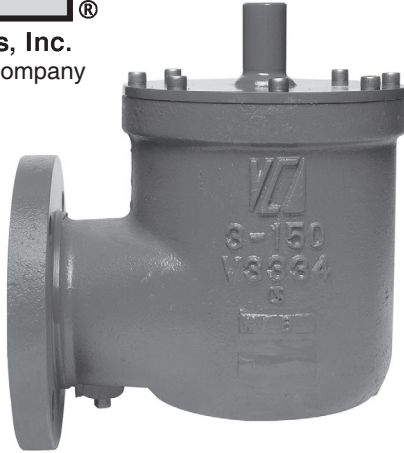




Valve Concepts, Inc.
ISO Registered Company



Model 3600

Side-Mounted Vacuum Relief Vent

OBJECTIVE

The Model 3600 vacuum relief vents are intended for use on atmospheric and low pressure tanks, vapor recovery systems and process systems where vacuum relief is required. Built for dependable service and superior seat tightness, these durable vents are designed to be mounted to the tank structure or process piping.

TECHNIQUE

The weight loaded pallet in the vent housing allows the intake of air necessary to maintain the tank pressure within the permissible vacuum limit to avoid damage to the tank. Once the vacuum condition is satisfied and the pressure is within the permissible limits the pallet closes. The model 3600 virtually eliminates the intake of air except during normal tank in breathing.

CONSTRUCTION

Housing Material: The Model 3600 is a rugged design made to last. Available in Aluminum, Carbon Steel, 316 Stainless Steel or Corrosion Resistance Fiberglass.

Trim Material: 316 SST - Standard on all metal vents. Fiberglass - Standard on all FRP vents.

Pallet Diaphragm Material: FEP TFE - Standard. Also available in FKM, EPDM and Buna-N.

SPECIAL FEATURES

Modular. The Model 3600 side mounted vacuum vent is part of the Valve Concepts, Inc. modular vent product line. The 3600 is used in the pressure / vacuum vent with pipe-away and the pressure only vent with pipe-away. These vents can either be direct acting (weight-loaded or spring-loaded) or pilot operated.

Maintains Accurate Vacuum Settings. The pallet is fabricated to the precise weight necessary to maintain an accurate vacuum setting. The minimum setting available is down to 0.25 oz/in² and the maximum vacuum setting is upwards to 1 psig on all sizes. As with every vent supplied by Valve Concepts, Inc. a Certified Test Certificate is included verifying the accuracy of both set point and leakage rate. On all direct acting vents supplied by Valve Concepts the seat leakage meets or exceeds API Standard 2000.

Condensate Drainage. Self-draining housing body and drip rings keep condensate away from seating surfaces, preventing freezing, binding and clogging.

Air-Cushioned Seating. Air-cushion seating for low evaporation losses. The pallets have outer guiding and center stabilizing stem to provide self alignment and tight seating.

Sizes - Connections. Available in Sizes 2" through 14". CS and SST vents have Raised Face Flange, Aluminum and FRP vents have Flat Face Flange to mate with standard ASME 150# flange connections. Ref to position 3 on coder for selection of DIN flanges.

| MATERIALS OF CONSTRUCTION | | |
|---------------------------|---------------|-----------------|
| Series | Housing | Pallet * |
| 3600CS | CS | 316 SST |
| 3600SST | 316 SST | 316 SST |
| 3600D | Derakane® 470 | Derakane® 470 |
| 3600F | Hetron® 800 | Hetron® 800 |
| 3600A | Aluminum | Alum or 316 SST |

* For settings below 0.5 Oz/in² requires Polycarbonate Pallets; only with CS, SST, and Alum.
Derakane, Furan and Hetron are Registered trademarks of Ashland Inc.
Hetron is now offered as an equal replacement to Furan.

STANDARD/GENERAL SPECIFICATIONS

Gaskets: Standard: TFE/TFE Rope

Painting: Standard: Exterior coating will be a combination of Cashco Paint Specs #S-1777 epoxy and #S-1743 powder coated. Fasteners, seat surfaces and corrosion resistant parts excluded.

