

# INTEGRAL-BONNET NEEDLE VALVES

H300 SERIES



# INTEGRAL-BONNET NEEDLE VALVES H300 SERIES

## FEATURES

### Compliance with OSHA LOTO Standard

#### 29 CFR Part 1910.147- Control of Hazardous Energy

- Explosion-Proof Stem \*
- Vented Ball \*
- Stainless Steel and Brass Construction (A351 or 316 bar)
- Welded end \* (one-piece body)
- Locking Handle in On and Off positions
- MAWP 2000 psi (135 bar)
- MAWT 400°F (204°C)
- Flow coefficient (Cv) 1.25 to 17.35
- Size range: 1/4" to 1" or 6mm to 25mm

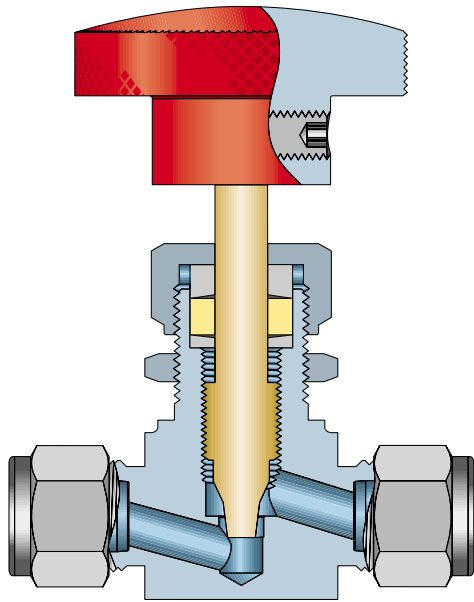
\* Optional

## GENERAL

The H300 Series is a high pressure instrumentation needle valve for shutoff service on instrumentation panels.

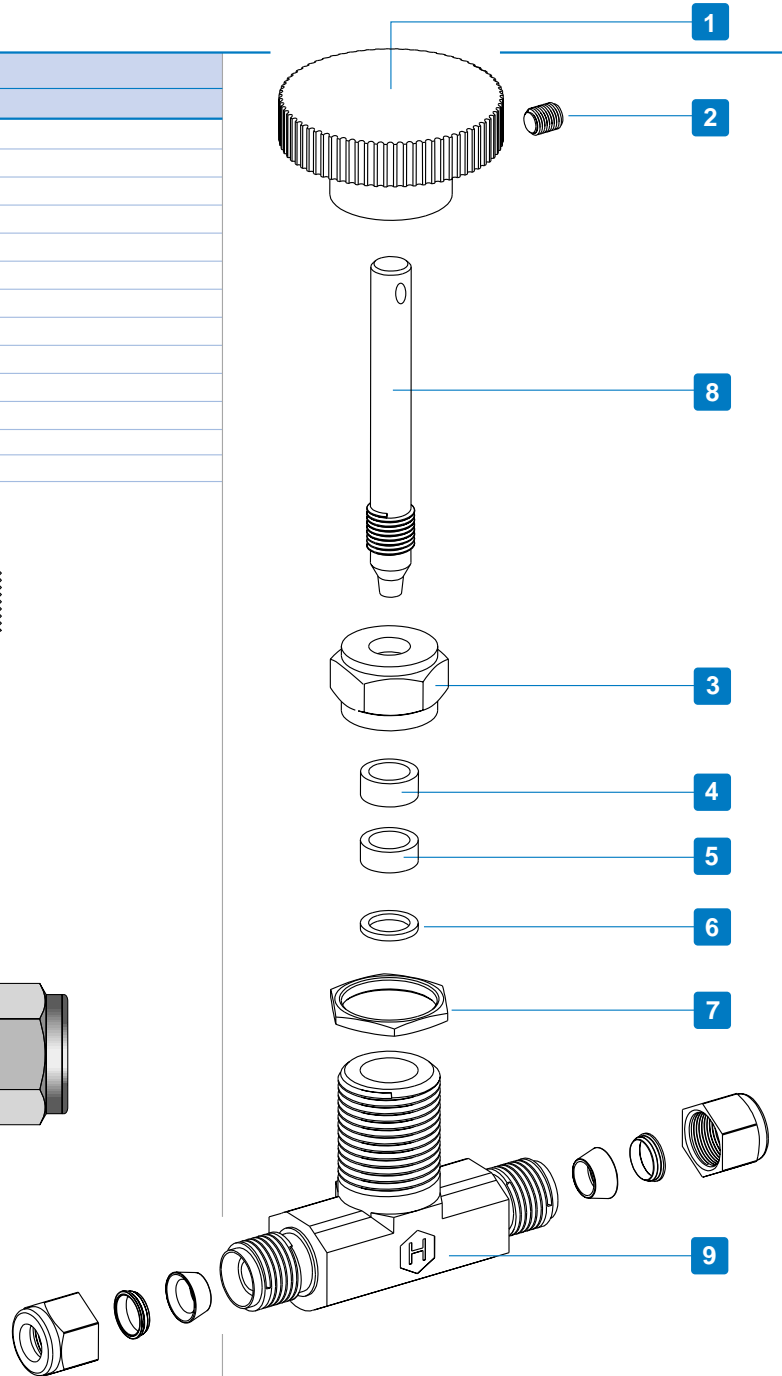
The valves offer compact structure with relatively high-flow regulating and long-life service. The H300 Series is rated to max. 5000 psig (340 bar) and performs on/off service.

MATERIALS			
No.	Part	Qty.	Material
1	Handle	1	Phenolic
2	Set Screw	1	St.St.316
3	Packing Nut	1	St.St.316
4	Upper Gland	1	St.St.316
5	A Packing Grafoil®	1	Grafoil®
	B Packing PTFE	1	PTFE
6	Lower Gland	1	St.St.316
7	Panel Nut	1	St.St.316
A	Regulating Stem	1	St.St.316
B	V-Stem	1	St.St.316
8	C Non-Rotating Stem	1	St.St.316
	D Soft Seat Stem	1	St.St.316
9	Body	1	St.St.316



### STEM PACKING KIT

Packing kits are available. Kits contain:  
 Packing (no. 5 in Materials Table above)  
 Upper Gland (no. 4 in Materials Table above)  
 Lower Gland (no. 6 in Materials Table above)



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## ALTERNATIVE STEMS

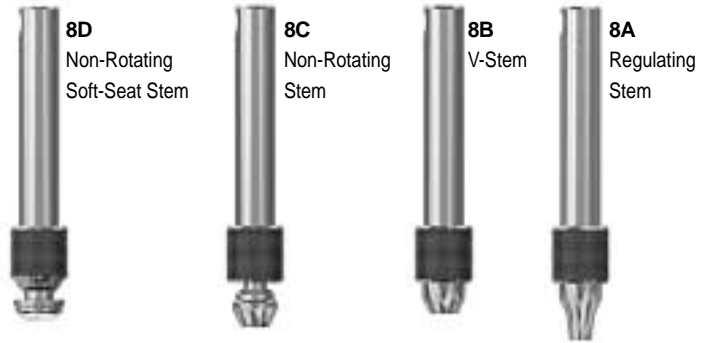
HAM-LET needle valves are available with a choice of stem-tip options to allow greater flexibility.

