel
AAM30153S	300	150	30	2	2.9	440x40x6mm MS
AAM30155S	300	150	50	3	3.9	440x40x6mm MS
AAM34164S	340	155	40	2.7	3.5	500x40x5mm Gal Steel
AAM35154S	350	150	35	2.5	3.4	500x40x6mm MS
AAM15055S	1500	50	50	6.3	7.8	1700x12mm dia mild steel rod
AAM15077S	1500	65	65	11	12.5	1700x12mm dia mild steel rod



Magnesium Bolt on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	Distance between hole centres (mm) D	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAM1583H	150	75	30	75	0.4	0.5	55dia dish
AAM20103H	200	100	30	110	1.1	1.2	170x40x6mm MS
AAM30105H	300	100	50	160	2.1	2.6	260x40x6mm MS
AAM30153H	300	150	30	155	1.9	2	240x40x3mm MS



Magnesium Packaged Anodes

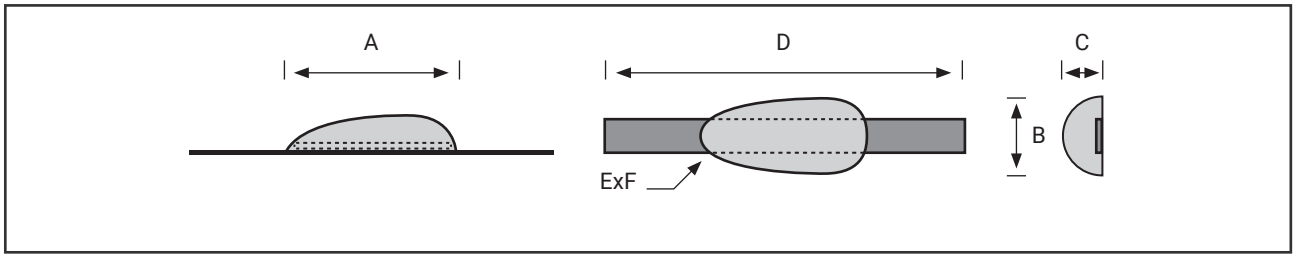
Code	Anode Length (mm)	Anode Width (mm)	Anode Height (mm)	Anode Weight (kg)	Total Weight (kg)	Backfill Type	Insert
AAMPP32	160	60	69	0.875	3.18	B3	1.5m 6mm2 XLPE/PVC red cable with M12 eyebolt at one end, packaged in cotton bag
AAMPP46	185	80	80	1.6	4.6	B3	1.5m 6mm2 XLPE/PVC red cable with M12 eyebolt at one end, packaged in cotton bag

Magnesium Condenser Anodes

Code	GW (kg)	Anode dia	Anode length	Thread Size
AAM7540	0.32	75	40	Steel Core, 16mm ID NB Pipe
AAM11055	1	110	55	Steel Core, 16mm ID NB Pipe
AAM12050	1.1	115	65	Steel Core, 16mm ID NB Pipe

Magnesium Tear Drop Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAMT2284	220	75	40	0.6	0.8	320x25x3mm MS



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Zinc

CHEMICAL COMPOSITION LIMITS (AS2239 - 2003)

Element	Chemical Composition, %			
	Designation Z1*		Designation Z2	
	Min.	Max.	Min.	Max.
Cadmium	0.025	0.07	-	0.003
Aluminium	0.1	0.5	-	0.005
Silicon	-	0.005	-	0.003
Copper	-	0.005	-	0.003
Iron	-	0.005	-	0.0014
Lead	-	0.006	-	0.003
Other Impurities				
- Each	-	0.005	-	0.005
- Total	-	0.02	-	0.02
Zinc	remainder		remainder	

* Corresponds to MIL-A-18001k alloy composition.

Zinc Rod Anodes

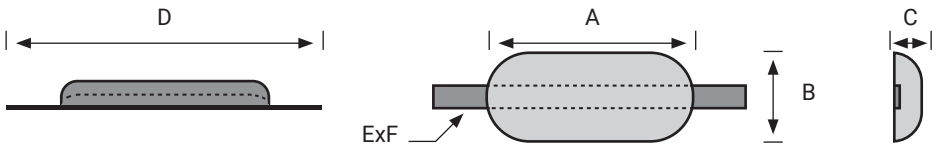
Code	Anode Dia (mm)	Anode Length (mm)	GW (kg)
AAZ3010	10	300	170g
AAZ4010	10	400	220g
AAZ10010	10	1000	560g
AAZ16210	10	1615	900g
AAZ3013	13	300	280g
AAZ4013	13	400	380g
AAZ10013	13	1000	950g
AAZ16513	13	1615	1.50kg
AAZ3016	16	300	430g
AAZ4016	16	400	570g
AAZ10016	16	1000	1.44kg
AAZ16216	16	1615	2.30kg
AAZ3019	19	300	610g
AAZ4019	19	400	810g
AAZ10019	19	1000	2.02kg
AAZ16219	19	1615	3.25kg
AAZ3022	22	300	810g
AAZ4022	22	400	1.09kg
AAZ10022	22	1000	2.71kg
AAZ16222	22	1615	4.35kg
AAZ3025	25	300	1.05kg
AAZ4025	25	400	1.40kg
AAZ10025	25	1000	3.50kg
AAZ16225	25	1615	5.60kg
AAZ3030	30	300	1.51kg
AAZ3032	32	300	1.72kg
AAZ3035	35	300	2.06kg
AAZ3038	38	300	2.43kg
AAZ3051	51	300	4.38kg
AAZ3060	60	300	6.06kg
AAZ3076	76	300	9.72kg
AAZ30102	102	300	17.51kg

