

# INTEGRAL-BONNET NEEDLE VALVES H-300 SERIES



**FEATURES**

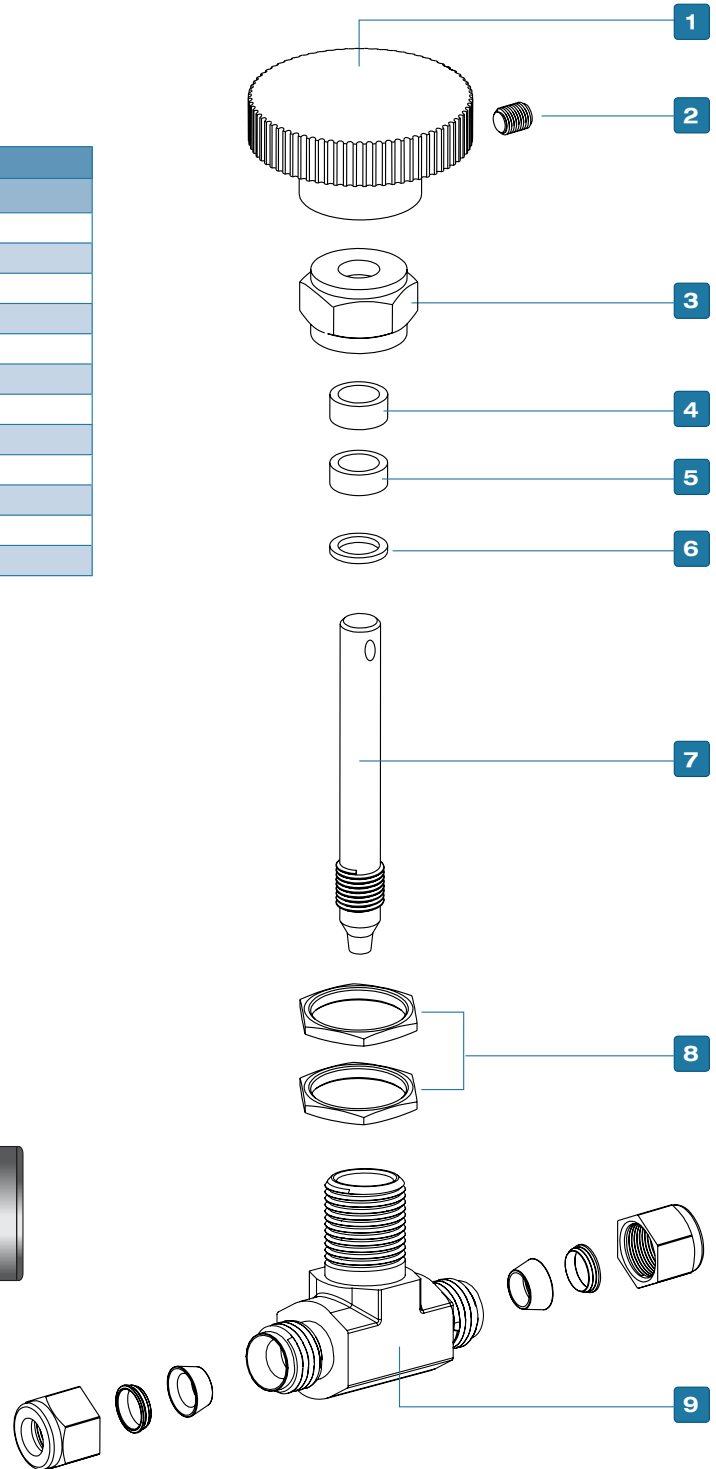
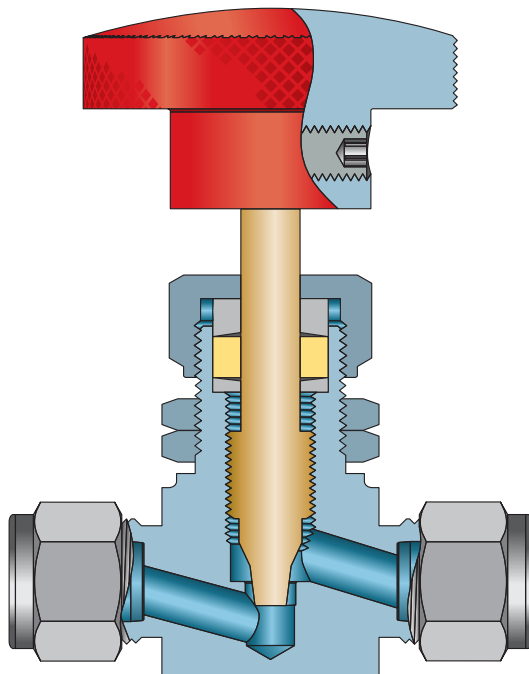
- Straight and angle pattern
- Stainless Steel and Brass construction
- MAWP 5000 psi (345 bar)
- MAWT 446°F (230°C)
- Flow coefficient (Cv) 0.09 to 1.8
- Sizes: 1/8" to 3/4" (3mm-12mm)
- Round and metal handles
- Variable stem range

