Innovation in Miniature

PRODUCT DATA SHEET

281 PRI®/CHEK® VALVE

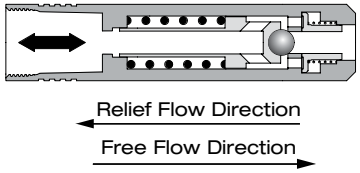
The Lee Company's new 281 PRI/Chek Valve combines the function of a pressure relief valve in parallel with a check valve into one easy to install insert. The relief valve function features a rugged Tungsten Carbide ball and a 440C seat for durability and long life. The remaining components are constructed entirely of stainless steel.

Offered with or without integral safety screens, the 281 PRI/Chek Valve is available in a range of relief flow cracking pressures for system pressures up to 5000 psi. Maximum restriction in the Free Flow Direction is only 300 Lohms* (550 Lohms for screened version).

Each Lee PRI/Chek Valve is 100% tested and inspected in both flow directions to ensure reliable, consistent performance.

- Combines the function of a pressure relief valve in parallel with a check valve
- Durable tungsten carbide ball and a 440C seat
- Screened version available
- Designed for system pressures up to 5000 psi
- Weighs only 8 grams (9 grams for screened version)
- Endurance tested to 100,000 relief flow and 500,000 free flow cycles

.281 PRI/Chek Valve



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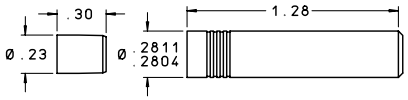
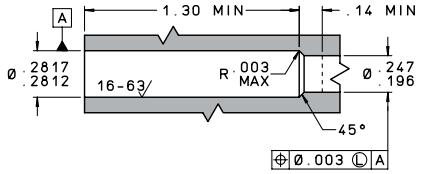
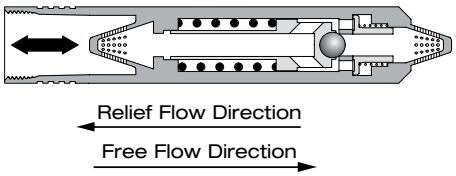


INSTALLATION HOLE



Screened .281 PRI/Chek Valve



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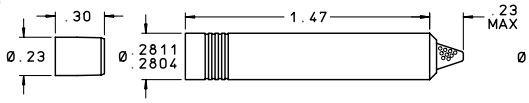

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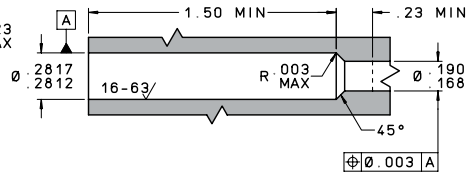

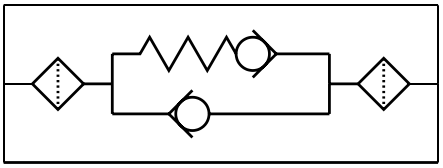

INSTALLATION AND EXTRACTION
Tool Set Part No.: CUTA2810114C
Replacement Pin Part No.: SHBA2810003A

** The Lohm is a measure of flow resistance. Additional information can be found at www.TheLeeCo.com.*

MATERIALS		
PART	**MATERIAL**	**SPECIFICATION**
Shuttle Plate	303 CRES	QQ-S-763C
Seat	440C CRES	AMS 5630
Spring Seat	303 CRES	QQ-S-763C
Springs	17-7PH CRES	AMS 5678
Body	15-5PH CRES	AMS 5659
Ball Follower	303 CRES	QQ-S-763C
Tube	17-4PH CRES or 304 CRES	AMS 5643, AMS 5639
Ball	Tungsten Carbide	–
Pin	15-5PH CRES	AMS 5659
Screens	15-5PH CRES	AMS 5659

THE LEE COMPANY, 2 PETTIPAUG RD., P.O. BOX 424, WESTBROOK, CT 06498-0424

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Fax, Order Entry: 860-399-7058
Fax, Technical Information: 860-399-7037
Web: www.TheLeeCo.com

