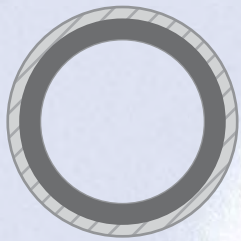


SLS CAST LINED PIPE

Chrome Carbide Insert Lined Elbows Designed for Long Life in High Abrasion Piping Systems

Applications include pneumatic and hydraulic piping systems for extremely abrasive materials such as foundry sand, lime/ash injection, glass transport, and mine backfill.

Chrome carbide insert components are ideal for improving system performance and life – upgrading, renovations, or component replacement.



Carbon Steel Pipe
Chromium Carbide Cast Insert

Featuring:

- Chrome carbide wear material maximizes abrasion resistance
- Chrome carbide wear performance similar to hard face weld overlay
- Cast segments offer a thick outer wall on bends where impact and sliding abrasion occur
- Cast chromium carbide inserts offer 360 degree protection
- Chrome carbide inserts are contained in a carbon steel outer pipe
- Available sizes of 3", 4", 5", 6", 8" diameter, bends have CLR = 5D for 3", 4", 6", 8", and CLR = 2D for 5"
- Various tangent lengths provide dimensional flexibility, Chrome Carbide Insert lined tangents available for continued wear resistance
- Multiple end options available, including flanges, couplings or plain ends

Chrome Carbide Insert Elbows Offer:

- Long life in highly abrasive applications
- Smooth laminar flow – superior to pocket elbows or blind tees
- Improved performance compared to alternate linings – basalt, steel, or cast elbows
- Excellent service life at economical pricing



ULTRA-MET PIPE

Ultra-Met Overlay Lined Pipe

Ultra-Met pipe is recommended for severe sliding abrasion applications. The result is a surface possessing an excellent combination of high resistance to erosion, severe abrasion and moderate impact strength.

Ultra-Met overlay can be applied to spool sections, pipe bends and fabricated fittings.

Wire alloy is deposited upon the carbon steel inner pipe bore. For straight sections or bends, the entire inner surface is welded in one or two layers.

Overlaid bends and fittings can be used in conjunction with induction hardened pipe within the total system to afford the additional abrasion resistance needed in areas of extreme turbulence and wear.

Choose Ultra-Met Pipe for:

- Severe abrasion/erosion applications, especially sliding abrasion
- Improved wear resistance; up to 10 times the life of mild steel
- Lower life-cycle cost
- Easy installation
- Custom fabricated for flexibility in pipe system design
- Available Sizes: straights, 10" through 40" NPS custom bends, 8" through 30" NPS
- Slip-on flanges and weld rings available



COMPARISON CHART (Based on mild steel)

	MILD STEEL	SLS 600 WEARPIPE	ULTRA-MET PIPE	SLS CAST LINED PIPE
HARDNESS	120-150 BHN	480-650 BHN	> 600 BHN	300-700 BHN
ABRASION RESISTANT	Poor	Very Good	Excellent	Excellent
IMPACT RESISTANT	Good	Low Marginal	Low Marginal	Poor
STRENGTH	Good	Excellent	Good	Excellent
SIZES	Unlimited	50'	Limited to 50'	18'
HANDLING & INSTALLATION	Excellent	Very Good	Very Good	Very Heavy Very Brittle
FABRICATION	Unlimited	Some Limitations	Some Limitations	Very Limited (to patterns)
WEAR MONITORED	Ready with Ultrasonic	Ready with Ultrasonic	No	No
EMERGENCY REPAIR	Easily Completed	Easily Patched	Easily Patched	No
INITIAL COST		2-3 times above Mild Steel	4-5 times Mild Steel	3-6 times Mild Steel
LIFE EXPECTANCY		Up to 6 times Mild Steel	Up to 10 times Mild Steel	Up to 10 times Mild Steel
ADVANTAGES	Low cost Readily available	Excellent combination of abrasion & impact resistance	Excellent for abrasion wear	Excellent for abrasion wear
DISADVANTAGES	Poor abrasion resistance; Costly change-out	No corrosion resistance; Low ductility	Limited length and diameter	Very heavy; supports req'd; Very Brittle; Costly



ST. LAWRENCE

Alloys for Industry Since 1955

2500 Crane Centre Drive • P.O. Box 2490
Streetsboro, Ohio 44241
330-562-9000 or 1-800-837-3789
Fax 330-562-1100
www.stlawrencesteel.com