

#### **Product Brief**

The KM9 Block & Bleed Valve is ideal for gauge installation. It is rugged, safe, compact and economical. The KM9 valve is offered in metal and soft seat versions, both using the same bonnet assembly for economy and convenience. A bleed plug is standard with each valve, permitting the safe venting of line pressure without breaking any in-line threaded connections.

### Features/Benefits

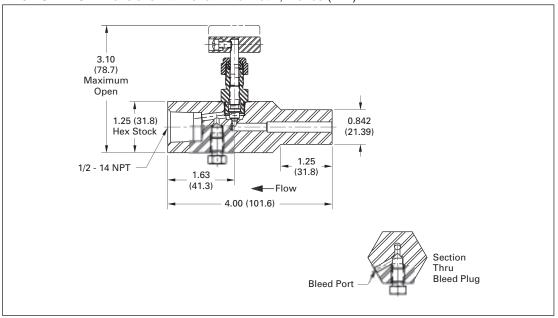
- Field-serviceable soft seat. Allows replacement with valve still in the line.
- Isolated stem threads (O-ring bonnet). Packing below stem threads keeps solids away. Prevents process contamination.
- Bubble-tight shutoff.
- Chrome-plated stainless steel stem prevents freezing and galling.
- Two-way seat design. Soft seat via simple insert or metal seat when no insert is used.
- One piece handle. No way to lose the handle from vibration or misplacement.

- Adjustable bonnet packing. Increases valve life and maintains integrity of stem threads.
- Rolled stem and bonnet threads for increased strength and life.
- No more stem blowouts. No-backout stem design prevents blowout problems and removal while in use.
- Less parts mean less leak points and less fugitive emissions.



## **Specifications**

KM9VIS - 44C Dimensions with Teflon® Bonnet ①, Inches (mm)



Bonnets interchangeable between all body configurations. 4.00-inch (101.6 mm) for -44°C, -46°C.
 KM9()-4 body length 2.88-inch (73.2 mm).

Note: For Hastelloy® and SG3, call factory for dimensions and weights.

### **Standard Materials**

#### **Metal Seat**

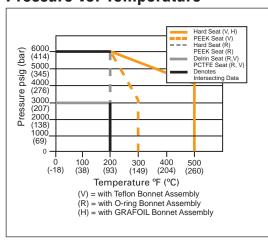
| Valve ① | Body            | Bonnet          | Stem            | Packing                           | Bleed Plug      | Seat     |
|---------|-----------------|-----------------|-----------------|-----------------------------------|-----------------|----------|
| CS ②    | A108 CS         | A108 CS         | A581-303 SS     | Teflon or BUNA-N O-ring           | A108 CS         | Integral |
| SS      | A479-316 SS     | A479-316 SS     | A276-316 SS     | Teflon, BUNA-N O-ring or GRAFOIL® | A276-316 SS     | Integral |
| SG 3    | A479-316 SS     | A479-316 SS     | Monel 400       | Teflon                            | A279-316 SS     | Integral |
| Monel®  | Monel R405      | Monel R405      | Monel R405      | Teflon                            | Monel R405      | Integral |
| SG3 @   | Hastelloy C-276 | Hastelloy C-276 | Hastelloy C-276 | Teflon                            | Hastelloy C-276 | Integral |

#### **Soft Seat**

| Valve ① | Body               | Bonnet             | Stem               | Packing                 | Flow Washer     | Bleed Plug         | Seat ®  |
|---------|--------------------|--------------------|--------------------|-------------------------|-----------------|--------------------|---------|
| CS ②    | A108 CS            | A108 CS            | A581-303 SS        | Teflon or BUNA-N O-ring | 316 SS          | A108 CS            | Delrin® |
| SS      | A479-316 SS        | A479-316 SS        | A276-316 SS        | Teflon or Viton® O-ring | 316 SS          | A276-316 SS        | PCTFE ® |
| SG ③    | A479-316 SS        | A479-316 SS        | Monel 400          | Teflon                  | 316 SS          | A276-316 SS        | PCTFE ® |
| SG3 ④   | Hastelloy<br>C-276 | Hastelloy<br>C-276 | Hastelloy<br>C-276 | Teflon                  | Hastelloy C-276 | Hastelloy<br>C-276 | PCTFE ® |

