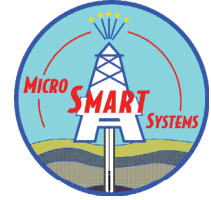


# PWP-200 SYSTEM



## Pressure While Perforating System

The Pressure While Perforating System (PWP) is utilized when your perforating application requires real-time data acquisition of downhole pressure and temperature information. There are built in safety features to ensure safe operation of the PWP gauge. The system is composed of:

- (a) compatible computer
- (b) wireline receiver
- (c) switch box
- (d) PWP-200 pressure gauge
- (e) Surface PWP-200 pressure gauge (optional)

The PWP system is built tough yet it is flexible enough to operate on a wide variety of mono-conductor electric lines; including cobalt. The unique running gear design protects the electronics from severe shock during perforating.

The PWP system is safe, tough, dependable, simple, and innovative. The simple, menu driven, PWP data acquisition software allows real-time read-out of the pressure and temperature before and after perforating. This allows you to monitor the changes in pressure and temperature if the parameters are acceptable to perform the perforating job.

The pressure data can be used for the evaluation of the reservoir and perforating job. The data is stored on the computer hard disk in ASCII format.

A printout or plot can be generated from the data. The system will allow the connection of a surface PWP pressure gauge to monitor and record both surface and downhole pressures.

Micro-Smart Systems is the *SMART* choice for cutting-edge technology and superior customer support. We can save you time, money, and help you keep your customers satisfied.

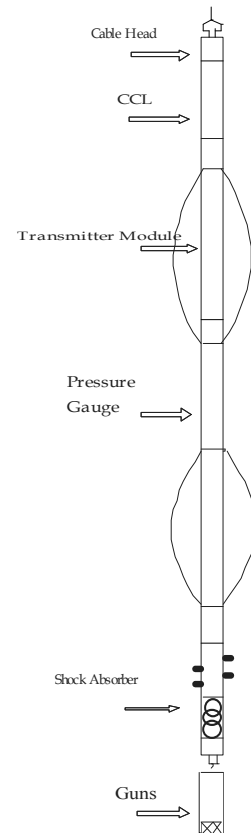
### Advantages:

- Monitors bottom hole and surface pressure while perforating.

### SMART Features:

Technological features of the PWP System are:

- Built in SAFETY mechanisms
- Downhole gauge operates on positive polarity voltage, passes negative polarity voltage thru to the perforating guns
- Operator controls perforating with shooting panel in wireline truck
- Operates in conjunction with collar locator
- Use with 1-7/16" O.D. cablehead and single-conductor armored cable
- Lower shoot-thru connection: 1-7/16" O.D. G-O pin (1-3/16 - 12 thread)



***"GET YOUR PRESSURE WHILE YOU PERFORATE"***

### SPECIFICATIONS:

<b>Sampling Interval:</b> .9375 seconds	<b>Diameter:</b> 1.45" (36.8mm) maximum
<b>Operating Temp.:</b> 32°F to 325°F (0°C to 160°C)	<b>Accuracy:</b> Pressure $\pm .05\%$ Full Scale Temp. $\pm 3^\circ\text{F}$
<b>Pressure Ranges:</b> 10,000 psi (68,000 kPa) 15,000 psi (102,000 kPa)	<b>Length:</b> 40" (1.0m) plus running gear
<b>Resolution:</b> Pressure .0025% Full Scale (.25 psi for 10K psi) Temp. .04°F	
<b>Wireline Receiver:</b> 120/220/240 VAC, 50/60 Hz	<b>Weight:</b> 9 lbs. (4.1 Kg)
<b>Cable:</b> Maximum of 275 ohms loop resistance and 1.5 mfd. capacitance	