



SCHNEIDER COOLANT FILTRATION ROLLING AND BEVERAGE CAN MANUFACTURE

Coolant filtration is an essential element in the rolling and forming of all metals. Primetals Technologies supplies the Schneider® Coolant Filtration system for aluminium hot and cold mills, steel, stainless steel, copper/brass mills and for 2-piece can-making plants.

The market leader in the design, supply and operation of mineral oil and emulsion coolant filtration systems, Schneider Filtration 'know-how' from Primetals Technologies will improve performance and product quality throughout the rolling and forming process.

The very high levels of filtration achieved for both mineral oils and emulsions when using the Schneider Coolant Filtration system maintains the coolant in 'as-designed' condition. The system extends the life of the coolant providing an exceptional sheet surface and foil quality. Specific system design features and auxiliary components are unique to the technology.

Today's modern semi-synthetic coolants require a different approach to coolant handling and filtration. Traditional methods do not meet the new demands for cleaner low smut sheets, and for the conditioning of the emulsion to keep the coolant to its original design specification. Filtration to and below the oil droplet size is easily accomplished with specially designed filter cloth media for depth filtration using multiple layers of different media.

REFERENCES

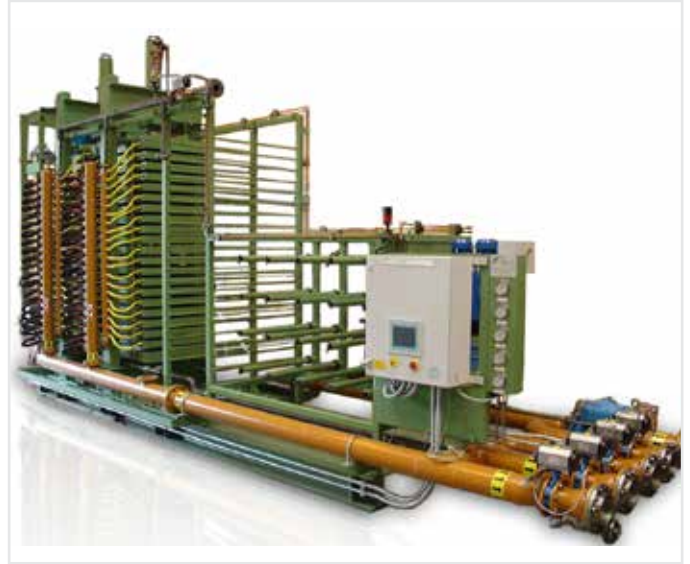
Over 1400 Schneider Coolant Filtration systems are being used today to roll, Aluminium, Steel, Stainless Steel, Copper/Brass, Titanium, Zinc and similar metals. The Schneider system has become the industry standard in the rolling and can industry.

BENEFITS

- Improved filtration performance
- Improved product quality
- Patented green filter media is safe to handle, no dust hazard
- Reduced waste streams, zero waste available
- Eliminates coolant dumps
- Low operating costs
- Improved process performance



Bodyfeed Tank with Vacuum filling



Two-Three Stack Schneider Filter

Rolling with emulsion	
Filter Unit	Filter Unit System and Process
Automatic hands-free paper/cake separation (patented), without rewinding	Automatic filtration efficiency to below 10ppm
Hands-free automatic paper discharge, without attaching to mandrels	Fully automatic (patented) Auto-Rate bodyfeeding according to rolling conditions
Requires much less manual work for the operator compared to other similar filters	'Green' filter media
No plate seals used that restrict paper use/thickness or cause leaks and risk of fire	No additives removed by filtration
Automatic flow control, no air control balancing required	Latest static reduction techniques - safer system
Full graphics touch screen, intuitive menu without keyboard	System design for low conductivity oils, below 50 ps/m
Full display and data logging of system parameters	Flow control by feedback with variable speed pumps or automatic servo valves
Monitoring and automatic control from real-time continuous particle measurement - Real-time oil conductivity	Patented filter media is safe to handle, no dust hazard
Integrated hydraulic power unit, no external supply needed	
Single level paper roll storage - easy roll change	

Rolling with emulsion		
Results - Steel	Results - Aluminium	System Design
The following results are reported from a 4-hi single stand steel mill:	Coolant kept to design specification	'No sludge' tanks
Surface residual iron: 10-20 mg/m ²	200ppm with specialized media	Reduced waste streams
Residual iron in coolant: 60-80 ppm	100ppm with Acti-Cel C media	Tramp oil to very low levels
Work rolls - finish: 25Ra	Smoother rolls	Eliminates coolant dumps
Roll changes: Reduced by 90%	Indefinite long coolant life	Removes metallic fines through SRC technology
Oil changes/dumps: none	Increased roll life	
Post roll cleaning: none	Consistent coolant chemistry	
No magnetic filters necessary		

Primetals Technologies
A joint venture of Siemens,
Mitsubishi Heavy Industries and Partners

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