

Style CW

Wafer Silent Check Valve

Cast Iron (ASTM A 126, Class B)

125 lb. / 250 lb.

Sizes 2" - 6" are 125/250 lb. dual rated.
 Sizes 8" - 12" are 125 lb. rated.

Carbon Steel (ASTM A 216, Grade WCB)

150 lb. / 300 lb.

Sizes 2" - 6" are 150/300 lb. dual rated.
 Sizes 8" - 12" are 150 lb. rated.

Stainless Steel (ASTM A 351, Grade CF8M)

150 lb. / 300 lb.

Sizes 2" - 6" are 150/300 lb. dual rated.
 Sizes 8" - 12" are 150 lb. rated.



APPLICATIONS

Liquid or gas where protection from flow reversal in a pipeline is required.

CONSTRUCTION

The Keckley Style CW Wafer Silent Check Valves are constructed from rugged castings that are machined to exacting specifications. Reference individual technical data pages for standard disc, seat, spring, and bushing.

FEATURES

- A short face-to-face dimension.
- A spring automatically closes the disc at zero flow, which prevents flow reversal and water hammer.
- The seat and disc's mating surfaces are hand lapped.
- The disc is fully guided at the top and bottom to prevent binding and cocking.
- Designed for a minimum open area equal to 110% of the pipe size.
- All sizes feature discs, which lift 1/3 of an inch from their seats for every 1" of pipe size.
- Epoxy coating is standard.
- Optional soft seat provides bubble tight shut off.
- Field serviceable without the need for special tools.

INSTALLATION

The Style CW is used in both vertical and horizontal applications. Contact Keckley for downward vertical flow installations.

ORDERING

Reference page **C2** for Keckley Check Valve Product Numbers.

WORKING PRESSURES - NON SHOCK

| NOM. RATING | BODY MATERIAL | MEDIA | 2" to 12" |
|-------------|---------------------------------------------|--------|-----------------|
| 125# | CAST IRON (ASTM A 126, CLASS B) | W.O.G. | 200 PSI @ 150°F |
| NOM. RATING | BODY MATERIAL | MEDIA | 2" to 6" |
| 250# | CAST IRON (ASTM A 126, CLASS B) | W.O.G. | 500 PSI @ 150°F |
| NOM. RATING | BODY MATERIAL | MEDIA | 2" to 12" |
| 150# | CARBON STEEL (ASTM A 216, GRADE WCB) | W.O.G. | 285 PSI @ 150°F |
| | STAINLESS STEEL (ASTM A 351, GRADE CF8M) | W.O.G. | 275 PSI @ 150°F |
| NOM. RATING | BODY MATERIAL | MEDIA | 2" to 6" |
| 300# | CARBON STEEL (ASTM A 216, GRADE WCB) | W.O.G. | 740 PSI @ 150°F |
| | STAINLESS STEEL (ASTM A 351, GRADE CF8M) | W.O.G. | 720 PSI @ 150°F |

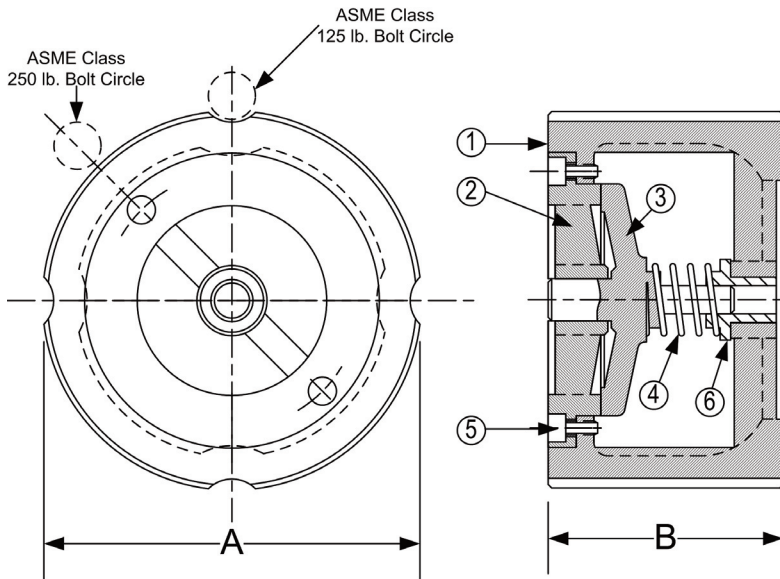
Style CW

Wafer Silent Check Valve, 125 lb. / 250 lb.

Sizes 2" - 6" 125/250 lb. dual rated,

Sizes 8" - 12" 125 lb. rated.

