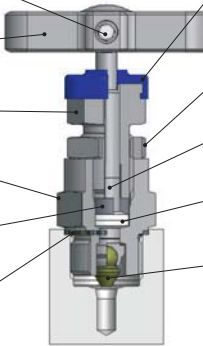


# Hand Valves

## Globe style bonnet design for HNV, HGV and HVG series

- 1. POSITIVE HANDLE RETENTION DESIGN** FEATURING BROACHED SQUARE ENGAGEMENT POSITIONED BY THREAD LOCKED GRUB SCREW.
- 2. "T" BAR** ERGONOMICALLY DESIGNED FOR EASE OF OPERATION. ANTI-TAMPER AND LOCKABLE DEVICES CAN BE SUPPLIED FOR ON SITE RETRO-FIT.
- 4. GLAND PACKING ADJUSTER** FOR MAXIMUM PACKING STABILITY AND PERFORMANCE. SIMPLE AND EASILY ADJUSTABLE FOR GLAND WEAR COMPENSATION.
- 6. VALVE BONNET** STANDARD CONSTRUCTION FOR MAXIMUM PRESSURE RATING WITH REPLACEABLE BONNET SEALING WASHER ARRANGEMENT.
- 8. THRUST BUSH** ANTI ROTATIONAL ADJUSTOR BUSH ENSURES UNIFORM PACKING COMPRESSION, MAXIMISING PRESSURE TIGHT SEALING AND LIMITING COLD FLOW PASSAGES.
- 10. BONNET/BODY WASHER** ANNEALED SEALING WASHER TO ENSURE COMPLETE ATMOSPHERIC LEAKAGE AND ALLOWING ON SITE RETRO-FIT OF BONNETS WITH 100% RE-SEALING ASSURANCE.

For safe reliable and repeatable performance



- 3. DUST CAP** THIS HAS A DUAL PURPOSE, PREVENTING AIR BORN DEBRIS FROM CONTAMINATING THE OPERATING SPINDLE THREAD AND PROVIDING COLOUR CODED FUNCTIONAL IDENTIFICATION. ISOLATE (BLUE).
- 5. GLAND ADJUSTER LOCK NUT** A SECURE ANTI VIBRATION LOCKING MECHANISM TO PREVENT INADVERTENT GLAND ADJUSTER LOOSENING.
- 7. ANTI BLOWOUT SPINDLE** DESIGNED FOR LOW TORQUE OPERATION WITH HIGH QUALITY MICRO MIRROR STEM FINISH FOR POSITIVE GLAND SEALING.
- 9. GLAND PACKING (ADJUSTABLE)** CHEVRON EFFECT DUAL PIECE GLAND PACKING TO PROVIDE MAXIMUM SEALING AREA CONTACT WITH MINIMUM GLAND ADJUSTMENT.
- 11. SPINDLE TIP** SELF CENTERING, NON-ROTATIONAL TIP GIVES SUCCESSIVE POSITIVE BUBBLE TIGHT SHUT OFF ASSURING THE USER OF LEAKAGE FREE PERFORMANCE AND DOWNSTREAM FUNCTIONAL SAFETY.

All metallic standard parts are produced in stainless steel, for alternative materials please refer to page 21. Manifolds produced in other specified materials will be provided with non-wetted parts as standard in stainless steel, this applies to items 1, 2, 4, 5 & 8.

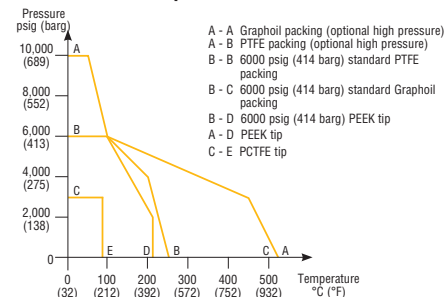
### Specification

- Height closed (standard and HP) = 47mm (1.85")
- Height open (standard and HP) = 50.3mm (2.00")
- Number of turns open/close - 3.5
- Stainless steel construction
- Maximum standard pressure up to 6,000 psig (414 barg)
- Maximum optional pressure up to 10,000 psig (689 barg). See page 8/9
- Temperature rating -54C to +538C (-65F to +1000F)
- PTFE standard gland packing (Graphoil optional)
- Maximum temperature PTFE 260C (500F)
- Maximum temperature Graphoil 538C (1000F)

### Features

- Standard unit throughout hand valve range
- Operating threads outside washout area
- Externally adjustable gland
- Low operating torque
- Alternative 10,000 psig (689 barg) range available
- Retro-fit kit for:-  
Anti-tamper spindle  
Panel mounting  
Lockable T bar  
Handwheel with lockable option
- Bonnet locking pin to prevent accidental removal fitted as standard
- Alternative graphoil packing for high temperature performance available
- Alternative self centering tip materials available for gaseous and aggressive fluids
- Safety back seated spindle prevents stem blowout and provides secondary back up stem seal
- Packing below threads to prevent lubricant washout
- All valves 100% factory tested
- NACE compliant wetted parts available
- Optional cleaned and lubricated suitable for Oxygen service
- Heat code traceable body and bonnet

### Pressure vs temperature



⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 3.

# Hand Valves

## Optional globe style bonnet design for HNV, HGV and HVG series

### For on-site assembly

The design options below can be simply retrofit to any NV, GV and VG series standard valves. Retrofit kit part numbers are listed next to the illustrated option and all parts will be supplied in stainless steel regardless of the parent body material.

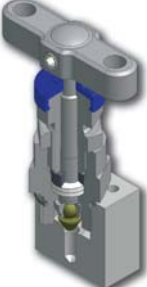






### For factory fitted assembly

To obtain factory assembled options the valve part number must be suffixed with the option and function designator. Options can be combined:-

Example HNV\*8FFAT – NV series valve, factory fitted with anti-tamper (AT) operating mechanism.

Example HGV\*8THL – GV series valve, factory fitted with "T" bar locking plate (THL).

Note: Padlocks for lockable handwheels and "T" bars are not supplied (hole size 6mm/0.24").

Standard bonnet	T bar handle locking	Anti tamper spindle
	 Retro-fit kit part number KITTHL Factory assembled suffix THL	 For key only - part no. ATHKEY/1 Retro-fit kit part number KITATK without key KITATK with key Factory assembled suffix AT without key ATK with key
Handwheel	*Panel mounting	B31.1 compliant
 Retro-fit kit part number KITHW Factory assembled suffix HW	 Retro-fit kit part number KITPM† Factory assembled suffix PM † Panel mount kit for HP: KITPMHP	 See page 19 for details
Lockable handwheel		
 Retro-fit kit part number KITLHW Factory assembled suffix LHW		

\*Panel mounting hole diameter = 26mm (1.02").

†Panel mounting hole diameter = 31mm/1.22"

Panel thickness = Max 5mm (0.20") Min 2.3mm (.09").

# Hand Valves

## Globe style bar stock needle valves HNV series (6,000 psig/414 barg)

### Purpose

Bar stock needle valves are purpose designed valves for operation with any fluid up to 6,000 psig (414 barg) rating. Complete with standard PTFE gland packing and self centering non rotational tip, gives the user assurance of total in service sealing security. For gaseous application soft tipped optional seating is available. A wide variety of end connectors are offered for all types of installation. NACE compliant materials and oxygen clean are also available along with an extensive list of materials of construction.

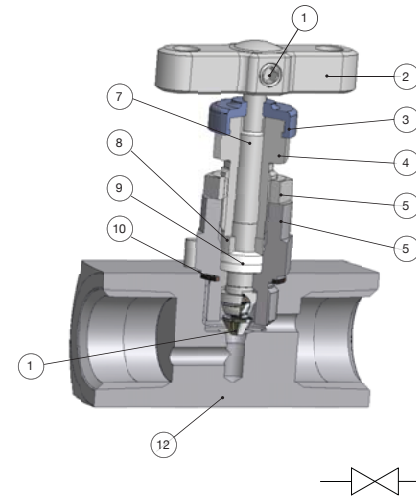


### Specification

- Standard seat diameter 4mm
- Optional seat diameter 6mm
- Cv: 0.35 standard
- Maximum standard pressure up to 6,000 psig (414 barg)
- Temperature rating -54C to +538C (-65F to +1000F)
- Port sizes up to 1/2" pipe thread and 1/2"/12mm tube compression ends as standard
- Optional sizes up to 1" pipe, tube and combination ends can be considered

### Features

- Rolled spindle operating threads
- Stainless steel construction as standard
- PTFE packing standard, optional graphite
- Alternative tip and materials of construction available
- Self centering non rotating spindle tip for bubble tight shut off
- Colour coded functional identification
- Back stop spindle for blowout prevention, and minimal atmospheric leakage
- Low torque operating T bar handle
- Externally adjustable gland
- Panel and base mount option
- Variety of end connections including integral compression one piece bodies
- Angled versions available
- Firesafe option available to API 607 BS 6755 Part 2
- Dust cap to prevent ingress of contamination to operating thread
- Bonnet locking pin fitted as standard
- Angled flow path (option)

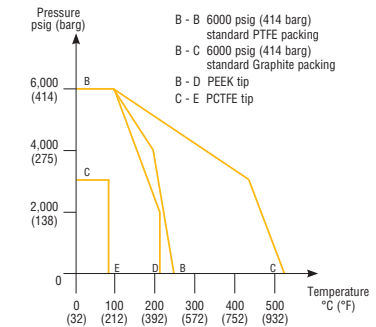


# Hand Valves

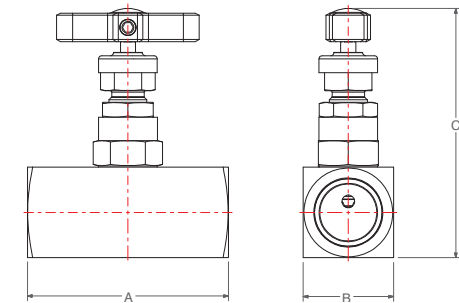
## Part description

Item	Description
1	Locked grub screw
2	T bar handle assembly
3	Dust cap/function label
4	Gland adjuster
5	Gland locknut
6	Valve bonnet
7	Anti blowout spindle
8	Thrust bush
9	Gland packing (2)
10	Sealing washer
11	Self centering spindle tip
12	Body

## Pressure vs temperature



⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 3.



Standard product specification: metal/metal seated, PTFE packed, stainless steel, T bar operation, globe pattern, 6000 psig (414 barg).

## Standard range part numbers

Part no.	Inlet		Outlet		Dimension		
	Female	Female	A mm (inch)	B mm (inch)	C mm (inch)		
HNV*4FF	1/4 NPT	1/4 NPT	54.0 (2.13")	28.6 (1.13")	79.4 (3.13")		
HNV*6FF	3/8 NPT	3/8 NPT	54.0 (2.13")	28.6 (1.13")	79.4 (3.13")		
HNV*8FF	1/2 NPT	1/2 NPT	63.5 (2.50")	28.6 (1.13")	79.4 (3.13")		
			Male	Female			
HNV*4M4F	1/4 NPT	1/4 NPT	57.8 (2.27")	28.6 (1.13")	79.4 (3.13")		
HNV*8M8F	1/2 NPT	1/2 NPT	73.0 (2.87")	28.6 (1.13")	79.4 (3.13")		
			A-LOK*	A-LOK*			
HNV*4A	1/4	1/4	67.5 (2.66")	25.4 (1.00")	76.2 (3.00")		
HNV*8A	1/2	1/2	76.2 (3.00")	25.4 (1.00")	76.2 (3.00")		
HNV*M6A	6mm	6mm	67.5 (2.66")	25.4 (1.00")	76.2 (3.00")		
HNV*M12A	12mm	12mm	76.2 (3.00")	25.4 (1.00")	76.2 (3.00")		

\*Insert material code

Notes for compression ended valves:-

1. For CPI\*\* change A to Z.
  2. "A" dimension given for finger tight nuts and ferrules.
  3. Can be offered to comply with latest issue of NACE subject to para. 8.4.1.1.
  4. For compression ended valve pressure ratings consult tube ratings table.
- Dimension "C" in open position.

Designed to meet pressure/temperature ratings of ANSI Class 2500 where applicable.

For a full list of options and suffix's, see page 20. For a full list of materials and specifications, see page 21.