



FOOD  
SERVICE  
PRODUCTS

SPECTRUM  
SERVE



# Contents

HOW SPECTRUM SERVE CAN HELP YOU.....	4
UNDERSTANDING WATER.....	6
UNDERSTANDING CONTAMINANTS.....	7
SPECTRUM SERVE CAFÉ.....	8
SPECTRUM SERVE TASTE.....	10
SPECTRUM SERVE STEAM.....	14
SPECTRUM SERVE COOLER.....	16
UNDERSTANDING TECHNOLOGIES.....	18
ASSOCIATED PRODUCTS.....	19



# HOW SPECTRUM SERVE can help you

## 01

### **IMPROVE QUALITY**

Clean and filtered water enhances the taste and appearance of beverages. By removing unwanted impurities, consistent flavours and aromas are achieved, ensuring customer satisfaction and loyalty.

## 02

### **PROTECT EQUIPMENT**

Safeguarding valuable equipment from the damaging effects of contaminants. By reducing contaminants such as limescale, rust, and other build-up, the lifespan of equipment is extended and consistent performance is ensured.

## 03

### **REDUCE ENERGY COSTS**

Our solutions help optimise energy consumption by improving system efficiency. By reducing pressure drop, protecting against scale and ensuring smooth water flow, energy costs associated with heating and boiling are lower, resulting in a more sustainable and cost-effective operation.

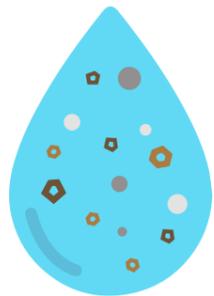
## 04

### **SAVE ON SERVICING**

Investing in quality water filtration minimises the need for frequent maintenance and repairs. By addressing water quality issues at the source, there are significantly lower servicing costs and downtime is reduced, allowing operations to run smoothly.

# Understanding not all water is the same

Using unfiltered water in the food service industry can significantly impact not only the quality of the beverages prepared but also the longevity of valuable equipment. Water with high carbonate hardness can lead to limescale build-up, which can damage expensive equipment over time. Additionally, high permanent hardness may create chalky deposits that affect flavour profiles and overall product consistency.



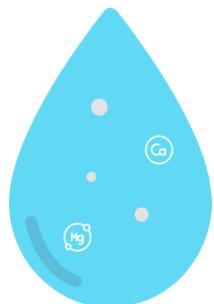
## UNTREATED WATER (HARD OR SOFT)

Contains high levels of sediment, potentially damaging equipment.



## HARD WATER

Contains high levels of calcium and magnesium, causing scale build-up in equipment.

