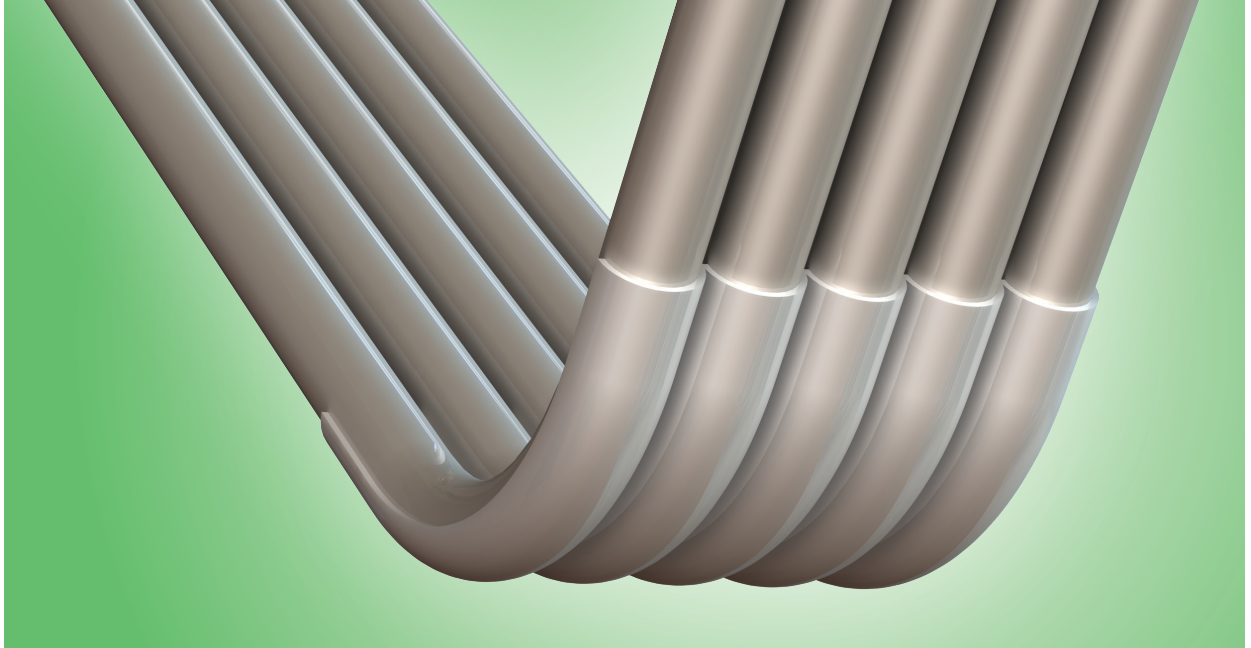




The Right Solutions to Tube Wear Problems

Tube Shields for Boilers and Condensers



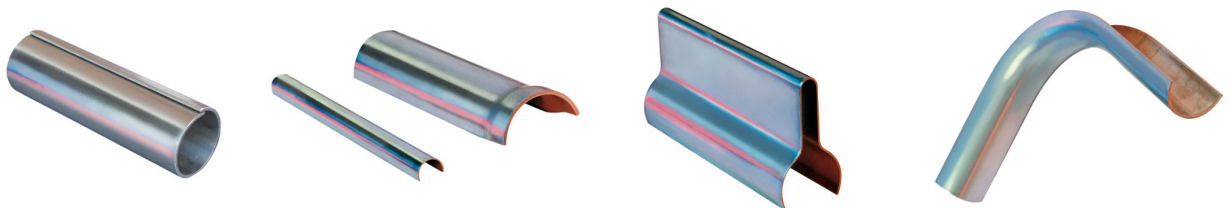
Valmet condenser and boiler tube shields are designed to minimize tube failure in highly abrasive or corrosive areas. Our many styles insure that you'll be able to choose the most appropriate design for your application, providing an inexpensive way to prolong tube life.