Zinc Weld on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAZ883S	75	75	25	0.9	1	275x25x3mm MS
AAZ10103S	100	100	25	1.7	1.9	240x25x3mm MS
AAZ10104S	100	100	38	2.5	2.7	240x25x3mm MS
AAZ1083S	100	75	27	1.3	1.4	195x25x3mm Galv Steel
AAZ1043S	103	38	25	0.6	0.7	195x20x2mm Galv Steel
AAZ1254S	120	48	40	0.9	1	195x25x3mm Galv Steel
AAZ1343S	125	38	25	0.7	0.8	195x20x2mm Galv Steel
AAZ1574S	150	70	35	2	2.3	250x25x6mm MS
AAZ15153S	150	150	28	3.8	4.1	260x25x3mm MS
AAZ1583S	150	75	25	1.8	2.1	250x25x6mm MS
AAZ1564S	150	65	40	2.2	2.4	275x30x3mm Galv Steel
AAZ16163S	155	155	25	4	4.2	275x25x3mm Galv Steel
AAZ1683S	160	80	25	1.9	2.1	295x25x3mm Galv Steel
AAZ1683AS	160	80	25	1.9	2	295x25x3mm Ali
AAZ1883S	175	77	33	2.6	2.8	295x25x3mm Galv Steel
AAZ2583S	245	75	32	3.3	3.6	350x32x3mm Galv Steel
AAZ2567S	250	62	70	6.6	7.2	440x25x6mm MS
AAZ25134S	250	125	38	6.5	7	405x32x5mm Mild Steel
AAZ27153S	270	150	32	6.5	7.1	350x40x5mm Mild Steel
AAZ2983S	285	80	30	2.7	3.2	435x25x6mm MS
AAZ2984S	285	80	40	4.5	5	435x25x6mm MS
AAZ30153S	300	150	30	7.7	8.6	440x40x6mm MS
AAZ30155S	300	150	50	11.1	12	440x40x6mm MS
AAZ3084S	300	80	40	5.6	6	450x25x5mm Mild Steel
AAZ3085S	300	80	50	6.9	7.3	450x25x5mm Mild Steel
AAZ30104S	300	100	35	6.8	7.3	450x32x5mm Mild Steel
AAZ30105S	300	100	50	10	10.5	450x32x5mm Mild Steel
AAZ31153S	305	150	32	7.7	8.5	510x40x5mm Mild Steel
AAZ30154S	305	150	38	9.2	10	510x40x5mm Mild Steel
AAZ30154.5S	305	150	45	11.2	12	510x40x5mm Mild Steel
AAZ31155S	305	150	50	12.2	13	510x40x5mm Mild Steel
AAZ35137S	345	130	70	12.2	13	495x40x5mm Mild Steel
AAZ35154S	350	150	35	9.6	10.6	500x40x6mm MS
AAZ35155S	350	150	50	14.2	15	500x40x5mm Mild Steel
AAZ40154S	400	150	35	11	11.8	530x40x5mm Mild Steel
AAZ412011S	410	200	110	34	35	700x40x5mm Mild Steel
AAZ4494S	440	90	43	8	8.7	550x32x5mm Mild Steel

Zinc Weld on Block Anodes

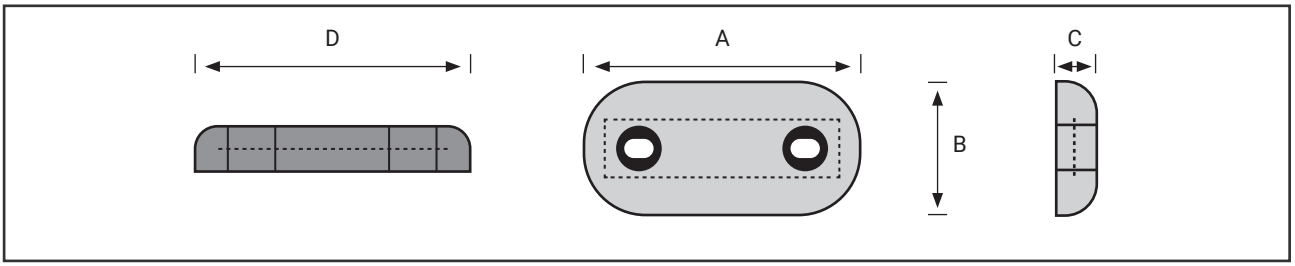
Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	NW (kg)	GW (kg)	Insert Dimensions (mm) DxExF
AAZ50135S	500	125	45	16.8	18.2	690x40x6mm MS
AAZ50136S	500	125	55	20.3	21.6	690x40x6mm MS
AAZ52135S	515	130	50	16.8	18	800x40x5mm Mild Steel
AAZ52135.5S	515	130	55	18.8	20	800x40x5mm Mild Steel
AAZ52136S	515	130	60	22.8	24	800x40x5mm Mild Steel
AAZ54136S	540	127	55	20.8	22	800x40x5mm Mild Steel
AAZ54137S	540	127	65	25.8	27	800x40x5mm Mild Steel
AAZ58143S	580	135	30	13.7	15.2	780x40x6mm MS
AAZ59144S	585	135	36	16.5	18	800x40x6mm MS
AAZ60145S	600	138	50	22.5	24	800x40x6mm MS
AAZ60135S	600	135	53	25.5	27	800x40x6mm MS
AAZ60146S	600	140	57	27.5	29	800x40x6mm MS
AAZ60157S	600	145	67	34.5	36	800x40x6mm MS
AAZ61126S	605	120	60	24.8	26	800x40x5mm Mild Steel
AAZ61138S	605	130	75	33.8	35	800x40x5mm Mild Steel
AAZ100106S	1000	100	60	33.4	36	1400x40x5mm Mild Steel
AAZ15044S	1500	37	38	12.5	14	1700x12mm dia mild steel rod
AAZ15055S	1500	54	46	25.2	26.7	1700x12mm dia mild steel rod
AAZ15077S	1500	65	65	42.3	45	1700x16mm dia mild steel rod



Unless otherwise specified, all dimensions are in mm.

