# **PALMER**

### Solid Front Blow-Out Back - Phenolic Gauges Model 45TS - 4" Gauge

Designed to provide the maximum safety for personnel monitoring the gauges in the event of gauge failure, and to resist the most severe operating conditions created by the ambient environment and process medium. These gauges are constructed with a solid barrier between the sensing element and the dial front, welded to the socket to give them exceptional strength.

In addition to protecting the user from fluid and particles in the event of failure, the backs of these cases are designed to blow out to release pressure inside the case. Filled gauges reduce pointer fluctuation, reduce wear of rotating parts of the movement when vibrations and pulsations occur, and prevent condensation and corrosion which could damage the internal parts.

#### **FEATURES**

- · Blow-Out Back designed to release pressure inside the case.
- Accurate
  Tough
  Adjustable

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	Model 45TS Specifications
Case and Blow-Out Back:	Phenolic, Fiberglass Reinforced in 4-1/2" (125mm) diameter
Fill:	Dry or Glycerin Filled. Silicone Fill Optional.
Ring:	Polycarbonate
Window:	Laminated Safety Glass Standard, Tempered Glass Optional
Socket:	AISI 316 Stainless Steel, TIG welded to the elastic element using 316 Stainless Steel
Connection:	1/2" NPT threads, SS Restrictor Optional. Ranges 30,000# and above require Autoclave fitting
Bourdon Tube:	AISI 316 Stainless Steel. C-tube configuration for ranges below 1000 PSI. Spiral tube configuration for higher ranges
Movement:	Stainless Steel
Pointer:	Black Aluminum, micrometer adjustable
Dial:	White Aluminum with black markings in accordance with ASME B40.1 -2005
Accuracy:	±1.0%: Wet, ± 0.5%: Dry ±1.6% for 50,000# and 60,000# Ranges
Range Availability:	PSI, Metric, and Dual Scales.
Ambient Temperature:	Dry: -40° to 185°F (-40° to 85°C) Glycerin Filled: 60° to 150°F (15° to 65°C) Silicone Filled: -50° to 150°F (-45° to 65°C)
Process Temperature Limits:	-4° to 176°F (-20° to 80°C) 100°C MAX.
	30% for ranges up to 870 PSI (60 Bar, as a percent of full

45TS has a safety construction featuring a stainless steel "solid front" safety cell protecting the front and sides, with a blow-out back.





## When Safety is Paramount!

**Note:** Instruments for Oxygen - Glycerin or Silicone should not be used with highly oxidizing agents such as oxygen, chlorine, nitric acid or hydrogen peroxide because of danger of spontaneous chemical reaction, inflammability or explosion. The use of fluorinated fluid is recommended in these cases.







BEYOND THE SCALE



percent of full scale value)

values will not damage the movement).

scale value)

Overpressure

Limits:

25% for ranges from 870 to 1400 PSI (100 Bar, as a

15% for ranges above 1400 PSI (100 Bar, as a percent

of full scale value). (Over pressures up to 130% of these

#### Solid Front Blow-Out Back - Phenolic Gauges Model 45TS Ordering Guide 1) Case Size 8) Options 45 4-1/2" (125mm) C Autoclave Fitting G Safety Glass (Standard) R Stainless Steel Restrictor\* S Silicone Fill\* 1/2" to 1/4" SS Adapter 2) Case Material / Style 6) Connection \* Special Order only. Must be specified T Phenolic, Blow-Out Back, Screw-on Bezel Ring H 1/2" NPT Note: Autoclave Fitting is Standard Maximum pressure for 1/2" and required for ranges 25,000# and NPT Fitting is 20,000#. over and/or if desired for any other 3) Element Material Maximum pressure for 1/4" range, MUST be specified with Code C NPT Fitting is 15,000#. at time of order, must specify male or \$ Stainless Steel Bourdon Tube Ranges 25,000# and over female fitting. Contact us for availabilrequire an Autoclave Fitting. ity and Lead Times. 4) Fill 7) Range / Scale **PSI Ranges** Vacuum Ranges W Wet (Glycerin Fill Standard) Code Range Code Range 15# 0-15psi -30"Hg/0# -30" Hg/0psi 30# 0-30psi 5) Mounting 0-60psi 60# **Compound Ranges** L Stem Mount, Lower Connected (Standard) 0-100psi 100# Code Range 160# 0-160psi -30"Hq/15# -30" Hg/0-15psi 200# 0-200psi -30"Hg/30# -30" Hg/0-30psi 300# 0-300psi -30"Hg/60# -30" Hg/0-60psi 400# 0-400psi -30"Hg/100# -30" Hg/0-100psi 500# 0-500psi -30"Hg/150# -30" Hg/0-150psi 600# 0-600psi -30"Hq/300# -30" Hg/0-300psi 800# 0-800psi Metric Scales 0-1000psi 1000# -Bar, kg/cm2, kPa 1500# 0-1500ps Single or Dual Ranges available 2000# 0-2000psi Please Note: Not all configurations are available! \*\* Must Specify Autoclave Fitting 2500# 0-2500psi Minimum order quantities may apply. 0-3000psi 3000# If not in Stock, Minimum order quantity is 20 pieces, may require 4000# 0-4000psi

5 piece min per Range, as part of 20 piece overall minimum. Mix and Match, Dry or Wet, Range, or Mounting. Call Customer Service for availability and Lead Times if Options are required.

# 5000# 0-5000psi 6000# 0-6000psi 10,000# 0-10,000psi 15,000# 0-15,000psi 20,000# 0-20,000psi 30,000# 0-30,000psi\*\* 40,000# 0-40,000psi\*\* 50,000# 0-50,000psi\*\* 60,000# 0-60,000psi\*\*

#### Example of a typical pressure gauge part number configuration:



