Hand Valves, Gauge Valves & Manifolds

HOKE
INDEX / USER RESPONSIBILITY

Hand Valves, Gauge Valves & Manifolds

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WARNING – For Your Safety—USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from CIRCOR Instrumentation Technologies (CIT), its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise. IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS, MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION.

The user through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application; follow applicable industry standards; and follow the information concerning the product in the current product catalog an in any other materials provided by CIT or authorized distributors. To the extent that CIT or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

(Please refer to our Guidance on Use of Equipment document).

Offer of Sale

The items described in this document are hereby offered for sale by CIRCOR Instrumentation Technologies (CIT), its subsidiaries or its distributors. Any order accepted by CIT will be subject to our terms and conditions of sale, copy available on www.hoke.com, or by request.
Hand Valves, Gauge Valves and Manifolds at a Glance

HOKE® offers a variety of precision engineered valves and 2, 3, and 5-valve Hand Valves, Gauge Valves & Manifolds in Direct and Remote Mount styles with vent configurations to meet most flow, pressure and level measurement application requirements. HOKE® 2-valve manifolds are designed for static pressure and liquid level applications; the 3 and 5 valve manifolds are well suited for use with most differential pressure transmitters and can accept both female and flange process impulse line connections.

HOKE® Hand Valves, Gauge Valves & Manifolds have been designed to provide the safest possible connection and mounting of instruments. Standard features include:

- Full 316/316L Dual Certified stainless steel components.
- Full compliance of NACE MR-01-75 specifications.
- Laser engraved identification.
- HOKE® Close tolerance NPT threads to ensure maximum engagement with mating threaded components. (Page.3)
- Available with option of integral GYROLOK® tube fitting connections.
- Choice of exotic alloys i.e., MONEL®, Duplex, Super Duplex, Titanium, HASTELLOY®, Alloys 625, 825, 6Mo.
- All special materials sourced from NORSOK M-650 approved mills.
- Optional mounting bracket kits available.

Pressure Equipment Directive.
Due to internal bore size and internal volumes up to and including 1”-inch/25mm, products offered in this catalogue comply with S.E.P (Sound Engineering Practice) article 3, paragraph 3 of the Pressure Equipment Directive P.E.D. 97/23/EC and therefore CE marking is not applicable.
STANDARD VALVE HEAD ASSEMBLY

Technical Specifications

Removable T-bar handle aids low torque operation
Packing PTFE (Standard) / GRAFOIL® PACKING (Optional) is below the stem threads to isolate threads from process media
Color coded dust cap on stem prevents ingress of contamination & protects actuating threads
Metal to metal seal with body suitable for high pressure temperature applications. No need for O-ring seals
Precision Machined Hard Stem Tip of stainless steel provides consistent shut-off
Stem has back seat for added security
Color coded dust plug
Gland adjuster packing seal can be externally adjusted in service
Safety locknut
Compression Ring
PTFE Packing With Soft Stem Tip
PCTFE Soft Stem Tip (Optional)
Dead stem through packing eases operation and has less packing wear
One piece non-rotating stem tip joint located above packing, cannot work free

Note: PCTFE Soft Stem Tip (Option) is only available with PTFE Packing

PRESSURE TEMPERATURE CHART

PTFE PACKING
Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
Maximum pressure 4000 psi (275 bar) at 392° F (200° C)
(PTFE packing rated to maximum temperature of 392° F (200° C))

GRAFOIL® PACKING
Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
Maximum pressure 3300 psi (230 bar) at 842° F (450° C)

OTHER FEATURES
- Valves are supplied to NACE MR-01-75 specification.
- Needle valve & and block and bleed valve available in right angled form.
- Hydrostatically tested to 1.5 times maximum working pressure.
- Wide variety of process connections available by arrangement.
- Bleed & blind plugs are available.
- Isolating trim as standard, metering trim available on request.
- Panel mounting valve available on request.
- PCTFE Soft tip option available for special application (Max working temperature = 120° C).
- All valves and manifolds are individually boxed for protection and storage.
- Laser engraved identification.
- Valves have trace code on body with original mill certificates available all to EN 10204-3.1.
- All special materials sourced from NORSOK M-650 approved mills.
- Ø 4.76 Standard thru bore (CV = 0.4) Fully open.
- Bonnet locking pin safely locks the bonnet to body.

