FS* 21” 500-psi Marine Riser Diverter

Gas diversion made simple for safety

Applications and Benefits

Our diverters are known for significant safety enhancement and rig protection. The FS 21” 500-psi (Flow Safe) marine riser diverter is designed to achieve these objectives for all types of floating offshore rating rigs. Featuring a 21” bore and a 500-psi working pressure rating, the FS diverter:

- Can be installed through 49½” or 60½” rotary tables
- Can be used in conjunction with the Seal-All* diverter insert to radically improve safety during workover and completion operations

Key Features

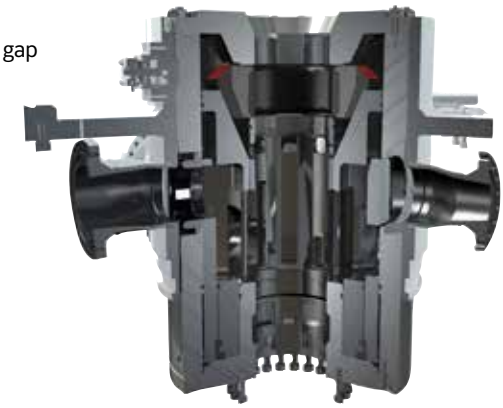
The FS diverter is fundamentally simple. Its design avoids the functional complexities that can increase the chance for human error and equipment breakdown. Features that provide this enhanced performance include:

- The patented integral valve design eliminates the need for equipment such as vent valves and interconnecting circuitry—so there is no sequencing.
- Single control function: A solitary hydraulic signal simultaneously moves the piston up and closes the annular packing unit, opening the vent line, stopping upward flow, shutting off the flowline to the shaker and shutting off the fill-up line.
- Permanently open vent line.
- Elimination of stagnant vent line space prevents caking of solids or ice formation that could obstruct or shut off the flow.
- The ability to close on an open hole eliminates a serious safety gap that can be caused by cartridge inserts and their installation.

The GE FS 21” 500-psi Advantage

The FS 21” 500-psi marine riser diverter increases uptime and enhances safety. It can be installed or removed quickly because no line disconnections or reconnections are required at each installation.

It can also be run quickly, since there is a model for a 49½” or 60½” rotary table with the handling-test tool capable of supporting the diverter, riser and BOP stack.



Engineering Data

FS 21-500 (49½" Rotary Table)

System of Measure		U.S.	Metric
Bore Size		21.00 in.	533 mm
Working Pressure		500 psi	35 bar
Closing Pressure		1,500–3,000 psi	103–207 bar
Seal Off Range		13.38 in. to CSO	340 mm to CSO
Closing Chamber Volume – Total		25 gal	94.6 L
Opening Chamber Volume		2.6 gal	9.8 L
Weight (w/o Housing)		22,000 lbs	10,000 kg
Vent Outlet Size (Nominal)		12.00 in.	304.80 mm
Flowline Outlet Size (Nominal)		12.00 in.	304.80 mm
Nominal Rotary Table Size		49.50 in.	1,257.30 mm
Bottom Connection		API 21.25 in. 2,000 psi Studded	1,257.30 mm
	FS Body O.D.	49.00 in.	1,245 mm
	FS Minimum Bore	21.00 in.	533 mm
	FS Diverter Housing Minimum Bore	48.25 in.	1,226 mm
	Housing Height	45.88 in.	1,165 mm
	FS Top to Outlet Clearance	34.125 in.	867 mm
	FS Height	70.50 in.	1,791 mm
	FS Clearance to Outlet Face (Minimum)	36.00 in.	914 mm

FS 21-500 (60½" Rotary Table)

System of Measure		U.S.	Metric
Bore Size		21.00 in.	533.4 mm
Working Pressure		500 psi	34.5 bar
Closing Pressure		1,500–3,000 psi	103–207 bar
Seal Off Range		16.00 in. to CSO	406.40 mm
Closing Chamber Volume – Total		69.9 gal	264.6 L
Opening Chamber Volume		10.5 gal	39.75 L
Weight (w/o Housing)		46,500 lbs	21.10 metric tons
Vent Outlet Size (Nominal)		16.00 in.	406.40 mm
Flowline Outlet Size (Nominal)		16.00 in.	406.40 mm
Nominal Rotary Table Size		60.50 in.	1,536.70 mm
Bottom Connection		API 21.25 in. 2,000 psi Studded	API 539.80 in. 137.9 bar Studded
	FS Body O.D.	60.44 in.	1,535.20 mm
	FS Minimum Bore	21.00 in.	533 mm
	FS Diverter Housing Minimum Bore	59.75 in.	1,517.65 mm
	Housing Height	62.00 in.	1,574.80 mm
	FS Top to Outlet Clearance	39.50 in.	1,003.30 mm
	FS Height	84.39 in.	2,143.51 mm
	FS Clearance to Outlet Face (Minimum)	50.00 in.	1,270.00 mm

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