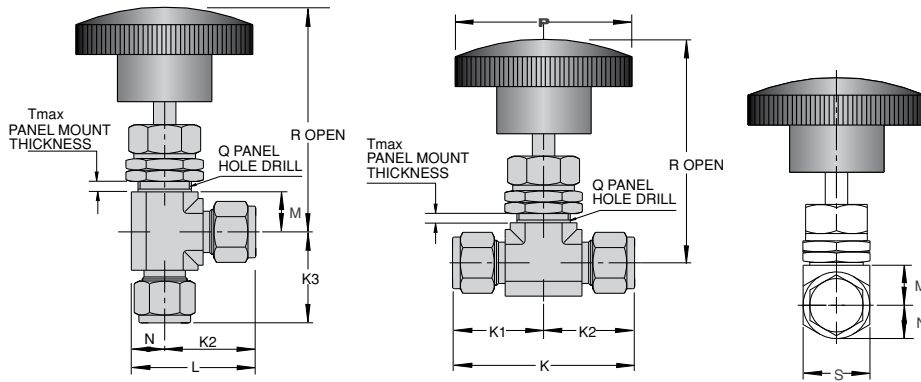
**GENERAL**

The H-300 Series is a high pressure instrumentation needle valve for shut-off service on instrumentation panels.

The valve offers compact structure size with the ability for relatively high-flow regulating and long-life service. The H-300 Series is rated to max. 5000 psig (345 bar) and performs on/off service.

MATERIAL OF CONSTRUCTION			
No.	Components	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	Packing	1	PTFE
6	Lower Gland	1	St.St.316
7	A Regulating Stem	1	St.St.316
	B V-Stem	1	St.St.316
	C Non-Rotating Stem	1	St.St.316
	D Soft Seat Stem	1	St.St.316
8	Panel Nut	2	St.St.316
9	Body	1	St.St.316





STANDARD CONFIGURATION DIMENSIONS																								
Basic Ordering Number	Orifice mm/in	Cv	Connection Size		K		K1		K2		K3		L		M mm/in	N mm/in	P mm/in	Q mm/in	R mm/in	S mm/in	Tmax mm/in			
			Inlet	Outlet	mm	in	mm	in	mm	in	mm	in	mm	in										
H-300	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										
H-300			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										
H-395			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										
H-300	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										
H-300			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	10.0	7.95	41.0	13.0	72.0	15.9	4.0			
H-300			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	0.39"	0.31"	1.61"	0.51"	2.83"	5/8"	0.16"			
H-310			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										
H-380			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										
H-300			6.4 (0.25)	0.73	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								
H-300					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								
H-300					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								
H-300	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										
H-310	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										
H-310R	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	14.3	11.9	50.0	20.0	82.6	23.8	4.0			
H-380	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	0.56"	0.47"	1.97"	0.79"	3.25"	15/16"	0.16"			
H-385	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										
H-385	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										
H-395	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												
H-395	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												
H-300	9.5 (0.375)	1.8	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										
H-310			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										
H-310			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	19.0	15.1	64.0	26.0	103.3	30.2	4.0			
H-380			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	0.75"	0.59"	2.52"	1.02"	4.06"	1 3/16"	0.16"			
H-385			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										