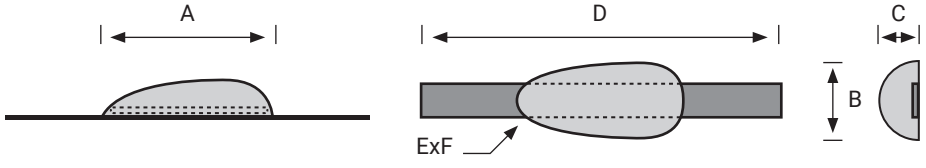
Zinc Bolt on Block Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	Distance between hole centres (mm)	NW (kg)	GW (kg)	Insert Dimensions (mm)
AAZ783H	72	76	28	-	0.8	0.9	55mm dia dish
AAZ992H	90	90	19	-		0.9	Galv steel pipe 18mm ID x 21mm long
AAZ993H	90	90	32	-		1.4	Galv steel pipe 18mm ID x 34mm long
AAZ994H	90	90	38	-		1.8	Galv steel pipe 18mm ID x 40mm long
AAZ1572H	145	68	19	75	0.9	1	Mild Steel Flat 40x3mm
AAZ15153H	150	150	25	-	3.4	3.5	20mm dia hole
AAZ1573H	150	75	25	-	1.4	1.5	20mm dia hole
AAZ1584H	150	75	35	70	1.9	2	Mild Steel Flat 40x3mm
AAZ1582H	153	76	20	75	1	1.1	55mm dia dish
AAZ1583H	153	76	28	75	1.8	1.9	55mm dia dish
AAZ16162H	155	155	25	-	3.9	4	Galv steel pipe 22mm ID x 25mm long
AAZ16163H	155	155	28	75	3.7	3.8	Mild Steel Flat 40x3mm
AAZ1683H	160	80	25	-	1.9	2	Galv steel pipe 22mm ID x 25mm long
AAZ2093H	198	85	25	75	2.3	2.4	Mild Steel Flat 40x3mm
AAZ20102H	200	100	21	110	2.7	2.8	55mm dia dish
AAZ20103H	200	100	30	110	3.9	4	55mm dia dish
AAZ20101H	200	100	20	110	2.4	2.6	Mild Steel Flat 50x3mm
AAZ201035H	200	100	35	110	3.5	3.7	Mild Steel Flat 50x3mm
AAZ20104H	200	100	40	110	4.1	4.3	Mild Steel Flat 50x3mm
AAZ25134.15H	250	125	40	150	6.3	6.5	Mild Steel Flat 50x3mm
AAZ25134.11H	250	125	40	110	6.3	6.5	Mild Steel Flat 50x3mm
AAZ25134.10H	250	125	40	100	6.3	6.5	Mild Steel Flat 50x3mm
AAZ30105H	300	100	50	160	7.3	7.8	260x40x6mm MS
AAZ30152H	300	150	25	155	6.7	6.9	72mm dia dish
AAZ30153H	300	150	30	155	8.3	8.4	72mm dia dish
AAZ3084H	300	80	40	200	4.5	4.7	Mild Steel Flat 50x3mm
AAZ3085H	300	80	50	200	6.2	6.4	Mild Steel Flat 50x3mm
AAZ3063H	300	60	30	200	3.3	3.5	Mild Steel Flat 25x3mm
AAZ31153H	305	145	32	158	7	7.3	Mild Steel Flat 50x3mm
AAZ31154H	305	145	35	158	8.3	8.6	Mild Steel Flat 50x3mm
AAZ31155H	305	145	50	158	12.7	13	Mild Steel Flat 50x3mm
AAZ30154H	305	145	38	100-200	8	8.2	Mild Steel Flat 50x3mm
AAZ31115H	305	112	50	150	8.3	8.6	Mild Steel Flat 50x3mm
AAZ31134H	315	130	35	150	5.8	6.4	260x40x3mm MS (Rubber Gasket also available)
AAZ35137H	345	130	70	160	11.4	11.5	2 Mild Steel 22mm ID x 25mm long



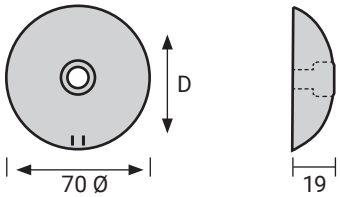
Zinc Tear Drop Anodes

Code	Anode Length (mm) A	Anode Width (mm) B	Anode Height (mm) C	Distance between hole centres (mm)	NW (kg)	GW (kg)	Insert Dimensions (mm)
AAZT942	85	42	15	31	-	0.2	No insert
AAZT943	90	38	24			0.3	
AAZT942H	90	38	22	32		0.25	2 holes 6mm dia
AAZT1053	100	50	25	-	0.4	0.6	195x25x3mm Galv Steel
AAZT1353	125	52	25	40	-	0.6	No insert
AAZT1363S	127	60	30	-	0.8	1	275x25x3mm Galv Steel
AAZT1363	127	60	30			0.9	
AAZT1363H	130	60	30	40		0.9	2 holes 6mm dia
AAZT1463	140	62	32	-	-	0.9	No insert
AAZT1463S	140	62	32	-	0.7	1	240x25x3mm MS
AAZT15126	155	120	60	-	4	4.2	275x25x3mm Galv Steel
AAZT16126S	155	120	60	-	3.9	4	S/S stud ⅜ UNC 75 long with S/S nyloc nut
AAZT1684	160	80	40	-	1.6	1.8	260x25x3mm MS
AAZT16126	160	120	60	-	4.2	4.3	M10 x 100 bolt
AAZT1683	160	80	35	-	1.5	1.7	295x25x3mm Galv Steel
AAZT1684A	160	80	35	-	1.6	1.7	295x25x3mm Ali
AAZT1784	165	80	35			1.7	
AAZT1795	170	85	50		2.9	3.1	295x25x3mm Galv Steel
AAZT1784.2	170	80	40			2.1	
AAZT1884	180	80	42	-	2	2.2	295x25x3mm Galv Steel
AAZT1884A	180	80	42	-	2	2.2	295x25x3mm Ali
AAZT1884.5	180	80	42	-	2.1	2.2	320x25x3mm Galv Steel
AAZT2084S	200	80	40	-	2.4	2.5	330x32x3mm MS
AAZT2084A	200	80	40	-	2.4	2.5	330x32x6mm Ali
AAZT2095S	200	85	45	-	2.9	3	330x32x3mm MS
AAZT2095A	200	85	45	-	2.9	3	330x32x6mm Ali
AAZT2084	200	80	40			2.5	
AAZT2095	200	85	45			3	
AAZT2284S	215	75	40		2.3	2.5	295x25x3mm Galv Steel
AAZT2284A	215	75	40		2.4	2.5	295x25x3mm Ali
AAZT2284	220	75	40	-	2.1	2.5	320x25x6mm MS
AAZT995	85mm dia	85mm dia	48	-	1.2	1.3	190x25x3mm Galv Steel



