

R Coolant Filter Selection Guide

For low pressure machine tool coolant applications

Rosedale Filtration Products has installed a wide variety of systems throughout the metalworking and manufacturing industries. Our high quality industrial filters prevent metal chips, fines and other debris from contaminating cutting oils and coolants. Our pre-selected systems include the housing, appropriate seals and a filter bag.

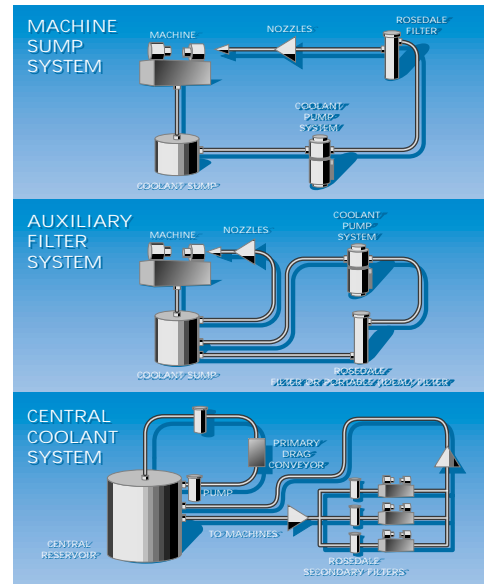
General Requirements and Measurements

There are important factors that enter into specifying the level of coolant cleanliness that will improve the finish and extend tool life. Variables that affect coolants include: full or partial filtration, single pass or recirculating flow, dirt loading, pressure drop through all components of the filter systems, coolant temperature, flow rate, system pressure, and the presence of tramp oil.

This filtration guide is intended to provide general information about industry specifications. Use the data to compare and evaluate your specific application.

Typical Applications

Our schematics illustrate how Rosedale filters can be easily installed in any coolant circuit. The versatile Rosedale filters can be used in all metalworking machines, including milling, boring, broaching, grinding, drilling, turning, etc.



Methodology

Charts, schematics and other information provided or referred to throughout this guide are intended as examples only. "Nominal" filter ratings are used and monthly throughputs are calculated to include the sizing of filter elements to provide a 30 day minimum life expectancy based on a typical dirt load ingress.

Rosedale offers the widest range of filters and filter bags, including oil-adsorbing, high temperature, high-capacity bags, high-efficiency liquid filter bags, and Beta Bag® filter bags. The term Beta Ratio or Beta Rating refers to the number of particles upstream divided by the number of particles downstream in a given size. For example, if there are 100 five micron particles upstream and 50 five micron particles downstream of the filter bag, then the Beta Rating for this filter in the five micron size is 100/50, or 2. In other words, the filter bag is said to have a Beta 5 of 2. The efficiency is 50% in the five micron range.

Recommended Clarity Levels Of Filtered Coolant Filtered coolant shall meet or exceed the following average clarity levels.	Average Particle Size	Concentration: PPM
	Ultra Fine: Honing, microsizing, lapping, and polishing	larger than 8 microns between 1 to 8 microns
Very Fine: Grinding, gun-drilling, gun-reaming (with tool diameters of 0.125 inch or less)	larger than 8 microns between 1 to 8 microns	less than 15 micron 10 PPM to 15 PPM 50 PPM to 100 PPM
	larger than 8 microns between 1 to 8 microns	less than 20 micron 15 PPM to 30 PPM 100 PPM to 200 PPM

Single-Bag Filters

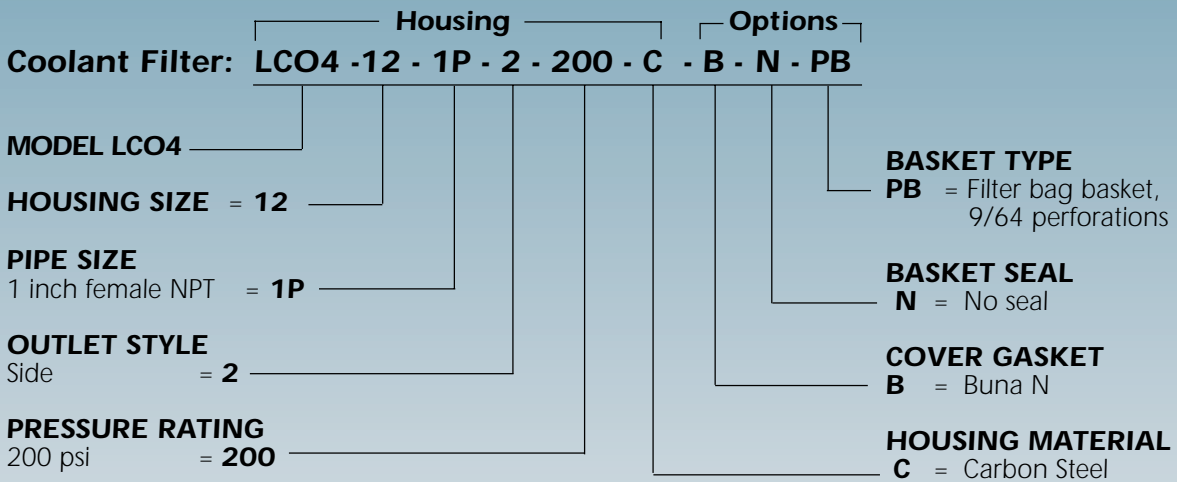
R Model 4 Coolant Filter

For Flows to 5 gpm

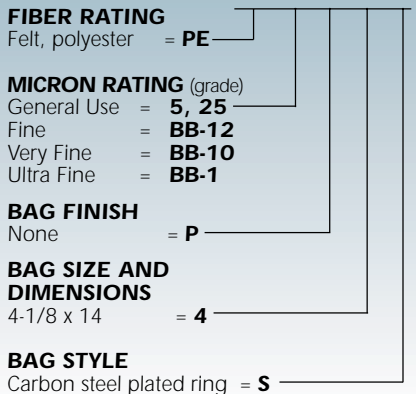
Flows can be higher. These flows are selected to optimize dirt holding capacity.

(For more detail information and other specifications concerning the Model 4, contact a Rosedale representative.)

These rugged and reliable bag filters are tailored to high-capacity applications yet are relatively low in cost, making these durable filtration devices one of the best values on the market. Choose from among the pre-selected ordering codes listed below for filter flows to 5 gpm with a 200 psi rated housing.



MODEL 4 SUGGESTED BAG
PE 5 P 4 S



Technical Specifications

Bag Size:	Any Standard Size 4 Bag
Drain connection:	1" NPT
Piping connections:	1" NPT
Construction material:	Carbon steel
Pressure rating:	200 psi
Weight:	20 lbs
Surface Area:	1 Ft ²

Note: If your application requires options other than those listed, please turn to page 4.