## **Pressure Gauge Options**

## **Seven Steps to Select** a Pressure Gauge

DDE DESCRIPTION	T & PROCESS	CALLER	STAINL	сее етг			GAUGE T TRIAL G/			COBABAC	RCIAL G			3-2-3% 0.2 2.0.5% 2-7-2% 1.
IES	T & PRUGESS		STAINL	592 9 I EI	EL GASE						KGIAL G		(0)	3-1-5 0.23
		B	5			VICI	ICE	je je		l		021	SIE	0.5%
	GES	GAL	31	6		SERVICE	EB	SEI		SEI		2/3(	SEI	<sup>2</sup> .1.2. 1 0 <sup>6</sup>
	AUC	SS	1/2	1/2,		AL S	L S	495		00		300	000	
	TEST GAUGES	Ü	9 (2	9 (4	ŝ	IEB	CIA	1490/1495 SERIES	Ħ	1005/1000 SERIES	7P	1008A/3005/3005P	5/11	
	TES	PROCESS GAUGES	<b>1009 (2</b> <sup>1</sup> / <sub>2</sub> <sup>°</sup> , 3 <sup>1</sup> / <sub>2</sub> <sup>°</sup> )	1009 (4 <sup>1/2</sup> , 6 <sup>-</sup> )	1008S	GENERAL :	SPECIAL SERVICE	149	1001T	100	1007P	100	1005/1000 SERIES	
<i>PLUS!</i> ™ Performance		•(2)	•	•	•					-				E Contraction and Contraction
F FlutterGuard™								-	•	•	STD	•	•	
P Nickel Plated Socket									•	•		٠		
F Wall mounting bracket				٠										a c const
V Back flange			٠											
F Front flange			٠		٠				٠			۲		
C U-clamp			٠	•			۲	•	STD			•		
J Dry liquid-fillable gauge			٠	٠	•							۲		
S Overload stop	STD	٠	STD	٠	STD <sup>(1)</sup>	٠			•	٠		٠		40
S Underload stop	STD	•	STD	•	STD <sup>(1)</sup>	•	•							30 5 6
S Throttle screw	•	٠	٠	•	٠	•	•							
U Throttle plug		٠	•	٠	•			٠	•	٠	STD	•	•	I E 4
4 Slotted link movement (decrease	)	•		•		•	•							
J Slotted link (increase)		•		•		•	•							
P Adjustable pointer		075	STD				•		•	•		•		
P Micrometer pointer		STD	•	STD		STD	•			_				
H Red set hand stationary		•	•	•		•	•							
0 Red set hand adjustable	•	•	•	•		•	•		-					
P Maximum pointer	•	•		•		•	•		•	•				
Q Minimum pointer D Plastic window	•	•	STD	•	STD <sup>(1)</sup>	•	•	STD	STD	STD	STD	STD	STD	
G Safety glass	•		510		3100	•		310	SID	310	310	310	310	
A Dial marking	•	•	•		•	•			•	•		•	•	
V Paper tag	•	•	•	•	•	•								
H Stainless steel tag	•	•	•	•	•	•		•						Alle III
B Absolute pressure		•	•	•	-	•		_						
J ½% optional accuracy		STD		•		•	•					r		
N 1% optional accuracy			STD	STD		STD	-	•						5 × ×
A Retard scale		•		•		•				•				
N White dial	STD	STD	STD	STD	STD	•	•	STD	STD	STD	STD	STD	STD	- Cigcon
D Black dial	•	•	•	•	•	٠	•	•	٠	•	•	٠	•	
B Oxygen-cleaned gauges (gaseou	s) •	•	٠	٠	٠	•	•		•	٠		٠	•	
B Tip bleed	•	•												
D High and low electric contacts		٠												
E Double high-electric contacts		•												
Double low-electric contacts		٠												200 × 200
G Electric contacts off at low or		•												250
high and in-between										_				
V Silicone-filled gauge		•	•	•	•					_		•		400 400
X Halocarbon-filled gauge		•	•	•	•									No A S S I A J I I I I I I I I I I I I I I I I I
H Carrying handle	•	-	-	-	-	•	-	-	-	-		-		Se
4 Calibration Chart	•	•	•	•	•				•		•	•		

(1) Available on 40mm and 50mm

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### ACY

echanical pressure gauge, accuracy is defined as a percentage of the full-scale range. equirements differ from one industry to another, the following are general guidelines: auges and Standards: 0.25% through 0.10% full scale accuracies. Processes: 0.5% full scale accuracy.

al Industrial Processes: 1.0% accuracy. Less Critical Commercial Uses: 2.0% accuracy. to ASME B40.100 or the DIN specifications for more information on accuracy.

#### ZE

e gauge dial sizes range from 1½" to 16" diameters. Generally, readability requirements, mitations and required gauge accuracy determine dial size. Accuracies of 0.25% or 0.5% y have dial sizes of 4% or larger since more dial graduations are required.