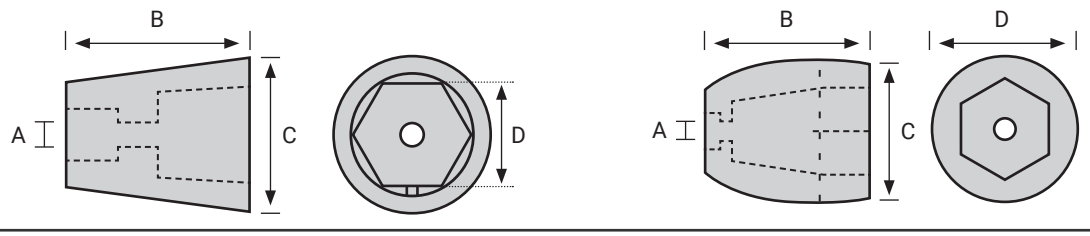
Zinc Rudder Anodes

Code	Anode Dia (mm)	Anode Height (mm)	NW (kg)	GW (kg)	Insert Dimensions (mm)
AAZR50	50	9		0.14/pr	10mm dia x 5mm deep, 5mm dia through hole
AAZSSSB	70	40	0.75	0.8	s/s 5/16" UNC
AAZR70.2	70	19	-	0.32	No insert
AAZR70	70	18		0.5/pr	20mm dia x 9mm deep, 9mm dia through hole
AAZR90	90	20		0.85/pr	20mm dia x 9mm deep, 9mm dia through hole
AAZR100	100	21	-	0.64	No insert
AAZR120	120	25	-	1.2	No insert
AAZR125	125	22		2.15/pr	22mm dia x 19mm deep, 9mm dia through hole
AAZR130	130	34		1.9/ea	34mm dia x 18mm deep, 14mm dia through hole



Zinc Propeller Anodes

Part No	Shaft dia (inches/metric)	Anode Weight	Dimension (A)	Dimension (B)	Dimension (C)	Dimension (D)
AAZP0.75	¾"	90g	6	38	32	23
AAZP0.875	⅞"	227g	6	52	42	26
AAZP1	1"	450g	8	68	50	30
AAZP1.125	1 ⅛"	450g	8	68	50	30
AAZP1.25	1 ¼"	680g	8	75	58	35
AAZP1.375	1 ⅜"	800g	9	80	63	39
AAZP1.5	1 ½"	910g	9	84	70	42
AAZP1.75	1 ¾"	1.30kg	9	86	79	48
AAZP2	2"	1.50kg	9	100	85	56
AAZP22	22-25	120g	7	39	34	22
AAZP30	30	255g	8	53	43	27
AAZP40	40	460g	9	67	52	36
AAZP50	50	1.0kg	10	84	73	46
AAZP70	70-100	2.6kg	11	97	97	54



Zinc Shaft Anodes

Code	Suit Shaft Size (inches/metric)	Anode Outside Dia (mm)	Anode Height (mm)	GW (kg)	Description
AAZS075	¾"	58	53	0.5	
AAZS0875	⅞"	57	51	0.5	
AAZS1	1"	57	51	0.5	
AAZS1125	1 ⅛"	69	64	1	
AAZS1025	1 ¼"	69	64	0.9	
AAZS1375	1 ⅜"	69	64	0.9	
AAZS15	1 ½"	69	64	0.8	
AAZS175	1 ¾"	80	67	1.2	
AAZS2	2"	80	67	1.4	
AAZS2025	2 ¼"	80	67	2.6	
AAZS25	2 ½"	97	83	1.8	
AAZS275	2 ¾"	97	80	1.8	
AAZS3	3"	150	125	9	
AAZS0.75S	¾"	58	52	0.55	Standard - 2 fasteners screw into zinc
AAZS0.75D	¾"	54	25	0.3	Donut - 2 fasteners screw into zinc
AAZS0.75T	¾"	55	52	0.52	Thru Bolt - 2 fasteners screw into nut
AAZS0.875S	⅞"	58	52	0.5	Standard - 2 fasteners screw into zinc
AAZS0.875D	⅞"	54	25	0.3	Donut - 2 fasteners screw into zinc
AAZS0.875T	⅞"	55	52	0.5	Thru Bolt - 2 fasteners screw into nut
AAZS1.0S	1"	58	52	0.47	Standard - 2 fasteners screw into zinc
AAZS1.0D	1"	64	33	0.53	Donut - 2 fasteners screw into zinc
AAZS1.0T	1"	55	52	0.44	Thru Bolt - 2 fasteners screw into nut
AAZS1.125S	1 ⅛"	70	64	1	Standard - 2 fasteners screw into zinc
AAZS1.125D	1 ⅛"	64	33	0.48	Donut - 2 fasteners screw into zinc
AAZS1.125T	1 ⅛"	55	52	0.4	Thru Bolt - 2 fasteners screw into nut
AAZS1.25S	1 ¼"	70	64	0.95	Standard - 2 fasteners screw into zinc
AAZS1.25D	1 ¼"	64	33	0.45	Donut - 2 fasteners screw into zinc
AAZS1.25T	1 ¼"	60	63	0.54	Thru Bolt - 2 fasteners screw into nut
AAZS1.375S	1 ⅜"	70	64	0.9	Standard - 2 fasteners screw into zinc
AAZS1.375D	1 ⅜"	76	33	0.68	Donut - 2 fasteners screw into zinc
AAZS1.375T	1 ⅜"	67	67	0.7	Thru Bolt - 4 fasteners screw into nut
AAZS1.5S	1 ½"	70	64	0.8	Standard - 2 fasteners screw into zinc
AAZS1.5D	1 ½"	76	33	0.65	Donut - 2 fasteners screw into zinc
AAZS1.5T	1 ½"	67	67	0.61	Thru Bolt - 4 fasteners screw into nut
AAZS1.75S	1 ¾"	84	68	1.15	Standard - 4 fasteners screw into zinc
AAZS1.75D	1 ¾"	100	35	1.4	Donut - 2 fasteners screw into zinc
AAZS1.75T	1 ¾"	90	86	1.84	Thru Bolt - 4 fasteners screw into nut
AAZS2.0S	2"	64	68	1.1	Standard - 4 fasteners screw into zinc

Unless otherwise specified, all dimensions are in mm.

