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 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 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
FILTER UNIT

Automatic hands-free paper/cake separation (patented), without rewinding
Hand-free automatic paper discharge, without attaching to mandrels
Requires much less manual work for the operator compared to other similar filters
No plate seals used that restrict paper use/thickness or cause leaks and risk of fire
Automatic flow control, no air control balancing required
Full graphics touch screen, intuitive menu without keyboard
Full display and data logging of system parameters
Monitoring and automatic control from real-time continuous particle measurement
Integrated hydraulic power unit, no external supply needed
Single level paper roll storage – easy roll change

FILTER UNIT SYSTEM AND PROCESS

Automatic filtration efficiency to below 10ppm
Fully automatic (patented) Auto-Rate bodyfeeding according to rolling conditions
‘Green’ filter media
No additives removed by filtration
Latest static reduction techniques – safer system
System design for low conductivity oils, below 50 ps/m
Flow control by feedback with variable speed pumps or automatic servo valves
Patented filter media is safe to handle, no dust hazard
Real time particle counter

BENEFITS

Results - Steel
Surface residual iron: 10-20 mg/m²
Residual iron in coolant: 60-80 ppm
Work rolls - finish: 25Ra
Roll changes: Reduced by 90%
Oil changes/dumps: none
Post roll cleaning: none
No magnetic filters necessary

Results - Aluminium
200ppm with specialized media
100ppm with Acti-Cel C media
Smaller rolls
Indefinite long coolant life
Increased roll life
Consistent coolant chemistry

System Design
Coolant kept to design specification
‘No sludge’ tanks
Reduced waste streams
Tramp oil to very low levels
Eliminates coolant dumps
Removes metallic fines through SRC technology

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