

## 12 mm BR SERIES SAFETY SCREEN FILTER

The Lee Company's new 12 mm BR Series Safety Screen Filter is engineered to provide robust, last-line protection against contamination in hydraulic and pneumatic systems. Featuring an integrated Barb Retention (BR) design, it installs securely in metal housings without the need for threads, sealants, or O-rings.

Contamination poses a serious risk to downstream components and can be introduced at any stage – from assembly to maintenance. The 12 mm BR Series Safety Screen Filter acts as a final safeguard, helping prevent sudden and costly failures caused by rogue particles. This screen is not intended for full system filtration, but rather as critical point-of-use protection.

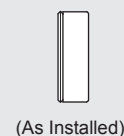
Constructed from stainless steel woven wire mesh and each 12 mm BR Series Safety Screen Filter is bonded using a proprietary process that enhances structural integrity and extends life. In the event of excessive contamination buildup, this design ensures that the safety screen filter will not rupture but instead experiences a gradual reduction in flow performance.

Ideal for compact, high performance applications, this safety screen filter is available in a 12 mm diameter envelope with micron ratings of 40, 75, 125, and 170. Additional sizes and micron ratings are available upon request. To discuss specific application needs or to request custom options, please contact your local Lee Sales Engineer.

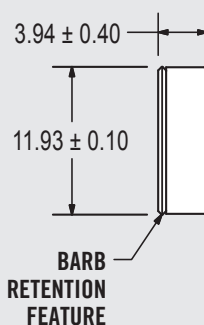
- Crafted from high strength stainless steel woven wire mesh and bonded with a proprietary process for rupture resistance and long-term durability.
- Simple installation method with integrated Barb Retention eliminates the need for secondary threads, sealants, or O-rings.
- One-piece design supports both automated and manual installation for streamlined assembly.



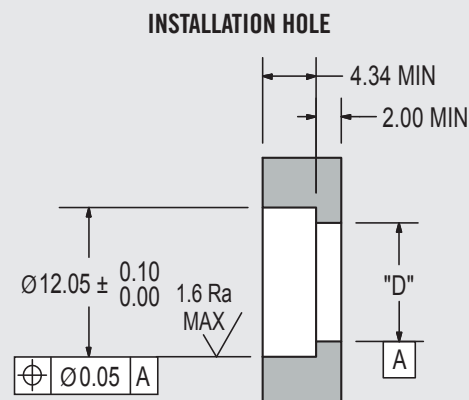
ACTUAL SIZE



12 mm BR SERIES  
SAFETY SCREEN FILTER



FLOW DIRECTION



All dimensions are in millimeters, except where noted.

PART NUMBER	MICRON RATING	LOHM RATE*	OPEN AREA (mm <sup>2</sup> )	ROB NUMBER**	MIN. BURST PRESSURE (MPa)***	INSTALLATION HOLE "D" (mm)	APPROXIMATE WEIGHT (g)
SCRM5121040S	40	24 Lohms	18.0	0.34	24	9.60	1.0
SCRM5121075S	75	22 Lohms	15.9	0.64	24	9.60	1.0
SCRM5121125S	125	36 Lohms	13.3	1.17	24	9.58	1.0
SCRM5121170S	170	27 Lohms	16.8	2.95	24	9.22	1.1

\* The Lohm is a measure of liquid flow resistance. Additional information can be found on the reverse side and at [theleeco.com/Lohm](http://theleeco.com/Lohm).

\*\* The ROB Number indicates relative resistance to blockage when comparing one screen to another. The higher the ROB Number, the greater the resistance to blockage.

\*\*\* Minimum burst pressure for a fully clogged safety screen filter.



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ADDITIONAL  
RESOURCES



## 12 mm BR SERIES SAFETY SCREEN FILTER

### INSTALLATION

To install the 12 mm BR Series Safety Screen Filter correctly, insert the screen into the recommended installation hole with the Barb Retention feature facing outward. Apply a non-impact force using the specified installation tool and force appropriate for the boss material.

Monitor both the installation force and tool travel to ensure the screen is properly seated. The required installation force is dependent on boss material, installation hole dimensions, and boss geometry. It is important to establish the correct force based on your specific housing material, geometry, and installation press setup. For installation support, please contact your local Lee Sales Engineer or review the detailed guidance provided within Installation Procedure "IP SCRM BR."