Zinc Shaft Anodes

Code	Suit Shaft Size (inches/metric)	Anode Outside Dia (mm)	Anode Height (mm)	GW (kg)	Description
AAZS2.0THD	2"	103	120	4.45	Thru Bolt Heavy Duty - 6 fasteners screw into zinc
AAZS2.0D	2"	100	35	1.3	Donut - 2 fasteners screw into zinc
AAZS2.0T	2"	90	86	1.62	Thru Bolt - 4 fasteners screw into nut
AAZS2.25T	2 ¼"	103	120	4	Thru bolt - 6 fasteners screw into nut
AAZS2.25D	2 ¼"	100	36	0.75	Donut - 2 fasteners screw into nut
AAZS2.25LD	2 ¼"	103	97	2.8	Light Duty - 4 fasteners screw into nut
AAZS2.5T	2 ½"	103	120	3.55	Thru bolt - 6 fasteners screw into nut
AAZS2.5D	2 ½"	127	38	2.2	Donut - 2 fasteners screw into nut
AAZS2.5LD	2 ½"	103	97	2.4	Light Duty - 4 fasteners screw into nut
AAZS2.75S	2 ¾"	116	130	5.6	Standard - 6 fasteners screw into zinc
AAZS2.75D	2 ¾"	127	38	2	Donut - 2 fasteners screw into nut
AAZS2.75LD	2 ¾"	125	92	3.2	Light Duty - 4 fasteners screw into nut
AAZS3.0S	3"	116	130	5	Standard - 6 fasteners screw into zinc
AAZS3.0D	3"	127	38	1.9	Donut - 2 fasteners screw into nut
AAZS3.0LD	3"	125	92	2.7	Light Duty - 4 fasteners screw into nut
AAZS3.25S	3 ¼"	138	164	9.8	Standard - 6 fasteners screw into zinc
AAZS3.25LD	3 ¼"	142	96	5	Light Duty - 4 fasteners screw into nut
AAZS3.5S	3 ½"	138	164	8.8	Standard - 6 fasteners screw into zinc
AAZS3.5D	3 ½"	163	38	3.6	Donut - 2 fasteners screw into nut
AAZS3.5LD	3 ½"	142	96	4.4	Light Duty - 4 fasteners screw into nut
AAZS3.75S	3 ¾"	168	188	18.5	Standard - 6 fasteners screw into zinc
AAZS3.75LD	3 ¾"	142	95	4	Light Duty - 4 fasteners screw into nut
AAZS4.0S	4"	168	188	17.3	Standard - 6 fasteners screw into zinc
AAZS4.0D	4"	163	38	3	Donut - 2 fasteners screw into nut
AAZS4.0LD	4"	149	98	3.2	Light Duty - 4 fasteners screw into nut
AAZS4.25S	4 ¼"	168	188	15.6	Standard - 6 fasteners screw into zinc
AAZS4.5S	4 ½"	168	188	14.3	Standard - 6 fasteners screw into zinc
AAZS4.5D	4 ½"	204	40	5.8	Donut - 2 fasteners screw into nut
AAZS4.5LD	4 ½"	165	89	3.7	Light Duty - 4 fasteners screw into nut
AAZS5.0S	5"	205	110	16	Standard - 4 fasteners screw into zinc
AAZS5.0D	5"	194	38	4.5	Donut - 2 fasteners screw into nut
AAZS5.0LD	5"	178	89	4.2	Light Duty - 4 fasteners screw into nut
AAZS5.5S	5 ½"	250	110	26.7	Standard - 4 fasteners screw into zinc
AAZS6.0S	6"	250	110	24.3	Standard - 4 fasteners screw into zinc
AAZS6.0D	6"	250	51	11.1	Donut - 2 fasteners screw into nut
AAZS6.25S	6 ½"	235	115	18	Standard - 4 fasteners screw into zinc
AAZS6.625S	6 ⅝"	250	110	21.7	Standard - 4 fasteners screw into zinc
AAZS20S	20	58	52	0.55	Standard - 2 fasteners screw into zinc

Zinc Shaft Anodes

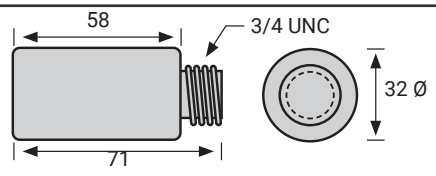
Code	Suit Shaft Size (inches/metric)	Anode Outside Dia (mm)	Anode Height (mm)	GW (kg)	Description
AAZS20D	20	54	25	0.3	Donut - 2 fasteners screw into nut
AAZS25S	25	58	52	0.5	Standard - 2 fasteners screw into zinc
AAZS25D	25	64	33	0.5	Donut - 2 fasteners screw into nut
AAZS30S	30	70	64	1	Standard - 2 fasteners screw into zinc
AAZS30D	30	64	33	0.5	Donut - 2 fasteners screw into nut
AAZS35S	35	70	64	0.88	Standard - 2 fasteners screw into zinc
AAZS35D	35	76	33	0.7	Donut - 2 fasteners screw into nut
AAZS40S	40	84	68	1.3	Standard - 4 fasteners screw into zinc
AAZS40D	40	76	33	0.6	Donut - 2 fasteners screw into nut
AAZS45D	45	100	36	1.4	Donut - 2 fasteners screw into nut
AAZS50S	50	84	68	1.18	Standard - 4 fasteners screw into zinc
AAZS50D	50	100	36	1.4	Donut - 2 fasteners screw into nut

Zinc Condenser Anodes

Code	GW (kg)	Anode dia	Anode length	Thread Size	Stud Length
AAZC4040	0.350	40	40	S/S M10-C	25
AAZC8040	0.700	40	80	S/S M10-C	25
AAZC3050	0.350	50	30	SS 5/16 UNC	25
AAZC3350	0.320	50	33	S/S M10-C	25
AAZC7550	0.950	50	75	S/S M10-C	25
AAZC32753	0.830	75	32	S/S 5/16 UNC	25
AAZC32755	0.850	75	32	S/S 5/16 UNC	50
AAZC3275	0.800	75	32	-	-
AAZC3275B	0.750	75	32	Hole Detail: Steel pipe 12 ID x 34 long	

Zinc Pencil Anodes (sorted by diameter)