Diaphragm Temperature Limits:

FEP-TFE:
-400° to 400° F (-240° to 204°C)

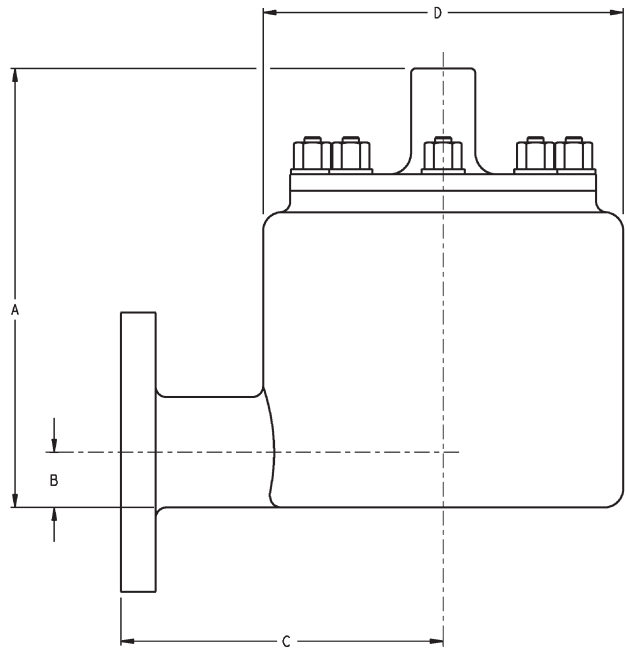
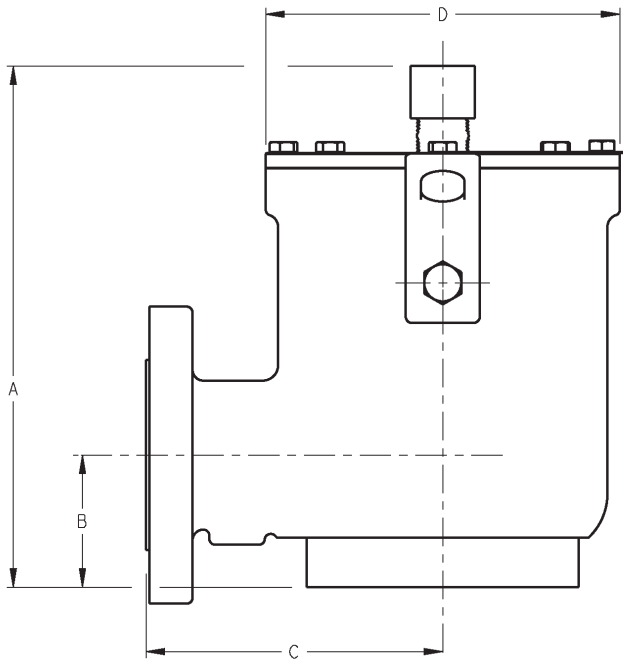
Fluorocarbon Elastomer – (FKM):
-20° to 400° F (-28° to 204°C)

Buna-N (Nitrile-NBR):
-30° to 200° F (-34° to 93°C)

EPDM (Ethylenepropylene):
-40° to 225° F (-40° to 107°C)

| Size | VENT WEIGHT | | | | | |
|------|---|-------|--------------|--------------|-------|--------------|
| | Set Point Limits oz/in² | | | | | |
| | Standard Material | | | SST Material | | |
| | Min | Max | Top Hat Max. | Min | Max | Top Hat Max. |
| 2" | 0.25 | 8.50 | 16.00 | 0.25 | 9.00 | 16.00 |
| 3" | 0.25 | 11.50 | 16.00 | 0.25 | 12.00 | 16.00 |
| 4" | 0.25 | 11.50 | 16.00 | 0.25 | 12.00 | 16.00 |
| 6" | 0.25 | 10.00 | 16.00 | 0.25 | 10.00 | 16.00 |
| 8" | 0.25 | 16.00 | 16.00 | 0.25 | 16.00 | 16.00 |
| 10" | 0.25 | 8.50 | 16.00 | 0.25 | 9.00 | 16.00 |
| 12" | 0.25 | 12.50 | 16.00 | 0.25 | 12.50 | 16.00 |

DIMENSIONS



| ENGLISH Units - in Aluminum, Carbon Steel & Stainless Steel Body | | | | | Weight lbs. | |
|---|--------|-------|--------|-----------|-------------|--------|
| SIZE In | A | B | C | D (diam.) | Alum | CS/SST |
| 2" | 10.53" | 2.67" | 6.00" | 7.28" | 19 | 47 |
| 3" | 12.10" | 3.31" | 6.50" | 8.12" | 21 | 57 |
| 4" | 14.16" | 3.87" | 8.00" | 10.88" | 33 | 91 |
| 6" | 15.52" | 4.75" | 9.00" | 12.51" | 46 | 129 |
| 8" | 15.90" | 5.94" | 9.00" | 12.51" | 50 | 141 |
| 10" | 19.18" | 7.12" | 11.00" | 15.25" | 72 | 203 |
| 12" | 21.31" | 8.00" | 12.25" | 18.38" | 93 | 256 |
| 14" | 23.06" | 8.59" | 14.00" | 19.12" | 126 | 307 |