#### TYLE / MATERIAL

mental considerations include ambient temperature, air-borne particulate, condensation, , water and chemicals, all of which can affect gauge performance.

t temperature may affect the accuracy and integrity of the gauge. Gauges are available either ture compensated or non-temperature compensated. Ambient conditions may require that ge be isolated from temperature extremes. When required, the gauge should be isolated from ture extremes with a flexible line assembly.

mbient conditions are corrosive, contain a large number of particulate or if the gauge will be I to a wet or humid environment like humidity, wash-downs or rain, specify a gauge that is proof/hermetically sealed or liquid filled.

#### **WETTED PARTS**

ted parts of the pressure gauge, the Bourdon tube and socket must be compatible with the media. If not compatible with the wetted parts of the gauge, corrosion will occur. Corrosion e wetted parts will eventually cause gauge failure and possibly safety issues. When the gauge parts are not compatible with the process media, a diaphragm should be considered.

#### CTION SIZE

are available with a variety of connections including NPT, DIN, JIS, BSP & SAE. Process e gauges with 4½" dial sizes or larger are most often supplied with a ½" NPT connection to pport the gauge. Factors to consider when selecting a pressure gauge connection include pressures, gauge size and weight, space limitations, leak integrity, and past experience.

#### CTION LOCATION

r the following mounting options when selecting a pressure gauge:

- mount lower connect
- surface mount lower connect
- mount back connect
- np flush mount back connect, for panel mounting
- flange flush mount back connect, for panel mounting

#### **JRE RANGES**

40.100 recommends that normal operating pressure be confined to 25%-75% of the f pulsation is present in the process, maximum operating gauge pressure should not exceed the full-scale range.

#### JSION

erly select a pressure gauge, consider the gauge process, range, environment, accuracy, dial nnection and mounting requirements.

Seven	Steps to	to Pressure Gauge Selection													2											3												4		5									
PRODUCT Category			ACCURACY DIAL SIZE																ST	YLE	CAS	se Mate	RIA	-	PROCESS (GAUGE WET					MEDI ED P/	S)			NNE Siz	CTIOI 2E		CONNEC LOCAT												
	MODEL NUMBER	0.05% Span	0.10% Span	0.25% Span	0.5% Span	1% Span	1% at 0, 2% 3/4 scale, 5% last 1/4 scale	2%,1%,2%	1.5% Span	1.6% Span	2% Span	2% at setpoint	2.5% Span	3%, 2%, 3%	3% upscale, 5% downscale	3.5%	5% Span	20mm 11/4 Inchee	1% linches 1% linches 40 mm	1/2 incres, 40 mm 2.0 inches, 50mm	2.5 Inches, 63mm	3 Inches	3.5 Inches	4 Inches, 100mm	4.5 Inches	6 Inches, 160mm	8.5 Inches	12 Inches	Open Front	Solid Front	Thermoset or Thermoplastic Case	Aluminum	Stainless Steel	Black Metal	Aluminum	Bronze/Brass	Beryllium Copper/Brass	Steel	316 Stainless Steel/Carbon Steel Socket	316 Stainless Steel	Stainless Steel	Monel	Inconel	16 NPT	1₄ NPT	1 <sub>k</sub> NPT	14" High Pressure	Trt-Clamp Type Lower	
TEST GAUGES	2089 2086 2084 1084 1082	•	•		•												<u> </u>	•				•	.,	,	•	•	•		• • • •	•	-	•	•	_	-	•	_			•		-	•	-	• • • • • • • • • • • • • • • • • • • •	•		 • • • •	
PROCESS GAUGES	1279 1377 1379 2462 1259 T5500 T6500				• • • •	•																		•	•	•	•		•	• • • • •	•	•	•			•			•••••	••••		•	•	•	• • • • •	•	•	• • • •	
STAINLESS STEEL CASE & INDUSTRIAL GAUGES	1008S 1008S (02C) 1009 1109 1010 1017 1220 1020S 1038 1339 1150H 1122 1187 1188 1189 1490 1495				•	•								•					•		•		•	•	•	• • • •	• • •	•		•••		••••••	••••			• • • • • • • • • • • •		•	• • • •	•••••••••••••••••••••••••••••••••••••••		•							
DIFFERENTIAL GAUGES	1495 1125 1125A 5503 5509 1127 1128 1130 1131 1132 1133 1134							•		•	•										•		•	•	• • • • •	•••••			• • • • • • • • • • • • • • • • • • •		•	•	•		• •	•				•	•			•					
SANITARY Gauges	1032 1036 2030 Series				•				•		•										•	•	•						•				•							•								• •	
COMMERCIAL GAUGES	1001T 1005 1005P 1005S 1000 1007P 1008A 2071A 3005P 12MFX/15MFX 12DDG/15DDG 23DDG 40DDG/50DDG 2089						•	•				•						•			•	•	•	•	•						•	•	•	•		• • • •	•			•				• • • • • • • •					
DIGITAL GAUGES	2009 2086 2084 2070 Series D1005P NOTE: Some mod		•	•	not be	availa	able ii	n all s	Sizes.	range	s and	conne	ctions								•	•			•				•		•	•	•			9				• • • • • • • • • • • • • • • • • • • •					• • • • •	•		ions are	

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