Part No.	Weight	Thread	Dia	Overall Length	Exposed Length	Replaces Genuine Part:
AAZ5006	10g	¼" UNC	6	59	50	Universal
AAZ3810	20g	¼" UNC	10	50	38	Caterpillar 6L 3104
AAZ5710	30g	¼" UNC	10	69	57	Caterpillar 6L 2283 Heat Exchanger Models 4W-9164 and 7C-3114
AAZ2210	12g	5/16" UNC	10	32	22	Onan Generator 130-1341
AAZ4410	20g	5/16" UNC	10	54	44	Universal
AAZ6510	30g	5/16" UNC	10	73	65	Universal
AAZ40101	20g	⅜" UNC	10	50	40	Bukh
AAZ5010	30g	⅜" UNC	10	63	50	GM oil cooler Universal
AAZ1710	12g	8 ø press fit	10	26	17	Nanni 970 494 635
AAZ3512	30g	M5-C Zn plated steel	12	45	35	Bukh B00E0450
AAZ30132	30g	5/16" UNC	13	40	30	Caterpillar
AAZ30131	30g	⅜" UNC	13	40	30	Caterpillar 6L2281 Onan 130-4434 Yanmar 119574-44150-01
AAZ3513	40g	7/16" UNC	13	45	35	Universal
AAZ4313	40g	⅜" UNC	13	53	43	Caterpillar 6L2280 Detroit 8925832
AAZ5213	40g	⅜" UNC	13	62	52	Universal
AAZ5113	60g	M8-C	13	65	51	Universal
AAZ43131	50g	M10-C	13	55	43	Universal
AAZ2614	30g	10 ø press fit	14	34	26	Aifo 810 5277
AAZ3015	40g	M8-C	15	40	30	Steyr 2178413/1
AAZ30161	40g	¼" UNC internal x 25 deep	16	30	30	Caterpillar air-con condenser
AAZ2416	35g	M8-C 316 SS	16	32	24	Universal
AAZ30162	50g	⅜" UNC	16	45	30	Detroit/Cummins 8517474
AAZ40161	60g	⅜" UNC	16	53	40	Universal
AAZ5116	90g	⅜" UNC	16	64	51	Caterpillar 5B9651
AAZ6316	100g	⅜" UNC	16	76	63	Caterpillar 6L2288 3208 engine. Marine transmission cooler model 7W-1396
AAZ7516	110g	⅜" UNC	16	90	75	Caterpillar 6L2289 3208 engine. Heat exchanger model 4W-9164
AAZ9016	130g	⅜" UNC	16	100	90	Universal
AAZ30163	40g	7/16" UNC M8-C	16	42	30	Volvo Penta 838929
AAZ4216	60g	7/16" UNF	16	50	42	Caterpillar 6L3412, 7E 5076
AAZ5016	70g	7/16" UNC	16	63	50	Detroit 8517479 GM 8517480 Yanmar 119574-18790 Universal



Zinc Pencil Anodes (sorted by diameter)

Part No.	Weight	Thread	Dia	Overall Length	Exposed Length	Replaces Genuine Part:
AAZ6816	100g	7/16" UNF	16	68	55	Universal
AAZ6716	100g	½" BSW	16	67	55	Universal
AAZ7016	120g	½" BSW	16	90	70	Universal
AAZ50161	100g	⅝" UNC	16	66	50	Universal
AAZ2016	30g	M10-C (male) M8-C (male)	16	36	20	Mercruiser 816 000
AAZ6016	80g	M10-C internal x 20 deep	16	60	60	Universal
AAZ4617	70g	M6-C	17	58	46	Scania C1331818
AAZ5119	110g	½" UNC	19	67	51	Universal
AAZ8619	160g	½" UNC	19	99	86	Universal
AAZ9219	180g	½" UNC	19	105	92	Detroit 8515850 GM 8515850
AAZ4419	100g	⅝" UNC	19	57	44	Universal
AAZ8219	180g	⅝" UNC	19	97	82	GM 8515851
AAZ16319	340g	⅝" UNC	19	178	163	Universal
AAZ5019	110g	M16-C	19	65	50	Nilgata Z drive lube oil cooler ZZ V77120000 for a ZP38 Model stern drive (Z drive)
AAZ2220	50g	Zn plated steel M8-C	20	33	22	Yanmar 27210-200200 To suit engine: 1GM/1GM10
AAZ3020	70g	Zn plated steel M8-C	20	41	30	Yanmar 27210-200300 engine 2GM, 2GM20, 20GM20-YEU, 3GM/3GMD, 3GM30, 3GM30-YEU, 3HM, 3HM35, 2QM, 12PS, 3QM, 18PS, 2QM15, 15PS, 2QM20, 20PS, 3QM30, 30PS, YSM7-10PS, YSB8, 8PS, YSB12, 12PS
AAZ3720	80g	Zn plated steel M8-C	20	50	37	Yanmar 27210-200370 To suit engine 6CXM-GTE2
AAZ5520	135g	Zn plated steel M8-C	20	65	55	Yanmar 27210-200550 To suit engine SD 20/31
AAZ2022	65g	⅝" UNF	22	32	20	Caterpillar 6L2016 3208 engine Water cooled exhaust elbow Model 5B-6447
AAZ8222	250g	⅝" UNC	22	98	82	Universal
AAZ30221	70g	M6-C Internal	22	30	30	Universal
AAZ5025	190g	¾" UNC	25	65	50	Universal
AAZ8525	330g	¾" UNC	25	100	85	Universal
AAZ8025	250g	⅞" UNF	25	80	65	Universal
AAZ9025	250g	M14-C	25	90	65	Universal
AAZ40251	150g	M16-C	25	58	40	Universal
AAZ6025	250g	M18-C	25	75	60	Universal
AAZ4327	140g	Zn plated steel ⅜" UNC	27	55	43	Volvo Penta 823661-4
AAZ4030	200g	Zn plated steel M8-C	30	60	40	Yanmar 27200-300400
AAZ5832	320g	¾" UNC	32	71	58	Caterpillar 6L2284
AAZ4040	350g	M10-C S/S	40	65	40	Yanmar 27200-400400

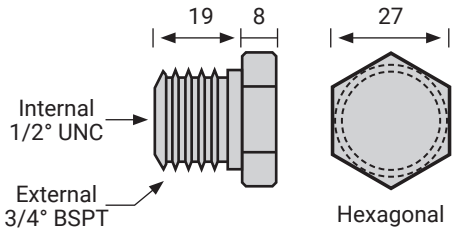
Unless otherwise specified, all dimensions are in mm.