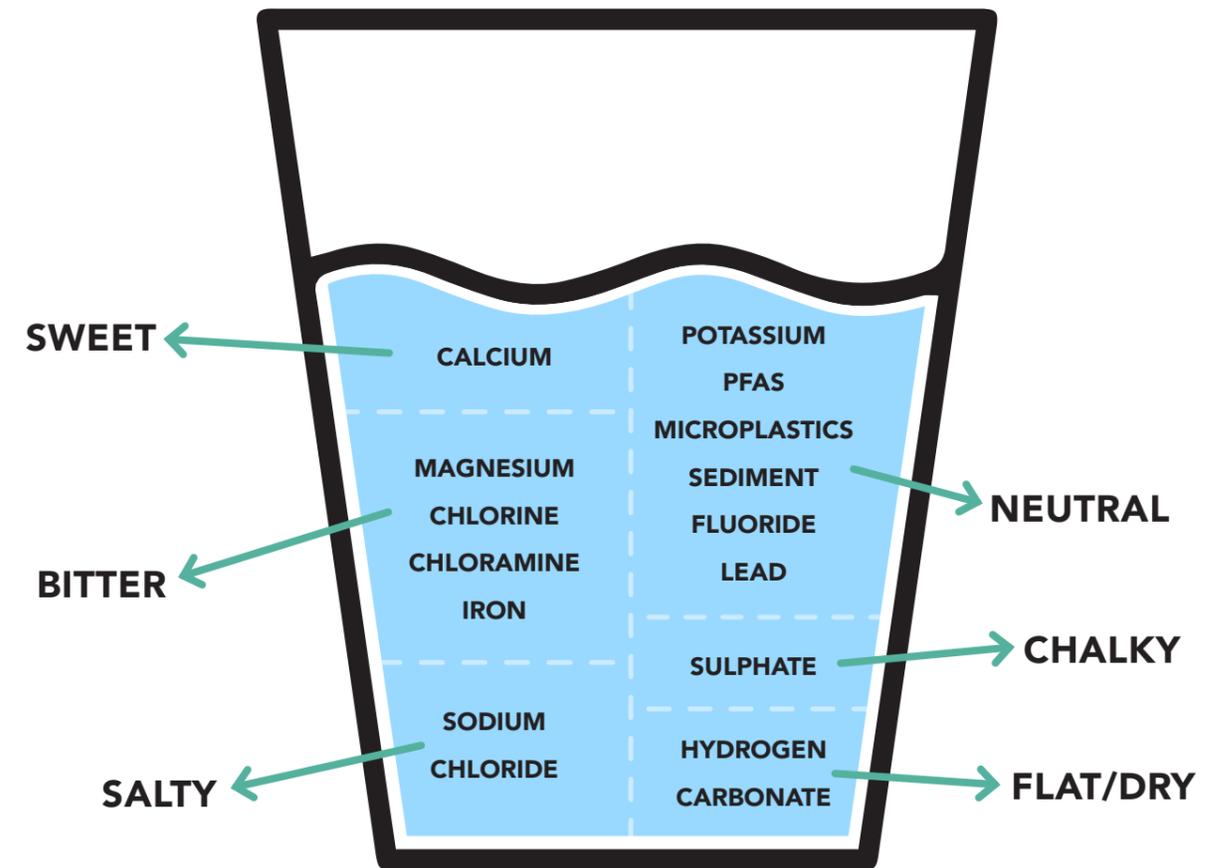


## SOFT WATER

Contains only small amounts of calcium, magnesium and carbonates, which may not be desirable for certain beverages.

# Understanding the contaminants

Every element dissolved in water poses its own challenges when it comes to achieving the perfect end product. Striking the right balance of soft, bitter, salty, and other characteristics is essential in the food service industry. For example, the correct levels of calcium and magnesium help release the coffee bean's full potential, emphasising richer, creamier notes while producing sharper, fruitier flavours.



# CAFÉ

## SPECTRUM SERVE

Enhances the taste of hot beverages



### Where is Café used?

- Coffee vending
- Hot water boilers
- Espresso machines

### The Challenge:

Providing the best quality water for hot beverage brewing is imperative not only for equipment protection but more importantly, product taste and finish. Water is the medium for flavour and in brewing it takes on the extracts and oils that coffee holds. The content of minerals in the water dictate its ability to extract these essential elements. In coffee especially, the higher the mineral content, the less it can extract from coffee.

### The Solution:

SERVE Café enhances the taste of hot beverages while improving water quality and reducing scale build-up in boilers. This ensures the optimal performance of equipment, prolonging its lifespan and maintaining efficiency. With SPECTRUM SERVE Café, enjoy richer flavours from coffee and tea while safeguarding equipment from the damaging effects of hard water. Experience the perfect blend of taste and functionality.

### Reduces:

- Particulates including microplastics
- Hardness
- CTO
- PFAS



0-70% Bypass head allows full control of water quality for consistent brewing.



### DID YOU KNOW?

Hot beverages are up to  
**98% WATER**  
meaning water quality has a huge influence on their flavour.

CODE	DESCRIPTION	FLOW RATE	CAPACITY	OPERATING PRESSURE	TEMP
<b>SC2-SR</b>	SPECTRUM SERVE Café Small Replacement Cartridge	1 - 4LPM	1,113L*	8 bar	4 - 40°C
<b>SC2-MR</b>	SPECTRUM SERVE Café Medium Replacement Cartridge		2,995L*		
<b>SC2-LR</b>	SPECTRUM SERVE Café Large Replacement Cartridge		4,493L*		
<b>SC2-XLR</b>	SPECTRUM SERVE Café Extra Large Replacement Cartridge		8,386L*		
<b>SH2-KIT</b>	SPECTRUM SERVE Head Kit				

\* Capacity based on 180mg/l CaCO<sub>3</sub> and recommended bypass setting of 1°C.

# TASTE

## SPECTRUM SERVE

Perfect for post-mix syrups, drinking applications and scale control



### DID YOU KNOW?

Post-mix drinks are more than  
**80% WATER**  
showing the importance of  
H2O



### Where is Taste used?

- Post mix dispensing equipment
- Drinking water outlets
- Ice making
- Hot water dispensers
- Scale control in hot water applications

### The Challenge:

Water used for drinking can vary depending on its source or how it's treated prior to delivery. Chlorine, particulate, scale, and even bacteria can negatively affect the water quality needed to produce the perfect drink. To offer the best quality drinking water used in applications such as post-mix and hot water dispensing, reducing these contaminants dosed by local water authorities is essential.

