

MegaFloat Full Contact IFR ST-DS-M.IFR-08.24/V3 storagetech.de Data Sheet

MegaFloat Full Contact IFR

Megafloat is an most effective way to prevent emission losses presenting safe operations.





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MegaFloat Full Contact IFR



Product Description

Storagetech[™] MegaFloat Full Contact Internal Floating Roof is manufactured to be installed inside fixed roof storage tanks. It's a Full Contact Floating Roof with absolutely no leakage, thereby reducing emission and restricting vapor build up. The difference between MegaFloat and the other Internal Floating Roof is the robust, high chemical resistance and strict sealing systems to achieve emission losses near zero.

Internal Floating Roofs are considered as the most effective method for preventing emissions by international authorization. Internal Floating Roofs create a barrier on the volatile liquid stored in the tank and overcome the fuel leaks almost to the near the end.

The panels do not let vapour to accumulate in a space because of being in directly liquid contact.

However, the panels can be unexpectedly impacted or punctured, due to some unconsidered collapse and undesired damage potential,

This is where 'MegaFloat Block Panels' come into consideration as a reasonable solution for overcoming such potential cases. As it is working combination of both pontoon and direct contact panel types.

To ensure better combination, the hardened thin plates are assembled using special welding and packaging methods and block panels to be manufactured. These panels are connected to each other by support lugs and stainless high strenght bolts, they can easily be removed and here is the product called MegaFloat Block Panel Internal Floating Roof (MegaFloat IFR) with its superior strength.

Design & Features

Structural weakness, chemical attacks or deformations are not even close to affect MegaFloat IFR. MegaFloat is a product that meets all kinds of requirements and demands in one. Covering revelant international standards with easy mounting, long term durability, and load capacity. Buckling and deformation of the structure system provides long life and must safely solutions.

Key Features

• Operating medium – light and dark oil products (petrol, diesel oil, crude oil, etc.), aromatic hydrocarbons (benzene, xy-lene, etc.) Corrosive agents and chemicals.

• The average efficiency of evaporation loss reduction is at least 98% (when operating the floating block a float).

• Operating temperature: -60 °C to 200 °C.

• The annular clearance between the floating block carrier ring and the tank wall is 200±20mm for various tank diameters.

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MegaFloat Block Panel Seal Type



Advantages

MegaFloat is welded, ensuring there is no leakage of precious non-renewable fossil fuel and is pre-fabricated and maintenance at ERGIL's manufacturing facility in

Storagetech MegaFloat IFR reduces the time taken for installation at the site, leading to the quicker execution of the project.

Unlike, the other Full Contact Internal Floating Roof in the market which has a shorter product lifespan and is non-durable as they are stuck with a chemical to sheets. MegaFloat beats its competitors in the market by being stronger, tighter and one having a longer product lifespan and resistive enough to store all kinds of fuels.

Easy to remove blocks directly from the certain location without affecting any other panels if any. Each sealing elements between the panels are independent with each other. Installation of the sealing system can easily be achieved. Additional protection barriers have been provided on the already reduced sealing areas using special There is an easy maintenance phase that does not cause the operation to be stopped. Panels can be manufactured in any size in the range of 0.4 m width and 2.5 m width so that using the available openings on the tank, in and out of the tank are easily provided.

As a conclusion, when durability, long life service, ultimate safe operations required, STORAGETECH[™] MEGA-FLOAT INTERNAL FLOATING ROOF IS A MUST.





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Comparison Chart

Features	Honeycomb	Fiberglass	MegaFloat Block Pannel
Emission	Good	Good	Excellent (Utilising 2ndary Seal
Damage	Maximum	Medium	Less
Resistance	Less	Good	Best
Life Expectancy	Less	Medium	Maximum
Leakage Points	Most	Medium	Minimum
Seal Type	Wiper / Primary	Wiper / Primary	Primary & Secondary
Strenght	Medium	Less	Strong
Connection Style	Medium	Hard	Easy
Heat Resistance	Medium	Weak	Strong
Risk Assestment	High	High	Low
Manufacturing Method	Bonding	Fusing	Welding
Sealing Material	Silicone	Mertone	Buna-N
Senstivity	Good	Less	Best
Material(Internal)	AL	Fiber	CS/SS/AL







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Pantograph Type

It is the most widely used seal design on floating roof tanks and storing all crude oil and refined oil products. The load applied by the weights, on the top and bottom of the mechanical seal is maximized.

Mechanical seal type pantograph provides sealing throughout the roof's movement, roof shifts, shape changes, buckling, and the tank's expansion and contraction.

mechanical seal type pantograph, the shoes are available in galvanized (1.5mm thick) and stainless steel (1.2mm thick). Using hardened materials reduces fatigue.

Effective seal performance can cover openings up to 200 mm and it can work with ± 100 mm tolerance.





