



## **Tie Bar Strain Monitoring Option**

### Product Description

The Tymac Tie-Bar Strain Monitoring option (TSM) can minimize costly downtime due to tie bar breakage and reduce wear on the linkage by providing accurate digital readout of the stress applied on each tie bar. Trial and error techniques, which often under- or overload the tie bars, can be eliminated as the required tie bar stress adjustments can be made, read and recorded at the start of a new job and continuously monitored so that optimum levels are maintained.

The TSM package consists of four tie-bar strain transducers, the interfaces, cables and signal conditioners that connect to the LCM-9000 Data Collection Unit, as well as the software and firmware necessary to provide four tie-bar strain measurements into every part of the Tymac 9000 monitoring and reporting system. Thus, the tie-bar strain data on all four bars is included in LCM-9000 report and alarm output relays, limit checks, shot summary data, SPC reporting, etc.

The four tie-bar strain transducers fit into the ends of "gun drilled" tie bars, an industry standard practice for tie-bar strain sensing. Unlike magnetic dial indicators or strain gages which rely on friction for input and tend to drift with temperature, the Tymac system does not require calibration in order to provide accurate loading and the transducers are interchangeable and rugged.

### Tymac Tie-Bar Strain Option

#### **Features**

##### **Part of Tymac 9000 Monitoring System**

##### **Tymac uses LVDTs**

##### **Rugged Tymac Construction**

#### **Customer Benefits**

Fully integrated tie-bar stress recording, reporting, charting, limit setting and alarm actuation

Highly Dependable  
Accurate to !2%  
No Drift with Temperature  
Each individual transducer is accurate enough to be interchangeable

No calibration is ever needed  
Recommended for permanent installation