Zinc Pencil Anodes with Brass Plugs
(sorted by diameter)

Part Number	Weight	Dia	Exposed Plug Thread	Overall Length	Exposed Length	Anode Only	Anode to Plug Thread	Plug Head Size & Type	Plug Part No.
AAZ5006B	20g	6	⅛" NPT	64	50	AAZ5006	¼" UNC	11mm hex	BP10
AAZ1710B	42g	10	M16-C	37	17	AAZ1710	8 ø press fit	17mm hex	BP07
AAZ2210B	28g	10	¼" BSPT	39	22	AAZ2210	5/16" UNC	14mm hex	BP01
AAZ3810B	40g	10	¼" NPT	58	38	AAZ3810	¼" UNC	10mm square	BP50
AAZ4410B	40g	10	¼" BSPT	60	44	AAZ4410	5/16" UNC	14mm hex	BP01
AAZ5710B	50g	10	¼" NPT	75	57	AAZ5710	¼" UNC	10mm square	BP50
AAZ5010B	50g	10	⅜" NPT	70	50	AAZ5010	⅜" UNC	17mm hex	BP06
AAZ5810B	60g	10	⅜" BSPT	76	58	AAZ5810	⅜" UNC	17mm hex	BP02
AAZ3013B	60g	13	⅜" NPT	50	30	AAZ3013	⅜" UNC	17mm hex	BP06
AAZ3313B	50g	13	⅜" NPT	52	33	AAZ3313	⅜" UNC	11mm square	BP51
AAZ4313B	50g	13	⅜" NPT	63	43	AAZ4313	⅜" UNC	11mm square	BP51
AAZ7013B	70g	13	⅜" NPT	70	52	AAZ7013	⅜" UNC	17mm hex	BP06
AAZ5213B	70g	13	⅜" BSPT	73	52	AAZ7313	⅜" UNC	17mm hex	BP02
AAZ3013M8B	65g	13	M18 x 1.25	46	30	AAZ3013	M8-C	23mm hex	BP02
AAZ5116BB	130g	16	½" BSPT	76	51	AAZ5116B	7/16" UNC	22mm hex	BP11
AAZ5116NB	130g	16	½" NPT	76	51	AAZ5116N	7/16" UNC	22mm hex	BP03
AAZ5119B	210g	19	¾" BSPT	78	51	AAZ5119	½" UNC	27mm hex	BP09
AAZ8519B	260g	19	¾" BSPT	114	85	AAZ8519	½" UNC	27mm hex	BP04
AAZ9219B	260g	19	¾" BSPT	118	92	AAZ9219	½" UNC	27mm hex	BP04
AAZ5025B	340g	25	1" BSPT	80	50	AAZ5025	¾" UNC	27mm hex	BP05

Zinc Brass Plugs (sorted by diameter)

Part Number	Weight	External Thread	Internal Thread
AABP10	7g	⅛" NPT	¼" UNC
AABP1	15g	¼" BSPT	5/16" UNC
AABP2	29g	⅜" BSPT	⅜" UNC
AABP6	27g	⅜" NPT	⅜" UNC
AABP7	30g	M16-C	8mm press fit
AABP3	56g	½" BSPT	7/16" UNC
AABP13	56g	½" BSPT	⅜" UNC
AABP14	56g	½" BSPT	⅝" UNC
AABP9	56g	½" NPT	7/16" UNC
AABP12	56g	½" NPT	⅜" UNC
AABP11	25g	M18 x 1.5	M8 x 1.25
AABP4	98g	¾" BSPT	½" UNC
AABP5	156g	1" BSPT	¾" UNC
AABP8	366g	1 ¼" BSPT	¾" UNC
AABP50	15g	¼" NPT	¼" UNC
AABP51	19g	⅜" NPT	⅜" UNC



Brands available in our range

AIFO	BRP - Evernote, Johnson, OMC	BTQ/BTR
BUKH	CASTOLDI	CATERPILLAR
CUMMINS	DAIHATSU	DETROIT
FLEXOFOLD	GM	GORI
HAMILTON JET	HONDA	JOHN DEERE
LEWMAR	MERCURY/MERCRUISER	NANNI
NIIGATA	NISSAN	ONAN
SCANIA	SEAHAWK	SIDEPOWER (SLEIPNER)
STEYR	SUZUKI	TOHATSU
TWIN DISC	VETUS	VOLVO PENTA
YAMAHA	YANMAR	

Information on Anodes

Insert Types

- Round Bar (protruding both ends)
- Round Bar (protruding one end)
- Round Bar (with tabs for bolting/welding)
- Round Bar (single crank both ends)
- Round Bar (double cranked - flush mount)
- Round Bar (double cranked - stand off)
- Flat Bar (protruding both ends)
- Flat Bar (protruding one end)
- Flat Bar (with holes for drilling)
- Flat Bar (single crank both ends)
- Flat Bar (double cranked - flush mount)
- Flat Bar (double cranked - stand off)
- Pipe Core (protruding both ends)
- Pipe Core (protruding one end)
- Pipe Core (flush mount)
- Pipe Core (stand off)
- Pipe Core (integral mount)
- Flexible Wire Core

Production Capabilities

Access to moulds up to 3000mm in length… 330mm in width… 330mm in height (in Zinc & Aluminium)
Access to moulds up to 2000mm in length… 250mm in width… 250mm in height (in Magnesium)

Backfill Composition

B1 BACKFILL	Calcium Bentonite 50%	Gypsum 50%	
B3 BACKFILL	Calcium Bentonite 50%	Gypsum 45%	Sodium Sulphate 5%

Differences between BSP & NPT

(Warning: Although a BSP and NPT fitting may appear to be interchangeable (ie. the threads will start and appear to fit) they are not. NEVER interchange the two fitting styles where pressure holding capacity is required. The threads are not compatible and will not provide an adequate seal.

BSP is an acronym for British Standard Pipe which is similar to National Pipe Taper (NPT) in the fact that the reference size of the fitting is not an actual diameter of the fitting or its thread but its trade size. Unlike hose which is measured by its inside diameter, or tube which is measured by its outside diameter, Pipe is measured by 'trade' size, so a ¾" inch pipe has an OD of a little more than 1 inch and an ID of about 53/64.

Information on Anodes

Common BSP thread diameters

Trade Size	BSP Threads per inch	In.	mm
1/8	28	0.383	9.728
1/4	19	0.518	13.157
3/8	19	0.656	16.662
1/2	14	0.825	20.955
5/8	14	0.902	22.911
3/4	14	1.041	26.441
1	11	1.309	33.249

BSP has a 55 degree thread 'pitch' angle and has rounded peaks and valleys (similar to a Whitworth thread), whilst NPT fittings have a 60 degree thread 'pitch' angle with flat peaks and valleys. This difference in thread along with the number of threads per inch is the easiest way to spot the differences between the two often confused fitting styles.