**ALTERNATIVE STEMS**

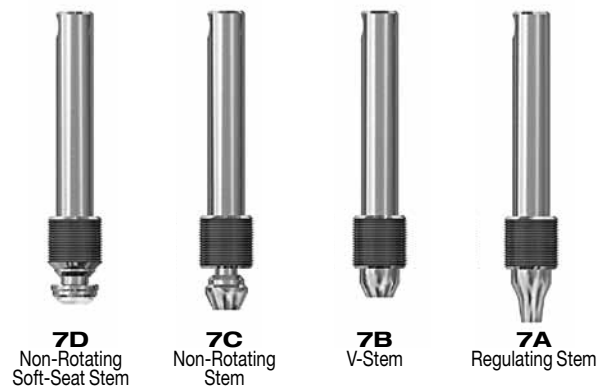
HAM-LET needle valves are available with a choice of stem-tip options to allow greater flexibility.

**7A Regulating:** Used where some degree of flow control is required.

**7B V-Stem:** A standard stem tip used for general-purpose liquids and gases on/off service.

**7C Non-Rotating:** Typically used in high-cycle applications to extend valve life. It is designed to prevent galling between the seat and stem.

**7D Soft Seat:** A soft seat requires a lower seating torque than a metal stem tip. The soft seat is replaceable. Maximum temperature 200°F (93°C).