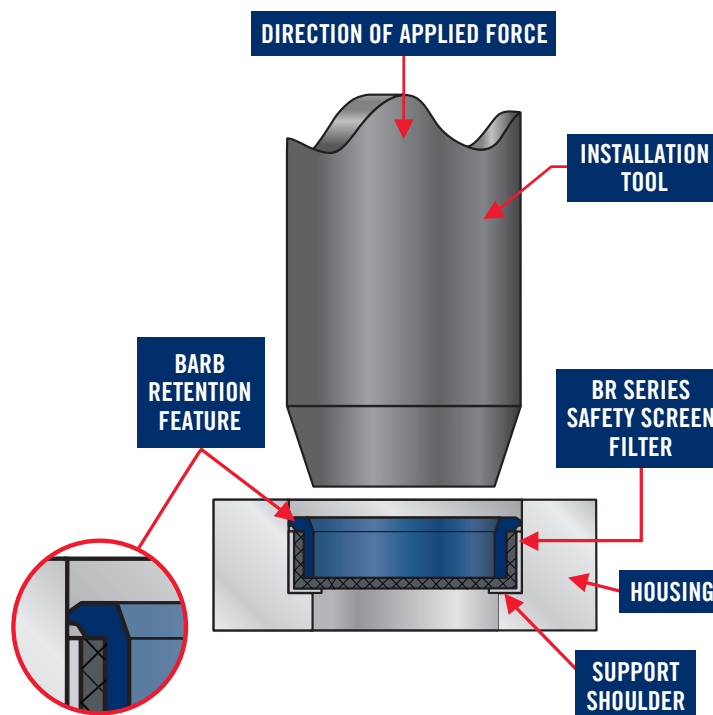
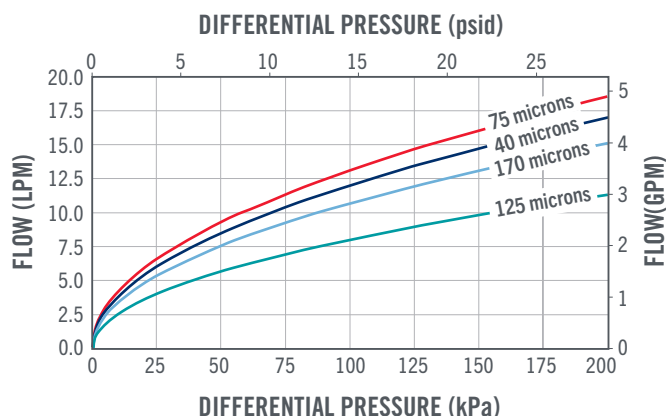
Typical installation forces for common boss materials are listed below.

BOSS MATERIAL	HARDNESS	TYPICAL INSTALLATION FORCE
6061 Aluminum	40 HRA	8.9 kN (2000 lbf)
303 Stainless Steel	23 HRC	10.0 kN (2250 lbf)

MICRON RATING	INSTALLATION TOOL PART NUMBER
40	CCRT5120040S
75	CCRT5120075S
125	CCRT5120125S
170	CCRT5120170S

### FLOW PERFORMANCE

$\Delta P$  vs. FLOW ON WATER AT 27°C (80°F)



## LEE LOHM LAWS

### WORKING WITH LIQUIDS & GASES

Engineers will be interested in our simple method of defining and measuring the resistance to fluid flow for hydraulic and pneumatic components. Just as the Ohm is used in electrical engineering, a liquid Ohm or "Lohm" can be used to good advantage on all hydraulic and pneumatic computations.

When using the Lohm, you can forget about coefficients of discharge and dimensional tolerances on drilled holes. These factors are automatically compensated for in the Lohm calculations and confirmed

by our testing of each component to establish flow tolerances. The resistance to flow of any fluid component can be expressed in Lohms.

Due to the differences in fluid properties between gases and liquids, the equations for calculating the relationship between flow restriction, pressure differential, and flow rate are different.

For more information on Lohms, contact your local Lee Sales Engineer or visit [theleeco.com/Lohm](http://theleeco.com/Lohm).