BSP vs NPT Thread Comparison

Trade Size	BSP Threads Per Inch	NPT Threads Per Inch
1/8	28	27
1/4	19	18
3/8	19	18
1/2	14	18
5/8	14	14
3/4	14	14
1	11	11.5

Information -
What are Sacrificial Anodes?

What causes corrosion?

Metals corrode because the corrosion products (rust) contain less energy than the metal from which they derive. Corrosion is associated with the passage of minute electric currents which travel through the metal and an aqueous electrolyte. Corrosion takes place at the anodic areas (the anode) which are the places where the current releases metal ions to dissolve in the water. Cathodic areas develop at other sites (the tank walls) where the circuit is completed and at these places no corrosion takes place. Anodic areas will be evidenced by a build-up of rust under which there is always found a pit. Adjacent areas which are cathodic (the tank walls) will be perfectly preserved and will not have rusted. Anodes corrode - cathodes do not.

How magnesium works?

Magnesium anodes protect steel bya sacrificial electro-chemical action. Magnesium is electro-negative relative to steel. WHEN A Magnesium rod is connected by an electrical conductor to a steel tank which is then filled with water, a current will constantly flow through the water between the rod and any bare steel area on the tank wall. The circuit is completed through the tank back to this magnesium rod. This protective current is produced by the magnesium releasing ions, and this results in corrosion in the anodic area. This type of galvanic protection is called 'sacrificial': the magnesium rod (the anode) corrodes instead of the tank (the cathode). This principle of electrolytic corrosion control is called 'Cathodic Protection'. Because cathodic surfaces cannot rust, the tank is protected.

The effect of water composition?

Natural waters contain a wide variety of dissolved salts, all of us which act as carriers of electric current. The higher the salt content of the water, the lower its electrical resistance. The salts dissolved in hard water are scale producing salts. These will plate out at cathodic areas and will inhibit corrosion. The most important of these salts are those of calcium and magnesium which are often considered undesirable because of their reaction with soap.

In general, both are very soft and very hard waters are aggressive and corrosive. Very soft water does not have a high mineral content and might contain as little as five parts per million (ppm) total dissolved solids. This water is not a very good conductor of electricity, has no scale forming ability and therefore lacks the protective build-up which gradually stifles corrosion. On the other hand, very hard water, which might contain as much as 1000 ppm total dissolved solids, is such a good conductor that an anode can be consumed quite rapidly.

This factor can outweigh the protective value of the scale forming sales which it contains. Most of the urban water supplies lie in the mid range, with a total dissolved solid content of around 100 to 300 ppm. They contain enough scale forming sales to inhibit the corrosion and yet they are not unduly conductive.

Artificially softened waters are exceedingly corrosive because the process merely substitutes a sodium ion which does not plate out as a protective scale, for the magnesium and calcium ions which do. This takes away all the scale forming ability but does nothing to reduce the highly electrical conductivity. Hot water is much more corrosive than cold water.

Designing the anode

From the forgoing it is evident that waters vary widely in corrosiveness. The amount of protective current that a tank requires is dependent upon the composition of the water. The current density, or the amount of current required per unit of surface, will depend upon the corrosiveness of the water.

In naturally soft water, the anode does not produce as much current because the water is not very conductive. At the other end of the spectrum, in very hard water the anode will produce more current than is required because the water is very conductive, and in doing so will be consumed more rapidly. Fortunately in most urban water supplies a medium quality is usual, wherein the anode will produce enough current to protect the tank without consuming too quickly.

Information -
What are Sacrificial Anodes?

The output in milliamps is roughly proportional to the length of the andoe and has little to do with the diameter, whereas the weight of the anode at any one output will determine its life. Therefore a magnesium anode to fulfil its function must be long enough to protect the tank in the most aggressive water anticipated and thick enough to provide protection for the necessary period of time.

Magnesium Quality

The ability of magnesium to protect a steel structure from corrosion derives from its strongly electro-negative character. The standard electrode potential of magnesium, for example (on a relative scale with hydrogen equalling zero) is +2.34 volts. The standard electrode potential of iron, nickel and copper on the same scale are respectively -.771, +.25 and -.153. Thus, the relative electrode potential of magnesium coupled to iron, nickel or copper would be 1.569 volts, 2.59 volts and 2.187 volts respectively. This means that if a magnesium plate is connected to a plate of one of the above three metals and the two are introduced into an electrolyte, a simple electrolytic cell will be set up with the magnesium acting as the anode. Thus the magnesium would “corrode” and cathode would be protected.

In order to corrode however, magnesium does not have to be placed in external contact with a more electro-positive metal. The presence of a fine dispersion of such elements in the anode can set up what are known as “microcells” at the metal surface which can cause localised corrosion and pitting.

Corrosion of magnesium resulting from “microcells” is called parasitic when it occurs in a part such as a hot water tank anode in service. As the function of the anode is to protect the water tank any magnesium consumed by such parasitic corrosion does no useful work. It is essential therefore, if an anode is to afford maximum protection to a steel structure, that contaminating electro-positive elements, principally iron, nickel and copper, be kept to a minimum in the anode.

In simple terms

All bodies of water whether they be an ocean, a lake, a river, or simply the container full of water in our mains pressure hot water storage tank, have minute little electrical currents occurring quite naturally in them. These electrical currents are attracted to metal surfaces and upon finding one, start eating into it. This process is known as electrolysis… the end result of which is rust.

In the case of a hot water heater’s storage tank, by introducing a dissimilar but more “noble” metal into the tank, a much more attractive target is offered to the destructive electrical currents.

All manufacturers of “glass lined” mains pressure hot water heaters therefore incorporate a rod of magnesium which runs through the top of the storage tank to within 100mm of the bottom of the tank and this is called a sacrificial anode, Its job is to attract the electrical currents in the water onto itself thus leaving the heater’s tank walls completely alone. Thus it’s name … “sacrificial anode”. It sacrifices itself to protect the heater. With the introduction of the anode into the tank, the tank becomes a cathode.

It is a scientific fact only anodes can corrode, not cathodes, and this protection continues until such time as the anode is no longer able to offer that protection. This may be because of it having corroded away until there is little if anything left or it may become so blanketed by the calcium carbonate contained in the water supply that its ability to exert its influence is severely hampered. At this stage a complete reversal takes place and the “cathode” becomes an “anode” and corrosion then commences in the storage tank.

Replacement of an expended or heavily coated anode will continue the protection of the cottage tank for the effective life of that replacement anode.

Notes

anodes
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