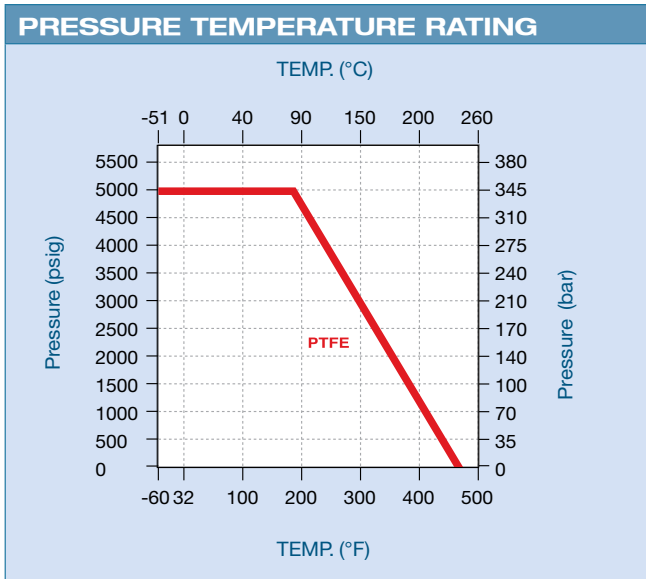
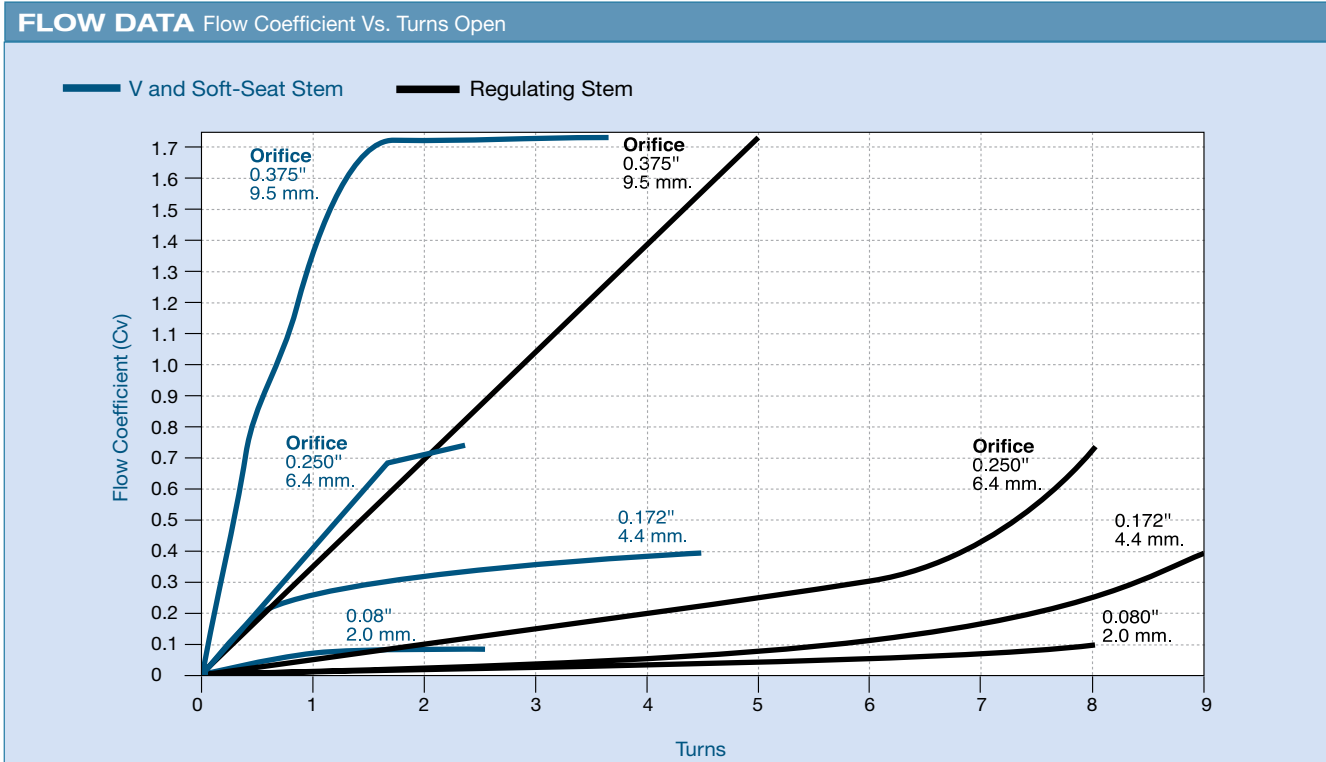
**CLEANING & PACKAGING TESTING**

HAM-LET H-300 Needle Valve is treated with Passivation Cleaning and Packaging (Procedure 8075). Oxygen Cleaning and Packaging (Procedure 8055) is available as an option.

The H-300 Series Needle Valve design has been tested for Proof and Burst. Every H300 Needle Valve is factory tested with nitrogen at 1000 psi (69 bar). The maximum allowable leakage across seat 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. See packaging adjustment procedure No.3901882



