



Markets Served:

Clinics
Educational Facilities
Energy / Power
Food / Beverage Production
Food Service / Restaurants
Grocery
Healthcare / Hospitals / Bio-Pharmaceutical
Hospitality / Lodging
Manufacturing
Municipal Drinking Water
Oil / Gas

The Culligan Side Mount (CSM™) Skid Series

Nearly 200 configurations of multi-tank softener and filter systems available to meet your water treatment needs.

Culligan® Commercial and Industrial Solutions is focused on providing a modular platform of water treatment systems designed to solve your unique water treatment concerns. Our Commercial Skid Series offers nearly 200 different duplex and triplex configurations of our top softener and filter models available with different piping material and flow configurations depending on your performance and budgetary needs. All tanks are shipped fastened onto the steel skid for safe and easy transportation. The plumbing and wiring harnesses are pre-assembled in the factory to keep the installation time and labor at the absolute minimum. Every system offers simple, single point field utility connections for inlets, outlets, drains and power supplies on the most compact space possible.

Save yourself the uncertainty of quoting customized solutions piecemeal with non-Culligan systems. Our Commercial Skid Series are sold as standard part numbers with competitive pricing and lead times. Contact Culligan® today to find the best skid solution for you.

CULLIGAN® COMMERCIAL & INDUSTRIAL ADVANTAGES:

- Simple System Integration
- Global Product Platform
- Flexible Configurations
- Quick Delivery / Easy Installation
- Exclusive Culligan Advanced Electronics
 - Historical Operating Data
 - Alarm Recognitions
 - US Standard and Metric Readings
 - Remote Monitoring Options
 - Telemetry Options



PRE-TREATMENT SOLUTIONS.

SYSTEM SPECIFICATIONS

System Specifications

| Specification | US | Metric |
|-------------------------------|--|-------------|
| Inlet Pressure (dynamic) | 30–100 psig | 210–690 kPa |
| Power Voltage Frequency Phase | 120 Volts 50/60Hz | |
| Feed Water Temperature | 40–120° F | 4–49° C |
| Turbidity Chlorine Iron | 5 NTU, max. ² 1 mg/L, max. ² 5 mg/L, max. ² | |

1 120 Volt/24 Volt CUL/UL listed Transformer Included.

2 See media specification for details.

Warranty

Culligan's CSM water softeners and filters are backed by a limited 1-year warranty against defects in material, workmanship and corrosion. In addition, softener tanks are warranted for a period of 5 years.†

† See printed warranty for details. Culligan® will provide a copy of the warranty upon request. Some localities have corrosive water. A softener cannot correct this condition, so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures, or water-using equipment. If you suspect corrosion, your independently operated Culligan® dealer has equipment to help control the problem.

Examples of Softener and Filter Applications

- Food and Beverage- Improved Taste and increased cost savings (S)
- Drinking Water- Reduces turbidity and chlorine; improves taste and clarity (F)
- Boilers- Reduction of turbidity and sludge blow-down (F)
- Educational facilities- Boiler and cooling tower make-up water for scale reduction and improved energy costs (S)
- Restaurants- For dishwashing, cleaning material savings, scale reduction (S)
- RO Softener / DI Pretreatment (S & F)
- Car washes- Improved rinsing results, detergent and water heating savings, scale reduction (S & F)
- Apartment buildings, assisted living facilities and hotels- Quality water for laundry, dishwashers, boilers (S)
- Grocery / Retail- Quality water for aesthetics and to help extend equipment life (S & F)
- Light industry- For process and make-up water, boiler and cooling system pretreatment, general housekeeping (S). Reduction of particulate matter (F)
- Office buildings- For heating plant pretreatment, tenant convenience, general housekeeping

CSM Skid System Standard Features:

- Corrosion resistant, steel tanks (non-ASME) with epoxy interior lining and a finish coat painted exterior
- All Softener systems include flow meters
- Culligan's smart controller (GBE) and communication cables are included to provide programming and monitoring capabilities typically found in more expensive PLC controls
- Bagged media included
- Telemetric capabilities
- Regeneration for filter systems are controlled by time clock on carbon filter systems and differential pressure switches on depth filter systems. Alternative meters (including Aqua-Sensor® kits) are available as an after-market item
- Brine systems are sold separately
- Culligan's Multiport Diaphragm Valves, designed for smooth operation, easy serviceability and to be free of water hammer
- All softener models include one stainless steel flow meter per tank

Available Variations for CSM Skid Systems

- Duplex (2 tanks) or Triplex (3 tanks) systems for increased holding capacity and grain removal
- All models are available with either Galvanized or PVC connecting (face piping) materials. The plumbing in and out of the tank through the control valve is always galvanized
- Culligan's patented Progressive Flow technology is available as an upgrade for all Parallel Flow models with purchase of additional kits and flow meters
- Alternating Flow is available for Duplex-configured softener models



PRE-TREATMENT SOLUTIONS.