### The Solution:

The SERVE Taste range delivers high-quality water, perfect for drinking applications. It removes unwanted tastes, odours and also protects against bacteria, reduces harmful PFAS and microplastics, ensuring refreshing, great-tasting water every time. The addition of food grade hexametaphosphate also inhibits scale formation in hot water applications.

*Hollow fibre technology coupled with carbon reduces PFAS and microplastics.*

### Reduces:

- CTO
- Scale
- Particulates including microplastics
- PFAS
- Microorganisms



CODE	DESCRIPTION	FLOW RATE	CAPACITY	OPERATING PRESSURE	TEMP
ST2-MR	SPECTRUM SERVE Taste Medium Replacement Cartridge	2 - 4LPM	100,000L*	8 bar	4 - 40°C
STP2-MR	SPECTRUM SERVE Taste Phosphate Medium Replacement Cartridge				
SH2-KIT	SPECTRUM SERVE Head Kit				

\* Based on 0.2ppm chlorine.

# TASTE

## SPECTRUM SERVE

Refillable point of use cartridge system



### DID YOU KNOW?

Producing 1kg of polypropylene creates up to **4.7KG of CO<sub>2</sub>**



### Where is Taste Refillable used?

- Water coolers
- Fridges
- Vending
- Under-sink

### The Challenge:

Drinking water can vary depending on its source or how it is treated prior to delivery. Chlorine, Chloramine, Particulate & Organics and other dissolved contaminants can all negatively affect the final water quality and affect taste or the aesthetic of the water. To offer the best drinking water, reducing these contaminants prior to dispensing is essential.

### The Solution:

The new Refillable Housing is designed as the next step beyond traditional inlines, delivering superior filtration while cutting waste. Built to perform 45% better and capable of tackling a wide range of contaminants, it offers a smarter, more sustainable solution for any setting. Compatible with six interchangeable cartridges that can take out chlorine, chloramine and lead, we're sure there's a cartridge for your exact needs. Each option has a phosphate version for scale control.

*80% saving on plastic compared to a standard inline cartridge.*



### Reduces:

- CTO
- Scale (options with Phosphate)
- Lead (STF-RR and STF+-RR)
- Chloramine (STF+-RR)

CODE	DESCRIPTION	CAPACITY (Litres)			
		Chlorine	Lead	Chloramine	Scale (Phosphate option)
ST-RH	SPECTRUM SERVE Taste Refillable Housing				
ST-RR	SPECTRUM SERVE Taste Refillable Replacement Cartridge	17,500	-	-	3,600
STF-RR	SPECTRUM SERVE Taste FibreOnyx Refillable Replacement Cartridge	9,700	15,400	-	3,600
STF+-RR	SPECTRUM SERVE Taste FibreOnyx+ Chloramine Removal Refillable Replacement Cartridge	67,800	15,400	5,400	3,600

# STEAM

## SPECTRUM SERVE

Protects steam ovens and other equipment



### Where is Steam used?

- Steam ovens
- Steam sterilisers/autoclaves
- Post RO deionisation

### The Challenge:

When producing steam, impurities in water, such as total dissolved solids (TDS) and other contaminants, can precipitate to form hard scale deposits. This not only damages equipment and reduces system performance but also increases energy consumption. High levels of TDS make water more difficult to boil, reducing overall efficiency. To ensure optimal steam production and maintain equipment integrity, these impurities must be effectively removed.

### The Solution:

SERVE Steam protects steam ovens and other steam equipment by eliminating TDS, and other contaminants that lead to limescale build-up. By providing purified water, this advanced technology enhances the efficiency of steam production, as lower TDS makes water easier to boil, reducing energy costs and wear on equipment. SERVE Steam prolongs the lifespan of your equipment, improves operational efficiency, and ensures reliable performance.

### Reduces:

- Particulates including microplastics
- Dissolved minerals
- CTO
- PFAS



Installing post RO treatment ensures long life and excellent water quality.