0 212 (100) 392 (200) 572 (300) 752 (400) 932 (500) 1112 (600)
Pressure psi (bar)

0 68 1450 (100)
0 2901 (200)
0 4351 (300)
0 5802 (400)
0 7252 (500)
0 8702 (600)
0 10153 (700)

0 212 (100) 392 (200) 572 (300) 752 (400) 932 (500) 1112 (600)
Temperature Fahrenheit (Celsius)
HOKE® High Tolerance NPT Thread

Note: Graphic is an illustration only

NPT Engagement using High Tolerance HOKE® NPT Connections has 5-6 threads engaged when fully tightened.

NPT Engagement using ANSI/ASME B1.20.1 Pipe Thread Standard has only 3-4 threads engaged when fully tightened.
HOKE® Integral GYROLOK® Tube Fitting Connection

Note: Graphic is an illustration only – please consult HOKE® for details

The HOKE® range of hand valves, gauge valves and manifolds are available with the option of the integral GYROLOK® tube fitting connections. The integral GYROLOK® tube fitting connection is machined directly into the body of the valve or manifold, allowing tubing to be directly connected without the use of traditional threaded (NPT, BSP) connections. The integral GYROLOK® connection provides a safer connection system for high pressure, severe, steam or sour gas service where leakage has dangerous consequences.

- Eliminates traditional threaded tubing connections
- Provides a safer and more consistent tube connection
- Saves assembly time during field assembly
- Reduces potential leak paths
- No need for sealing tape or liquid sealing compounds
- Fully field maintainable
- Successfully used for over 20 years in many offshore applications
- Available in 10mm metric tube connections
- Available in ⅜”inch & ½”inch imperial tube connections
SINGLE BLOCK HAND VALVE
MODEL-HM25

ISOLATE
VENT
EQUALIZE

Blue
Red
Green

Process In
Instrument

Weight=1.1 lbs(0.5 kg)

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.7).

Application
High integrity instrument isolation of pressure gauges and pressure transmitters.

Valve Shown with ½” NPT Inlet & Outlet

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
HOW TO ORDER

HM25 Series Hand Valves

Ordering Multiple Options and Accessories
HOKE HM Valves and Manifolds are available with a wide variety of options and accessories that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order
Standard items in bold.

Typical Ordering Part Number

```
HM25 1 1 F 8 6MO AA
```

**TIP**

1 = Hard
2 = Soft

**PACKING**

1 = PTFE
2 = GRAFOIL®

**INLET CONNECTION**

F = Female

**INLET SIZE**

4 = ¼” NPT
8 = ½” NPT

**ALLOY**

YL = 316/316L
HC = HASTELLOY® C276
M = MONEL®
D50 = Super Duplex
TI = Titanium
TB = Titanium Blue Anodized
DX3 = Duplex
625 = 625 INCONEL®
825 = 825 INCONEL®
6MO = 6%Mo
E = Carbon Steel

**Options**

AA = 10,000 PSI Rated
AD = Anti Tamper Isolate
AE = Lockable Isolate
AH = BSPP Connections
AO = Norsok M-650 Material Required
AP = Panel nut on bonnets

**Note:** The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75 & NORSOK M-650 as standard. Please consult the factory or your local distributor for information on special connections, o-rings, operating pressures, & temperature ratings.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 2. And the guidance of Use of Equipment on page 26.
MULTI-PORT GAUGE VALVE
MODEL-HM681

ISOLATE
VENT
EQUALIZE

Blue
Red
Green

Process In
Instrument

Application
High integrity instrument isolation of pressure gauges and pressure transmitters.

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.11).