SYSTEM SPECIFICATIONS

(Note that flow and media measurements are for individual tanks: not all skid variations are shown.)

| Type | Model | Resin Qty. ft ³ (L) | Duplex or Triplex System | Pipe Size in. (mm) | Flow Rates gpm (lpm) | | Tank(s) Size*** in. (mm) | Skid Footprint in. (mm) |
|-----------|-----------|--------------------------------|--------------------------|--------------------|----------------------|-------------|--------------------------|-------------------------|
| | | | | | Continuous* | Peak** | | |
| Softeners | CSM 150-2 | 5 (142) | Duplex | 2" (50.8) | 67 (253.6) | 94 (355.8) | 20" x 54" (508 x 1372) | 78" x 27" (1981 x 686) |
| | | | Triplex | 2" (50.8) | 67 (253.6) | 94 (355.8) | 20" x 54" (508 x 1372) | 120" x 36" (3048 x 915) |
| | CSM 210-2 | 7 (198) | Duplex | 2" (50.8) | 76 (287.7) | 102 (386.1) | 24" x 54" (610 x 1372) | 78" x 27" (1981 x 686) |
| | | | Triplex | 2" (50.8) | 76 (287.7) | 102 (386.1) | 24" x 54" (610 x 1372) | 120" x 36" (3048 x 915) |
| | CSM 300-2 | 10 (283) | Duplex | 2" (50.8) | 84 (317.9) | 112 (423.9) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | | Triplex | 2" (50.8) | 84 (317.9) | 112 (423.9) | 30" x 60" (762 x 1524) | 120" x 36" (3048 x 915) |
| | CSM 300-3 | 10 (283) | Duplex | 3" (76.2) | 152 (575.3) | 210 (794.9) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | | Triplex | 3" (76.2) | 152 (575.3) | 210 (794.9) | 30" x 60" (762 x 1524) | 144" x 36" (3658 x 915) |
| | CSM 450-2 | 15 (425) | Duplex | 2" (50.8) | 79 (299) | 106 (401.2) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | | Triplex | 2" (50.8) | 79 (299) | 106 (401.2) | 30" x 60" (762 x 1524) | 120" x 36" (3048 x 915) |
| | CSM 450-3 | 15 (425) | Duplex | 3" (76.2) | 135 (511) | 192 (726.7) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | | Triplex | 3" (76.2) | 135 (511) | 192 (726.7) | 30" x 60" (762 x 1524) | 144" x 36" (3658 x 915) |
| | CSM 600-2 | 20 (566) | Duplex | 2" (50.8) | 94 (355.8) | 125 (473.1) | 36" x 60" (914 x 1524) | 96" x 36" (2438 x 915) |
| | | | Triplex | 2" (50.8) | 94 (355.8) | 125 (473.1) | 36" x 60" (914 x 1524) | 144" x 36" (3658 x 915) |
| | CSM 600-3 | 20 (566) | Duplex | 3" (76.2) | 183 (692.7) | 252 (953.8) | 36" x 60" (914 x 1524) | 120" x 36" (3048 x 915) |
| | | | Triplex | 3" (76.2) | 183 (692.7) | 252 (953.8) | 36" x 60" (914 x 1524) | 144" x 36" (3658 x 915) |

*Flow rate at a 15 psi pressure loss.

**Flow rate at a 25 psi pressure loss.

***Dimensions are diameter by tank height. Steel tank heights are shell height.

Flow rates shown are per tank

Low flow channeling (flow rates less than 0.5 gpm/cubic foot of resin) may cause hardness leakage into effluent.