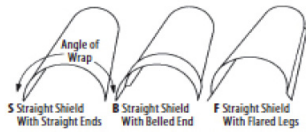
Advanced manufacturing facilities mean fast response

Tube shields from Valmet are manufactured to exacting standards. Advanced equipment and material handling capabilities permit us to offer the fastest turnaround times anywhere.

Prompt Service - We'll Supply What You Need, When You Need It

Valmet is no newcomer to the field of industrial and utility boilers. Our understanding of and commitment to the steam and power generation business enables us to solve your boiler tube erosion or corrosion problems efficiently. Our technical staff can quickly recommend the proper material type and configuration to meet your needs...and can quote your outage delivery requirements on a same day basis. Over 50% of orders can be shipped within 24 hours.

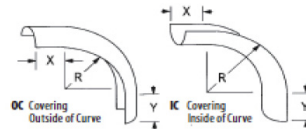




Straight shields

Tube style	Tube diameter	Angle of wrap	Gauge	Material	Length
Indicate S = Straight tube with straight ends	Indicate diameter between 0.500" and 5.000". (Tube O.D. is shield I.D.)	Indicate angle between 90° and 240°	Recommend 10 to 24.	Indicate 304 316 309 310 430 or inconel	Indicate up to 120"
B = Straight tube with belled end					
F = Straight tube with flared legs					
Shape S Diameter 2.000					
Wrap 180					
Gauge 10					
Material 304 SS					
Length 48.00					

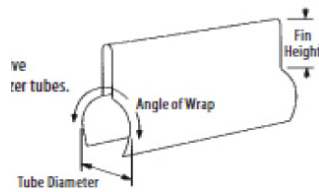
Example



Curved shields

Tube style	Tube diameter	Angle of wrap	Gauge	Material	Degree of bend	Bend radius	Extensions X/Y
Indicate OC = Covering outside of curve	Indicate diameter between 0.5 and 5.0". (Tube O.D. is shield I.D.)	Always 180°	Recommend 10 to 24.	Indicate 304 316 309 310 430 or inconel	180° Maximum	Measured to center-line of tube	Indicate for both X & Y. (3" is standard.)
or IC = Covering inside of curve							
Shape, OC							
Diameter, 2.000							
Wrap, 180							
Gauge, 14							
Material, 316 SS							
Bend, 90							
Radius, 6.000							
X Extension, 3.000							
Y Extension, 3.000							

Example

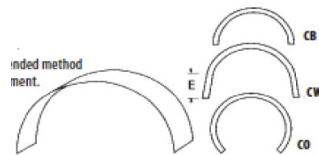


Economizer shields

Special design provides effective protection for finned economizer tubes.

Tube style	Tube diameter	Angle of wrap	Gauge	Material	Length	Fin height
Indicate E = Econo-mizer style	Indicate tube O.D. from 1.500" to 3.000" (Tube O.D. is shield I.D.)	Indicate 60 to 240°	Indicate 14 to 24	Indicate 304 316 309 310 430 or inconel	Indicate up to 48"	Indicate 1.50" to 2.25"
Shape, E						
Diameter, 2.000						
Wrap, 90						
Gauge, 12						
Material, 316 SS						
Length, 40.00						
Fin, 2.000						

Example



Clips

are the recommended method for tube shield attachment.

Tube style	Tube diameter	Angle of wrap	Gauge	Material	Length	Extension E
Indicate CB = Bull style clip	Indicate diameter between 0.500" and 5.000". (Tube O.D. is shield I.D.)	Indicate angle between 90° and 240°	Recommend 10 to 24.	Indicate 304 315 309 310 430 or inconel	Indicate up to 120"	0" standard for CB 1/2" standard for CW 0" standard for CO
CW = Wrap style clip						
CO = Overlap style clip						
Shape, CB						
Diameter, 1.000						
Wrap, 180						
Gauge, 12						
Material, 304 SS						
Length, 1.00						
Fin, 0						

Example

For more information, contact your local Valmet office. www.valmet.com

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