

SWC

There is only one
perfect solution.



**SOFTER WATER
CONDITIONERS**

BY  **TURBU-FLOW**

Solving hard water problems around the world!

WHO WE ARE

HARD WATER PROBLEMS SOLVED WITH SOFTERWATER CONDITIONERS!

Thousands of Softerwater Conditioners have been installed across the world. **Residential Applications** include hot water systems, swimming pools and spas, showers and on whole house water mains. **Commercial Applications** include farms, dairies, irrigation systems, nurseries, lagoons, ponds and wells (bores), underground mining equipment, hot water ring mains, evaporative air conditioners, cooling towers, steam cleaners and ice machines.

And on every other water carrying system you can think of!

We are here to help you solve your hard water problems, not just sell you some equipment. We know you have concerns and we'll work to ensure you get the best outcome possible for your particular set of circumstances.

There is a Softerwater Conditioner to suit your requirements! Although we have a standard size range of water conditioners, if none of them meets your specifications we will custom manufacture a unit to do so!

AUSTRALIAN OWNED & OPERATED

Manufactured in Australia since 1983, Softerwater Conditioners is a family owned and operated company. This keeps us 'lean and mean' so that you get the best equipment for the best possible price. We take pride in the fact that each of the components used to produce our range of water conditioners are sourced from local suppliers making the product 100% Australian made.

Our commitment to you is that each unit is top quality and so is free from any manufacturing defects, and when selected and installed correctly it will work! I personally check the quality of each Softerwater Conditioner before it is packaged and sent to you. So you can rest easy knowing that once installed you will have no worries about the unit failing or needing maintenance.

WORLDWIDE DISTRIBUTION NETWORK

We choose to distribute our range of Softerwater Conditioners through a network of regional agents and local dealers. However, if we do not have an agent in your part of the world we will service your needs from our head office in Australia.

Also we are constantly looking for reputable companies to join our sales and distribution network as agents or dealers, so if you are interested (or know of a company who you think would suit what we do) please send us an e-mail and I will follow it up.

We look forward to solving your hard water problems!

Kind regards,



EARL MATHIESON

CHIEF EXECUTIVE OFFICER
SOFTERWATER CONDITIONERS



At Softerwater Conditioners we work smarter to give you a quality water conditioner at the most affordable price. We choose to outsource our foundry and engineering practices to local companies who follow our strict manufacturing guidelines and processes with final quality, inspection and pressure testing completed in-house.

We are not limited by the size of a facility or the number of staff employed to be able to upscale and deliver large volume orders on time.

The Turbu-Flow alloy comprises of a number of scientifically selected metals selected from both the anode and cathode side of the galvanic scale. The foundry uses a specialized and highly technical process to mix these metals to the respective temperature groups in order to alloy the best galvanic

action when water passes through the Softerwater Conditioner with velocity and turbulence. The molten alloy is then poured into a range of sand castings, the final result being an alloy core designed for a specific flow rate.

Our engineering contractors then follow our engineering policies and procedures to assemble the alloy into various sized 316SS housings with header or flange configurations. We design and manufacture our own range of 316SS headers and purchase welded tube, pipe and flanges from reputable Australian suppliers. We take pride in the fact that we get the manufacturing process right the first time.

Our manufacture standards comply with and surpass the requirements as specified by Australian Watermark Level 1 Certificate of Conformity requirements.



WHAT WE DO

CHANCES ARE, YOUR PRODUCTS WILL BE EXPOSED TO HARD WATER.

Hard water is an increasing global issue and affects every area from homes to heavy industry. This can affect your business if you manufacture and sell any product that uses water, including: Showers, Caravans, Washing Machines, Dishwashers, Steam Ovens, Coffee Machines, Kettles, Evaporative Air Conditioners, Hot Water Systems (Electric, Gas or Solar), Boiler Systems, Heavy Drilling & Mining Equipment and Irrigation Systems - to name a few.

IT'S NOT ROCKET SCIENCE, UNHAPPY CUSTOMERS = LOWER PROFITS

Ultimately, hard water will cause premature failure, malfunction and reduced performance of your products. Warranty claims are an obvious direct cost to your business - but in most cases, customers who experience hard water issues with your products will not blame the water, they will blame your brand. The impact of unhappy customers is immeasurable. Negative word-of-mouth, reduced brand loyalty, low repeat purchases and bad reviews or media can seriously hurt your bottom line.

SO, WHAT IF YOUR BRAND COULD BE SEEN AS A MARKET INNOVATOR WHILST ALSO REDUCING COSTS?

It's true, including SofterWater Conditioners as part of your production specification will cost a little more, but the benefits are sure to outweigh this cost. If you operate in a highly price-competitive market, then simply offer the SWC as part of an extended warranty package or added extra, thus eliminating the increased base price point and maintaining your price-competitiveness. Better yet, because we are the manufacturers, we have complete flexibility to create a win-win partnership with your company; so before you say "we can't afford it", talk to us.

Whatever your scenario, by including Softerwater Conditioners with your product offering, you can promote your brand as having cutting-edge hard water technology that increases product life and efficiency thereby enhancing market appeal and reducing costs associated with warranty returns and repairs. With a SofterWater Conditioner included with your product, you can:

REDUCE WARRANTY COSTS

PROTECT AND ENHANCE YOUR BRAND

BE SEEN AS A MARKET INNOVATOR

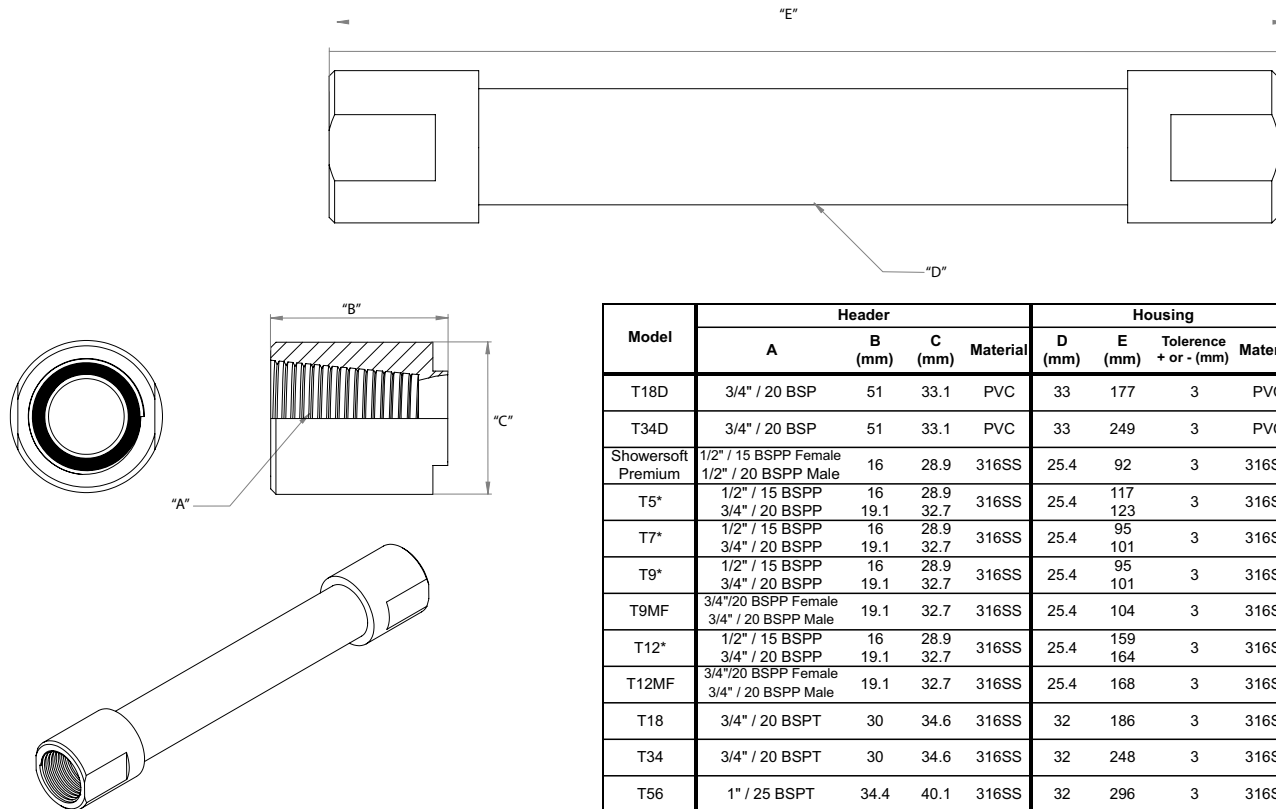
BE SEEN AS MORE ECO-FRIENDLY

CREATE A NEW INCOME STREAM

The perfect partner for
YOUR BUSINESS

SPECIFICATIONS

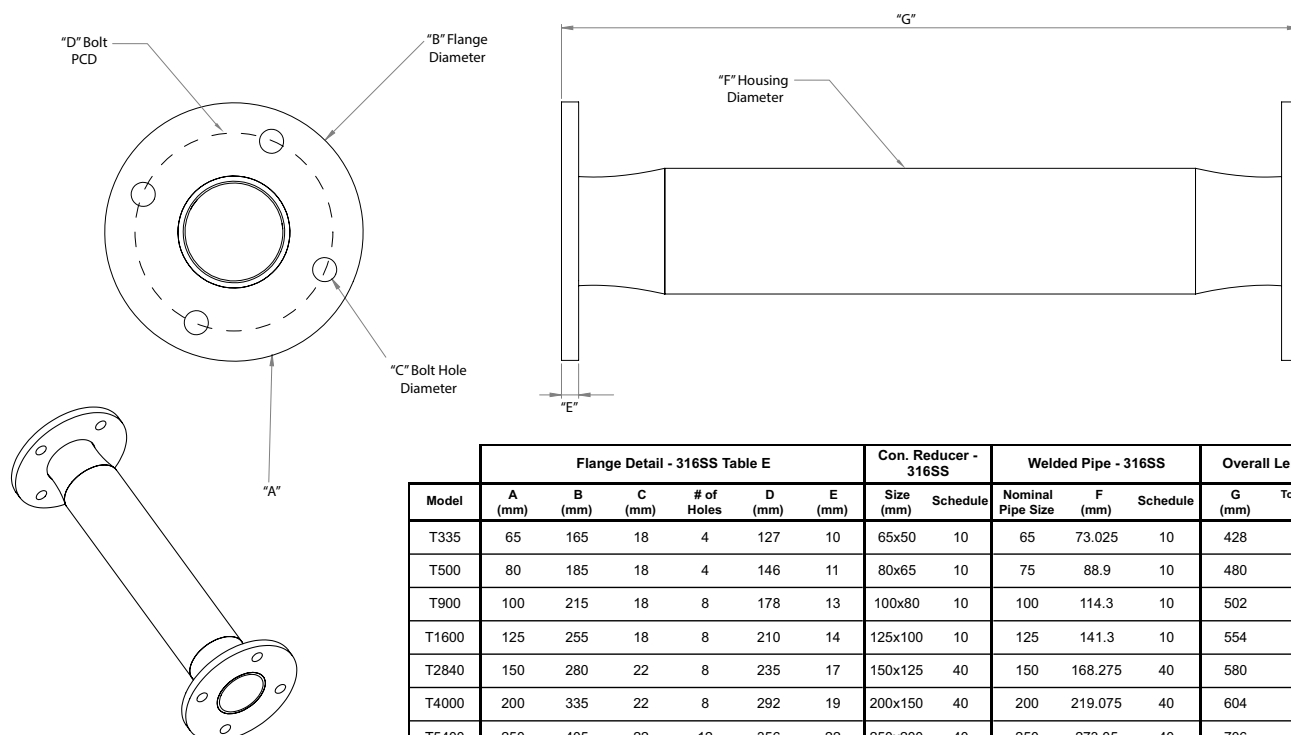
HEADER MODEL SPECIFICATIONS • MATERIAL: 316SS & PVC



Model	Header				Housing				Approx. Weight Kg's
	A	B (mm)	C (mm)	Material	D (mm)	E (mm)	Tolerance + or - (mm)	Material	
T18D	3/4" / 20 BSP	51	33.1	PVC	33	177	3	PVC	0.295
T34D	3/4" / 20 BSP	51	33.1	PVC	33	249	3	PVC	0.407
Showersoft Premium	1/2" / 15 BSPP Female	16	28.9	316SS	25.4	92	3	316SS	0.21
T5*	1/2" / 15 BSPP	16	28.9	316SS	25.4	117	3	316SS	0.214
T7*	3/4" / 20 BSPP	19.1	32.7	316SS	25.4	123	3	316SS	0.236
T9*	1/2" / 15 BSPP	16	28.9	316SS	25.4	95	3	316SS	0.214
T9*	3/4" / 20 BSPP	19.1	32.7	316SS	25.4	101	3	316SS	0.236
T9MF	3/4" / 20 BSPP Female	19.1	32.7	316SS	25.4	104	3	316SS	0.268
T12*	1/2" / 15 BSPP	16	28.9	316SS	25.4	159	3	316SS	0.343
T12MF	3/4" / 20 BSPP Male	19.1	32.7	316SS	25.4	164	3	316SS	0.365
T18	3/4" / 20 BSPT	30	34.6	316SS	32	186	3	316SS	0.518
T34	3/4" / 20 BSPT	30	34.6	316SS	32	248	3	316SS	0.654
T56	1" / 25 BSPT	34.4	40.1	316SS	32	296	3	316SS	0.994
T90	2" / 50 BSPT	48.3	68.3	316SS	50.9	369	3	316SS	2.422
T122	2" / 50 BSPT	48.3	68.3	316SS	50.9	444	3	316SS	2.849
T220	2" / 50 BSPT	48.3	68.3	316SS	63.5	496	3	316SS	3.85

* Can be manufactured with either thread. Specify when ordering

FLANGED MODEL SPECIFICATIONS • MATERIAL: 316SS



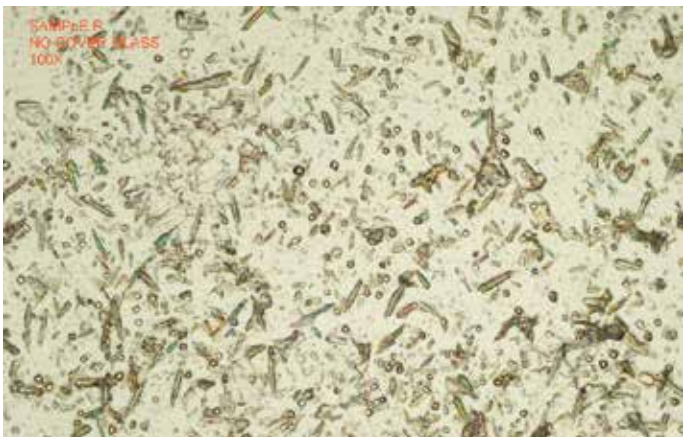
	Flange Detail - 316SS Table E						Con. Reducer - 316SS		Welded Pipe - 316SS			Overall Length		Approx. Weight Kg's
Model	A (mm)	B (mm)	C (mm)	# of Holes	D (mm)	E (mm)	Size (mm)	Schedule	Nominal Pipe Size	F (mm)	Schedule	G (mm)	Tolerance + or -	
T335	65	165	18	4	127	10	65x50	10	65	73.025	10	428	5	10
T500	80	185	18	4	146	11	80x65	10	75	88.9	10	480	5	13
T900	100	215	18	8	178	13	100x80	10	100	114.3	10	502	5	16
T1600	125	255	18	8	210	14	125x100	10	125	141.3	10	554	5	24
T2840	150	280	22	8	235	17	150x125	40	150	168.275	40	580	5	40
T4000	200	335	22	8	292	19	200x150	40	200	219.075	40	604	5	70
T5400	250	405	22	12	356	22	250x200	40	250	273.05	40	706	5	90

TECHNICAL INFORMATION

THE CHEMISTRY

1. Blended in a specialised foundry process, each alloy core is made up of a number of dissimilar metals scientifically selected from the anode and cathode galvanic scale. The alloy is not a sacrificial anode (i.e. does not need replacement).
2. On contact with water thousands of intense galvanic electrochemical reactions occur along the length of the alloy core.
3. Minerals are attracted to these galvanic sites as they flow through the system.
4. The electrical charge or zeta potential of the minerals in the water is reduced allowing the minerals to aggregate and form nano sized colloids which remain in suspension rather than precipitate on pipes and associated equipment.

RAW WATER



THE PHYSICS

1. Each alloy core has been designed and engineered for a specific flow range.
2. Each core has offset discs so that there is no direct route for the water to travel. There is a definite water alloy contact.
3. Water velocity is increased as water is squeezed through the disc apertures and on through the chambers along the length of the core.
4. High and low pressure areas are developed either side of each disc.
5. Extreme turbulence is generated in each chamber along the length of the core.
6. The increase in water velocity and turbulence combine and create a mechanical washing action which prevents minerals building up on the core.

SOFTERWATER



ZETA POTENTIAL IS CONSIDERED TO BE THE ELECTRIC POTENTIAL OF THE MINERALS IN WATER.

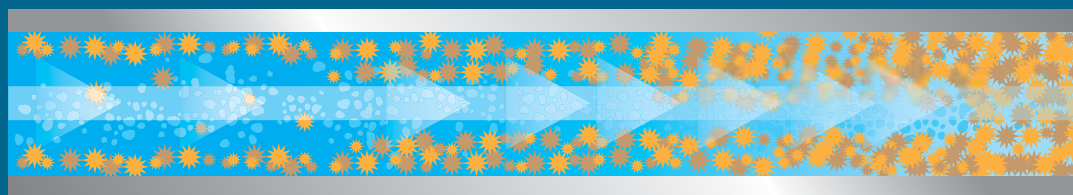
SOFTERWATER LOWERS THE ZETA POTENTIAL OF WATER BY A FACTOR OF ALMOST 2.

THE RESULTS AND ADVANTAGES

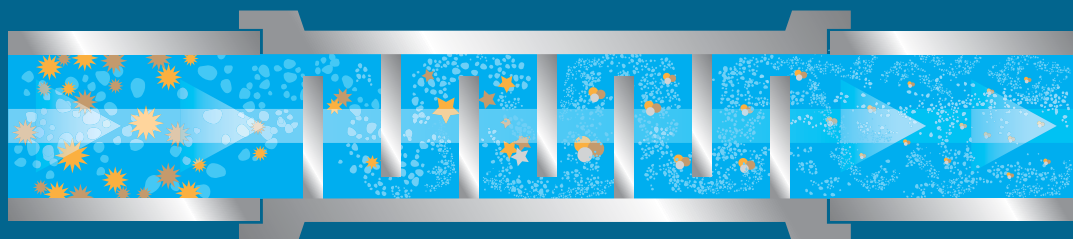
Nuclei are introduced into the system providing an attractive site for minerals to combine as nano sized colloids which remain in suspension and flow through the system rather than precipitating on pipes and equipment. These subtle changes to the electrical charge of the minerals in water have significant effects on reducing down stream costly hard water problems!

- Softer, 'wetter' water!
- Reduced hard water problems!
- Investment in capital equipment is protected!
- Reduced scaling and corrosion issues!
- Soaps, detergents and shampoos mix and lather better with softer water!
- Laundry items feel softer!
- Swimming pool water is clearer, softer, backwashing is reduced, scum lines are more easily cleaned away, salt water chlorinators work more effectively, there is no scale build up, black spot disappears and chemical usage is reduced!
- Water with a lower surface tension is more easily absorbed into the ground, reducing surface crust and runoff improving plant and crop health.
- Able to irrigate with brackish water

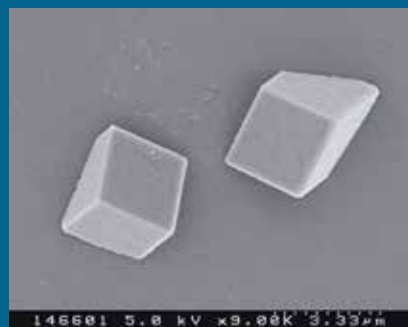
A SIMPLIFIED LOOK AT OUR SOPHISTICATED TECHNOLOGY



STANDARD WATER SYSTEM



WITH SOFTERWATER CONDITIONER



MINERALS WITH HIGH ZETA POTENTIAL (NEGATIVE OR POSITIVE ELECTRICAL CHARGE) ARE ELECTRICALLY STABILISED, REPEL EACH OTHER AND PRECIPITATE ON PIPES AND EQUIPMENT.



COLLOIDS WITH A LOW ZETA POTENTIAL TEND TO AGGREGATE AND REMAIN IN SUSPENSION RATHER THAN PRECIPITATE ON PIPE AND ASSOCIATED EQUIPMENT.

STANDARD WATER SYSTEM SCALE-CAUSING MINERALS HAVE A HIGH ELECTRICAL CHARGE, REPEL EACH OTHER AND 'STICK' TO PIPES AND EQUIPMENT CAUSING COSTLY HARD WATER PROBLEMS.

SOFTERWATER CONDITIONER THE SOFTERWATER ALLOY PRODUCES A TURBULENT MINERAL-ATTRACTING GALVANIC ACTION REDUCING THE ELECTRICAL CHARGE OF MINERALS. NON-STICKING NANO SIZED COLLOIDS ARE FORMED AND FLOW THROUGH THE SYSTEM IN SUSPENSION SIGNIFICANTLY REDUCING HARD WATER PROBLEMS.

APPROXIMATE PRESSURE DROP
FOR MINIMUM, AVERAGE
& MAXIMUM FLOW RATES

MODEL	MIN FLOW L/MIN	APPROX. PRESSURE DROP (PSI)	AVERAGE FLOW L/MIN	APPROX. PRESSURE DROP(PSI)	MAX FLOW L/MIN	APPROX. PRESSURE DROP (PSI)	HEADER/FLANGE
T5	0.5		4		6		1/2" (15mm) BSPP
T9	4	0.31	9	2.08	12	3.14	1/2" (15mm) BSPP
T12	8	0.88	12	2.20	16	3.51	1/2" (15mm) BSPP
T18	10	0.42	18	1.69	28	3.27	3/4" (20mm) BSPT
T34	24	1.77	34	3.87	45	6.19	3/4" (20mm) BSPT
T56	41	2.67	56	5.50	78	9.64	1" (25mm) BSPT
T90	76	2.68	90	3.89	110	5.62	2" (50mm) BSPT
T122	106	5.22	122	7.41	190	16.73	2" (50mm) BSPT
T220	186	4.71	220	6.86	280	10.66	2" (50mm) BSPT
T335	281	1.74	335	3.55	450	7.4	2.5" (65mm) Table E
T500	451	1.83	500	2.37	800	5.71	3" (80mm) Table E
T900	801	1.91	900	2.55	1400	5.81	4" (100mm) Table E
T1600	1401	2.64	1600	3.68	2500	8.38	5" (125mm) Table E
T2840	2501	3.06	2840	4.73	3500	7.98	6" (150mm) Table E
T4000	3501	3.78	4000	5.13	4900	7.57	8" (200mm) Table E
T5400	4901	3.27	5400	4.62	6500	7.58	10" (250mm) Table E
T7000	6501	3.78	7000	5.09	8000	7.72	12" (300mm) Table E

NOTE: PRESSURE DROPS ARE SOFTWARE GENERATED AND DO NOT TAKE INTO CONSIDERATION THE AGE AND STATE OF THE WATER PUMPING AND CARRYING SYSTEM. VALUES SHOULD BE USED AS A GUIDE ONLY.

FLOW INFORMATION



NO MOVING PARTS
NO POWER SOURCE NEEDED
MAINTENANCE FREE
ECO-FRIENDLY
CHEMICAL, SALT & ADDITIVE FREE
LIFETIME WARRANTY*
EASY INSTALLATION
HIGHLY COST EFFECTIVE
NEVER NEEDS REPLACING
TAKE IT WITH YOU WHEN YOU MOVE



Cert. No.
1210336

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SWC



SOFTER WATER CONDITIONERS

BY  TURBU-FLOW

Solving hard water problems around the world!

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