**8A Regulating:** Used where some degree of flow control is required.

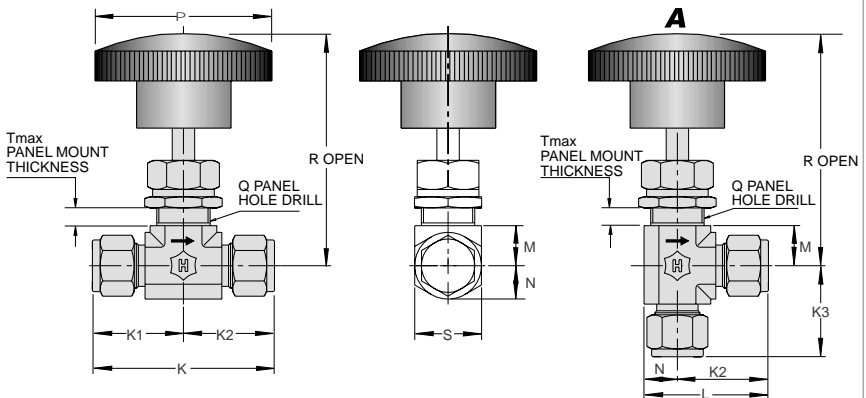
**8B V-Stem:** A standard stem tip used for general-purpose liquids and gases.

**8C Non-Rotating:** Typically used in high-cycle applications to extend valve life. It is designed to prevent galling between the seat and stem.

**8D Soft Seat:** A soft seat requires a lower seating torque than a metal stem tip. The soft seat is replaceable. Maximum temperature 250°F (121°C).



DIMENSIONS H300 SERIES																										
Basic Ordering Number	Orifice mm / in	Cv	Connection Size		K		K1		K2		K3		L Dimensions		M mm / in	N mm / in	P mm / in	Q mm / in	R Open mm / in	S mm / in	Tmax mm / in					
			Inlet	Outlet	mm	in	mm	in	mm	in	mm	in	mm	in												
H300	2.0 (0.08)	0.09	3mm LET-LOK®	3mm LET-LOK®	50.8	2.00	25.4	1.00	25.4	1.00	25.4	1.00	33.4	1.31	10.0	7.95	41.0	13.0	72.0	15.9	7.0					
H300			1/8" LET-LOK®	1/8" LET-LOK®	50.8	2.00	25.4	1.00	25.4	1.00	25.4	1.00	33.4	1.31												
H395			1/8" MALE NPT	1/8" LET-LOK®	44.4	1.75	19.0	0.75	25.4	1.00	19.0	0.75	33.4	1.31												
H300	4.4 (0.172)	0.37	1/4" LET-LOK®	1/4" LET-LOK®	58.8	2.31	29.4	1.16	29.4	1.16	29.4	1.16	37.4	1.47	0.39"	0.31"	1.61"	0.51"	2.83"	5/8"	0.27"					
H300			6mm LET-LOK®	6mm LET-LOK®	58.8	2.31	29.4	1.16	29.4	1.16	29.4	1.16	37.4	1.47												
H300			8mm LET-LOK®	8mm LET-LOK®	58.8	2.31	29.4	1.16	29.4	1.16	29.4	1.16	37.4	1.47												
H310			1/8" Female NPT	1/8" Female NPT	41.2	1.62	20.6	0.81	20.6	0.81	20.6	0.81	28.6	1.12												
H380			1/8" Male NPT	1/8" Male NPT	50.8	2.00	25.4	1.00	25.4	1.00	25.4	1.00	33.4	1.31												
H380			1/4" Male NPT	1/4" Male NPT	50.8	2.00	25.4	1.00	25.4	1.00	25.4	1.00	33.4	1.31												
H395			1/4" Male NPT	1/4" LET-LOK®	54.8	2.16	25.4	1.00	29.4	1.16	25.4	1.00	37.4	1.47												