.281 PRI® /CHEK® VALVE

LEE PART NUMBER	RELIEF FLOW DIRECTION					FREE FLOW DIRECTION	
	MINIMUM CRACKING PRESSURE (psid)	FLOW POINT			MINIMUM SHUTOFF PRESSURE (psid)	CRACKING PRESSURE (psid)	LOHM RATE AT 25 PSID AND GREATER
		MAX. LOHM* RATE	MIN. FLOW (gpm)	AT (psid)			
PFRA2810500L	500	220	2.4	625	425	5 ± 3	300 max
PFRA2810100D	1000	220	3.4	1250	850	5 ± 3	300 max
PFRA2810120D	1200	220	3.7	1500	1025	5 ± 3	300 max
PFRA2810200D	2000	220	4.8	2500	1700	5 ± 3	300 max
PFRA2810220D	2200	220	5.0	2750	1850	5 ± 3	300 max
PFRA2810240D	2400	220	5.2	3000	2050	5 ± 3	300 max
PFRA2810300D	3000	220	5.9	3750	2550	5 ± 3	300 max
PFRA2810320D	3200	280	4.8	4000	2700	5 ± 3	300 max
PFRA2810360D	3600	280	5.1	4500	3050	5 ± 3	300 max

SCREENED .281 PRI® /CHEK® VALVE

LEE PART NUMBER	RELIEF FLOW DIRECTION					FREE FLOW DIRECTION	
	MINIMUM CRACKING PRESSURE (psid)	FLOW POINT			MINIMUM SHUTOFF PRESSURE (psid)	CRACKING PRESSURE (psid)	LOHM RATE AT 25 PSID AND GREATER
		MAX. LOHM* RATE	MIN. FLOW (gpm)	AT (psid)			
PFRA2815500L	500	350	1.5	625	425	5 ± 3	550 max
PFRA2815100D	1000	350	2.2	1250	850	5 ± 3	550 max
PFRA2815120D	1200	350	2.4	1500	1025	5 ± 3	550 max
PFRA2815200D	2000	350	3.1	2500	1700	5 ± 3	550 max
PFRA2815220D	2200	350	3.2	2750	1850	5 ± 3	550 max
PFRA2815240D	2400	350	3.4	3000	2050	5 ± 3	550 max
PFRA2815300D	3000	1500	0.9	3600	2850	5 ± 3	550 max
PFRA2815320D	3200	1500	0.9	3850	3000	5 ± 3	550 max
PFRA2815340D	3400	1500	0.95	4050	3200	5 ± 3	550 max
PFRA2815420D	4200	1500	1.0	4750	3700	5 ± 3	550 max
PFRA2815450D	4500	1500	1.0	5100	4000	5 ± 3	550 max
PFRA2815470D	4700	1500	1.1	5300	4200	5 ± 3	550 max
PFRA2815520D	5200	1500	1.1	5800	4550	5 ± 3	550 max
PFRA2815570D	5700	1500	1.2	6350	5000	5 ± 3	550 max
PFRA2815590D	5900	1500	1.2	6600	5200	5 ± 3	550 max

PERFORMANCE

Relief Flow Direction:
Leakage at Minimum Cracking Pressure: 10 drops/minute max.
Leakage at Minimum Shutoff Pressure: 10 drops/minute max.

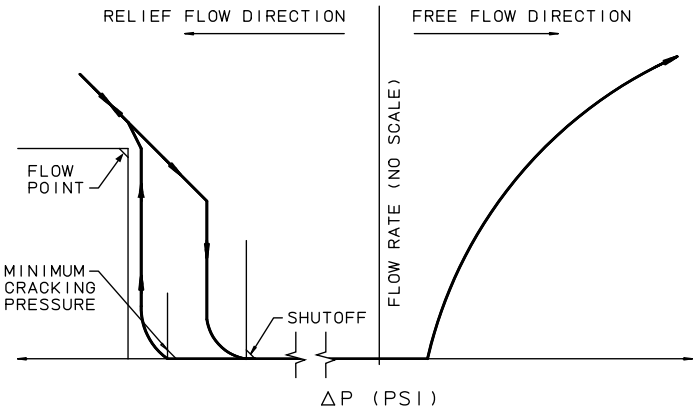
Nominal System Pressure: up to 5000 psi
System Peak Pressure: 6750 psi maximum

Nominal Weight: 8.0 grams unscreened
9.0 grams screened

Screen Hole Size: 0.008" Nominal

Valve performance on MIL-PRF-83282 or MIL-PRF-5606 at 85°F±15°F.

0.281 PRI/CHEK FLOW CURVE



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