| ENGLISH Units - in Corrosion Resistant Fiberglass (FRP) Body | | | | | Weight lbs. | |
|---|--------|-------|--------|-----------|-------------|--------|
| SIZE In | A | B | C | D (diam.) | Alum | CS/SST |
| 2" | 10.23" | 1.29" | 7.50" | 8.38" | | |
| 3" | 10.29" | 1.79" | 7.50" | 8.38" | | |
| 4" | 13.12" | 2.28" | 9.00" | 12.75" | | |
| 6" | 13.77" | 3.29" | 9.50" | 12.75" | | |
| 8" | 13.77" | 4.25" | 9.50" | 12.75" | | |
| 10" | 17.50" | 5.26" | 12.00" | 16.75" | | |
| 12" | 19.13" | 6.25" | 12.00" | 16.38" | | |
| 14" | 21.54" | 6.88" | 13.00" | 18.50" | | |

| METRIC Units - (mm) Aluminum, Carbon Steel & Stainless Steel Body | | | | | Weight kg. | |
|--|-----|-----|-----|-----------|------------|--------|
| SIZE (DN) | A | B | C | D (diam.) | Alum | CS/SST |
| (50) | 267 | 68 | 152 | 185 | 9 | 21 |
| (80) | 307 | 84 | 165 | 206 | 10 | 26 |
| (100) | 367 | 98 | 203 | 276 | 15 | 41 |
| (150) | 394 | 121 | 229 | 318 | 21 | 59 |
| (200) | 404 | 151 | 229 | 318 | 23 | 64 |
| (250) | 487 | 181 | 279 | 387 | 33 | 92 |
| (300) | 541 | 203 | 311 | 467 | 42 | 116 |
| (350) | 586 | 218 | 356 | 486 | 57 | 139 |

| METRIC Units - (mm) Corrosion Resistant Fiberglass (FRP) Body | | | | | Weight kg. | |
|--|-----|-----|-----|-----------|------------|--------|
| SIZE (DN) | A | B | C | D (diam.) | Alum | CS/SST |
| (50) | 260 | 33 | 190 | 213 | | |
| (80) | 261 | 45 | 190 | 213 | | |
| (100) | 333 | 58 | 229 | 324 | | |
| (150) | 350 | 84 | 241 | 324 | | |
| (200) | 350 | 108 | 241 | 324 | | |
| (250) | 444 | 134 | 305 | 425 | | |
| (300) | 486 | 159 | 305 | 416 | | |
| (350) | 547 | 175 | 330 | 470 | | |

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3600 Series PRODUCT CODE

10/12/20

Last 6 Characters reserved for SPQ drawing numbers assigned by Cashco Inc.
(Format as - # # # # #)



| POSITION 3 - PALLET DESIGN | |
|--|------|
| Material | CODE |
| STD | 0 |
| Intermittent Back Pressure 50 psig Max. | B |

| POSITION 4 - FLANGE - SIZE | | | |
|----------------------------|------|-----------------------|------|
| ASME INCH | CODE | DN FLANGE DN (rating) | CODE |
| 2" | 2 | 50 (PN16) | H |
| 3" | 3 | 80 (PN16) | J |
| 4" | 4 | 100 (PN16) | K |
| 6" | 6 | 150 (PN16) | L |
| 8" | 8 | 200 (PN10) | M |
| | | 200 (PN16) | T |
| 10" | A | 250 (PN10) | N |
| | | 250 (PN16) | V |
| 12" | B | 300 (PN10) | P |
| | | 300 (PN16) | W |
| 14" | C | 350 (PN10) | R |
| | | 350 (PN16) | Y |

| POSITION 5 - BODY / TRIM MATERIALS | | | |
|------------------------------------|----------------------|-----------------|---------------|
| MATERIAL | Std. W/O Flamescreen | W/ Flame Screen | W/ Bug Screen |
| | CODE | CODE | CODE |
| ALUM/ALUM | A | B | M |
| ALUM/SST | K | L | N |
| CS/SST | C | D | P |
| SST/SST | S | T | R |
| Derakane 470 w/SST Studs | F | - | - |
| Derakane 470 w/Hast C Studs | H | - | - |
| Hetron 800 w/SST Studs | G | - | - |
| Hetron 800 w/Hast C Studs | J | - | - |

| POSITION 7 - DIAPHRAGM MATERIALS | |
|----------------------------------|------|
| DIAPHRAGM | CODE |
| FEP TFE (Std) | A |
| Buna-N | B |
| EPDM | D |
| FKM | F |

| POSITION 9 - SIGHT GLASS | |
|--------------------------|------|
| | CODE |
| None (Std) | 0 |
| Sight Glass | 1 |

| POSITION 10 - WEIGHT MATERIAL | |
|---|------|
| Material | CODE |
| STD | 0 |
| ALL SST | S |
| Encapsulated weight Option For FRP Body Material ONLY | E |

See Vent Weight Table (pg.2) for set point limits.

*** For information on ATEX see pages 12 & 13 on the IOM.**

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