| Type | Model | Duplex or Triplex System | Pipe Size in. (mm) | Service Flow Rates ¹ | | Backwash Flow ² gpm (lpm) | Media Qty. lbs. (kg) | Tank(s) Size ³ in. (mm) | Skid Footprint in. (mm) |
|---------------|----------|--------------------------|--------------------|---------------------------------|---------------------------------|--------------------------------------|----------------------|------------------------------------|-------------------------|
| | | | | Normal | Peak | | | | |
| | | | | gpm @ psi drop (lpm @ kPA drop) | gpm @ psi drop (lpm @ kPA drop) | | | | |
| Depth Filters | CSM 202D | Duplex | 2" (50.8) | 22 @ 6 (83.3 @ 41.4) | 33 @ 12 (124.9 @ 13.8) | 30 (113.6) | 571 (259) | 20" x 54" (508 x 1372) | 78" x 27" (1981 x 686) |
| | | Triplex | 2" (50.8) | | | | | | |
| | CSM 242D | Duplex | 2" (50.8) | 23 @ 5 (121.1 @ 34.5) | 48 @ 9 (181.7 @ 62) | 45 (170.3) | 830 (376) | 24" x 54" (610 x 1372) | 78" x 27" (1981 x 686) |
| | | Triplex | 2" (50.8) | | | | | | |
| | CSM 302D | Duplex | 2" (50.8) | 50 @ 9 (189.3 @ 62) | 74 @ 17 (280.1 @ 117) | 75 (283.9) | 1244 (564) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | Triplex | 2" (50.8) | | | | | | |
| | CSM 362D | Duplex | 2" (50.8) | 71 @ 11 (268.7 @ 6.9) | 107 @ 23 (405 @ 159) | 105 (397.4) | 1765 (801) | 36" x 60" (914 x 1524) | 96" x 36" (2438 x 915) |
| | | Triplex | 2" (50.8) | | | | | | |

1. Service flow rates are based on: Normal (10 gpm/ft² - 24 m³/hr/m²)- Best quality effluent at specified flow. Lowest pressure loss. Recommended for suspended solids loads up to and greater than 300 ppm.

Peak (15 gpm/ft² - 37 m³/hr/m²)- Very good quality effluent at specified flow. Increased pressure loss. Recommended for suspended solids loads <300 ppm.

2. Backwash flow rates are based on 12-14 gpm/ft² (29-34 m³/hr/m²) using 50°F (10°C) water. A different backwash rate may be required depending upon water temperature.

3. Dimensions are diameter by tank height. Steel tank heights are shell height.

| Type | Model | Duplex or Triplex System | Pipe Size in. (mm) | Service Flow Rates | | Backwash Flow ³ gpm (lpm) | Media Qty. ft ³ (m ³) | Tank(s) Size ⁴ in. (mm) | Skid Footprint in. (mm) |
|----------------|----------|--------------------------|--------------------|---|---------------------------------|--------------------------------------|--|------------------------------------|-------------------------|
| | | | | Taste Odor & Organic Removal ¹ | Dechlorination ² | | | | |
| | | | | gpm @ psi drop (lpm @ kPA drop) | gpm @ psi drop (lpm @ kPA drop) | | | | |
| Carbon Filters | CSM 242R | Duplex | 2" (50.8) | 16 @ 3 (60.6 @ 20.7) | 31 @ 6 (117.3 @ 41.4) | 30 (113.6) | 8 (0.227) | 24" x 54" (610 x 1372) | 78" x 27" (1981 x 686) |
| | | Triplex | 2" (50.8) | | | | | | |
| | CSM 302R | Duplex | 2" (50.8) | 25 @ 4 (94.6 @ 27.6) | 49 @ 7 (185.5 @ 48.3) | 45 (170.3) | 12 (0.34) | 30" x 60" (762 x 1524) | 96" x 36" (2438 x 915) |
| | | Triplex | 2" (50.8) | | | | | | |
| | CSM 362R | Duplex | 2" (50.8) | 35 @ 3 (132.5 @ 20.7) | 71 @ 11 (268.7 @ 6.9) | 70 (265) | 18 (0.51) | 36" x 60" (914 x 1524) | 96" x 36" (2438 x 915) |
| | | Triplex | 2" (50.8) | | | | | | |

1. Service flow rates for taste, odor and organic removal are based on 5 gpm/ft² (12 m³/hr/m²)

2. Service flow rates for dechlorination are based on 10 gpm/ft² (24 m³/hr/m²)

NOTE: Operational maintenance and replacement requirements are essential for advertised performance. Specifications shown are for single models.

3. Backwash flow rates are based on 10 gpm/ft² (24 m³/hr/m²) using 50°F (10°C) water. A different backwash rate may be required depending upon water temperature or type of carbon used.

4. Dimensions are diameter by tank height. Steel tank heights are shell height.



PRE-TREATMENT SOLUTIONS.

Finally, an end-to-end solution from a single source.

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