

# Underground Mining Filtration for Longwall Applications

## Introduction

Schroeder filtration maintains the correct ISO Cleanliness Level to ensure optimum performance and longevity of all components throughout your longwall system. Schroeder accomplishes this exceptional cleanliness by precisely matching the right filter for the right function in the right place.

## Return Line Filters

Return line filters handle high flow rates without excessive back pressure. Since a high percentage of the system contamination is generated by the operation itself right at the face, return line filtration is critical. Schroeder QLF15/QF15 series filters in single or duplex configuration provide the fine filtration required plus the maximum dirt holding capacity needed for long service life.

## Recirculating Filters

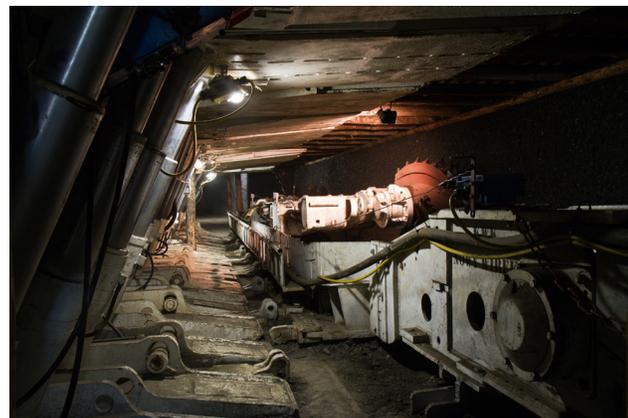
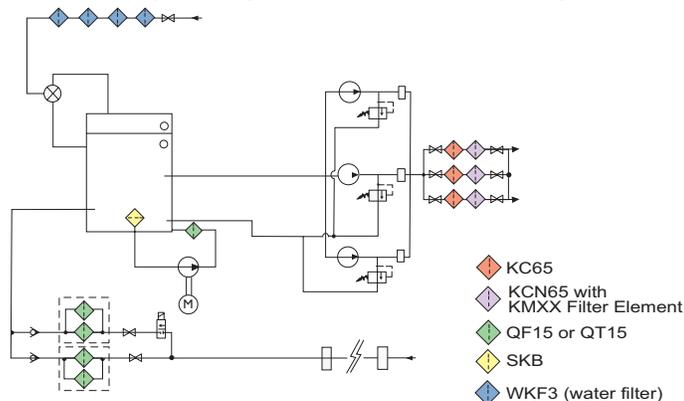
Recirculating filters remove the primary filtration from the mining face and position this filtering function at the hydraulic source, near the pump reservoir station. Schroeder QLF15/QF15 filters are also ideal to meet cleanliness level requirements in this application.

## Water Filters

Water filters protect the system from water-borne contamination by filtering the water before it reaches the mixing valve. Schroeder WKF3 and WQLF15/WQF15 filters perform very well in this function

## Pressure Filters

Pressure filters provide last chance protection for system valves and cylinders. Perfectly suited for this job is the Schroeder Duplex KFN65 non-bypassing filter with the KMXX25 high crush element.



## Basics of Longwall Filtration

Longwall mining puts any filtration system to the ultimate test, with a hostile environment of dirt, dust and water; a process that also produces its own contamination within the system; and 24 hour non-stop operation. To stand up to this punishment, a filtration system must meet these five basic requirements.

- Filtration must achieve an acceptable level on contamination control for the entire system.
- It must not require additional shutdowns of longwall operation just for maintenance of the filtration system.
- The performance of the filtration system must be verifiable through actual field testing.
- There must be reasonable evidence that the filtration contributes to a higher overall tonnage production.
- The filtration system must have a track record success.

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