

J1 Torque • Measurement Shafts for Demanding Applications



- Instrumented custom measuring shafts for measurement of torque including confined operating spaces
- Short delivery using our own hydraulic calibration test stand!
- Torque calibrated to $\geq 10,000$ Nm
- Flat profile to ≤ 10 mm
- Ambient temperature to 125°C
- Reliable data transfer
- High mechanical integrity
- Waterproof & maintenance free
- Inductive power supply
- Low weight for high rpm

Finished and ready for use: Instrumented customer measuring shaft for torque measurements

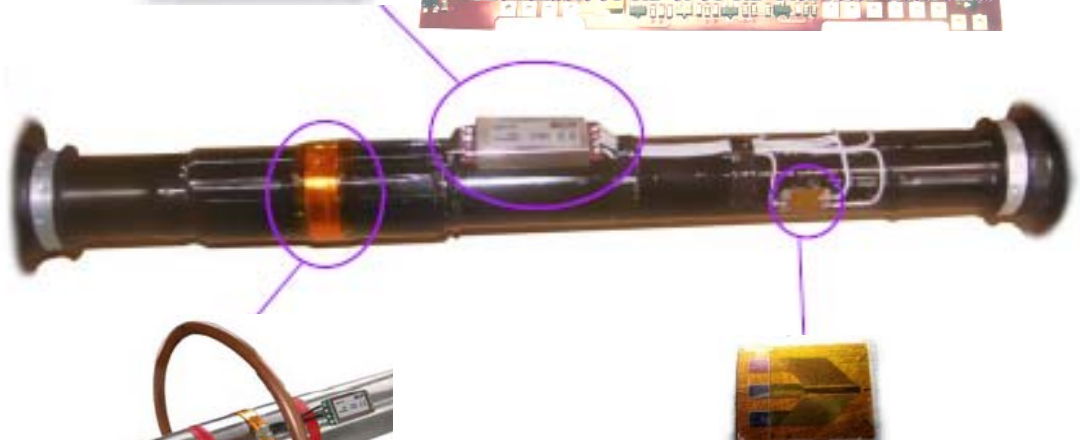
Worry free and fast, and for operation in the harshest conditions: Complete customized & calibrated J1 torque measuring shafts.

Customer measuring shafts can be developed, rapidly assembled and finished to the users requirements and supplied calibrated with results.

The careful construction of the individual components on the measuring shaft is matched by the strain gages, which supply reliable results even at high ambient temperatures. Only high-quality materials and processes are used, and the whole structure is then protected with a durable glass-fiber reinforced, oil & waterproof epoxy resin.



Light & robust, operating to 125°C and 2.5 kHz: The reliable J1-RD or J1-RD-Flex rotor electronics



Strain gage application: high-quality and with precision



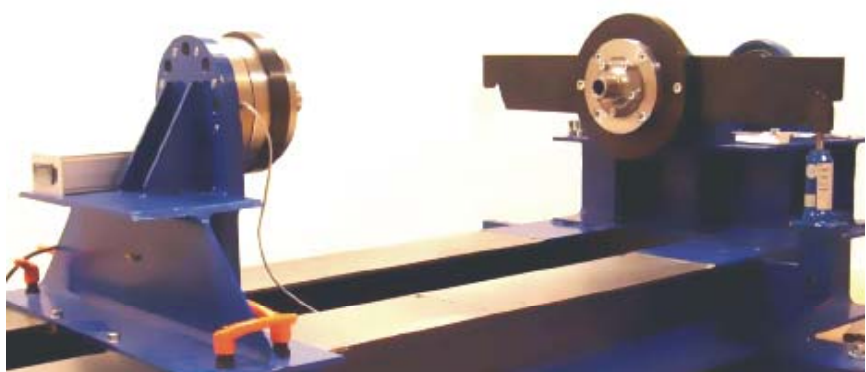
Reliability and guaranteed no dropouts, even with large spring travel: Measurement data transmission with the J1-SR70 ring stator

By using an inductive supply for the rotor electronics, it is possible to encase the complete application in a high-strength glass fiber composite material with the electronics and

gages protected from water, dirt and mechanical damage. Flexibility in positioning the individual components makes measurements possible where space is at a premium.



Glass-fiber reinforced epoxy resin for durable use without mechanical damage



Torque test stand for the calibration of torque measuring shaft calibration

Instrumented measuring shafts are adjusted to a measuring range corresponding to the customer's request and, after complete assembly, calibrated on our hydraulic torque test stand:

- Torque calibrated to 10 kNm
- Right and left moment
- Shafts up to 3.50 m length

Each calibrated measuring shaft is delivered with a detailed and documented calibration certificate, with all the important characteristic data for the measuring shaft including:

- Sensitivity in mV/Nm
- Required measuring range
- Maximum torque
- Calibration step (Shunt Cal)
- Zero-torque offset
- Calibration characteristic over the entire measurement range
- Non-linearity & hysteresis

Torque Transducer Test Report

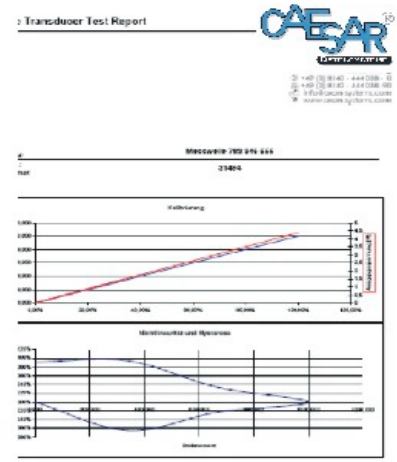
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Client:	Messuriv 780 816 888
Material:	01694
Diameter:	3000 mm
Temperature:	20.00 °C
Carrier frequency:	10.7 MHz
Temperature range:	-10°C...+55°C

Zero offset:	+15 V
Temperature:	21.7°C
Warming up time:	10 min

Specification	Torque	Voltage
Span:	2200 Nm	4.076 mV / Nm
Resolution:	2200 Nm	0.75 V
Non-linearity:	2200 Nm	0 V
Temperature:	1112.8716 Nm	6.18 V
Zero offset:	1.5420 Nm	0.325 V

CE



Calibration certificates for a finished instrumented J1 torque measuring shaft

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