H300			3/8" LET-LOK®	3/8" LET-LOK®	66.0	2.60	33.0	1.30	33.0	1.30	33.0	1.30	45.0	1.77												
H300			10mm LET-LOK®	10mm LET-LOK®	66.4	2.62	33.2	1.31	33.2	1.31	33.2	1.31	45.2	1.78												
H300			1/2" LET-LOK®	1/2" LET-LOK®	71.6	2.82	35.8	1.41	35.8	1.41	35.8	1.41	47.7	1.88												
H300	12mm LET-LOK®	12mm LET-LOK®	71.6	2.82	35.8	1.41	35.8	1.41	35.8	1.41	47.7	1.88														
H310	1/4" Female NPT	1/4" Female NPT	54.0	2.12	27.0	1.06	27.0	1.06	27.0	1.06	38.9	1.53	14.3	11.9	50.0	20.0	826	23.8	7.0							
H310R	1/4" Female BSPT	1/4" Female BSPT	54.0	2.12	27.0	1.06	27.0	1.06	27.0	1.06	38.9	1.53														
H380	3/8" Male NPT	3/8" Male NPT	57.0	2.24	28.5	1.12	28.5	1.12	28.5	1.12	40.4	1.59														
H385	1/4" Male NPT	1/4" Female NPT	55.5	2.18	28.5	1.12	27.0	1.06	28.5	1.12	38.9	1.53														
H385	3/8" Male NPT	3/8" Female NPT	56.5	2.22	28.5	1.12	28.0	1.10	28.5	1.12	39.9	1.57														
H395	1/4" Male NPT	3/8" LET-LOK®	61.5	2.42	28.5	1.12	33.0	1.30	28.5	1.12	45.0	1.77														
H395	3/8" Male NPT	3/8" LET-LOK®	61.5	2.42	28.5	1.12	33.0	1.30	28.5	1.12	45.0	1.77														
H395	3/8" Male NPT	1/2" LET-LOK®	64.3	2.53	28.5	1.12	35.8	1.41	28.5	1.12	47.7	1.88														
H300	3/4" LET-LOK®	3/4" LET-LOK®	97.0	3.82	48.5	1.91	48.5	1.91	48.5	1.91	63.6	2.50								19.0	15.1	64.0	26.0	103.3	30.2	6.5
H310	3/8" Female NPT	3/8" Female NPT	76.2	3.00	38.1	1.50	38.1	1.50	38.1	1.50	53.2	2.09														
H310	1/2" Female NPT	1/2" Female NPT	76.2	3.00	38.1	1.50	38.1	1.50	38.1	1.50	53.2	2.09														
H380	1/2" Male NPT	1/2" Male NPT	76.2	3.00	38.1	1.50	38.1	1.50	38.1	1.50	53.2	2.09														
H380	1/2" Male NPT	1/2" Male NPT	76.2	3.00	38.1	1.50	38.1	1.50	38.1	1.50	53.2	2.09														
H385	1/2" Male NPT	1/2" Female NPT	76.2	3.00	38.1	1.50	38.1	1.50	38.1	1.50	53.2	2.09														