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
**SINGLE BLOCK & BLEED GAUGE VALVE**
**MODEL-HM682**

**Application**
High integrity instrument isolation of pressure gauges and pressure transmitters.

**Valve Shown with ½” NPT Inlet & Outlet & ¼” NPT Vent Plug (Supplied loose)**

Dimensions for 6K shown in inches (millimetres) are for reference only and are subject to change.

Also available in a range of other materials and options
(See **HOW TO ORDER Data** Sheet Pg. 11).

**HOKE, Inc**
PO Box 4866
Spartanburg, SC 29305-4866
Phone: (864) 574-7966
Fax: (864) 587-5608

www.hoke.com
sales-hoke@circor.com
DOUBLE BLOCK & BLEED GAUGE VALVE
MODEL-HM683

Hand Valves, Gauge Valves & Manifolds

Valve Shown with ½” NPT Inlet & Outlet & ¼”NPT Vent Plug (Supplied loose)

Application
High integrity instrument isolation of pressure gauges and pressure transmitters.

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
HOW TO ORDER
HM68 Series Gauge Valves

Ordering Multiple Options and Accessories
HOKE HM Valves and Manifolds are available with a wide variety of options and accessories that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order
Standard items in bold.

Typical Ordering Part Number

<table>
<thead>
<tr>
<th># of VALVES</th>
<th>TIP</th>
<th>PACKING</th>
<th>INLET CONNECTION</th>
<th>INLET SIZE</th>
<th>ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 = Hard</td>
<td>1 = PTFE</td>
<td>F = Female</td>
<td>4 = ¼” NPT</td>
<td>YL = 316/316L</td>
</tr>
<tr>
<td>2</td>
<td>2 = Soft</td>
<td>2 = GRAFOIL®</td>
<td>M = Male</td>
<td>8 = ½” NPT</td>
<td>HC = HASTELLOY® C276</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>L = Male X Female</td>
<td></td>
<td>M = MONEL®</td>
</tr>
</tbody>
</table>

Options

<table>
<thead>
<tr>
<th>AA</th>
<th>AB</th>
<th>AC</th>
<th>AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 PSI Rated</td>
<td>Anti Tamper Vent(s)</td>
<td>Lockable Vent(s)</td>
<td>Anti Tamper Isolate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AE</th>
<th>AH</th>
<th>AO</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lockable Isolate</td>
<td>BSPP Connections</td>
<td>Norsok M-650 Material Required</td>
<td>Panel nut on bonnets</td>
</tr>
</tbody>
</table>

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75 & NORSOK M-650 as standard.

Please consult the factory or your local distributor for information on special connections, o-rings, operating pressures, & temperature ratings.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 2. And the guidance of Use of Equipment on page 26.
REMOTE MOUNT 2-VALVE MANIFOLD
MODEL-HM8232

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

Using the 2-valve manifold
In normal operation the “isolate” valve is open while the “vent” valve is closed.
To remove the instrument, first close the “isolate” valve, then open the "vent" valve to relieve pressure upstream of the "isolate" valve.

Calibration option
By connecting a calibration gauge to the vent port, it is possible to check the calibration of the instrument without removing it from the installation.

Valve Shown with ½” NPT Inlet & Outlet & ¼”NPT Vent Plug (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
DIRECT MOUNT 2-VALVE MANIFOLD
MODEL-HM8212

Isolate, Vent, Equalize

Weight=3.08 lbs (1.4 kg)

Also available in a range of other materials and options
See HOW TO ORDER Data Sheet Pg. 22.

Using the 2-valve manifold
In normal operation the “isolate” valve is open while the “vent” valve is closed.
To remove the instrument, first close the “isolate” valve, then open the “vent” valve to relieve pressure upstream of the “isolate” valve.

Calibration option
By connecting a calibration gauge to the vent port, it is possible to check the calibration of the instrument without removing it from the installation.

