

## FlexoFORM™ Scanner for Pipe Elbow Inspection



The FlexoFORM™ scanner solves the challenges of pipe elbow inspection and enables 100% coverage with intuitive C-scan imaging. Incorporating Olympus' flexible array probe technology, the FlexoFORM scanner solution can map corrosion in pipe elbows from 4.5 in. OD and up. The FlexoFORM scanner features a water column with a foam gasket that contours to the pipe's inner concave (intrados) and outer convex (extrados) curves, for optimum coupling and a reliable signal. The flexible array is shaped by the wedge to sit concentric to the elbow's surface, enabling the use of simple 0-degree focal laws, similar to inspecting a flat surface. The water wedge can be changed in seconds and is the only part that differs from one diameter to the other. The scanner and flexible probes are designed to cover the entire range of diameters, making the FlexoFORM scanner a versatile and cost-effective solution.

Wedge series have also been designed for small-diameter pipes and automated scanning.



### Features

- Quickly measure the wall thickness of elbows
- 100% elbow coverage for a high probability of detection
- High-resolution data (1 mm × 1 mm)
- Intuitive 2D C-scan imaging
- Built-in encoder for scan direction
- Smart indexer button positioned on the scanner
- Same probe and scanner are used to cover the entire range of diameters
- Magnetic wheels minimize the operator's physical input
- Water wedges for a wide range of pipe diameters
- Constant water column

## Alternative Configurations



### SFA1-FLEXO longitudinal scanning of pipes

The FlexoFORM scanner can also inspect pipes in the longitudinal direction. This configuration is especially useful for smaller pipes or when the region of interest is concentrated within a specific sector around the pipe. The FlexoFORM scanner can also be a powerful tool for the inspection of water walls in power generation boilers.



### SFA1-SMALL wedge series for small-diameter pipes

These wedges are used to inspect pipes with diameters smaller than 4.5 in. Users can manually scan the extrados of elbows or pipes from 1.3 in. OD up to 4 in. OD. The wedge can be fitted with a Mini-Wheel™ encoder to create an encoded one-line scan.



### SFA1-AUTO wedge series for automated 2D raster scanning

For 100% inspection of corrosion in pipes, the HydroFORM® scanner, when combined with the MapROVER™ scanner, represents a field-proven, reliable option. However, in some applications, scanning in the longitudinal direction may be preferred over scanning circumferentially. The SFA1-AUTO wedge series works on pipes with diameters from 8.6 in. OD and up, including flat surfaces.



## Ordering information and glossary

Item Number	Part number	Description
Q7500062	FlexoFORM	FlexoFORM package with probe and one (1) SFA1 water wedge for 8.625 in. outside diameter. 5 m long cables compatible with current generation OmniScan and FOCUS instruments.
Q7500063	FlexoFORM-Kit	FlexoFORM package with probe and six (6) SFA1 water wedges (for 4.5 in., 6.625 in., 8.625 in., 10.75 in., 12.75 in., and 16 in. outside diameters). 5 m long cables compatible with current generation OmniScan and FOCUS instruments.
Q3301202	7.5L64-64X7-FA1-P-5-OM	Flexible phased array probe, 7.5 MHz, 64 elements, 1 mm pitch, 7 mm elevation, FA1 case type for the FlexoFORM scanner, SFA1-SMALL and SFA1-AUTO wedge series, 5 m cable length, and OmniScan connector.

Probe Type	Wedge Series	Pipe Diameter
<b>SFA1</b>	<b>FLEXO</b>	<b>OD8.625</b>

**FLEXO** Compatible with FlexoFORM. Diameter range: 4.5in OD up to flat.  
**AUTO** Compatible with MapROVER and SteerROVER. Diameter range from 8.625in OD up to Flat.  
**SMALL** Manual inspection with Mini-Wheel encoder. Diameter range from 1.3in up to 4in OD.

Measured external pipe diameter (inches)