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## CLEANING & PACKAGING

HAM-LET's H300 Needle Valve is treated with HAM-LET Passivation Cleaning and Packaging (Procedure 8075).

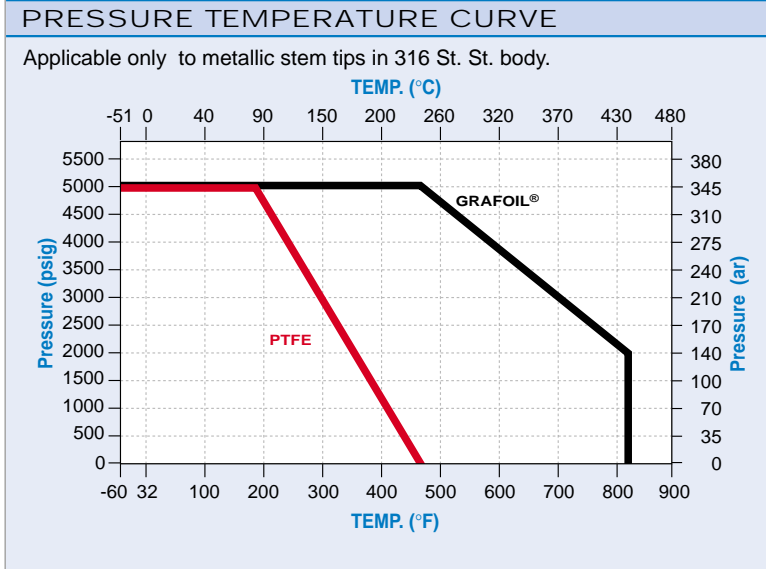
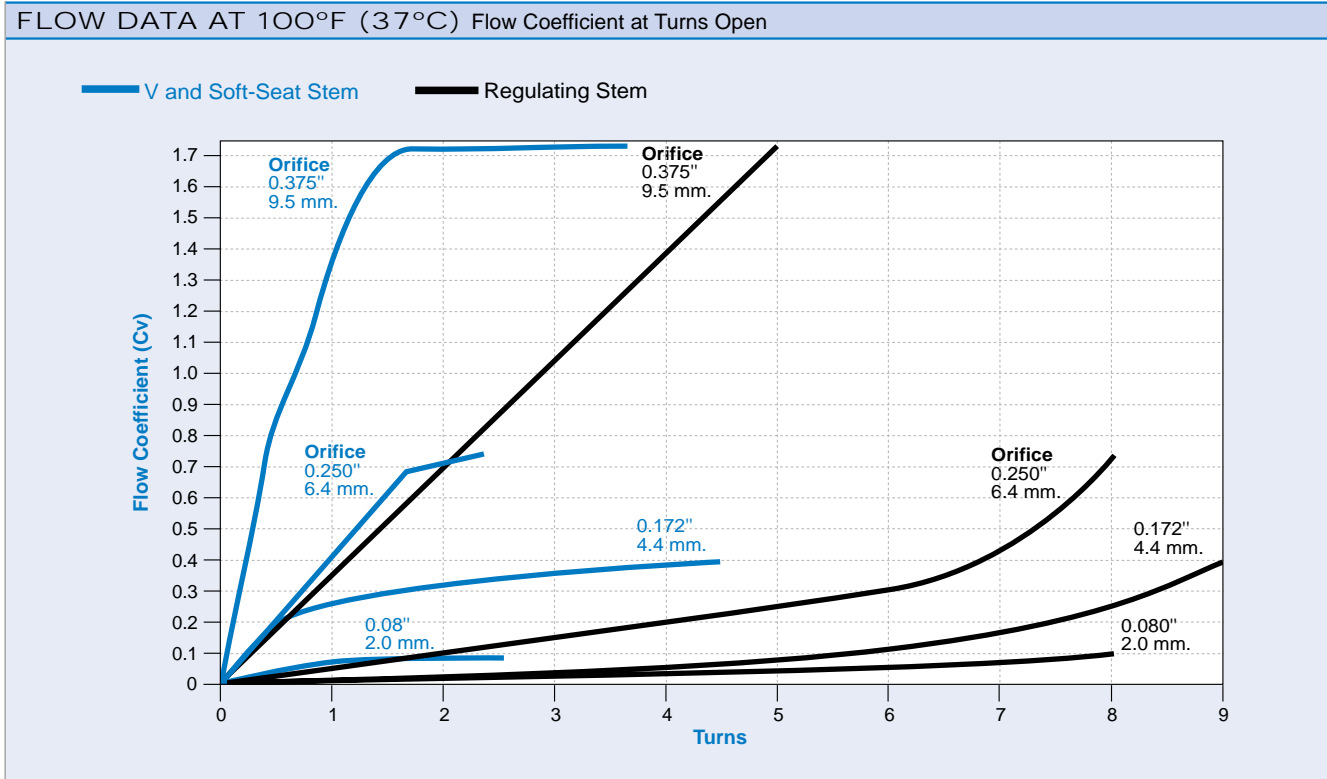
Oxygen Cleaning and Packaging (Procedure 8055) is available as an option.

## TESTING

The H300 Series Needle Valve designs have been tested for Proof and Burst. Every H300 Needle Valve is factory tested with nitrogen at 1000 psi (69 bar). The maximum allowable leak age across seats is 0.1 std cc/min.

## PACKING ADJUSTMENT

Due to the varied service applications of the valve, packing adjustment may be occasionally necessary. Packing is factory adjusted to 1000 psig service. Initial packing adjustment is recommended after installation and prior to start-up. Please find more information at H300 under installation instruction.




