

# Production Knuckle Joint (PKJ)

Used for tool positioning and provides rigid length reduction

## Applications

- Situations where flexible tool strings are required
- To offset the CCL for improved collar logs
- To minimise the centralised weight in highly deviated or horizontal wells

## Features and Benefits

- Combinable with other Sondex **Ultrawire™** logging tools
- Normally used in conjunction with Production Roller Centralisers

The Sondex **Production Knuckle Joint (PKJ)** has a universal ball joint with a limited degree of movement, which allows a maximum of 10 degrees deflection in any direction. The joint has an electrical connection through a pressure proof stainless steel coil with metal-to-metal seals. This allows the tool to be used at any position within the tool string.

Used individually, the knuckle joint reduces the rigid length of a tool string to facilitate deployment through twisted or buckled pipe, or to negotiate severe doglegs. Used as a pair, the knuckle joints decentralise the CCL for

improved collar logs, particularly in larger pipe, and in deviated or horizontal wells, de-couple the weight of running tools from that part of the tool string requiring centralisation.



Specifications			
	PKJ013	PKJ027	PKJ030
Temperature	392°F (200°C)		
Pressure Rating	15,000 psi (103.4 MPa)		
Tool Diameter	1 11/16 in. (43 mm)	1 3/8 in. (35 mm)	2 1/8 in. (54 mm)
Tool Length	6.8 in. (173 mm)		
Tool Weight	3.5 lb (1.6 kg)	2.5 lb (1.1 kg)	4.4 lb (2.0 kg)
Maximum tension	15,400 lb (6985 kg)	10,000 lb (4536 kg)	15,400 lb (6985 kg)
Maximum torque	250 lb-ft (339 Nm)	130 lb-ft (176 Nm)	250 lb-ft (339 Nm)
Knuckle movement	10°		
Voltage rating	300 V		
Material	Corrosion resistant throughout		