Cast Iron (ASTM A 126, Class B)



| PARTS LIST | | |
|------------|-------------|-------------------------------------------|
| ITEM | DESCRIPTION | MATERIAL |
| 1 | Body | Cast Iron (ASTM A 126, Class B) |
| 2 | Seat | Cast Bronze (ASTM B 62, C83600) |
| 3 | Disc | Cast Bronze (ASTM B 62, C83600) |
| 4 | Spring | Stainless Steel (ASTM A 182, Grade F-304) |
| 5 | Screw | Stainless Steel (ASTM A 182, Grade F-304) |
| 6 | Bushing | Stainless Steel (ASTM A 182, Grade F-304) |

Above "Standard" Product Number - **CW1F-CI-B2334** (125# Class)
Other Options - Reference **C2** for available materials.

| SIZE | | DIMENSIONS | | | | WEIGHTS | | BOLT DIAMETERS | |
|-------|-----|------------|-----|--------|-----|---------|-----|----------------|---------------|
| | | A | | B | | 125# | | 125# | 250# |
| | | 125# | | 125# | | lbs | kgs | Bolt Diameter | Bolt Diameter |
| in | mm | in | mm | in | mm | | | Bolt Diameter | Bolt Diameter |
| 2 | 50 | 4-1/4 | 108 | 2-5/8 | 67 | 5 | 2 | 5/8" | 5/8" |
| 2-1/2 | 65 | 5 | 127 | 2-7/8 | 73 | 8 | 4 | 5/8" | 3/4" |
| 3 | 80 | 5-3/4 | 146 | 3-1/8 | 79 | 10 | 5 | 5/8" | 3/4" |
| 4 | 100 | 7 | 178 | 4 | 102 | 18 | 8 | 5/8" | 3/4" |
| 5 | 125 | 8-3/8 | 213 | 4-5/8 | 117 | 29 | 13 | 3/4" | 3/4" |
| 6 | 150 | 9-3/4 | 248 | 5-9/16 | 141 | 42 | 19 | 3/4" | 3/4" |
| 8 | 200 | 13-1/2 | 343 | 6-1/2 | 165 | 85 | 39 | 3/4" | -- |
| 10 | 250 | 16 | 406 | 8-1/4 | 210 | 160 | 73 | 7/8" | -- |
| 12 | 300 | 19-1/4 | 489 | 11-1/4 | 286 | 340 | 154 | 7/8" | -- |

†This table reflects only the nearest metric equivalents.

Sizes 8" - 12" do not have a scalloped body.

| Applicable Standards | |
|----------------------|------------|
| •Design ASME B16.1 | •MSS SP-6 |
| •Testing API 598 | •MSS SP-25 |
| | •MSS SP-55 |

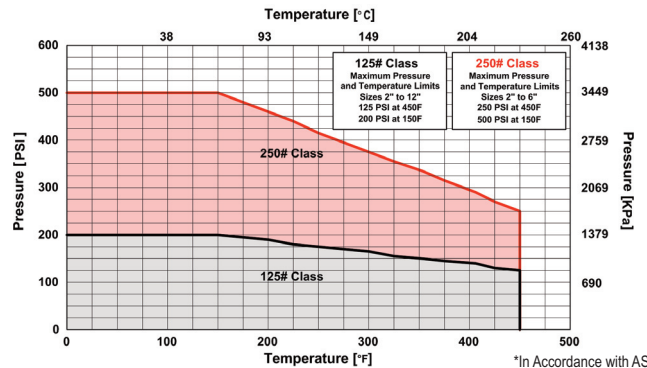
| Seat Material | Operating Temperature** | |
|---------------|-------------------------|------------|
| | °F | °C |
| Buna-N | -20 to 250 | -29 to 121 |
| Viton | -20 to 400 | -29 to 204 |
| EPDM | -40 to 300 | -40 to 149 |

**Subject to limitations of body material.

| FLOW COEFFICIENTS | | | | | |
|-------------------|-----|--------|------|------|-----|
| Size | 2" | 2-1/2" | 3" | 4" | 5" |
| C _v | 57 | 89 | 132 | 208 | 294 |
| Size | 6" | 8" | 10" | 12" | |
| C _v | 426 | 715 | 1225 | 1800 | |

PRESSURE vs. TEMPERATURE CHART

125# & 250# Cast Iron (ASTM A 126, Class B)



*In Accordance with ASME B16.1



PRESSURE DROP CHART

Wafer Silent Check Valve (Style CW)

This pressure drop chart is based on the flow of clean water through the Keckley Wafer Silent Check Valve. The Keckley Style CW has a cracking pressure equal to or less than 0.5 psi when mounted horizontally. Check valves should be placed at a distance equal to 5 to 10 pipe diameters from any turbulence producing device such as elbows, pumps, etc.

TO USE CHARTS:

Find your desired rate of flow (GPM) on the left hand side of the chart. Follow its corresponding horizontal line to the point where it intersects the diagonal line indicating the check valve pipe size. From this point of intersection, follow the vertical line down to the bottom of the chart to determine the approximate pressure drop.