**TECHNICAL DATA**

The following table depicts the temperature and pressure ratings for a standard valve with PTFE packing.

Body Material	Stem Type	Rating	
		Temperature	Pressure
316 st.st.	All St.St. Stems	-46°C to 230°C (-51°F to 446°F)	5000 psi
	Kel-F	-46°C to 121°C (-51°F to 250°F)	(34,450kPa)
Brass	Regulating & V-Stem	-46°C to 200°C (-51°F to 392°F)	3000 psi
	Kel-F	-46°C to 121°C (-51°F to 250°F)	(20,600kPa)

\* Extreme temperature fluctuations may require packing nut adjustment.

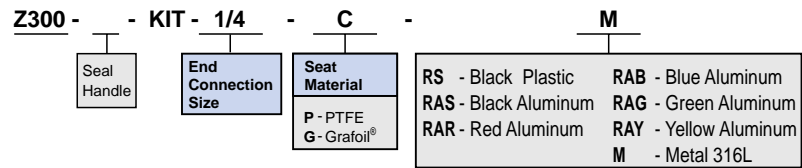
ORDERING INFORMATION Your Safety is important to us. Please ensure proper reference to our latest catalog

<b>H3</b>	<b>00</b>	<b>SS</b>	<b>L</b>	<b>V</b>	<b>1/4</b>	<b>R</b>	<b>A</b>	<b>OPTIONAL</b>
<b>Valve Series</b>								
<b>Valve Type</b>	<b>Body Material</b>	<b>End Connection</b>	<b>Stem Designator</b>	<b>End Con. Size</b>	<b>Handle</b>	<b>Pattern Designator</b>	<b>Suffix Designator</b>	
<b>00</b> - LET-LOK to LET-LOK® <b>10</b> - Female to Female <b>80</b> - Male to Male <b>95</b> - Male to LET-LOK®	<b>SS</b> - 316SS <b>B</b> - Brass	<b>L</b> - LET-LOK® <b>N</b> - NPT <b>R</b> - BSPT <b>NL</b> - NPT to LET-LOK® <b>HL</b> - Single Ferrule <b>G</b> - BSPP <b>GL</b> - Face Seal Ends	<b>V</b> - V-Stem <b>R</b> - Regulating Stem <b>K</b> - Soft Seat Kel-F Stem <b>NR</b> - Non-Rotating Stem	<b>1/8"</b> 3mm <b>1/4"</b> 6mm <b>3/8"</b> 8mm <b>1/2"</b> 10mm <b>3/4"</b> 12mm	<b>RS</b> - Black Plastic <b>RAS</b> - Black Aluminum <b>RAR</b> - Red Aluminum <b>RAB</b> - Blue Aluminum <b>RAG</b> - Green Aluminum <b>RAY</b> - Yellow Aluminum <b>M</b> - Metal 316L	<b>A</b> - Angle <b>S</b> - Straight (standard)	<b>G</b> - Grafoil®	

For other materials and end connections, consult factory Engineering Dept.  
For more technical information and data see our catalog T-3300 Corrosion Data.

ORDERING INFORMATION SPARE-PARTS KIT / REPAIR KIT

A Spare-Parts Kit is available for each valve. The kit includes Stem Packing.  
To order a Spare-Parts Kit, use the following format:



COLORED HANDLES



Spare Round-Handle Kits are available for each valve. The Kit includes an aluminum round handle and a set screw.

**Warning**

Select the right component for safety's sake: The total design of the system must be taken into consideration when selecting components in order to ensure that your HAM-LET products provide safe, trouble-free operation. It is the responsibility of the system designer and the user to consider the compatibility of the materials, of the components and system, the function of the component, appropriate ratings and to ensure proper installation, operation and maintenance.  
Improper selection or use of products can cause property damage or personal injury, in respect of which the system designer and/or the user shall be solely liable and responsible.