

TTS-MS1 Mechanical Shoe Seal

The pantograph type mechanical shoe seal is the most widely used design on external floating roof tanks. The metallic band is formed as a series of shoes that are overlapped together to form a ring and held against the tank shell by a pantograph type mechanical device.

The counterweight assembly and arm exerts constant pressure to push the shoe against the tank shell. The continuous seal covers the vapor space between the shoe and the roof from the atmosphere.



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External Floating Roof Seal System



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Parts & Material

Part No	Description	Material
1	Shoe plate	Galvanized steel or Stainless steel
2	Shoe Arms	Carbon steel with hot dip galvanized coating or Stainless steel
3	Counterweight Arms	Carbon steel with hot dip galvanized coating or Stainless steel
4	Counterweight	Carbon steel
5	Hinge Bracket	Carbon steel with hot dip galvanized coating or Stainless steel
6	Spreads Rods	Carbon steel with hot dip galvanized coating or Stainless steel
7	Spreads Rod Cleats	Carbon steel with hot dip galvanized coating or Stainless steel
8	Clamp Bar	Carbon steel with hot dip galvanized coating or Stainless steel
9	Continuous Seal	Nitrile/PVC, Polyurethane or PTFE

Specifications

Model Name	TTS-MS1 Mechanical Primary Seal	
Type	Primary Seal, Pantograph Type Mechanical Shoe Seal	
Installed on	External Floating Roof Tanks	
Rim Space	Normal 250mm \pm 125mm	(* larger rim space is available)
Features	<ul style="list-style-type: none">▪ Long service life▪ Strong and durable sealing pressure▪ 100% aromatic protection available▪ Complies with API 650 Appendix C▪ Compatible with all stored products: Crude oil, Naphtha▪ Available with secondary seal▪ Compatible with weld, lapped or riveted tanks	