- Approximate valve weight: 1.2 lb (.54 kg).
  Orifice size 0.136-inch (3.5 mm) diameter.
  Metal Seat: Cv = .25, full open.
  Soft Seat: Cv = .24, full open.
- ② CS is zinc cobalt-plated to prevent corrosion (except male plain end is black oxide coated).
- <sup>③</sup> SG (Sour Gas) meets the requirements of NACE MR0175-2002.
- ④ SG3 (Sour Gas) meets the requirements of NACE MR0175-2003.
- ⑤ PEEK available.
- $\ensuremath{@}$  PCTFE (Polychlorotrifluoroethylene) is the equivalent of Kel-F $\ensuremath{@}$  .

### Pressure vs. Temperature



### **Pressure and Temperature Ratings**

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|-----------------------------------|--------------------|--------------------|--|--|--|--|
| Teflon or GRAFOIL B               | r GRAFOIL Bonnet   |                    |  |  |  |  |
| Hard Seat                         | 6000 psig at 200°F | '                  |  |  |  |  |
|                                   | 4000 psig at 500°F | (276 bar at 260°C) |  |  |  |  |
| Delrin and PCTFE                  | 3000 psig at 200°F | (207 bar at 93°C)  |  |  |  |  |
| PEEK Seat                         | 6000 psig at 200°F | (414 bar at 93°C)  |  |  |  |  |

|                  | 3000 psig at 300°F (207 b | ar at 149°C) |
|------------------|---------------------------|--------------|
| O-ring Bonnet    |                           |              |
| Hard Seat        | 6000 psig at 200°F (414 b | oar at 93°C) |
| Delrin and PCTFE | 3000 psig at 200°F (207 b | oar at 93°C) |
| PEEK Seat        | 6000 psig at 200°F (414 b | ar at 93°C)  |



### **Ordering Information**

KM9

<u>V</u> <u>I</u> 1. 2.

<u>\$</u> 3.

44C 4.

**SG** 5.

### 1. Packing

- V Teflon Bonnet (Standard for 316 SS)
- R O-ring Bonnet
- H GRAFOIL (500°F [260°C] Maximum)

#### 2. Seat

- I Integral
- D- Delrin (Standard)
- E-PEEK
- K-PCTFE

### 3. Body Material

- $\mathbf{C}$   $\mathbf{CS}$
- **s** SS
- M Monel
- J Hastelloy
- I Inconel

# 4. Connections (Inlet/Outlet)

- **44** 1/2-Inch MNPT x 1/2-Inch FNPT
- 46 3/4-Inch MNPT x 1/2-Inch FNPT
- 4M 1/2-Inch MNPT x 1/2-Inch
- 4 1/2-Inch FNPT x 1/2-Inch FNPT
- C Male Plain End (CS is Black Oxide Coated)
- **44A** 9/16-Inch M Autoclave x 9/16-Inch F Autoclave

### 5. Options

- AL Low Temperature Lubricant;
  - Not Available for CS Valves
- **CLC** Chlorine Cleaning
- HD Hydrostatic Testing (100%) (MSS-SP-61)
- MS Monel Stem
- **OC** Oxygen Cleaning
- PHB Phenolic Black Handle
- PHG Phenolic Green Handle
- PHR Phenolic Red Handle
- PM Panel Mount (Teflon Packed Only)
- SG Sour Gas Meets the Requirements of NACE MR0175-2002 (SS Only)
- SG3 Sour Gas Meets the Requirements of NACE MR0175-2003
- SP Special Requirements Please Specify

All product names referenced herein are trademarks of their respective companies.

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