

## Ball & Socket

Industry: Medical Devices

### Summary

#### Customer Need / Challenge

- A medical device manufacturer was developing a new design for an artificial hip joint, and needed to validate load consistency, and the durability of their design.

#### Interface Solution

- A Model 6A40B 6-Axis Load Cell was mounted to the manufacturer's test machine, where loads were applied to simulate actual use. A Model BSC8D was connected to the sensor to collect data.

#### Results

- After analyzing the data the manufacturer was able to improve the durability of their design.

### Materials

#### Interface Products

- Model 6A40B - 500 N / 20Nm
- BSC8D Multi-Channel Amplifier
- GSV-MULTI Software

#### Additional Materials

- Test Machine
- PC for data logging and analysis

### How It Works

- 1 A test profile was set and the loads monitored and fed back into the test machine to control the loads.
- 2 The output of the 6-Axis sensor was connected to the Model BSC8D Amplifier which was connected via USB cable to the PC.
- 3 Software in the PC converted raw data signals to actual force and torque values at the ball joint.
- 4 The customer analyzed the data and made the required design modifications to improve the durability of the artificial hip joint.

