

# Parker BVC Floor Mount

Multi-barrier water treatment system for effective filtration and disinfection



Ideal for small and medium size commercial water processing applications, Parker domnick hunter's multi-barrier approach delivers a 4 log reduction of bacteria, virus (including Adenovirus), and Cryptosporidium.

## Features

- User-friendly - Plug n' play design
- Non-chemical primary treatment
- Fully assembled and factory tested
- Powder coated stand
- Pre-plumbed 304 stainless steel vessels
- Pre-filtration to aid in the reduction of turbidity to < 1 NTU
- Specialty BVC media filter for microorganism removal
- High dosage 186K mJ/cm<sup>2</sup> UV
- Flow rates up to 15 GPM
- EPA tested & verified
- Built-in system controller with water quality sensor
- Filter change-out alerts through real-time differential pressure monitoring
- See specifications for standard features/options



## Contact Information

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## Certified Performance

Performance tested, evaluated & verified by USEPA to meet long term surface water treatment (LT2 ESWTR) and ground water (GWR) rules.

- Testing protocols conform to the Federal Guidance Manuals
- Treatment without formation of disinfection by-products
- Tested organisms include MS2 Bacteriophage, live Adenovirus, live Cryptosporidium oocysts, B. Globigii
- System conforms to NSF/ANSI Std 61

### Contaminant reduction levels

| Contaminant             | LRV (New media/ UV bulbs) | LRV (End of life) |
|-------------------------|---------------------------|-------------------|
| MS2 Bacteriophage Virus | 9.02                      | 6.05              |
| Adenovirus              | 6.15                      | 4.9               |
| Cryptosporidium         | 5.2                       | 4.1               |
| B Globigii              | 6.5                       | 6.5               |

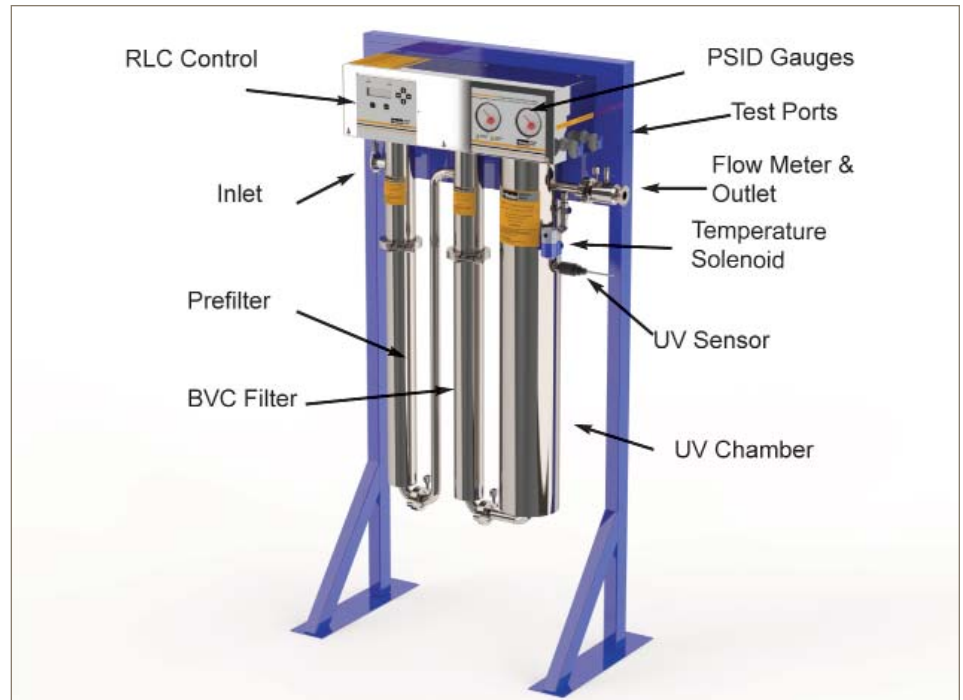


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## Markets

- Restaurants
- Manufacturing/Rinsing
- Bottled water
- Misting
- Food processing
- Livestock water
- Quench water
- Offshore oil and gas rigs
- Supermarket produce rinsing
- Vegetable packaging
- Rainwater harvesting
- Food processing
- Nursing homes
- Aquaculture



## Influent Water Quality Guidelines for Maximum LRV Efficiency

### Performance Efficiency:

The BVC system requires pretreatment for particulates, color, iron, manganese, & total organic carbon. Treatment must be installed upstream to maintain the life of cartridge.

### NOTES:

- Product performance is dependent upon incoming water quality
- System conforms to testing protocols as recommended in the USEPA Public Drinking Water Guidance Manuals
- System can be hot water sanitized up to 200°F

### Pretreatment Guidelines:

- Turbidity  $\leq 1$  NTU
- Hardness: Recommended  $< 7$  gpg
- TOC  $< 50$  mg/L
- pH 5-9.5
- Iron  $< 0.3$  ppm
- Manganese  $< 0.05$  ppm
- TDS  $< 30$  mg/L
- TSS Low as possible to extend BVC life
- Bacteria, Virus, Cysts reduction is greater than 1 million organisms per gpm of design flow rate at end of life

### System Requirements:

120 VAC 60 hz 1Phase

### Min./max. working pressure:

40 psi (2.8 bar) / 125 psi (8.6 bar), non shock

### Temperature:

100°F

### Service flow rate:

1-15 gpm (58.12 lpm)