Valve Shown with ½” NPT Inlet & ¼” NPT Vent Plug (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
REMOTE MOUNT 2-VALVE MANIFOLD
(FLAT FACE)
MODEL-HM8262

Hand Valves, Gauge Valves & Manifolds

REMOTE MOUNT 2-VALVE MANIFOLD
(FLAT FACE)
MODEL-HM8262

**ISOLATE**
Blue

**VENT**
Red

**EQUALIZE**
Green

Process
Isolate
Vent
Instrument

Weight=2.6 lbs (1.2 kg)

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

**Using the 2-valve manifold**
In normal operation the “isolate” valve is open while the “vent” valve is closed.
To remove the instrument, first close the “isolate” valve, then open the “vent” valve to relieve pressure upstream of the “isolate” valve.

**Calibration option**
By connecting a calibration gauge to the vent port, it is possible to check the calibration of the instrument without removing it from the installation.

Valve Shown with ½” NPT Inlet & Outlet & ¼” NPT Vent Plug (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
DIRECT MOUNT 2-VALVE MANIFOLD
(ENCLOSURE)
MODEL-HM8292

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

Using the 2-valve manifold
In normal operation the “isolate” valve is open while the “vent”
valve is closed.
To remove the instrument, first close the “isolate” valve, then open the
“vent” valve to relieve pressure upstream of the “isolate” valve.

Calibration option
By connecting a calibration gauge to the vent port, it is possible to check the
calibration of the instrument without removing it from the installation.

Valve Shown with ½” NPT Inlet & ¼”NPT Vent Plug (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
REMOTE MOUNT 2-VALVE MANIFOLD
MODEL-HM82GAM8
WITH ½” INTEGRAL GA ADAPTER

Also available in a range of other materials and options (See HOW TO ORDER Data Sheet Pg.22).

Using the 2-valve manifold
In normal operation the “isolate” valve is open while the “vent” valve is closed.
To remove the instrument, first close the “isolate” valve, then open the “vent” valve to relieve pressure upstream of the “isolate” valve.

Calibration option
By connecting a calibration gauge to the vent port, it is possible to check the calibration of the instrument without removing it from the installation.

Valve Shown with ½” NPT Inlet & Outlet & ¼”NPT Vent Plug (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
REMOTE MOUNT 3-VALVE MANIFOLD
MODEL-HM8332

Also available in a range of other materials and options (See HOW TO ORDER Data Sheet Pg.22).

Using the 3-valve manifold
In normal operation the “isolate” valves are open while the “equalize” valve is closed.
This provides a differential pressure reading to the pressure gauge or transmitter. To zero the instrument, first close the downstream “isolate” valve then open the “equalize” valve and adjust the zero setting on the instrument.

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
DIRECT MOUNT 3-VALVE MANIFOLD
MODEL-HM8312

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

Using the 3-valve manifold
In normal operation the “isolate” valves are open while the
“equalize” valve is closed. This provides a differential pressure reading to the pressure gauge or
transmitter. To zero the instrument, first close the downstream “isolate”
valve then open the “equalize” valve and adjust the zero setting on the
instrument.

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
REMOTE MOUNT 5-VALVE MANIFOLD
MODEL-HM8532

Hand Valves, Gauge Valves & Manifolds

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

Using the 5-valve manifold
In normal operation the “isolate” valves are open while the “equalize” and “vent” valves are closed. This provides a differential pressure reading to the pressure gauge or transmitter.

To zero the instrument, first close both “vent” valves and the downstream “isolate” valve. Then open the “equalize” valve and adjust the zero setting on the instrument.

To remove the instrument, first close both “isolate” valves, then open the “equalize” valves to relieve pressure between the manifold and the instrument.

Calibration options
An option provided by 5-valve manifolds which is not available on 3-valve types is connecting the “vent” port to known pressure sources to check the calibration of the instrument.

Valve Shown with ½” NPT Inlet & Outlet & ¼”NPT Vent Plugs (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
DIRECT MOUNT 5-VALVE MANIFOLD
MODEL-HM8512

Hand Valves, Gauge Valves & Manifolds

ISOLATE
VENT
EQUALIZE

Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet Pg.22).