### DID YOU KNOW?

Just 3mm of scale on a heating element can cause **UP TO 25%** increase in energy consumption

CODE	DESCRIPTION	FLOW RATE	RESIN VOLUME	OPERATING PRESSURE	TEMP
<b>SS2-MR</b>	SPECTRUM SERVE Steam Medium Replacement Cartridge	1 - 4LPM	2L	8 bar	4 - 40°C
<b>SH2-KIT</b>	SPECTRUM SERVE Head Kit				

# COOLER

## SPECTRUM SERVE

Perfect for water coolers and dispensers



### Where is Cooler used?

- Water dispensers
- Water coolers
- Fridges

### The Challenge:

Drinking water can vary depending on its source or how it is treated prior to delivery. Chlorine, Chloramine, Particulate & Organics and other dissolved contaminants can all negatively affect the final water quality and affect taste or the aesthetic of the water. To offer the best drinking water from coolers and fridges, reducing these contaminants prior to dispensing is essential.

### The Solution:

Drawing water directly from the mains supply and enhancing taste while reducing chlorine and other contamination levels before it reaches your glass is why you need the SERVE Cooler. Designed for water coolers, fridges, and public drinking water dispensers, this versatile inline is perfect for a new application or a simple cartridge replacement.

### Reduces:

- Particulates including microplastics
- Hardness
- CTO
- PFAS

### DID YOU KNOW?

A water cooler could save  
**24,000+**  
 plastic bottles from being  
 produced a year

*Water coolers save up to 69% of bottled water cost and reduce plastic waste in the environment.*



CODE	DESCRIPTION	FLOW RATE	CHLORINE CAPACITY	OPERATING PRESSURE	TEMP
SL-MI	SPECTRUM SERVE Cooler Medium Carbon Block	2LPM	12,000L	8 bar	38°C
SLP-MI	SPECTRUM SERVE Cooler Medium Carbon Block with Phosphate				

# Understanding the technologies used

## DECARBONISATION

Decarbonisation technology effectively removes calcium ( $\text{CaCO}_3$ ) and magnesium ( $\text{MgCO}_3$ ) carbonates from water. This process not only protects equipment from scaling and scale build-up but also enhances the overall taste and quality of the water, resulting in richer flavours and cleaner glassware.

## DEIONISATION

Deionisation technology utilises ion exchange resins to remove total dissolved solids (TDS) from water, including calcium, magnesium, sodium, and other impurities. This process produces high-purity water that is ideal for sensitive applications, ensuring optimal performance, lowering costs in equipment, and preventing contamination in steam production.

## PARTICULATE FILTRATION

Particulate filtration technology employs various types of media to remove suspended solids, sediment, and other particulates from water (TSS). By capturing these contaminants, this technology helps maintain the clarity and quality of the water, protecting equipment from damage and ensuring a cleaner end product.

## CARBON TREATMENT

Carbon treatment technology uses activated carbon to adsorb impurities, including chlorine, chloramine, volatile organic compounds (VOCs) such as PFAS and microplastics, and unwanted tastes and odours (CTO). This process significantly improves water quality, ensuring that dispensed water and beverages are free from unwanted flavours and enhancing the overall experience for consumers.

## SCALE INHIBITION

Scale inhibition technology prevents limescale formation and mineral build-up in water systems. By modifying the crystallisation process of calcium and magnesium, it keeps these minerals suspended, protecting equipment and piping from damage. This approach extends the equipment's lifespan and ensures efficient operation across various applications.

## Associated Products



## Z1 COMPACT RO SYSTEM

Designed for both style and ease-of-use, the SPECTRUM Z1 is perfect for residential and light commercial spaces. Its compact design and simple setup make installation and maintenance a breeze. Twist-and-click cartridge loading and push-fit connections ensure quick, hassle-free operation.



## S1 UNDER SINK WATER SOFTENER

The SPECTRUM SOFT-S1 offers the perfect solution for residential and light commercial water softening. With intuitive touch control, it provides both volumetric and timed regeneration, ensuring flexibility, efficiency, and optimal performance for all your needs.



## MINI UV POU BACTERIA PROTECTION

The SPECTRUM SUV-S-2-1/4 provides bacteria-free dispensed water for point-of-use applications. Designed with a compact size, it's the perfect solution for the vending market, ensuring clean, safe water after treatment and reliable performance in a variety of settings.



## FITTINGS SPECTRUM CONNECTORS

Ask us about our extensive range of high-quality fittings, tubing and connectors to ensure secure, efficient installations.



Distributed by



01622 691886 | [www.fileder.co.uk](http://www.fileder.co.uk)