	Part Name	Material		
07	Foam Dam, Thk.3mm	Optional		
06	Rim Clamp	S235 (G)	1/4 Hardened	
05	Fabric	Acc. To Material Specification per Liquid stored		
08	Shunt Sheet	SA 240 ar. 304/316		
04	Braces	Dual Certificate	1/4 Hardened	
03	Rim Clip			
02	Shoe Bracket	S235 (G)	1/4 Hardened	
01	Shoe Plate			







External Floating Roof Seals ST-DS-M.IFR-08.24/V3

Scissor Type

The most important case in the usage of this type sealing is to increase the material strength by reducing the weight and to ensure the sealing of, especially light and corrosive storage products.

Tensioners are attached to the top and bottom of the shoe. This keeps the entire width of the shoe in contact with the tank shell and important for wax scraper designs.

If there is a corrosive load inside the tank, we recommend using mechanical seal scissor.

The materials used are thinner than Carbon steel and Aluminum as well as the usage of additional weight is not required, the system minimizes product escape with the effective load provided by the springs, unlike the weighted system.

Its spring system, it successfully meets 200 mm rim width and works effectively maximum ± 100 mm tolerance in range.

At StorageTech^m, we are committed to providing our valued customers with the best product at the best value for corrosive, volatile or light storage products.





	Part Name	Material	
09	Foam Dam, Thk.3mm	Optional	
08	Rim Clamp	S235 (G)	1/4 Hardened
07	Fabric	Acc. To Material Specifica- tion per Liquid stored	
11	Shunt Sheet		
10	Balance Spring		
06	Spacer Plate Scissor		
05	Rim Scissor	SA 240 gr. 304/316 Dual Certificate	1/4 Hardened
04	Spring		
03	Rim Clip	S235 (G)	1/4 Hardened
02	Shoe Bracket		
01	Shoe Plate		





Secondary Wiper Seal

The secondary seal serves as a supplementary layer, Capacity the vapor containment capability of the external floating roof system. The secondary seal is mounted on the edge of the floating roof, bridging the gap between the roof and the tank wall.

Its purpose is to create a secondary barrier that further restricts the release of vapours into the atmosphere, even in the event of minor gaps or failures in the primary seal. As a secondary seal, with a weather shield and Teflon cover, it protects the tank from UV, dust, dirt, and rain.

The seal material resists corrosion and can be made from various materials based on what is stored. The choice of sealing products highly depends on corrosive environment needs. It can include alloyed steel parts to increase corrosion resistance as needed.

The system is grounded by the shunt parts to prevent electrical arc that can occur due to static electricity on entire system. Installation is simple and safe. All connections are bolted. No hot works such as welding will be required during installation. In accordance with the API650 standards for the design of our secondary gasket, it is possible to examine the primary gasket without the need for removal.







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	Part Name	Material	
11	Tape Gasket, Rubber Foam	Acc. To Material	
07	Lip Seal	Specification per Liquid stored	
06	Vapour Barrier		
10	SQ Nut		
09	Special Washer	SA 240 gr. 304/316 Dual Certificate	
08	Stove Bolt	S235 (G)	
05	Earthing Shunt	0200 (C)	
04	Hex Bolt & Nut with 2 Nos. Washer Lock Washer + 2x Large Washer		
03	Hex Bolt & Nut With 2 Nos. Washer		
02	Clamping Channel		
01	Compression Plate		





Product Recommendations

Flame Arrestor End-Of-Line, With Automatic Opening Hood, Deflagration

Model: 312

Storagetech[™] Flame Arrestors (End-of-line, with Automatic Opening Hood) are passive devices that prevent the propagation of a flame or fire from entering into an opening in a pipeline or vessel discharging flammable vapor. As different from model 310, Model 312 end of line flame arrestor's weather hood is designed to react fire instantly tanks to it's fusible link, which is melted during the fire and let the weather hood release the gas/fire to the atmosphere.



restor (also called flame arrestor or fire arrestor) is designed for installation in gas pipelines. Detonation occurs when a flame travelling through the pipeline reaches supersonic velocities, usually as a result of the pipeline configuration or pipeline surface roughness. Changes in gas density and pressure causes the flame velocity to metamorphose from subsonic to supersonic. Storagetech[™] manufactures storage tank equipment, such as flame arresters, breather valves, gauge hatches, floating roofs, and floating suction pipe.





Storagetech[™]'s Model 321 In-line Detonation Flame Arrestor (also called flame arrestor or fire arrestor) is designed for installation in gas pipelines. Detonation occurs when a flame travelling through the pipeline reaches supersonic velocities, usually as a result of the pipeline configuration or pipeline surface roughness. Changes in gas density and pressure causes the flame velocity to metamorphose from subsonic to supersonic.





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