Using the 5-valve manifold
In normal operation the “isolate” valves are open while the “equalize” and “vent” valves are closed. This provides a differential pressure reading to the pressure gauge or transmitter.
To zero the instrument, first close both “vent” valves and the downstream “isolate” valve. Then open the “equalize” valve and adjust the zero setting on the instrument.
To remove the instrument, first close both “isolate” valves, then open the “equalize” valves to relieve pressure between the manifold and the instrument.

Calibration options
An option provided by 5-valve manifolds which is not available on 3-valve types is connecting the “vent” port to known pressure sources to check the calibration of the instrument.

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
DIRECT MOUNT 5-VALVE MANIFOLD  
(ENCLOSURE)  
MODEL-HM8592

**ISOLATE**  
Blue  
Instrument  
**VENT**  
Red  
**EQUALIZE**  
Green  
Vent  
Isolate  
**Process In**  
Equalize  
Isolate

Also available in a range of other materials and options  
(See HOW TO ORDER Data Sheet Pg.22).

Using the 5-valve manifold  
In normal operation the "isolate" valves are open while the "equalize" and "vent" valves are closed. This provides a differential pressure reading to the pressure gauge or transmitter.  
To zero the instrument, first close both "vent" valves and the downstream "isolate" valve. Then open the "equalize" valve and adjust the zero setting on the instrument.  
To remove the instrument, first close both "isolate" valves, then open the "equalize" valves to relieve pressure between the manifold and the instrument.

Calibration options  
An option provided by 5-valve manifolds which is not available on 3-valve types is connecting the "vent" port to known pressure sources to check the calibration of the instrument.

Valve Shown with ½" NPT Inlet & ¼" NPT Vent Plugs (Supplied loose)

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
HOW TO ORDER
HM8 Series Manifolds

Ordering Multiple Options and Accessories
HOKE HM Valves and Manifolds are available with a wide variety of options and accessories that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order
Standard items in bold.

Typical Ordering Part Number

HM8  3  1  2  1 1  F  8  6MO   AA

# of VALVES
2
3
5

TYPE
1 = Direct
3 = Remote
6 = Flat Face Remote
9 = Direct Enclosure

FIXED
2

TIP
1 = Hard
2 = Soft

PACKING
1 = PTFE
2 = GRAFOIL®

ALLOY
YL = 316/316L
HC = HASTELLOY® C276
M = MONEL®
D50 = Super Duplex
TI = Titanium
TB = Titanium Blue Anodized
DX3 = Duplex
625 = 625 INCONEL®
825 = 825 INCONEL®
6MO = 6%Mo
E = Carbon Steel

INLET CONNECTION
F = Female
P = Socket Weld
G = Integral GYROLOK® - please consult HOKE® for details
Z = Integral Metric

Options
AA = 10,000 PSI Rated
AB = Anti Tamper Vent(s)
AC = Lockable Vent(s)
AD = Anti Tamper Isolate
AE = Lockable Isolate
AF = Anti Tamper Equalize
AG = Lockable Equalize

AL = Extended Carbon Steel Bolts Supplied
AM = Extended 316 Stainless Steel Bolts Supplied
AN = Extended 6MO Bolts Supplied
AO = Norsok M-650 Material Required
AP = Panel nut on bonnets

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75 & NORSOK M-650 as standard.

Please consult the factory or your local distributor for information on special connections, o-rings, operating pressures, & temperature ratings.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 2. And the guidance of Use of Equipment on page 26.
Mounting bracket kits enable a user to mount a manifold onto a gauge stand or a 2in (50mm) nominal bore pipe stand. Mounting kits are manufactured in stainless steel and allow the instrument to be removed without disturbing the impulse pipework connection. They also add support to the complete assembly.

HM8512BKT
Weight=2.20 lbs(1.0 kg)
Used On Model HM8512

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
HM8000BKT
Weight=2.20 lbs(1.0 kg)
Used On Model HM8212 & HM8332

Dimensions shown in inches (millimetres) are for reference only and are subject to change.

HM8232BKT
Weight=2.20 lbs(1.0 kg)
Used On Model HM8232

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
HM8100BKT
Weight=2.20 lbs(1.0 kg)
Used On Model HM8312 & HM8232

Dimensions shown in inches (millimetres) are for reference only and are subject to change.
GUIDANCE ON USE OF EQUIPMENT

Installation & use of equipment should be done by trained personnel!

1 MATERIALS
- Materials must be compatible with medium.
- Pressure and temperature also have direct bearing on the correct seal & body material to be used and must be considered when specifying. See pressure/temperature ratings table contained in our printed literature.
- If in any doubt, consult HOKE®.

2 THREADS AND JOINTING
- All pressure connections should be leak tight and should be observed when first applying pressure.
- Recommended maximum operating pressure for each size of thread and type of material must not be exceeded. Please note the stated pressures represent the maximum applied pressure. If in doubt, consult the manufacturer.
- Care must be taken to ensure mis-match of threads does not occur.
- Mating female connections must have a pressure rating that is compatible with the pressure range of the product.
- Valves with parallel threads must have the independent seal made on the flat seating using a washer or bonded seal of material compatible with the pressure medium.
- Valves with tapered threads have the joint made by mating of the threads. It is common practice to apply jointing material to the male thread. This must be compatible with the pressure medium and applied in the correct quantity to ensure non-interference with the mating of the threads.
- NPT and other tapered thread forms when manufactured to the standard specification may not be adequate to offer sufficient thread engagement for safe use under pressure.
- Particular care must be taken to ensure the valve has the correct pressure rating for the application.

3 INSTALLATION
- When joining up a valve to the system, the system must not be pressurized.
- If the valve is already fitted to a gauge at time of installation, the valve should be in the closed position to prevent the build up of pressure from entering the gauge. The valve should then be opened slowly and care taken to ensure the pressure entering the gauge does not exceed its pressure rating.
- When the valve does not have a gauge fitted at time of installation (i.e., with an open port) the valve should be in the open position which will prevent build up of pressure within the valve. Care should therefore be taken to confirm that all systems are sealed before pressurizing.
- Manifolds and equalizing valves are accompanied by specific installation instructions and these should be referred to before proceeding with installation.

4 MAINTENANCE
- Valves etc. should be part of a planned maintenance programme to ensure they continue to function properly.
- The time interval between examinations will vary depending upon site conditions, the number of opening and shutting operations etc. and should be determined in the light of experience.
- Threaded connections should be checked for leaks and tightened as required.
- If leaking through the packing is evident, loosen locknut, tighten packing compression bolt to torque rating of 13 lbs/ft (18 Nm) minimum to 18 lbs/ft (25 Nm) maximum and re-tighten locknut.

5 REPAIRS
- The design of these valves allows packing or whole stem assembly to be replaced without removing the valve from the system but the system must be closed down and any residual pressure exhausted in a controlled manner before proceeding.
- To replace packing: - Remove handle, slacken locknut, remove compression bolt and compression gland ring. Remove packing and replace. Re-assemble in reverse order to the above and tighten to torque described in Paragraph 4.
- To replace whole stem assembly:- Remove handle and bonnet locking pin. Remove whole head assembly (N.B. To loosen - turn anti-clockwise). Slacken locknut, remove compression bolt and compression gland ring. Remove stem assembly by withdrawing downwards. Fit new stem assembly and packing. Re-assemble in reverse order to the above and tighten compression bolt to torque described in Paragraph 4.
- Re-fit head assembly to valve body and tighten to torque of 100 lbs/ft (135.58Nm) Replace locking pin. Test valve for leaks. Note: Ensure stem is screwed fully into the bonnet before refitting to body. Fit locking pin, after testing.
- If the valve seat is damaged, the whole valve should be replaced.

6 SPARES
- We recommend that spares should be held in the form of whole stem assemblies.

Note: It is the responsibility of the customer to select the proper valve.
If in any doubt, consult HOKE®