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| FLOOR MOUNTED MULTI-BARRIER SYSTEM   BVCFM-3S-15-186KG-S       |   |
|--|---|
| STAGE ONE - PREFILTRATION STANDARD AND OPTIONAL SPECIFICATIONS |   |
| Pre-Filter Rating  | Refer to stage one pre-filter selection guide       |
| Filter Flow Rate (gpm / lpm)                                   | 15 / 56.8   |
| Maximum Pressure (psig / bar)                                  | 150 / 10.3  |
| Minimum Pressure (psig / bar)                                  | 40 / 2.8  |
| Temperature Degrees Max (F/C)                                  | 200 / 93.3  |
| Housing Material Construction (electropolished SS)             | 304 (316 option)                                    |
| Standard Inlet/Outlet  | 1" sanitary   |
| Optional Fitting   | NPT inlet   |
| Tri-clamp w/gasketed seal                                      | Yes   |
| Test Port  | Yes   |
| Cartridge Models (filter not included in system) <sup>1</sup>  | Refer to stage one pre-filter selection guide       |
| Cartridge Size Single O-Ring (in)                              | 2.5 x 30  |
| Cartridges per Housing   | 1   |
| Filter Materials of Construction                               | Refer to BVC Poly-Mate or BVC Abso-Mate data sheets |
| Delta P (psid initial / end-of-life) <sup>2</sup>              | 5 to 7 / 35   |
| STAGE TWO - BACTERIA, VIRUS, CYSTS FILTRATION                  |   |
| Stage-2 mechanical pore size                                   | 1-2 µm  |
| Electroabsorbitive Zeta Potential ++                           | 51 mV   |
| Net Retention Efficiency                                       | > 4 LRV for bacteria and cysts                      |
| Filter Flow Rate (gpm / lpm)                                   | 15 / 56.8   |
| Maximum Pressure (psig / bar)                                  | 150 / 10.3  |
| Minimum Pressure (psig / bar)                                  | 40 / 2.8  |
| Temperature Degrees Max (F/C)                                  | 200 / 93.3  |
| Housing Material Construction (electropolished SS)             | 304 (316 option)                                    |
| Standard Inlet/Outlet  | 1" sanitary   |
| Tri-clamp w/gasketed seal                                      | Yes   |
| Test Port  | Yes   |
| Cartridge Models (filter not included in system) <sup>3</sup>  | BVC-230S-DOC  |
| Cartridge Size Dual O-Ring (in)                                | 2.5 x 30  |
| Cartridges per Housing   | 1   |
| Filter Materials of Construction                               | Refer to Fulflo BVC filter data sheet               |
| Filter end-of-life <sup>4</sup>                                | 6 months or 35 psid                                 |

<sup>1</sup> Housing requires Parker patent pending single O-ring face seal safety fitting. Pre-Filters are selected according to application and available water analysis.

<sup>2</sup> Initial delta P may vary depending on the pre-filter selected.

<sup>3</sup> Housing requires Parker patent pending double O-ring face seal safety fitting.

<sup>4</sup> BVC filter is recommended to be changed at 6 months from installation or 35 psi to maintain system bacteria, virus, and cyst retention performance.

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|--|------------------|
| STAGE THREE - HIGH DOSE 186mJ/cm2 UV                     |                  |
| Ultraviolet 254nm Dosage End-of-Life                     | 186mJ/cm2        |
| Validated LPHO Amalgam 12,000 hr UV lamps                | Yes              |
| System Flow (gpm / lpm )                                 | 15 / 56.8        |
| Maximum Pressure (psig / bar)                            | 150 / 10.3       |
| Minimum Pressure (psig / bar)                            | 40 / 2.8         |
| Temperature Degrees Max (F/C)                            | 100 / 37.8       |
| Housing Material Construction (electropolished SS)       | 304 (316 option) |
| Standard Inlet/Outlet                                    | 1" sanitary      |
| Option Outlet Fitting                                    | NPT outlet       |
| Top Cover Bolts  | Yes              |
| O-ring seal  | Yes              |
| L-Flow configuration                                     | Yes              |
| Number UV lamps per housing                              | 2                |
| Inlet flow diverter                                      | Yes              |
| Flow balance system                                      | Yes              |
| Pressure differential (initial psid /bar)                | 1-2 / .07-.14    |
| OVERALL DIMENSIONS                                       |                  |
| Width (in / cm) base plate                               | 32/81.3          |
| Depth (in / cm) base plate                               | 18/45.7          |
| Height (in / cm)   | 60/152.4         |

## Standard System Features

- Sch 304 SS piping
- Pressure differential gauges
- Sample valves
- Flow meter
- 254nm water quality monitor
- Temperature monitor
- Hot water solenoid valve
- On-system visual/audible alarms
- Remote alarms

## Optional System Features

- Turbidity meter in-line
- Residual chemical feed pump w/solution tank
- Automatic solenoid valves
- 316SS wetted parts
- 220/240 VAC 50/60hz

## Ordering Information

**BVCFM** — **3S** — **15** — **186KG** — — — —

| Stages |             | Pipe/Housing Material |             | Max. Flow Rate |     | UV Dosage | Connections |                 | Back Wash Option |                              | Electrical |             |
|--------|-------------|-----------------------|-------------|----------------|-----|-----------|-------------|-----------------|------------------|------------------------------|------------|-------------|
| Code   | Description | Code                  | Description | Code           | gpm | 186KG     | Code        | Inlet/Outlet    | Code             | Description                  | Code       | Description |
| 3S     | 3 stage     | Blank                 | 304SS       | 15             | 15  |           | S           | Sanitary (Std.) | Blank            | No back wash                 | Blank      | 120V        |
|        |             | 6                     | 316SS       |                |     |           | N           | NPT (male)      | MB               | Manual clean water back wash | 240        | 240V        |
|        |             |                       |             |                |     |           |             |                 | AB               | Auto clean water back wash   |            |             |

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