**TECHNICAL DATA**

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

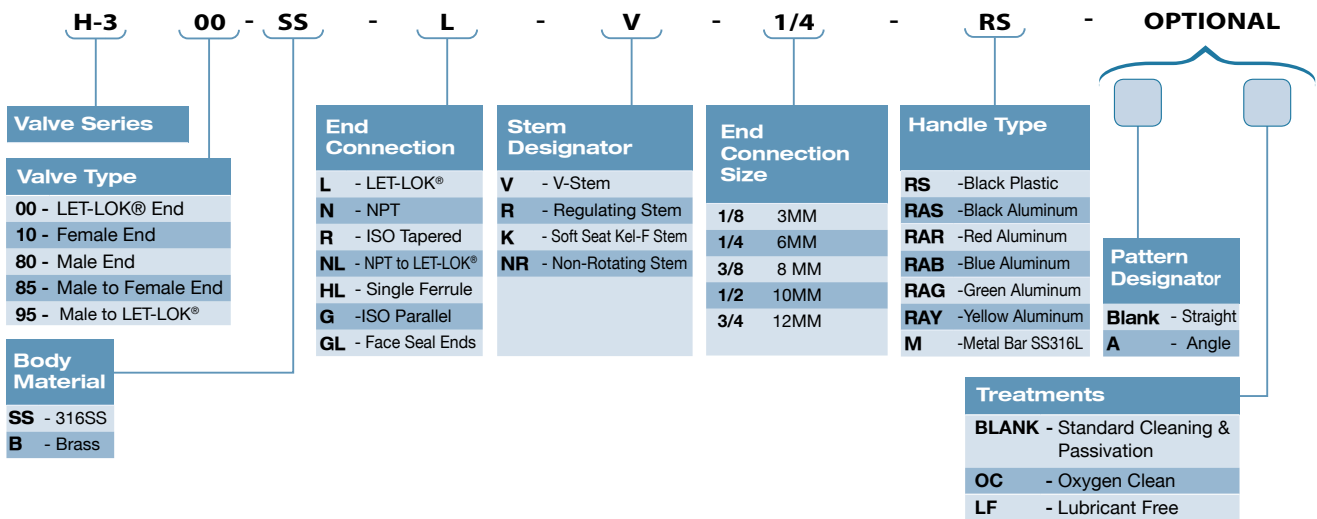
Body Material	Stem Type	Rating	
		Outlet	Pressure
316 st.st.	All St.St. Stems	-46°C to 230°C (-51°F to 446°F)	5000 psi
	Kel-F	-46°C to 93°C (-51°F to 200°F)	5000 psi
Brass	Regulating & V-Stem	-46°C to 200°C (-51°F to 392°F)	3000 psi
	Kel-F	-46°C to 93°C (-51°F to 200°F)	3000 psi

\* Extreme temperature fluctuations may require packing adjustment.

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



**H-300 SERIES ORDERING INFORMATION**



**SPARE KITS**

Series	End Size	Seal Kit*	Handle Kit**
<b>H-380</b> Male to Male	1/8, 1/4	Z-300-SK-1/4-P	Z-300-HK-1/4- <input type="checkbox"/>
	3/8	Z-300-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
	1/2, 3/4	Z-310-SK-1/2-P	Z-310-HK-1/2- <input type="checkbox"/>
<b>H-310</b> Female to Female	1/8	Z-300-SK-1/4-P	Z-300-HK-1/4- <input type="checkbox"/>
	1/4	Z-300-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
	3/8, 1/2	Z-310-SK-1/2-P	Z-310-HK-1/2- <input type="checkbox"/>
<b>H-395</b> Male to Let-Lok	1/8, 1/4	Z-300-SK-1/4-P	Z-300-HK-1/4- <input type="checkbox"/>
	3/8	Z-300-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
<b>H-385</b> Male to Female	1/4	Z-300-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
	3/8	Z-310-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
	1/2	Z-310-SK-1/2-P	Z-310-HK-1/2- <input type="checkbox"/>
<b>H-300</b> Let-Lok	1/8, 1/4, 3MM, 6MM, 8MM	Z-300-SK-1/4-P	Z-300-HK-1/4- <input type="checkbox"/>
	3/8, 1/2, 10MM, 12MM	Z-300-SK-1/2-P	Z-300-HK-1/2- <input type="checkbox"/>
	3/4	Z-310-SK-1/2-P	Z-310-HK-1/2- <input type="checkbox"/>

\*Seal Kit contains packing

\*\*Handle Kit contains handle + set screw.

- Handle type per "How to Order"

**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.

